Study & Evaluation Scheme

of

Bachelor of Elementary Education
(B.El.Ed)

[Applicable w.e.f. Academic Session - 2018-19]

[As per CBCS guidelines given by UGC]

TEERTHANKER MAHAVEER UNIVERSITY

N.H.-24, Delhi Road, Moradabad, Uttar Pradesh-244001

Website: www.tmu.ac.in

Study & Evaluation Scheme	
SUMMARY	
Institute Name	***TeerthankerAadinath College of Education Moradabad Uttar Pradesh***
Programme	***B.El.Ed***
Duration	***Four Years full time(Eight Semesters)***
Medium	***Hindi &English***
Minimum Required Attendance	***75%***
Credits	
Maximum Credits	***190***
Minimum Credits Required for Degree	***190***

Assessment:					
Evaluation			**Internal**	**External**	**Total**
Theory			40	60	100
Practical/ Dissertations/ Project Reports/ Viva-Voce			50	50	100
Class Test-1	**Class Test-2**	**Class Test-3**	**Assignment(s)**	**Attendance& Participation**	**Total**
Best two out of three					
10	10	10	10	10	40
Duration of Examination			**External**	**Internal**	
			3 Hours	1.5 Hours	

To qualify the course a student is required to secure a minimum of 45% marks in aggregate including the semester end examination and teachers continuous evaluation.(i.e. both internal and external).A candidate who secures less than 45% of marks in a course shall be deemed to have failed in that course. The student should have at least 45% marks in aggregate to clear the semester.

Question Paper Structure

1	The question paper shall consist of six questions. Out of which first question shall be of short answer type (not exceeding 50 words) and will be compulsory. Question no. 2 to 6 (from Unit-I to V) shall have explanatory answers (approximately 350 to 400 words) along with having an internal choice within each unit.
2	Question No. 1 shall contain 8 parts from all units of the syllabus with at least one question from each unit and students shall have to answer any five, each part will carry 2 marks.
3	The remaining five questions shall have internal choice within each unit; each question will carry 10 marks.

IMPORTANT NOTES:	
1	The purpose of examination should be to assess the Course Learning Outcomes (CLO) that will ultimately lead to of attainment of Programme Specific Outcomes (PSOs). A question paper must assess the following aspects of learning: Remember, Understand, Apply, Analyze, Evaluate & Create (reference to Bloom's Taxonomy).
2	Case Study is essential in every question paper (wherever it is being taught as a part of pedagogy) for evaluating higher-order learning. Not all the courses might have case teaching method used as pedagogy.
3	There shall be continuous evaluation of the student and there will be a provision of fortnight progress report.

TEERTHANKER AADINATH COLLEGE OF EDUCATION										
FOUR YEAR B.El.Ed SYLLABUS 2018-19										
FIRST YEAR SYALLABUS OF B.El.Ed PROGRAM										
Semester - I										
Sr.No.	Course Code	Course/Paper	Period			Credit	Evolution Scheme		
			L	T	P		Internal	External	Total
Theory courses									
1	BELED101	CHILDHOOD AND GROWING UP	4			4	40	60	100
2	BELED102	INNOVATIVE EFFORTS IN ELEMENTARY EDUCATION	4			4	40	60	100
3	BELED199	ENGLISH COMMUNICATION & SOFT SKILLS– I	3		2	4	50	50	100
4	BELED104	CORE MATHEMATICS	4			4	40	60	100
Liberal Course (Select Any One Science Group)									
Group A	BELED121 Physics	MECHANICS	3			3	40	60	100
	BELED151 Physics	MECHANICS (LAB)	0		4	2	50	50	100
Group B	BELED122 Chemistry	ORGANIC CHEMISTRY	3			3	40	60	100
	BELED152 Chemistry	ORGANIC CHEMISTRY (LAB)	0		4	2	50	50	100
Group C	BELED123 Mathematics	TRIGONOMETRY AND DIFFERENTIAL CALCULUS	3			3	40	60	100
	BELED153 Mathematics	SKILL MATHEMATICS (ALGEBRA)	0		4	2	50	50	100
Group D	BELED124 Botany	DIVERSITY OF MICROBES AND CRYPTOGAMS (THALLOPHYTA)	3			3	40	60	100
	BELED154 Botany	DIVERSITY OF MICROBES AND CRYPTOGAMS (THALLOPHYTA-LAB)	0		4	2	50	50	100
Group E	BELED125 Zoology	ANIMAL DIVERSITY PART-I	3			3	40	60	100
	BELED155 Zoology	ANIMAL DIVERSITY PART-I (LAB)	0		4	2	50	50	100
Liberal Course (Select Any One Arts Group)									
Group A	BELED126 Hindi Litt.	PRACHIN EVAM MADHYA KALEEN KAVYA	3			3	40	60	100
	BELED156 Hindi Litt.	HINDI (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group B	BELED127 English Litt.	POETRY	3			3	40	60	100
	BELED157 English Litt.	ENGLISH (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group C	BELED128 History	POLITICAL HISTORY OF MEDIEVAL INDIA (1200-1526 A.D.)	3			3	40	60	100
	BELED158 History	HISTORY (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group D	BELED129 Political Sci.	POLITICAL THEORY	3			3	40	60	100
	BELED159 Political Sci.	POLITICAL SCIENCE (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group E	BELED130 Economics	INTRODUCTION OF STATISTICS	3			3	40	60	100
	BELED160 Economics	ECONOMICS (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Practicum									
	BELED161	ACADEMIC ENRICHMENT ACTIVITIES –I (FINE ART AND CRAFT PARTICIPATORY WORK)			6	3	50	50	100
	Total		18		12	24	310	390	700

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
FIRST YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - II									
Sr.No.	Course Code	Course/Paper	Period			Credit	Evolution Scheme		
			L	T	P		Internal	External	Total
Theory courses									
1	BELED201	LEARNING AND TEACHING	4			4	40	60	100
2	BELED202	INCLUSIVE EDUCATION	4			4	40	60	100
3	BELED299	ENGLISH COMMUNICATION& SOFT SKILLS– II	3		2	4	50	50	100
4	BELED204	CORE SOCIAL SCIENCE	4			4	40	60	100
Liberal Course (Select Any One Science Group)									
Group A	BELED221 Physics	ELECTRICITY AND MAGNATISM	3			3	40	60	100
	BELED251 Physics	ELECTRICITY AND MAGNATISM (LAB)	0		4	2	50	50	100
Group B	BELED122 Chemistry	INORGANIC CHEMISTRY	3			3	40	60	100
	BELED252 Chemistry	INORGANIC CHEMISTRY (LAB)	0		4	2	50	50	100
Group C	BELED223 Mathematics	PARTIAL DIFFERENTIAL EQUATION	3			3	40	60	100
	BELED253 Mathematics	SKILL MATHEMATICS(ALGEBRA AND MATRICES)	0		4	2	50	50	100
Group D	BELED224 Botany	DIVERSITY OF CRYPTOGAMS,BRYOPHYTA PTERIDOPHYTA AND PALEOBOTANY	3			3	40	60	100
	BELED254 Botany	DIVERSITY OF CRYPTOGAMS ,BRYOPHYTA PTERIDOPHYTA AND PALEOBOTANY (LAB)	0		4	2	50	50	100
Group E	BELED225 Zoology	ANIMAL DIVERSITY PART -II	3			3	40	60	100
	BELED255 Zoology	ANIMAL DIVERSITY PART -II (LAB)	0		4	2	50	50	100
Liberal Course (Select Any One Arts Group)									
Group A	BELED226 Hindi Litt.	HINDI NATAK AUR RANGMANCH	3			3	40	60	100
	BELED256 Hindi Litt.	HINDI (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group B	BELED227 English Lit	PROSE	3			3	40	60	100
	BELED257 English Lit	ENGLISH (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group C	BELED228 History	POLITICAL HISTORY OF MEDIEVAL INDIA (1526-1740 A.D.)	3			3	40	60	100
	BELED258 History	HISTORY (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group D	BELED229 Political Sc	NATIONAL MOVEMENT AND CONSTITUTION OF INDIA	3			3	40	60	100
	BELED259 Political Sc	POLITICAL SCIENCE (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group E	BELED230 Economics	MICRO ECONOMICS	3			3	40	60	100
	BELED260 Economics	ECONOMICS (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Practicum									
	BELED261	ACADEMIC ENRICHMENT ACTIVITIES – II(DRAMA,ARTS AND MUSIC)			6	3	50	50	100
	Total		18		12	24	310	390	700

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
SECOND YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - III									
Sr.No.	Course Code	Course/Paper	Period			Credit	Evolution Scheme		
			L	T	P		Internal	External	Total
Theory courses									
1	BELED301	CONTEMPORARY INDIA AND EDUCATION	4			4	40	60	100
2	BELED302	PHYSICAL HEALTH AND YOGA EDUCATION	2	0	4	4	40	60	100
3	BELED399	ENGLISH COMMUNICATION & SOFT SKILLS - III	3		2	4	50	50	100
4	BELED304	CORE SCIENCE	4			4	40	60	100
Liberal Course (Select Any One Science Group)									
	BELED321 Physics	OPTICS	3			3	40	60	100
Group A	BELED351 Physics	OPTICS (LAB)	0		4	2	50	50	100
	BELED322 Chemistry	PHYSICAL CHEMISTRY	3			3	40	60	100
Group B	BELED352 Chemistry	PHYSICAL CHEMISTRY (LAB)	0		4	2	50	50	100
	BELED323 Mathematics	REAL ANALYSIS	3			3	40	60	100
Group C	BELED353 Mathematics	SKILL MATHEMATICS (INTEGRAL CALCULUS)	0		4	2	50	50	100
	BELED324 Botany	PLANT TAXONOMY AND EMBRYOLOGY	3			3	40	60	100
Group D	BELED354 Botany	PLANT TAXONOMY AND EMBRYOLOGY (LAB)	0		4	2	50	50	100
	BELED325 Zoology	CHORDATA	3			3	40	60	100
Group E	BELED355 Zoology	CHORDATA (LAB)	0		4	2	50	50	100
Liberal Course (Select Any One Arts Group)									
	BELED326 Hindi Litt.	AADHUNIK HINDI KAVYA SAHITYA	3			3	40	60	100
Group A	BELED356 Hindi Litt.	HINDI (PROJECT & VIVA VOCE)	0		4	2	50	50	100
	BELED327 English Litt.	DRAMA	3			3	40	60	100
Group B	BELED357 English Litt.	ENGLISH (PROJECT & VIVA VOCE)	0		4	2	50	50	100
	BELED328 History	POLITICAL HISTORY OF MODERN INDIA (1740-1964 A.D.)	3			3	40	60	100
Group C	BELED358 History	HISTORY (PROJECT & VIVA VOCE)	0		4	2	50	50	100
	BELED329 Political Sci.	INDIAN POLITICAL THOUGHT	3			3	40	60	100
Group D	BELED359 Political Sci.	POLITICAL SCIENCE (PROJECT & VIVA VOCE)	0		4	2	50	50	100
	BELED330 Economics	MACRO ECONOMICS	3			3	40	60	100
Group E	BELED360 Economics	ECONOMOCS (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Practicum									
	BELED361	ACADEMIC ENRICHMENT ACTIVITIES-III (MEDITATION, SPORTS, HEALTH EDUCATION AND OTHER ACTIVITIES			6	3	50	50	100
	TOTAL		16		16	24	310	390	700

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
SECOND YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - IV									
Sr.No.	**Course Code**	**Course/Paper**	**Period**				**Evolution Scheme**		
			L	**T**	**P**	**Credit**	**Internal**	**External**	**Total**
Theory courses									
1	BELED401	**INFORMATION AND COMMUNICATION TECHNOLOGY**	**4**			**4**	**40**	**60**	**100**
2	BELED402	**HUMAN VALUES AND ETHICS**	**4**			**4**	**40**	**60**	**100**
3	BELED499	**ENGLISH COMMUNICATION & SOFT SKILLS - IV**	**3**		**2**	**4**	**50**	**50**	**100**
4	BELED404	**CORE SANSKRIT**	**4**			**4**	**40**	**60**	**100**
Liberal Course (Select Any One Science Group)									
	BELED421 Physics	**OSCILLATIONS & WAVE**	**3**			**3**	**40**	**60**	**100**
Group A	BELED451 Physics	**OSCILLATIONS & WAVE (LAB)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED422 Chemistry	**ORGANIC & INORGANIC CHEMISTRY**	**3**			**3**	**40**	**60**	**100**
Group B	BELED452 Chemistry	**ORGANIC & INORGANIC CHEMISTRY (LAB)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED423 Mathematics	**COMPLEX ANALYSIS**	**3**			**3**	**40**	**60**	**100**
Group C	BELED453 Mathematics	**SKILL MATHEMATICS (ORDINARY DIFFERENTIAL EQUATIONS)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED424 Botany	**PLANT PHYSIOLOGY AND METABOLISM**	**3**			**3**	**40**	**60**	**100**
Group D	BELED454 Botany	**PLANT PHYSIOLOGY AND METABOLISM (LAB)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED425 Zoology	**EVOLUTION AND DEVELOPMENTAL BIOLOGY**	**3**			**3**	**40**	**60**	**100**
Group E	BELED455 Zoology	**EVOLUTION AND DEVELOPMENTAL BIOLOGY (LAB)**	**0**		**4**	**2**	**50**	**50**	**100**
Liberal Course (Select Any One Arts Group)									
	BELED426 Hindi Litt.	**HINDI KATHA SAHITYA**	**3**			**3**	**40**	**60**	**100**
Group A	**BELED456 Hindi Litt.**	**HINDI (PROJECT & VIVA VOCE)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED427 English Litt.	**FICTION**	**3**			**3**	**40**	**60**	**100**
Group B	**BELED457 English Litt.**	**ENGLISH (PROJECT & VIVA VOCE)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED428 History	**POLITICAL HISTORY OF ANCIENT INDIA (B.C.600 To 606 A.D.)**	**3**			**3**	**40**	**60**	**100**
Group C	**BELED458 History**	**HISTORY (PROJECT & VIVA VOCE)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED429 Political Sci.	**WESTERN POLITICAL THOUGHT**	**3**			**3**	**40**	**60**	**100**
Group D	**BELED459 Political Sci.**	**POLITICAL SCIENCE (PROJECT & VIVA VOCE)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED430 Economics	**NATIONAL INCOME ANALYSIS AND MOENY & BANKING**	**3**			**3**	**40**	**60**	**100**
Group E	**BELED460 Economics**	**ECONOMICS (PROJECT & VIVA VOCE)**	**0**		**4**	**2**	**50**	**50**	**100**
Practicum									
	BELED461	**ACADEMIC ENRICHMENT ACTIVITIES – IV (ICT IN OFFICE AND SCHOOL MANAGEMENT)**			**6**	**3**	**50**	**50**	**100**
	Total		**18**		**12**	**24**	**310**	**390**	**700**

TEERTHANKER AADINATH COLLEGE OF EDUCATION
FOUR YEAR B.El.Ed SYLLABUS 2018-19
THIRD YEAR SYALLABUS OF B.El.Ed PROGRAM

Semester - V

S.NO	Course Code	Course/Paper	PERIOD			Credit	Evalution Scheme		
			L	T	P		Internal	External	Total
Theory Course									
1	BELED501	EDUCATIONAL MANAGEMENT AND ADMINISTRATION	**4**			**4**	**40**	**60**	**100**
2	BELED502	LANGUAGE ACROSS THE CURRICULUM	**4**			**4**	**40**	**60**	**100**
3	BELED503	SAMANYA HINDI	**4**			**4**	**40**	**60**	**100**
Pedagogy Courses (Select Any One)									
1	BELED541	PEDAGOGY OF HINDI	**4**			**4**	**40**	**60**	**100**
2	BELED542	PEDAGOGY OF ENGLISH	**4**			**4**	**40**	**60**	**100**
3	BELED543	PEDAGOGY OF SANSKRIT	**4**			**4**	**40**	**60**	**100**
4	BELED544	PEDAGOGY OF PHYSICAL SCIENCE	**4**			**4**	**40**	**60**	**100**
Liberal Courses (Select Any One Science Group)									
Group A	**BELED521 Physics**	**SEMICONDUCTOR/ SOLID STATE DEVICES**	**3**			3	40	60	100
	BELED551 Physics	**SEMICONDUCTOR/ SOLID STATE DEVICES (LAB)**	**0**		**4**	2	50	50	100
Group B	**BELED522 Chemistry**	**PHYSICAL & INORGANIC CHEMISTRY**	**3**			3	40	60	100
	BELED552 Chemistry	**PHYSICAL & INORGANIC CHEMISTRY (LAB)**	**0**		**4**	2	50	50	100
Group C	**BELED523 MATH**	**DIFFERENTIAL GEOMETRY AND TENSOR**	**3**			3	40	60	100
	BELED553 MATH	**SKILL MATHEMATICS (STATISTICS)**	**0**		**4**	2	50	50	100
Group D	**BELED524 Botany**	**ECONOMIC BOTANY AND PLANT BIOTECHNOLOGY**	**3**			3	40	60	100
	BELED554 Botany	**ECONOMIC BOTANY AND PLANT BIOTECHNOLOGY (LAB)**	**0**		**4**	2	50	50	100
Group E	**BELED525 Zoology**	**CELL BIOLOGY AND GENETICS**	**3**			3	40	60	100
	BELED555 Zoology	**CELL BIOLOGY AND GENETICS (LAB)**	**0**		**4**	2	50	50	100
Liberal Courses (Select Any one Arts Group)									
Group A	**BELED526 Hindi Lit.**	**ADHTANHINDI EVAM KAURAVI LOK KAVYA**	**3**			3	40	60	100
	BELED556 Hindi Lit.	**HINDI(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
Group B	**BELED527 English Lit.**	**HISTORY OF ENGLISH LITERATURE**	**3**			3	40	60	100
	BELED557 English Lit.	**ENGLISH(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
Group C	**BELED528 History**	**POLITICAL HISTORY OF INDIA (606 A.D.TO 1206 A.D.)**	**3**			3	40	60	100
	BELED558 History	**HISTORY(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
Group D	**BELED529 Political Sc**	**INTERNATIONAL POLITICS**	**3**			3	40	60	100
	Political Sci. ELED 559	**POLITICAL SCIENCE(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
Group E	**BELED530 Economics**	**INDIAN ECONOMICS**	**3**			3	40	60	100
	BELED560 Economics	**ECONOMICS (PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
PRACTICUM									
	BELED561	ACADEMIC ENRICHMENT ACTIVITIES-V (AGRICULTURE AND HOME SCIENCE)			6	3	50	50	100
Total			**19**		**10**	**24**	**300**	**400**	**700**

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
THIRD YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - VI									
Sr.No.	**Course Code**	**Course/Paper**	**Period**				**Evolution Scheme**		
			L	**T**	**P**	**Credit**	**Internal**	**External**	**Total**
Theory courses									
1	BELEDIX601	ENVIRONMENTAL STUDIES	**4**			**4**	**40**	**60**	**100**
2	BELED602	GENDER, SCHOOL AND SOCIETY	**4**			**4**	**40**	**60**	**100**
3	BELED603	COMPUTER FUNDAMENTALS ,INTERNET & MS-OFFICE	**4**			**4**	**40**	**60**	**100**
Pedagogy Courses (Select Any One)									
1	BELED641	PEDAGOGY OF MATHEMATICS	**4**			**4**	**40**	**60**	**100**
2	BELED642	PEDAGOGY OF BIOLOGY	**4**			**4**	**40**	**60**	**100**
3	BELED643	PEDAGOGY OF SOCIAL SCIENCE	**4**			**4**	**40**	**60**	**100**
Liberal Course (Select Any One Science Group)									
	BELED621 Physics	THERMAL & LOW TEMPERATURE PHYSICS	**3**			3	40	60	100
Group A	BELED651 Physics	THERMAL & LOW TEMPERATURE PHYSICS (LAB)	**0**		**4**	2	50	50	100
	BELED622 Chemistry	PHYSICAL & ORGANIC CHEMISTRY	**3**			3	40	60	100
Group B	BELED652 Chemistry	PHYSICAL & ORGANIC CHEMISTRY(LAB)	**0**		**4**	2	50	50	100
	BELED623 MATH	APPLIED STATISTICS	**3**			3	40	60	100
Group C	BELED653 MATH	**SKILL MATHEMATICS (OPERATION RESEARCH)**	**0**		**4**	2	50	50	100
	BELED624 Botany	ENVIRONMENTAL BIOTECHNOLOGY	**3**			3	40	60	100
Group D	BELED654 Botany	ENVIRONMENTAL BIOTECHNOLOGY (LAB)	**0**		**4**	2	50	50	100
	BELED625 Zoology	MAMMALIAN PHYSIOLOGY	**3**			3	40	60	100
Group E	BELED655 Zoology	MAMMALIAN PHYSIOLOGY (LAB)	**0**		**4**	2	50	50	100
Liberal Course (Select Any One Arts Group)									
	BELED626 Hindi Litt.	**HINDI NIBANDH TATHA ANYA GADHYA VIDHAYEIN**	**3**			3	40	60	100
Group A	BELED656 Hindi Litt.	HINDI**(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
	BELED627 English Litt.	INDIAN WRITERS IN ENGLISH	**3**			3	40	60	100
Group B	BELED657 English Litt.	ENGLISH**(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
	BELED628 History	HISTORY OF MODERN WORLD (1453-1950 A.D.)	**3**			3	40	60	100
Group C	BELED658 History	HISTORY**(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
	BELED629 Political Sc	COMPARATIVE GOVERNMENT & POLITICS	**3**			3	40	60	100
Group D	BELED659 Political Sc	POLITICAL SCIENCE **(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
	BELED630 Economics	PUBLIC FINANCE AND INTERNATIONAL TRADE	**3**			3	40	60	100
Group E	BELED660 Economics	ECONOMICS**(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
Practicum									
	BELED661	PRELIMINARY SCHOOL ENGAGEMENT (SCHOOL INTERNSHIP)			8	4	50	50	100
Total			**19**		**12**	**25**	**300**	**400**	**700**

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
FOURTH YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - VII									
Sr.No.	**Course Code**	**Course/Paper**	**Period**			**Credit**	**Evolution Scheme**		
			L	**T**	**P**		**Internal**	**External**	**Total**
1	BELED751	SCHOOL INTERNSHIP				16	50	50	100
2	BELED752	TEACHING SKILL-I				2	50	50	100
3	BELED753	TEACHING SKILL-II				2	50	50	100
TOTAL						20	150	150	300

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
FOURTH YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - VIII									
Sr.No.	**Course Code**	**Course/Paper**	**Period**				**Evolution Scheme**		
			L	**T**	**P**	**Credit**	**Internal**	**External**	**Total**
Theory courses									
1	BELED801	EDUCATIONAL MEASUREMENT, EVALUATION AND ACTION RESEARCH	**4**			**4**	**40**	**60**	**100**
2	BELED802	GUIDANCE AND COUNSELLING	**4**			**4**	**40**	**60**	**100**
3	BELED803	KNOWLEDGE AND CURRICULUM	**4**			**4**	**40**	**60**	**100**
Liberal Course (Select Any One)									
	BELED871	PEACE EDUCATION	**4**			**4**	**40**	**60**	**100**
	BELED872	ADULT EDUCATION AND POPULATION EDUCATION	**4**			**4**	**40**	**60**	**100**
	BELED873	LIFE SKILL EDUCATION	**4**			**4**	**40**	**60**	**100**
	BELED874	WORK EDUCATION	**4**			**4**	**40**	**60**	**100**
Practicum									
1	BELED851	CRITICAL OBSERVATION OF SCHOOL INTERNSHIP	**0**		**6**	**3**	**50**	**50**	**100**
2	BELED852	ACADEMIC ENRICHMENT ACTIVITIES-VI COMMUNITY & SOCIAL WORK.(SUPW)	**0**		**6**	**3**	**50**	**50**	**100**
3	BELED853	ACADEMIC ENRICHMENT ACTIVITIES-VII (READING AND REFLECTION TEXT)	**0**		**6**	**3**	**50**	**50**	**100**
Total			**16**		**12**	**25**	**310**	**390**	**700**

TEERTHANKER AADINATH COLLEGE OF EDUCATION										
FOUR YEAR B.El.Ed SYLLABUS 2018-19										
FIRST YEAR SYALLABUS OF B.El.Ed PROGRAM										
Semester - I										
Sr.No.	Course Code	Course/Paper	Period			Credit	Evolution Scheme		
			L	T	P		Internal	External	Total
Theory courses									
1	BELED101	CHILDHOOD AND GROWING UP	4			4	40	60	100
2	BELED102	INNOVATIVE EFFORTS IN ELEMENTARY EDUCATION	4			4	40	60	100
3	BELED199	ENGLISH COMMUNICATION & SOFT SKILLS– I	3		2	4	50	50	100
4	BELED104	CORE MATHEMATICS	4			4	40	60	100
Liberal Course (Select Any One Science Group)									
Group A	BELED121 Physics	MECHANICS	3			3	40	60	100
	BELED151 Physics	MECHANICS (LAB)	0		4	2	50	50	100
Group B	BELED122 Chemistry	ORGANIC CHEMISTRY	3			3	40	60	100
	BELED152 Chemistry	ORGANIC CHEMISTRY (LAB)	0		4	2	50	50	100
Group C	BELED123 Mathematics	TRIGONOMETRY AND DIFFERENTIAL CALCULUS	3			3	40	60	100
	BELED153 Mathematics	SKILL MATHEMATICS (ALGEBRA)	0		4	2	50	50	100
Group D	BELED124 Botany	DIVERSITY OF MICROBES AND CRYPTOGAMS (THALLOPHYTA)	3			3	40	60	100
	BELED154 Botany	DIVERSITY OF MICROBES AND CRYPTOGAMS (THALLOPHYTA-LAB)	0		4	2	50	50	100
Group E	BELED125 Zoology	ANIMAL DIVERSITY PART-I	3			3	40	60	100
	BELED155 Zoology	ANIMAL DIVERSITY PART-I (LAB)	0		4	2	50	50	100
Liberal Course (Select Any One Arts Group)									
Group A	BELED126 Hindi Litt.	PRACHIN EVAM MADHYA KALEEN KAVYA	3			3	40	60	100
	BELED156 Hindi Litt.	HINDI (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group B	BELED127 English Litt.	POETRY	3			3	40	60	100
	BELED157 English Litt.	ENGLISH (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group C	BELED128 History	POLITICAL HISTORY OF MEDIEVAL INDIA (1200-1526 A.D.)	3			3	40	60	100
	BELED158 History	HISTORY (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group D	BELED129 Political Sci.	POLITICAL THEORY	3			3	40	60	100
	BELED159 Political Sci.	POLITICAL SCIENCE (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group E	BELED130 Economics	INTRODUCTION OF STATISTICS	3			3	40	60	100
	BELED160 Economics	ECONOMICS (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Practicum									
	BELED161	ACADEMIC ENRICHMENT ACTIVITIES –I (FINE ART AND CRAFT PARTICIPATORY WORK)			6	3	50	50	100
	Total		18		12	24	310	390	700

Course Code: BELED101	CORE COURSE BELED – Semester-I **CHILDHOOD AND GROWING UP**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understanding the stages of human development and development tasks for childhood and adolescence.	
CO2.	Applying the various theories of learning and development in education at different stages of life.	
CO3.	Analysing the children with special needs and selecting specific interventional approaches and therapy.	
CO4.	Evaluating the children from diverse socio-economic background and selecting specific learner centered teaching methods for enhancing thinking, learning & skills.	
CO5.	Developing the social and cultural values in students by organizing communitylinked programmes at different level.	
Course Content:		
Unit-1:	**Introduction to Concept and Process of Childhood Development :** • Meaning of Childhood development, Principles of development • Study of Life span-Prenatal, early childhood, middle childhood, adolescence & adulthood and stage specific characteristics. • Meaning of cognition and its role in learning • Facilitating Holistic development for self and society • Procedure for studying Children-Observation, Interview and Case Study.	**10 Hours**
Unit-2:	**Theories of Childhood Development and their Significance :** • Erik Erikson‟s Psychosocial Theory, • Piaget‟s Cognitive Theory, • Arnold Gesell‟s Maturation Theory, • Bandura‟s Social Learning Theory, • BronfenBrenner‟s Ecological Theory, • Vygotsky‟s Socio-cultural Theory • Noam Chomsky‟s Processing Theory	**10 Hours**
Unit-3:	**Childhood and Adolescence :** • Defining Childhood and Adolescence as a distinct stage • Adolescence special feature and challenges • Characteristics and developmental task of Childhood and Adolescence • Socialization of Childhood and Adolescence in different culture. • Role of media in the life of adolescents with special reference to use of internet (Social networking sites, E-mails, Browsing).	**10 Hours**

Unit-4:	**Family School and Community:** • The Family-Meaning, function of the family, family as a social system, different styles of child rearing, Socioeconomic and Ethnic variation in Child Rearing, Cultural Influences of family. • School –Meaning and Function of school, school transition in childhood and adolescence, helping adolescence in school adjustment. Teacher student interaction, peer relation and its importance, Cultural value of peer groups. • Community- Meaning and Function of Community, case study of a community-linked programme at local/national/international level.	**10 Hours**
Unit-5:	**Issues and Concern in Childhood and Adolescence :** • Children with difficult circumstances and Understanding of them-Juvenile delinquency, maladjustment, depression in adolescence. • Marginalized Children-Child labour, Overweight/Underweight children, Children growing up in poverty, HIV affected children, Orphans. • Approaches to intervention and therapy for well being-Preventive and Promotive Approach, Individual counseling and family therapy.	**10 Hours**
Text Books:	• Anastasi, A. & Urbina, S. (1997). Psychological Testing (Seventh edition). Indian Reprint,Delhi Pearson Education. • Atwata, E. (1988). Adolescence. New Jersey: Prentice Hall. • Berk,L.E (2004) Child Development (6th edition) Allyn & Bacon. Boston, • Berk, L E (2000) Child Development (8th edition) PHI learning Pvt ltd, New Delhi • Bhargava,V.(2005)Adoption in India: Policies and Experiences. New Delhi: Sage Publications • Elizabeth B. Hurlock Developmental Psychology Tata McGraw-Hill Publishing Company Ltd. • Erikson, E.H. (1968). Identity: Youth & Crises. London: Faber & Faber. •	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED102	CORE COURSE BELED – Semester - I **Innovative Efforts for Elementary Education**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be able to :**	
CO1.	remembering the suggestions given by various education commissions in India of pre and post independence.	
CO2.	understanding the efforts made by our nation at central and state level through various programmes to improve the condition of elementary education.	
CO3.	using the various constitutional provisions for the universalization of elementary education and protection of children`s rights.	
CO4.	analysing the functions and objectives of various supervision committees and Agencies to control and to administrate the human resources and physical resources in education field.	
CO5.	evaluating and criticising the various education commissions and innovative projects and programmesacheiving the aim of univeralization of elementary education.	
CO6.	creating awareness, interest & knowledge to bring innovations in teaching learning process.	
Course Content:		
Unit-1:	**Constitutional Provisions and commitments for universalization of elementary education:** • Educational provisions in article 21(A), 29(2) and 45 of constitution. • Rights of Children. (Child Act) • Right to Free and Compulsory Education for Child Act -09 (RTE-09)	**10 Hours**
Unit-2:	**Organised Commission and Committees in Reference to Elementary education.** • Concise knowledge of pre and post Independence. • Educational policy of Lord Macaulay, Wood Dispatch, Hunter Commission, Contribution of Aukland and Karajan. • Kothari Commission.	**10 Hours**
Unit-3:	• National education policy 1986 and programme of action 1992. • Yashpal committee. • National Curriculum framework 2005 (NCF 2005) • National Curriculum Framework for Teacher Education (NCFTE 2009).	**12 Hours**

Unit-4:	**Different projects and programmes for the development of Elementary Education** **(In Reference to U.P.).** • Operation Black Board (OB). • Programme of mass orientation for school teacher (P-MOST) • Special orientation for primary teacher (SOPT). • Basic education Project (BEP). • District Primary education programme. (Second and Third) (DPEP) • School Readiness Programme. • Complete Literacy compaign. • Sarva Shiksha Abhiyan • National programme of education for girls at Elementary level. (NPEGEL) • School going movement. • K.G. B.V. Plan. Kasturba Gandhi Girls School Plan. • E.C.C.E. Program (Early childhood care and education) • National Child Labour Project. • M.D.M./ Nutritious Meals distributions. • Distribution of Scholarship and other incentive plans (free textbook, uniform, furniture for children).	**8 Hours**
Unit-5:	**Agencies For Elementary Education** • National council of Educational Research and Training (NCERT) • National council For Teacher Education (NCTE) • State Council of Education Research and Training (SCERT) • District institute of Education and Training (DIET) • Block Resource Centre (BRC) and Naya Panchayat Resource Centre (NPRC) • Village Educational Committee	**10 Hours**
Text Books:	IGNOU, LMT – 01, IGNOU: New Delhi. NCERT (2005) NCERT: New Delhi.	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED104	CORE COURSE BELED – Semester - I CORE MATHEMATICS	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Identify and remember the number system and the basic mathematical operations.	
CO2.	Understand and describe the various angles.	
CO3.	Evaluate and apply the mathematical terms like H.C.F & L.C.M.	
CO4.	Identify, analyse and synthesis the various mathematical shapes.	
CO5.	Enhance critical thinking and logical skills.	
CO6.	Solve and develop a mathematical attitude to many problems using in daily life.	
Course Content:		
Unit-1:	• Understanding of numbers and numerals, knowledge of digits place value. • Concept and operations of multiplication and division. • Concept of fraction and mathematical operations.	**8 Hours**
Unit-2:	• Concept of factor (divisor), multiple common factor, common multiple. • Concept of L.C.M. and H.C.F. meaning of composite and prime numbers • L.C.M. and H.C.F. of three digits numbers (Prime Factor and Division method)	**10 Hours**
Unit-3:	• Concept of triangle, rectangle, square, circle and knowledge of its parts. • Area of triangle, rectangle and square. • Meaning of perimeter. • Concepts and units of volume and capacity. • Concepts of cube, cuboids and its volume and whole surface.	**10 Hours**

Unit-4:	• Factors of algebraic expression, factorization of expression in form of difference between two • squares, factorization of quadratic expression of three steps (ax^2+bx+c type),. • Division by one and two step expression in algebraic expression.	**12 Hours**
Unit-5:	• Concept of plane, plane segment, point, line, curve, line segment, rays and angle. • Making angle of 60^0, 90^0 and 120^0 with the help of scale and compass. • Types of angle (Acute angle, right angle and obtuse angle).	**10 Hours**
Text Books:	IGNOU, AMT – 01 *Teaching of Primary School Mathematics*. IGNOU: New Delhi. IGNOU, LMT – 01, *Learning Mathematics*. IGNOU: New Delhi. NCERT (2005) NCF 2005 *Position Paper on Mathematics* NCERT: New Delhi.	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: TMUGE199	ACADEMIC ENHANCEMENT COMPULSORY COURSE BELED – Semester - I **ENGLISH COMMUNICATION – I**	L-2 T-0 P-2 C-3
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understanding the importance of English language and communication in daily life.	
CO2.	Applying the concepts of communication, vocabulary & grammar in spoken English.	
CO3.	Applying etiquette & manners in interpersonal communication.	
CO4.	Developing and making effective presentation.	
CO5.	Developing written communication skills & applying appropriate formats of written communication.	
Course Content:		
Unit-1:	I Introductory Sessions • Self-Introduction • Building Self Confidence: Identifying strengths and weakness, reasons of Fear of • Failure,strategies to overcome Fear of Failure Importance of English Language in present scenario• (Practice: Self-introduction session)	**8 Hours**
Unit-2:	Basics of Grammar • Parts of Speech • Tense • Subject and Predicate • Vocabulary: Synonym and Antonym (Practice: Conversation Practice)	**10 Hours**
Unit-3:	Basics of Communication • Communication : Process, Types, 7Cs of Communication, Importance & Barrier • Language as a tool of communication • Non-verbal communication: Body Language • Etiquette & Manners • Basic Problem Sounds (Practice :Pronuciation drill and building positive body language)	**10 Hours**
Unit-4:	Application writing • Format•& Style of Application Writing • Practice of Application writing on common issues.	**10 Hours**
Unit-5:	Value based text reading: Short Story (Non- detailed study) (04 hours) • Gift of Magi – O. Henry•	**12 Hours**

Text Books:	Singh R.P., An Anthology of Short stories, O.U.P. New Delhi.	
Reference Books:	**1.** Raman Meenakshi & Sharma Sangeeta, "Technical Communication-Principles & Practice" OxfordUniversity Press, New Delhi. **2.** Mohan K. & Sharma R.C., "Business Correspondence of Report Writing",TMH, New Delhi. **3.** Chaudhary, Sarla "Basic Concept of Professional Communication" Dhanpat Rai Publication, NewDelhi	
	1. The content will be conveyed through Real life situations, Pair Conversation, Group Talk and Class Discussion. 2. Language Lab software. 3. Sentence transformation on daily activities and conversations.	
	Note: ·Class (above 30 students) will be divided in to two groups for effective teaching. ·For effective conversation practice, groups will be changed weekly.	

Evaluation Scheme

Internal Evaluation			*External Evaluation*		*Total Marks*
40 Marks			*60 Marks*		
20 Marks (Best 2 out of Three CTs) (From Unit – I, III,IV& V)	*10 Marks (Oral Assignments) (From Unit –II & IV)*	*10 Marks (Attendance)*	*40 Marks (External Written Examination) (From Unit –I, III, IV & V)*	*20 Marks (External Viva)* (From Unit –II & IV)*	*100*

*Parameters of External Viva

Content	Body Language	Communication skills	Confidence	TOTAL
05 Marks	05 Marks	05 Marks	05 Marks	20 Marks

***Note**:External Viva will be conducted by 2-member committee comprising*
***a)**One Faculty teaching the class*
***b)**One examiner nominated by University Examination cell.*
Each member will evaluate on a scale of 20 marks and the average of two would be the 20 marks obtained by the students.

Course Code: BELED121	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I MECHANICS	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the basic concepts and principles of mechanics.	
CO2.	Applying laws of motion, elasticity and forces in different physical experiments.	
CO3.	Analyzing the motion of objects in the context of linear, gravitational and central forces.	
Course Content:		
Unit-1:	Conservation of Energy and Linear Momentum Mechanics of a particle, work-energy theorem. Conservative and non-conservation forces and their examples. Conservation force as negative gradient of potential energy. Center of mass of a system of particles. Conservation of linear momentum and energy. Systems of variable mass, single and multistage rockets.	**10 Hours**
Unit-2:	Rotational Dynamics Rigid body motion. Rotation motion, torque and angular momentum. Moment of inertia and its calculations for disc, cylinder, spherical shell and solid sphere, Body rolling down on and inclined plane.	**10 Hours**
Unit-3:	Motion under Central Forces Concept of central force. Kepler's laws of planetary motion.Gravitational law, Gravitational Potential and fields due to spherical shell and solid sphere. Gravitational potential energy and escape velocity. Two particle central force problem and reduced mass	**10 Hours**
Unit-4:	Elasticity, small deformations, Hooke's law, Elastic constants and relation among them.Beam supported at the ends, cantilever.	**10 Hours**
Unit-5:	Streamline and turbulent flow, equation of continuity, viscosity, Poiseulie's law critical velocity, Reynolds's number. Surface tension and surface energy, pressure on a curved liquid surface.	**10 Hours**
Text Books:	1. An introduction to mechanics, D. Kleppner, R.J. Kolenkow, McGraw-Hill. 2. Mechanics, Berkeley Physics, vol.1, C. Kittel, W. Knight, et.al. Tata McGraw-Hill. Physics, Resnick, Halliday and Walker, Wiley. 3. Analytical Mechanics, G.R. Fowles and G.L. Cassiday. Cengage Learning.	
Reference Books:	1. Mechanics, D.S. Mathur, S. Chand and Company Limited, University Physics. 2. J.W. Jewett, R.A. Serway, Cengage Learning Theoretical Mechanics, M.R. Spiegel, Tata McGraw Hill. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED122	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I **ORGANIC CHEMISTRY**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of Organic Chemistry.	
CO2.	Applying the concept of Organic Chemistry to find hybridisation and shapes of molecules.	
CO3.	Analysing the various chemical reactions and their mechanism	
Course Content:		
Unit-1:	**Basics of Organic Chemistry**Organic Compounds: Classification, and Nomenclature, Hybridization, Shapes of molecules, Influence of hybridization on bond properties. Electronic Displacements: Inductive, electromeric, resonance and mesomeric effects, hyperconjugation and their applications; Dipole moment. Homolytic and Heterolytic fission with suitable examples. Electrophiles and Nucleophiles; Nucleophlicity and basicity; Types, shape and their relative stability of Carbonations, Carbanions, Free radicals and Carbenes. Introduction to types of organic reactions and their mechanism: Addition, Elimination and Substitution reactions.	**12 Hours**
Unit-2:	**Stereo chemistry:**Fischer Projection, Newmann and Sawhorse Projection formulae and their interconversions; Geometrical isomerism: cis–trans and, syn-anti isomerism E/Z notations with C.I.P rules. Relative and absolute configuration: D/L and R/S designations**.**	**12 Hours**
Unit-3:	**Chemistry of Aliphatic Hydrocarbons Carbon-Carbon sigma bonds**Chemistry of alkanes: Formation of alkanes, Wurtz Reaction, Wurtz- Fittig Reactions, Free radical substitutions: Halogenation - relative reactivity and selectivity.	**8 Hours**
Unit-4:	**Carbon-Carbon pi bonds:** Formation of alkenes and alkynes by elimination reactions, Mechanism of E1, E2, reactions. Saytzeff eliminations. Reactions of alkenes: Electrophilic additions, their mechanisms (Markownikoff/ Anti Markownikoff addition), mechanism of oxymercuration-demercuration, hydroboration- oxidation, ozonolysis, reduction (catalytic and chemical), syn and anti hydroxylation (oxidation).	**10 Hours**
Unit-5:	**Aromatic Hydrocarbons**: Aromaticity: Huckel's rule, aromatic character of arenes, cyclic carbocations/carbanions and heterocyclic compounds with suitable examples. Electrophilic aromatic substitution: halogenation, nitration, sulphonation and Friedel-Craft's alkylation/acylation with their mechanism. Directing effects of the groups**.**	**8 Hours**
Text Books:	1. Morrison, R. N. & Boyd, R. N. *Organic Chemistry*, Dorling Kindersley (India) Pvt. Ltd. (Pearson Education). 2. Finar, I. L. *Organic Chemistry* (*Volume 1*), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).	
Reference Books:	1. Finar, I. L. *Organic Chemistry* (*Volume 2: Stereochemistry and the Chemistry of NaturalProducts*), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education). 2. Eliel, E. L. & Wilen, S. H. *Stereochemistry of Organic Compounds*; Wiley: London, 1994. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED123	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I **TRIGONOMETRY & DIFFERENTIAL CALCULUS**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the basic principles of trigonometry and differential calculus.	
CO2.	Applying trigonometry expansions.	
CO3.	Analyzingdifferent mathematical theorems.	
Course Content:		
Unit-1:	Circular and hyperbolic functions of complex quantities, Separation of real and imaginary parts of trigonometric, logarithmic, and exponential functions.	**8 Hours**
Unit-2:	Gregory's series, summation of series, Expansion of Functions .	**10 Hours**
Unit-3:	Successive differentiation, Leibnitz theorem (without proof), Euler's theorem, Mean value theorems, tangent and normal, maxima and minima, limit and its properties.	**10 Hours**
Unit-4:	Mac Laurin's and Taylor's expansion of functions, errors and approximation, Asymptotes and curvature of curves in Cartesian and polar coordinates, Partial differentiation.	**10 Hours**
Unit-5:	Tracing of curves in Cartesian, parametric and polar coordinates (conics, asteroid, Cycloid, Circle, Cardioids),Indeterminate forms, Envelop and Evolutes .	**12 Hours**
Text Books:	**1. "Differential Calculas" by Gorakh Prasad, PothishalaPvt Ltd.** **2. "Trigonometry" by A. K. Saxena, AeykayPrakashan.Bareilly**	
Reference Books:	**1. "Trigonometry" by J. C. Sharma, P. H. Sharma, Students Friends & Co.** **2. "Trigonometry" by A.R. Vashistha and R. K. Gupta, Krishna PrakashanMandir.** **3. "Differential Calculus" by N. Pishkunor, Peace Publishers Moscow** **4. "Differential Calculus" by M. Ray, Shiv Lal Agarwal &Co Agra.** **5. "Differential Calculus" by Khalil Ahmed, Anamya Publication, New Delhi** **6. "Differential Calculus" by A. K. Saxena, Aeykay Publication** *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED124	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I DIVERSITY OF MICROBES AND CRYPTOGAMS PART-I	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding diverse forms of lower life existence on earth.	
CO2.	Describing the general characters, classification and life cycle of micro-organisms and lower plants.	
CO3.	Explaining various methods of plant disease control.	
CO4.	Analyzing the process of evolution of life on earth.	
Course Content:		
Unit-1:	**Viruses and Bacteria :**General account of viruses and mycoplasma, bacteria-structure, nutrition. reproduction and economic importance, General account of Cyanobacteria, economic importance, Nostoc, Oscillatoria.	**10 Hours**
Unit-2:	**Algae:**General Characters, classification and economic importance, important features and life history of chlorophyceae: Volvox, Oedogonium, Coleochaete, Chara.	**10 Hours**
Unit-3:	**Algae:** General Characters, classification and economic importance, important features and life history of Xanthophyceae - Vaucheria, Phaeophyceae-EctocarpusSargassum, Rhodophyceae - Polysiphonia.	**10 Hours**
Unit-4:	**Fungi :**General characters, classification and economic importance; important features and life history of Mastigomycotina- PhytophthoraOomycotina-Albugo,Ascomycotina-Saccharomyces, Penicillium, Erysiphae, Basidiomycotina-Puccinia, Ustilago and Agaricus, Deuteromycotina-, Colletotrichum, Alternaria.	**10 Hours**
Unit-5:	Plant diseases and General account of Lichens, special studies about green ear disease, white rust, Stem rust disease of Wheat, Smut disease, Citrus canker, Tobacco mosaic disease, Little leaf disease of brinjal.	**10 Hours**
Text Books:	1. Pandey S.N. & others. 1995, A Text Book of Botany Vol. I, Vikas Publications Dehli 2. Gupta P.K. 1999. GeneticsRastogi Publications Meerut.	
Reference Books:	1. Vashistha, B.R. 1989, Algae, S. Chand and Co. Delhi. 2. Vashistha, B.R. 1989, Fungi, S. Chand and Co. Delhi. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED125	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I **ANIMAL DIVERSITY PART-I**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the taxonomy and life cycle of lower invertebrates.	
CO2.	Explaining the organization in the lower invertebrates.	
CO3.	Analyzing levels of organization in the lower invertebrates.	
Course Content:		
Unit-1:	**Taxonomy: -** Classification of Protozoa. Porifera, Coelenterata, Platyhelminthes and Nematoda up to order with examples. Fundamentals of body organization emphasizing symmetry, metamerism, coelome and levels of structural organization.	**10 Hours**
Unit-2:	**Protozoa: -** Study of structural organization and life history of Trypanosoma and paramecium. Study of locomotion, osmoregulation, nutrition and reproduction in protozoa. Parasitism, pathogenecity and control in protozoans with special reference to Entamoeba, Giardia, Leishmania, Trichomonas and Plasmodium.	**10 Hours**
Unit-3:	**Porifera: -** Habit, habitat, structure and function of Sycon. Types of canal system. **Coelenterata: -** Habit, habitat, structure, function and life history of Aurelia. Polymorphism in coelenterata, coral reef. **Ctenophora -** Structural organization and affinities.	**10 Hours**
Unit-4:	**Platyhelminthes: -** Structural organization and life history of Dugesia. Parasitic adaptation in Helminthes. **Nematyhelminthes:** - Study of structure and life history of Dracunculusmedinensis. Nematode parasites and human diseases.	**10 Hours**
Unit-5:	Classification of Annelida (up to subclass); metamerism and coelome in Annelida. structural organization and physiology of earthworm, Trochophore larva.	**10 Hours**
Text Books:	1. Gence, Cells, &BrainsHilary Rose & Steven Rose 2.Zoology Invertebrates (text book) R.L. kotbal E.L. Jordan & P.S. Varma *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED151	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I MECHANICS LAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Applying the concept of moment of inertia, elastic constant and viscosity of the liquid to different applications.	
CO2.	Analyzing the applications and working of moment of inertia and concept of elasticity in different physical experiments.	

Course Content:

LIST OF EXPERIMENTS

Note: Select any ten experiments from the following list

1. To determine length, radius of circular body by using screw gauge and Vernier calipers.
2. To determine modulus of rigidity of a wire by Maxwell's needle.
3. To determine moment of inertia of an irregular body by inertia table.
4. To determine Elastic constant of a wire by Searl's method.
5. To determine Moment of inertia of a Flywheel.
6. To determine Young's Modulus in case of Uniform bending using Scale, telescope and optic lever.
7. To determine Young's Modulus in case of Cantilever using Pin and Microscope
8. To determine Modulus of Rigidity by using Torsion pendulum.
9. To determine Viscosity by the Capillary flow (Radius using Mercury pellet).
10. To determine Surface tension by using Capillary rise (Radius using Vernier microscope).
11. To verify Bernoulli's theorem.
12. To determine viscosity by Poiseuille's method.

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks)

Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT (05 MARKS)	FILE WORK (10 MARKS)	ATTENDANCE (10 MARKS)	VIVA (10 MARKS)	EXPERIMENT (05 MARKS)	VIVA (10 MARKS)	INTERNAL (50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED152	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I PHYSICAL CHEMISTRY LAB	L-0 T-0 P-4 C-2

Course Outcomes:	At the end of this course, the students will be-
CO1.	Determine the concentration of unknown solution.
CO2.	Identify unknown substance by measuring melting and boiling point.
CO3.	Apply uses of titrations in pharma industry.

Course Content:

LIST OF EXPERIMENTS

Inorganic

Analysis of simple salt containing an anion and cations

Anion --- CO_3^{-2}, SO_4^{-2},Cl^-,Br^-, CH_3COO^-,NO_3^- BO_3^{-3},PO_4^{-3}.

Cation – Lead, Copper, Iron, Aluminium, Zinc Nickel, Calcium, Potassium, & NH_4^+

Organic Functional Gr. Reaction (At Least 4)

- Alcohol, Phenols, Aldehydes, ketones Clones, Carboxylic acids & Amides.

Titrimetric Analysis.

- Determination of Fe (II) using $KMnO_4$ with Oxalic Acid as Primary Acid Standerd.
- Determination of CU (II) using $Na_2S_2O_3$ with $K_2Cr_2O_7$ Acid as Primary Standard .

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks)

Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT (05 MARKS)	FILE WORK (10 MARKS)	ATTENDANCE (10 MARKS)	VIVA (10 MARKS)	EXPERIMENT (05 MARKS)	VIVA (10 MARKS)	INTERNAL (50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED153	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I SKILL MATHEMATICS: ALGEBRA	L-0 T-0 P-4 C-2

Course Outcomes:	At the end of this course, the students will be-
CO1.	Understanding of isomorphism, homomorphism and automorphism of a group.
CO2.	Applying the fundamental theorems of algebra such as Cayley's theorem and Lagrange's theorem.
CO3.	Analyzing vector space and properties of vector space.

Course Content:

1	Groups, sub-groups, Costes, Lagranges theorem, permutation group, Cayley's theorem, Isomorphism of groups.	
2	Basic concepts of Rings, Subrings, Integral domain and fields	
3	Automorphism, Normaliser, Centre of a group, Syllabus theorem	
4	Homomorphism of rings and its properties, Rings of Polynomials etc.	
5	Vector Space, properties and theorem of vector space.	
Text Books:	**1.** "Algebra" by I. N. Hertein, Wiley and Company. **2.** "Modern Algebra" by Shanti Narayan, S.Chand and Company. 3. "Algebra" J. K. Goyal and K. P. Gupta, PragatiPrakashan	
Reference Books:	**1. "**Algebra" by M. Jacobson, Banz, W.H.Erconma New Delhi. **2.** "Abstract Algebra" by D. S. Malic, J. N Mordesas and M. K. Sen, PragatiPrakashan **3.** "Modern Algebra" by Saran and Goyal, Pothishala Publication **4.** "Modern Algebra" by A. R. Vasistha, KrishanaPrakashanMandir. *** Latest editions of all the suggested books are recommended.**	

Evaluation Scheme

Internal Evaluation (50 marks)

Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT (05 MARKS)	FILE WORK (10 MARKS)	ATTENDANCE (10 MARKS)	VIVA (10 MARKS)	EXPERIMENT (05 MARKS)	VIVA (10 MARKS)	INTERNAL (50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED154	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I **DIVERSITY OF MICROBES AND CRYPTOGAMS PART-ILAB**	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Recognizes information of specimen collection, slide preparation and microscopy.	
CO2.	Explaining plant diseases, causal organisms and their control measures	

Course Content:

LIST OF EXPERIMENTS

1. Microscopic preparations and study of the following algalmaterial:Nostoc, Oscillatoria,Chlamydomonas, Volvox, Coleochaete, Oedogonium, Vaucheria, Chara, EctocarpusSargassum and Polysiphonia
2. Staining of different types of Bacteria
3. Study of some locally available plant diseases caused by Viruses. Mycoplasma, Bacteria and Fungi in field/laboratory.
4. TMV, Little leaf of Brinjal. Citrus canker.
5. Green ear disease of Bajra.
6. Study of External morphology and microscopic preparations of following Bryophytes: Riccia, Marchantia, Anthoceros, Sphagnum and Polytrichum.
7. Microscopic examination of fossil slides, specimen/photograph-Rhynia, Lepidodendron Calamites and Cladoxylon.
8. Microscopic temporary, double stained preparations and study of stem/cone/sporocarp of Selaginella. Equisetum and Marsilea.

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks)

Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT (05 MARKS)	FILE WORK (10 MARKS)	ATTENDANCE (10 MARKS)	VIVA (10 MARKS)	EXPERIMENT (05 MARKS)	VIVA (10 MARKS)	INTERNAL (50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED155	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I **ANIMAL DIVERSITY PART-I LAB**	L-0 T-0 P-4 C-2

Course Outcomes:	At the end of this course, the students will be-
CO1.	Understanding the structure of lower invertebrates.
CO2.	Recognizes information of specimen collection, slide preparation and microscopy.
CO3.	Setup the permanent mounting of external structure of lower invertebrates
CO4.	Analyzing the structure ofTS/LS of organs & developmental stages

Course Content:

LIST OF EXPERIMENTS General survey of Invertebrate (Spot & Slides)

(A) **Protozoa: -** Entamoeba, Polystomella, Monocystis, Euglena, NoctilucaLeismania, Nyctotherus, Paramecium, Vorticella. **Porifera-** Sycon, Hyalonema, Euplectella, Spongilla and Euspongia. **Coelenterate-** Obelia colony (polyp & medusa) Physalia, Porpita, Aurelia, Rhizostom, Alcyonium, Corallium, Gorgonia, Pennatula, Madrepora. **Platyhelminthes-:** Dugesia, Fasciola, Taenia, Schistosoma.**Nematode-** Filaria, Dracunculus, Wuchereria, Enterobius

Annelida: - Neries (Heroneries with parapodia) Aphrodite, Arenicola, Pontobdella, Hirudinaria, Peripatus.

(B) Study of TS/LS of organs & developmental stages.

(i) **Porifera: -** T.S. of Sycon. (ii) **Coelenterata-** Planula larva of jelly fish. (iii) **Platihelminthes-** T.S of Fasciola, scolex of Taenia, mature & gravid segment of Taenia, Hexacanth, bladderworm&cysticercus stage of Taenia, miracidium, sporocyst, redia, circaria larva of Fasciola. (iv) **Annelida-** T.S through different region of leach.

(C) Dissection Through chart / model / Photograph / CD. – Hirudinaria – Morphology, general anatomy, digestion, nervous & excretory and reproductive system.

Earthworm – Anatomy, morphology, digestive and nervous system.

(D) Mounting- (Permanent)

Protozoa – Euglena, Paramecium,PolystomelaPorifera- Spicules, fibres, gemmuleCoelenterata- Obelia medusa Platyhelminthes – Taenia (proglotid) Annelida – Nereis (parapodia)

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks)

Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT (05 MARKS)	FILE WORK (10 MARKS)	ATTENDANCE (10 MARKS)	VIVA (10 MARKS)	EXPERIMENT (05 MARKS)	VIVA (10 MARKS)	INTERNAL (50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED126	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I प्राचीन एवं मध्यकालीन काव्य (हिन्दी साहित्य)	L-3 T-0 P-0 C-3
पाठ्यक्रम प्रतिफल	विद्यार्थी पाठ्यक्रम के अंत में	
CO1.	हिन्दी साहित्य के अध्ययन के माध्यम से विद्यार्थी विभिन्न महान कवियों की रचनाओं, काव्य विधाओं एवं विभिन्न हिन्दी बोलियों को समझ लेंगे।	
CO2.	विद्यार्थी विभिन्न कवियों की रचनाओं तथा कविताओं के संदेश से अपनी भाषायी कौशल का विकास कर सकेंगे।	
CO3.	विद्यार्थी हिन्दी साहित्य के विभिन्न कवियों की रचनाओं, भाषा–शैलियों तथा लेखन में विश्लेषण कर सकेंगे।	
CO4.	विद्यार्थी हिन्दी साहित्य के विभिन्न कवियों की रचनाओं का वर्तमान सामाजिक परिस्थितियों के सन्दर्भ में मूल्यांकन कर सकेंगें।	
CO5.	विभिन्न कवियों की रचनाओं के अध्ययन के माध्यम से विद्यार्थी स्वयं कविता रचना तथा भाषायी कुशलता आदि को विकसित कर पायेंगें।	
Course Content:	निर्धारित कवि–कबीर (30 साखी तथा 05 पद), जायसी (पद्मावत का एक खण्ड), सूरदास (20 पद), तुलसीदास (20 छन्द), बिहारी (30 दोहे), घनानन्द (20 छन्द), भूषण (20 छन्द)। द्रुत पाठ – सहरपता, अब्दुर्रहमान, चन्दरवरदाई, अमीर खुसरो, मीराबाई।	
Unit-1:	**कबीरदास : साखी** **गुरूदेव को अंग :**सतगुरू की महिमा अनंत, गूंगा हूवा बावला, दीपक दीया तेल भरि,जाका गुरू भी अंधाला, नां गुर मिल्या व सिष भया, माया दीपक नर पतंग, सतगुरू हम सूं रीझ कर। **सुमिरण कौ अंग :**कबीर कहता जात हूँ, भगति भजन हरि नांव है, कबीर सूता क्या करै काहे न देखै जागि। **बिरह कौ अंग :**चकवी बिछुटी रैणि की, बहुत दिनन की जोवती, यहु तन जारौं मसि करूं,हंसि हंसि कंत न पाइए, नैनां अंतर आव तूं, कबीर देखत दिन गया, कै बिरहनि कूं मींच दे, कबीर तन मन यौ जल्या, बिरह भुवंगम तन बसै, अषणियाँ झाँई पड़ी, बिरहनि ऊभी पंथ सिरि। **परचा कौ अंग :**पारब्रह्म के तेज का, अंतरि कंवल प्रकासिया, पिंजर प्रेम प्रकासिया, पांणी ही तैं हिम भया, जब मैं था तब हरि नहीं, मानसरोवर सुभर जल, कबीर कंवल प्रकासिया। **रस कौं अंगः** कबीर हरिरस यौं पिया, राम रसाइण प्रेम रस, कबीर भाठी कलाल की। संतो भाई आई ज्ञान की आंधी, जतन बिनु मिरगन खेत उजारे, रहना नहीं देश बिराना है, काहे री नलिनी तू कुम्हलानी, दुलहिनि गावहु मंगल चार।	**10 Hours**
Unit-2:	**जायसी**पद्मावत का मानसरोदक खण्ड (सम्पूर्ण) **सूरदास** **विनय :** आजु हौं एक एक करि, अविगत गति कछु कहत न आवै, रै मन मूरख जनम गंवायौ, गोविन्द प्रीति सबनि की मानत, जा दिन मन पंछी उडि जैहैं, अपुनपौ आपुन ही बिसरयौ, प्रभु कौ देखौ एक सुभाई।	**10 Hours**

	वात्सल्य :सोभित कर नवनीत लिये, खेलत मैं को काको गुसैया, देखो भाई दधिसुत में दधि जात **श्रृंगार** : बूझत स्याम कौन तू गोरी, निसिदिन बरसत नैन हमारे, अंखियां हरि दरसन की भूखी, मधुवन तुम कह रहत हरे, निरगुन कौन देस को बासी, ऊधौ अंखियां अति अनुरागी, आयो घोष बड़ो व्यापारी, मोहन मांग्यो अपनो रूप, ऊधौ मोहि ब्रज बिसरत नाही, अति मलीन वृषभान कुमारी, लरिकाई को प्रेम आलि कैसे करके छूटत।	
Unit-3:	**<u>तुलसीदास</u>** **विनयपत्रिका** : ऐसी मूढता या मन की, ऐसो को उदार जग माही,केसव कहि न जाइ का कहिये, हे हरि कस न हरहु भ्रम भारी, हरि तुम बहुत अनुग्रह कीन्हों, अब लौं नसानी अब न नसइहौं, माधव मोह–फाँस क्यों टूटै। **कवितावली** : अवधेश के द्वारे सकारे गई, बर दंत की पंगति कुंद कली, कीर के कागर ज्यों नृप चीर, रावरे दोष न पायन को, पातभरी सहरी सकल सुत, पुर तें निकसी रघुबीर बधू, सीस जटा उर बाहु विसाल, बालधी बिसाल बिकराल। **दोहावली** :एक भरोसो एक बल, जो घन बरसै समय चिर, चढत न चातक चित कबहुं, बध्यों बधित पर्‌यो पुन्य जल, बरसि परुष पाहन पयद्‌।	**10 Hours**
Unit-4:	**<u>बिहारी</u>** मेरी भवबाधा हरौ, नीकी दई अनाकनी, जमकरि मुंह तरहरि, या अनुरागी चित्त की, मोहनि मूरति स्याम की, तजि तीरथ हरि राधिका, चिरजीवौं जोरी जुरै, अजौ तर्‌यौना ही रह्‌यौ, स्वारथ सुकृतु न श्रम वृथा, नर की अरु नल नीर की, बढत–बढत सम्पत्ति सलिल, बसै बुराई जासु तन। छकि रसाल सौरभ सने, तिय तिरसौंहे मन किये, ज्यों–ज्यों बढत विभावरी, जुवति जोन्ह में मिलि, जोग जुगति सिखए सबै, मंगलबिंदु सुरंग मुख, खेलन सिखए अलि भले, रससिंगार मंजनु किये, चमचमात चंचल नयन, अरुन बरन तरुनि चरन, दृग उरझत टूटत कुटुम, पिय के ध्यान गहि गही, कहत सबै बैंदी दिये, मंजुन करि खंजन नयनि, औरे ओप कनीनिकनि, कर मुंदरी की आरसी, मैं मिसहा सोयो समुझि, बतरस लालच लाल की, हेरि हिंडोरे गगन तें।	**10 Hours**
Unit-5:	**<u>घनानंद</u>** अति सूधो सनेह को मारग है, भोर तें साँझ लौं कानन और, झलकै अति सुंदर आनन गौर, हीन भये जल मीन अधीन, घन आनन्द जीवन रूप सुजान, इस बांट परी सुधि रावरे भूलनि, पूरन प्रेम को मंत्र महा पन, पहिले अपनाय सुजान सनेह सों, घनआनन्द जीवन मूल सुजान की, आसा–गुमन बांधि कै भरोसो सिल धरि छाती, कंत रमैं उर अंतर मैं, मरिबो बिसराम गनै वह तो, कारी कूर कोकिला कहाँ को बैर, एरे बीर पौन तेरा सबै ओर गौन, बैरी वियोग की हूकन जारत, पर काजहि देह की धारि फिरौ, एकै आस एकै विसवास प्रान गहे बास, रावरे रूपकी रीति अनूप, चोप चाह चावनि चकोर भयौ चाहत ही। **<u>भूषण</u> शिवा बावनी 25 पद** साजि चतुरंग बीर रंग में तुरंग चढ़ि, बाने फहराने घहराने घंटा गजन के, बद्दल न होंहिं दल दच्छिन घमंड माहिं, बाजि गजराज सिवराज सैन साजत ही, ऊँचे घोर मंदर के अंदर रहनवारी, उतरि पलँग ते न दियो है धरा पै पग, अंदर ते निकसी न मंदर को देख्यो द्वार, सोंधे को अधार किसमिस जिनको अहार, साहि सिरताज और सिपाहिन में पातसाह, किबले की ठौर बाप बादसाह साहजहाँ, हाथ तसबीह लिए प्राप्त उठै बन्दगी को, कैयक हजार जहाँ गुर्जबरदार ठाढ़े, सबन के ऊपर ही ठाढ़ो रहिबे के जोग, राना भो चमेली और बेला सब राजा भये, कूरम कमलकमधुज है कदम फूल, देवल गिरावते फिरावते निसान अली, साँच को न मानै देवी देवता न जानै अरु, कुभकन्न असुर औतारी अवरंगजेब, छूटत कमान और तीर गोली बानन के, उतै पातसाह जू के गजन के ठट्‌ठ छूटे, जीत्यो सिवराज सलहेरि को समर सुनि।	**10 Hours**

Text Books:	कबीर की विचारधारा डॉ0 त्रिगुणायत–साहित्य निकेतन कानपुर कबीर व्यक्तित्वएवं कृतित्व चंद्रमोहन सिंह, ज्ञान लोक इलाहाबाद कबीर साहित्य की परख आचार्य परशुराम चतुर्वेदी–भारती भण्डार, इलाहाबाद सूर साहित्य हजारी प्रसाद द्विवेदी–विश्वविद्यालय प्रकाशन वाराणसी सूरदास और उनका साहित्य हरबंश लाल शर्मा–भारत प्रकाश मंदिर, अलीगढ़ सूर की काव्य साधना गोविन्द राम शम्र– नेशनल पब्लिशिंग हाउस नई दिल्ली	
Reference Books:	**सन्दर्भ/सहायक पुस्तकें – प्राचीन एवं मध्यकालीन काव्य** 1. तुलसीमानस रत्नाकर भाग्यवती सिंह–सरस्वती पुस्तक सदन माता कटरा आगरा 2. तुलसी दर्शन बलदेव प्रसाद मिश्र हिन्दी साहित्य सम्मेलन प्रयाग 3. जायसी का पद्मावत : काव्य तथा दर्शन – गोविन्द त्रिगुणायत, साहित्य निकेतन, कानपुर 4. बिहारी की वाग्विभूति विश्वनाथ प्रसाद मिश्र 5. बिहारी और उनका साहित्य हरबंश लाल शर्मा **काव्य शास्त्र** 6. अलंकार पारिजात : नरोत्तम स्वामी –लक्ष्मी नारायण अग्रवाल प्रकाशन आगरा 7. नूतन काव्य प्रकाश – डॉ0 उपेन्द्र त्रिपाठी – साहित्य रत्नालय, कानपुर 8. काव्य कौमुदी – डॉ0 बालकृष्ण गुप्त, साहित्य निकेतन कानपुर *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED127	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I **POETRY**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts and forms of poetry and the life and works of English poets	
CO2.	Applying conceptual knowledge of poetry for creative compositions	
CO3.	Analyzing the life and works of various English poets	
CO4.	Explaining the relevance of the various poets' compositions, their views and thoughts in the present social scenario	
Course Content:		
Unit-1:	**History of Poetry** **Forms of Poetry:** The Epic, The Ballad, The Lyric, The Ode, The Sonnet, The Elegy, The Mock Epic and the Dramatic Monologue **Stanza Forms:** The Heroic Couplet, The Blank Verse, The Spenserian Stanza, Terza Rhyma and Free Verse.	**10 Hours**
Unit-2:	William Shakespeare : 'Let Me Not to the Marriage of True Minds' ('True Love') John Donne : 'A Valediction Forbidding Mourning' John Milton : 'On His Blindness'	**10 Hours**
Unit-3:	Alexander Pope : 'Lines on Addison from The Dunciad' Thomas Gray : 'Elegy Written in a Country Churchyard' William Blake : 'London'	**10 Hours**
Unit-4:	William Wordsworth : 'The World is too much with us' John Keats : 'Ode on a Grecian Urn' Alfred Lord Tennyson : 'Ulysses'	**10 Hours**
Unit-5:	Matthew Arnold : 'The Dover Beach' W. B. Yeats : 'The Second Coming' T. S. Eliot : 'The Love Song of J. Alfred Prufrock'	**10 Hours**
Text Books:	*A Glossary of Literary Terms* by M. H. Abrams, Cengage Learning. *A Background to the Study of English Literature* by B. Prasad, Macmillan. *Poetry for B.A. I* by Priyali Dutta. Prakash Book Depot, Bareilly. *Fifteen Poets*, Oxford University Press. *History of English Literature* by Edward Albert, Oxford University Press.	

Reference Books:	(1) *A Companion to Twentieth Century Poetry* by Neil Roberts, Blackwell Companion to Literature. (2) *Alfred Tennyson* by Dr. Raghukul Tilak, Rama Brothers, 2011. (3) *W.B. Yeats: Selected Poems: A Critical Evaluation* by Dr. S. Sen, Unique Publishers, 2010. (4) *The Waste Land and Other Poems* by T.S. Eliot, Surjeet Publications, 2007. (5) *A Glossary of Literary Terms* by M. H. Abrams, Cengage Learning, 2015. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED128	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I **POLITICAL HISTORY OF MEDIEVAL INDIA (1200-1526 A.D.)**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding different concepts, sources, terms and events of medieval Indian history	
CO2.	Explaining different dynasties of Medieval Indian History	
CO3.	Analyzing the reigns and administrations of different rulers and emperors of medieval Indian history.	
Course Content:		
Unit-1:	Significant source material of medieval India: Archaeological literary and historical Historiography - Different Approaches Rise of Turks, causes of Success of Arab invasion and its impact	**10 Hours**
Unit-2:	**Slave Dynasty** Aibak - Early career, achievements as a commander, difficulties, an assessment Iltutmish -Early life, problems, achievements, an estimate, the successors and the rule of forty Razia - Her state policy, causes of her downfall, an assessment Balban - Early life and accession, his problems, theory of kingship, achievements, an estimate Causes of downfall of slave dynasty	**10 Hours**
Unit-3:	**Khaliji Dynasty** Jalaluddin Firoz Shah Khaliji - Early life and career, significant events of his reign, foreign policy, estimate Alauddin Khaliji - Early career and accession difficultiestheory of kingship Hindu policy Domestic policy revolts and its remedies Administrative system Price control and Market regulations, foreign policy southern conquest mongol invasion and its effects an assessment.	**10 Hours**
Unit-4:	**Tughlaq Dynasty:** Ghiasuddin Tughlaq - Domestic policy, foreign policy, death of Ghiasuddin Mohammad-bin-Tughlaq- Domestic policy schemes of Mohd. Tughlaq, Revenue reforms, Administrative reforms, foreign policy, Deccan policy, revolts significance of his reign Firoz Shah Tughlaq - Early life, accession, was Firoz a usurper? Domestic policy, foreign policy, Administrative reforms, an estimate Invasion of Timur, causes and its effects, Causes of downfall of Tughlaq dynasty. **Sayyid Dynasty:** Khizr Khan- Victories, achievements, character. Mubarak Shah - His achievements Alam Shah - Administrative achievements **Lodhi Dynasty:** Bahlol Lodhi - Accession, main events of reign character, assessment. Sikander Lodhi -Main events of his life, foreign policy Ibrahim Lodhi-	**10 Hours**

	Domestic policy, foreign policy, causes of failure, an estimate.	
Unit-5:	Nature of state, different theories of kingship Causes of downfall of Delhi Sultanate Central and provincial administration, army organization Development of literature and architecture.	**10 Hours**
Text Books:	दिल्ली सल्तनत – ए0एल0 श्रीवास्तव Delhi Sultanate - L.P. Sharma पूर्व मध्यकालीन भारत – ए0बी0 पाण्डये Foundation of Muslim Rule in India - A.B.M. Habibullah Medieval Indian History - Ishwari Prasad History of Qaraunah Truks in India - Ishwari Prasad Growth of Khalji imperialism - Ishwari Prasad Alauddin's Market Regulation - B.P. Saxena Chronology of Mohd. Tughlaq - N.H. Rizvi Firoz Shah Tughlaq - K.K. Basu Sikandar Lodhi as a founder - A. Halim	
Reference Books:	(1) The Administration of Sultanate of Delhi - I.H. Quraishi (2) Some Aspects of Muslim Administration - R.P. Tripathi (3) खिलजी वशं का इतिहास – के0एस0 लाल (4) दिल्ली सुल्तनत – के0ए0 निज़ामी *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED129	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I **POLITICAL THEORY**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts, frame work and theories of Political Science.	
CO2.	Explaining the concept of sovereignty, various rights and civic laws	
CO3.	Analyzing the theories of state, origin of state, organs of government and sovereignty	
Course Content:		
Unit-1:	Definition, nature and scope and Political Science with reference to traditional, behavioural and post behavioural development	**10 Hours**
Unit-2:	Theories of the origin of the state (Social contract, Historical, Evolutionary and Marxist); Theories of the function of the State (Liberal, Welfare and Socialist)	**10 Hours**
Unit-3:	Sovereignty: Evolution of the concept; Essential attributes; Austinian theory; Pluralist criticism, Power and Authority and influence	**10 Hours**
Unit-4:	Citizenship, Rights and Political obligation, Liberty, Equality, Law and Punishment	**10 Hours**
Unit-5:	Democracy: Liberal; Pluralist; Elitist and Marixist views of Democracy, Concept of Political Economy, Totalitarianism, Revolution	**10 Hours**
Text Books:	David Held, *Political Theory and Modern State*, London, Polity, 1994. J.M. Barbalet, *Citizenship*, Mitton Keynes, Open University Press, 1988. Sygmunt Baumann, *Freedom*, Mitton Keynes, Open University Press, 1988. Jeremy Waldron, (Ed.) *Theories of Rights*, New Delhi, OUP, 1984. Graeme Duncan, (Ed.) *Democratic Theory and Practice*, Cambridge, OUP, 1983. David Held, (Ed.), *Political Theory Today*, London, Policy, 1991.	
Reference Books:	1. Stephan L. Wasly, *Political Science: The Discipline and its Dimensions*, Calcutta, 1970. 2. V.L. Lenin, *State and Revolution: (Selected Works),* Moscow, Progress Publisher, 1971.	

	3. Sir E Barber, *Principles of Social and Political Theoy*, Calcutta, Oxford University Press, 4. F. Thakurdas, *Essays on Political Theory*, New Delhi, Gitanjali, 1982. 5. S.P. Verma, *Modern Political Theory*, New Delhi, Vikas, 1983. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED130	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - I **INTRODUCTION TO STATISTICS**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding different concepts, terms & variables of statistics	
CO2.	Interpreting statistical data using Statistical methods, tools & techniques	
CO3.	Analyzing different statistical tools & techniques like measures of central tendency and dispersion and correlation, regression, time series & Index number	
Course Content:		
Unit-1:	**Basic Concept–** Populations, Sample, Parameter, Frequency Distribution, Cumulative Frequency, Graphic and diagrammatic representation of data, Techniques of data collection, Sampling Vs Population, Primary and Secondary data	**10 Hours**
Unit-2:	**Central Tendency and Dispersion:** Measures of central tendency: Mean, Median, Mode, Geometric mean and Harmonic mean, Measures of dispersion, Ranage, Mean Deviation and Standard deviation	**10 Hours**
Unit-3:	**Correlation**: Simple, Coefficient of correlation– Karl Person and Rank correlation, Partial and Multiple Correlation Analysis	**10 Hours**
Unit-4:	**Regression Analysis**: Estimation of regression line in a bivariate distribution interpretation of regression coefficients	**10 Hours**
Unit-5:	**Times Series and Index Numbers**: Time series analysis concepts and components-Determination of regular, trend and seasonal indices, Index numbers-concept, price relative, quantity relative, value relative, problems in the construction and limitations of index numbers; Tests for ideal index number.	**10 Hours**
Text Books:	1. Gupta, S.C. and V.K. Kapoor (1993) – "Fundamentals of Applied Statistics" 2. Speigal, M.R. (1992) – "Theory and Problems of Statistics" 3. Nagar, A.L. and R.K. Das (1993) – "Basic Statistics" 4. Goon, A.M., M.K. Gupta and B. Dasputa (1993) "Fundamentals of Statistics" 5. Elhans, D.N. – "Fundamentals of Statistics " 6. सिंह, एस0पी0 –''प्रारम्भिकी सारंख्यिकीय''	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

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<tr><td>Course Code:
BELED156</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester - I
HINDI (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>पाठ्यक्रम प्रतिफल</td><td>विद्यार्थी पाठ्यक्रम के अंत में</td><td></td></tr>
<tr><td>CO1.</td><td>विद्यार्थी विभिन्न कवियों की रचनाओं तथा कविताओं के संदेश को मंच पर प्रदर्शित कर सकेंगे</td><td></td></tr>
<tr><td>CO2.</td><td>विद्यार्थीहिंदी साहित्य के विभिन्न कवियों की भाषा-शैली, लेखन तथा रचनाओं का पी.पी.टी. के माध्यम से विश्लेषण कर सकेंगे</td><td></td></tr>
<tr><td>CO3.</td><td>विद्यार्थीहिंदी साहित्य के विभिन्न कवियों की रचनाओंमेंविद्यमानविभिन्नसामाजिकपरिस्थितियोंकामूल्यांकनकरसकेंगे</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
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<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
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BELED – Semester - I
ENGLISH (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying conceptual knowledge of poetry in presentation through PPT</td><td></td></tr>
<tr><td>CO2.</td><td>Analyzing the tone and pitch of poetry during recitation</td><td></td></tr>
<tr><td>CO3.</td><td>Evaluating the significance of poetry reading in developing the aesthetic sense</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
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BELED – Semester - I
HISTORY (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Explaining the concepts, sources, terms and events of medieval Indian history</td><td></td></tr>
<tr><td>CO2.</td><td>Analyzing different dynasties of Medieval Indian History</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the functioning of the reigns and administrations of different rulers and emperors of medieval Indian history.</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
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POLITICAL SCIENCE (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying political theory to deal with different political Situations and other concerns of social sciences</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining different concepts of citizenship, rights and political obligation</td><td></td></tr>
<tr><td>CO3.</td><td>Analyzing the theories of state, origin of state, organs of government and sovereignty</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
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<table><tr><td></td><td>Internal</td><td>External</td></tr><tr><td>Performance</td><td>10</td><td>20</td></tr><tr><td>File work</td><td>20</td><td>20</td></tr><tr><td>Viva</td><td>10</td><td>10</td></tr><tr><td>Attendance</td><td>10</td><td>-</td></tr><tr><td>Total</td><td>50</td><td>50</td></tr></table></td><td></td></tr>
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<table>
<tr><td>Course Code:
BELED160</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester - I
ECONOMICS (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1</td><td>Applying Statistical Methods, tools & techniques in interpreting statistical data</td><td></td></tr>
<tr><td>CO2</td><td>Explaining the terms and variables of Statistics</td><td></td></tr>
<tr><td>CO3</td><td>Demonstrating how the statistical tools & techniques like measures of central tendency and dispersion and correlation, regression, time series & Index number are used.</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000
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<tr><td>Practical Content:</td><td><table><tr><td>Internal</td><td>External</td><td>Total</td></tr><tr><td>50</td><td>50</td><td>100</td></tr></table>
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Course Code: BELED161	PRACTICUM ACADEMIC ENRICHMENT ACTIVITIES -I (FINE ART & CRAFT PARTICIPATORY WORK)	L-0 T-0 P-6 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the Indian cultural heritage, art forms & artisans in depth.	
CO2.	Analyzing Indian art form, cultural heritage, movies and drama.	
CO3.	Creating stories, reports & drama based on Indian cultural & social setting.	
CO4.	Understanding the importance of Handicrafts & Village Cottage Industry.	
CO5.	Understanding the importance of music instruments &cultural.	
	Class Room Teaching - Content: • Visual art • To provide spontaneous expression of feelings, aesthetic sense, knowledge ofcolour, sketches, size and shapes. **Handicrafts**: • Getting them make things from useless things college earthen toys. • Use of different methods and materials of drawing - poster, water, colour, Pencils and Eraser, Pen and Ink etc. **Practical work/Sessional work/Project work /Model**: ***To impart intrinsic knowledge and meaningful understanding of every lesson of Art, the trainee teachers will be assigned to the task of project work, models, games, video clips, audio clips and experiments. The indication list to prepare models and projects is being given as follows. The teachers can decide models and projects on other subjects in the same manner.*** Material for decoration of house and school. • Different methods of handicraft as - collage, objects made of clay, paper cutting, paper folding, getting different decorative things made from bangles, wall hanging, making of envelop etc. • Organise competition of drawing, handicraft, mehdi, rangoli, alpana in different occasions. • Earthen toys, making things from useless things.	

Activities

Internal	External	Total
50	50	100

	Internal	External
Performance	10	20
File work	20	20
Viva	10	10
Attendance	10	-
Total	50	50

Internal	External	Total

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
FIRST YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - II									
Sr.No.	Course Code	Course/Paper	Period			Credit	Evolution Scheme		
			L	T	P		Internal	External	Total
Theory courses									
1	BELED201	LEARNING AND TEACHING	4			4	40	60	100
2	BELED202	INCLUSIVE EDUCATION	4			4	40	60	100
3	BELED299	ENGLISH COMMUNICATION& SOFT SKILLS– II	3		2	4	50	50	100
4	BELED204	CORE SOCIAL SCIENCE	4			4	40	60	100
Liberal Course (Select Any One Science Group)									
Group A	BELED221 Physics	ELECTRICITY AND MAGNATISM	3			3	40	60	100
	BELED251 Physics	ELECTRICITY AND MAGNATISM (LAB)	0		4	2	50	50	100
Group B	BELED122 Chemistry	INORGANIC CHEMISTRY	3			3	40	60	100
	BELED252 Chemistry	INORGANIC CHEMISTRY (LAB)	0		4	2	50	50	100
Group C	BELED223 Mathematics	PARTIAL DIFFERENTIAL EQUATION	3			3	40	60	100
	BELED253 Mathematics	SKILL MATHEMATICS(ALGEBRA AND MATRICES)	0		4	2	50	50	100
Group D	BELED224 Botany	DIVERSITY OF CRYPTOGAMS,BRYOPHYTA PTERIDOPHYTA AND PALEOBOTANY	3			3	40	60	100
	BELED254 Botany	DIVERSITY OF CRYPTOGAMS ,BRYOPHYTA PTERIDOPHYTA AND PALEOBOTANY (LAB)	0		4	2	50	50	100
Group E	BELED225 Zoology	ANIMAL DIVERSITY PART -II	3			3	40	60	100
	BELED255 Zoology	ANIMAL DIVERSITY PART -II (LAB)	0		4	2	50	50	100
Liberal Course (Select Any One Arts Group)									
Group A	BELED226 Hindi Litt.	HINDI NATAK AUR RANGMANCH	3			3	40	60	100
	BELED256 Hindi Litt.	HINDI (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group B	BELED227 English Lit	PROSE	3			3	40	60	100
	BELED257 English Lit	ENGLISH (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group C	BELED228 History	POLITICAL HISTORY OF MEDIEVAL INDIA (1526-1740 A.D.)	3			3	40	60	100
	BELED258 History	HISTORY (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group D	BELED229 Political Sc	NATIONAL MOVEMENT AND CONSTITUTION OF INDIA	3			3	40	60	100
	BELED259 Political Sc	POLITICAL SCIENCE (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Group E	BELED230 Economics	MICRO ECONOMICS	3			3	40	60	100
	BELED260 Economics	ECONOMICS (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Practicum									
	BELED261	ACADEMIC ENRICHMENT ACTIVITIES – II(DRAMA,ARTS AND MUSIC)			6	3	50	50	100
	Total		18		12	24	310	390	700

Course Code: BELED 201	CORE COURSE BELED – Semester - II **LEARNING AND TEACHING**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understanding the concept of teaching-learning process, level of teaching andlearner'spersonality	
CO2.	Understanding the principles and approaches of learning and theories of intelligence	
CO3.	Applying the various theories of learning in developing personality of learners.	
CO4.	Analyzing the students' individual differences and selecting basic teachi skillsand techniques of teaching.	
CO5.	Developing professional ethics and code of conduct in prospective teachers.	
Course Content:		
Unit-1:	• Concept and meaning of Education,Goals of Education. • Differentiate between information, knowledge, belief and truth. • Learning: Meaning, nature, characteristics, principles & types • Factors affecting Learning: maturation, attention, interest, fatigue, school related factors • Motivation: definition, types and techniques, Maslow"s theory	**10 Hours**
Unit-2:	• Concept, theories and educational applicability of following approaches to learning • Behaviorist Approach:Thorndike"s theory of Trial & Error; Pavlov"s theory of Classical Conditioning; Skinner"s theory of Operant Conditioning • Humanistic Approach:Roger"s Social Learning Theory • Cognitive Approach: Bruner's theory of Discovery Learning and Kurt-Lewin's Field theory • Constructivism: cognitive constructivism and social constructivism (concept and features)	**10 Hours**
Unit-3:	• Intra and Inter Individual differences: meaning, dimensions and factors • Intelligence: nature, theories- Thurnstorn's Theory, Guilford's three Dimenstional theory (S.I. Model), Gardner's theory of Multiple intelligence and assessment • Personality: meaning and types, Alport's Trait theory. • Freud"s Psychoanalytical theory • Creativity: concept, factors and nurturing creativity	**10 Hours**

Unit-4:	• Classroom climate and group dynamics • Development of inter personal relationships, use of socio-metric techniques, • Teacher as a leader of group and facilitator of learning • Teacher‟s accountability • Professional ethics and code of conduct for teachers in formal schools	**10 Hours**
Unit-5:	• Concept of Teaching : meaning, definition, characteristics, forms • Levels of Teaching : memory, understanding, reflective • Basic teaching skills and competencies • Strategies and techniques of teaching	**10 Hours**
Text Books:	• Bower and Hilgard (5th ed.) (1986) *Theories of Learning* New Delhi: Prentice Hall • Bruner, J.S. (1967) A Study of Thinking, New York: John Wiley • Chand, Tara and Prakash, Ravi (1997) *Advanced Educational Psychology* New Delhi: • KanishkaPublications • Chauhan, S.S. (6th ed. Revised) (1998) *Advanced Educational Psychology* New Delhi: • VikasPublishing House • Kundu, C.L. and Tutoo, D.N. (2000) Educational Psychology. New Delhi: Sterling • Publishers Pvt. Ltd., • Kuppuswamy, B. (1998) *Advanced Educational Psychology* New Delhi Sterling • Publishers • Mangal, S.K. (1998) - Advanced Educational Psychology, Prentice hall of India, New • Delhi.New York. • Basics in Education-Textbook for B.Ed course, NCERT-2014. • Dr. A.B. Bhatnagar (2016), Learning and Teaching, R. Lal Publication. Meerut • व्यासहरिष्चन्द्र एवं शर्माअधिगमऔरविकास के मनोसामाजिकआधार, राजस्थानहिन्दीगंथ्रअकादमीजयपुर– 4 • कुलश्रेष्ठ एस.पी., 2007–08, शैक्षिकतकनीकी के मूलआधार, अग्रवालपब्लिकेशन, आगरा • ऑवेरॉय डॉ. एस. सी, 1999, शिक्षकतकनीकी के मूलतत्व, आर्यबुकडिपो, करोलबाग, नईदिल्ली	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED 202	CORE COURSE BELED – Semester - II **INCLUSIVE EDUCATION**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understanding the concepts and nature of Inclusive and Special Education.	
CO2.	Applying the Inclusive Instruction Design in Education system to promote inclusion.	
CO3.	Analyzing the characteristics of children with special need and role of educational environment	
CO4.	Evaluating the Government Efforts to promote Inclusive Education.	
CO5.	Developing the Inclusive Classroom by adapting diversities.	
Course Content:		
Unit-1:	• Inclusive Education: concept, objective and need. • Development of Inclusive Education in India. • Legal provision of Inclusive Education in India. • Efforts for Inclusive Education.	**10 Hours**
Unit-2:	• Diversity – Meaning and Definition. • Disability – Legal Definition and discrimination based on disability. • Inclusive Education in Education: Curriculum, Linking individual objectives and the classroom curriculum. • Inclusive Lesson planning.	**10 Hours**
Unit-3:	• Exceptional, Learning Disable, Health Impaired, Orthopedic Handicapped and Delinquent children in Inclusive Education. • Emotional disturbed, Speech Impaired children, visually Impaired children and Hearing Impaired children in Inclusive Education.	**10 Hours**
Unit-4:	• Socially- economical-educational disadvantaged. • Government efforts to address these problems.	**8 Hours**
Unit-5:	• Classroom management in Inclusive Education. • Strategy for adapting diversities in Inclusive Education. • Family and its functions in Inclusive Education.	**12 Hours**
Text Books:	• Corbett Jenny- Supporting inclusive Education, Routledge falmer, 2001 Montgomary,D. (1990) Special	

	need in ordinary school; children with • learning , difficulties, cassel Educational Ltd. London • Hallahan and Kauffman J.M. (1984), Exceptional Children and youth ohio:Columbus Charles E Merril Publishing co. A Bell and Howell co • Loreman, Tim; deppeler J. and Harrey D. (2005) Inclusive Education- A Practical guide to supporting diversity in the class. London: Ront Ledge Falmer. • UNESCO (1994) The Salmanca Statement and Framework for Action on special needs education Paris, UNESCO • मदन सिंह, समावेशीशिक्षा, आर0लाल बुकडिपोमेरठ	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: TMUGE299	ACADEMIC ENHANCEMENT COMPULSORY COURSE BELED – Semester - I **ENGLISH COMMUNICATION – II**	L-3 T-0 P-2 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Acquire competence in constructing short sentences dealing day to day activities with grammatical accuracy.	
CO2.	Acquire adequate knowledge of grammar and vocabulary to address competitive exams.	
CO3.	Imporove their listening skills during conversation and speeches.	
CO4.	Write official letters and emails in correct format on common issues.	
CO5.	Develop a pargraph on given topics.	
CO6.	Improvise their voice modulation while reading and speaking something.	
CO7.	Attain proficiency in oral presentation	
CO8.	Comprehend, analyse and enrich their vocabulary through prescribed text	
Course Content:		
Unit-1:	**Functional Grammar** ·Prefix, suffix and One words substitution ·Modals ·Concord	**10 Hours**
Unit-2:	**Listening Skills** ·Difference between listening & hearing, Process and Types of Listening ·Importance and Barriers to listening	**10 Hours**
Unit-3:	**Writing Skills** ·Official letter and email writing ·Essentials of a paragraph, ·Developing a paragraph: Structure and methods ·Paragraph writing (100-120 words)	**12 Hours**
Unit-4:	**Strategies & Structure of Oral Presentation** Purpose, Organizing content, Audience & Locale, Audio-visual aids, Body langauge ·Voice dynamics: Five P's - Pace, Power, Pronunciation, Pause, and Pitch. ·Modes of speech delivery and 5 W's of presentation	**8 Hours**
Unit-5:	·How should one Read a book? – Virginia Woolf	**10 Hours**
Text Books:	Singh R.P., An Anthology of Short stories, O.U.P. New Delhi.	
Reference Books:	**4.** Raman Meenakshi & Sharma Sangeeta, "Technical Communication-Principles & Practice" OxfordUniversity Press, New Delhi. **5.** Mohan K. & Sharma R.C., "Business Correspondence of Report	

	Writing",TMH, New Delhi. **6.** Chaudhary, Sarla "Basic Concept of Professional Communication" Dhanpat Rai Publication, NewDelhi	
	4. The content will be conveyed through Real life situations, Pair Conversation, Group Talk and Class Discussion. 5. Language Lab software. 6. Sentence transformation on daily activities and conversations.	
	Note: ·Class (above 30 students) will be divided in to two groups for effective teaching. ·For effective conversation practice, groups will be changed weekly.	

Evaluation Scheme

Internal Evaluation			*External Evaluation*		*Total Marks*
40 Marks			*60 Marks*		
20 Marks (Best 2 out of Three CTs) *(From Unit – I, III,IV& V)*	*10 Marks (Oral Assignments)* *(From Unit –II & IV)*	*10 Marks (Attendance)*	*40 Marks (External Written Examination)* *(From Unit –I, III, IV & V)*	*20 Marks (External Viva)** *(From Unit –II & IV)*	*100*

*Parameters of External Viva

Content	Body Language	Communication skills	Confidence	TOTAL
05 Marks	05 Marks	05 Marks	05 Marks	20 Marks

***Note**:External Viva will be conducted by 2-member committee comprising*
***a)**One Faculty teaching the class*
***b)**One examiner nominated by University Examination cell.*
Each member will evaluate on a scale of 20 marks and the average of two would be the 20 marks obtained by the students.

Course Code: BELED 204	CORE COURSE BELED – Semester - II **CORE SOCIAL SCIENCE**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Knowing about various industries and their contribution to national economy.	
CO2.	Understanding the role of money and various financial Institutions in India	
CO3.	Describing role and functioning of state and central government	
CO4.	Understanding the importance of disaster management and analyzing the factors which leads to calamities	
CO5.	Applying the knowledge of Indian Constitution to find out about their rights and duties	
Course Content:		
Unit-1:	**Industry:-**Types, Discription of Special Industries, Contribution of Industries to National Economy. Industrial Pollution, and the efforts for Solution. **Transport, Communication and Foreign Trade :-** Transport-Utility and types - Railways, Roadways, Airways, Waterways,Pipelines, Ports & Harbours. Communication, Importance of Communication in modern days, Means of Communication.	**10 Hours**
Unit-2:	**First struggle for Freedom and after :-**First struggle for Freedom of 1857. Introduction to important revolutionaries, birth of Indian National Congress, Moderates and Extremes. **Events related to Independence Reviolution :-**Important events of the Indian struggle for Independence, Reviolution ofBange Bhang Partion of India in 1947and its silent features.	**10 Hours**
Unit-3:	**Indian Constitution :-** Organisation of Constitution Draft Commettee, Salient Features of IndianConstitution. **Working of Indian Democracy :-** Federal System, Division of Administrative Power between Centre and States, Organs of Government : Legeslature, Executive and Judiciary, Local Administration.	**10 Hours**
Unit-4:	**Money and Financial system :-** An Introduction to money in ancient time,Financial Institutions such as money lenders, zamindars, self helps groups,chit funds, private financial institutions and different types of banks. **Consumer Awareness :-** Need and Importance, Consumer Exploitation, Causes and Remedies. Standarlisation of Commodities, Government Role.	**8 Hours**

Unit-5:	**Disaster Management :-** Natural Calamities - Drought, Flood, Earthquake, Landslides, Tsunami. Man Made Calamaties - Nuclearic, Biotic and Chemical, Bomb Blast. General Calamities - Precautions and Security.	**12 Hours**
Text Books:	Eklavya, (1994), Samajik Adhyayan Shikshan: Ek Prayog, Eklavya: Hoshangabad.	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED221	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - II **ELECTRICITY AND MAGNETISM**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of electric circuits, electric field, magnetic field and electromagmatic induction.	
CO2.	Explaining various laws and theorems of electric field, magnetic field and electro magmatic induction.	
Course Content:		
Unit-1:	Electric Circuits AC Circuits: - Complex Reactance and Impedance. Series LCR Circuit: Resonance, Power Dissipation, Quality Factor and Band Width; Parallel LCR Circuit; Network Theorems: Thevenin theorem, Norton theorem, Superposition theorem, Reciprocity theorem, and Maximum Power Transfer theorem	**10 Hours**
Unit-2:	**Electric Field**: Electric Field and Lines. Electric Field E due to a Ring of Charge. Electric Flux. Gauss's law. Gauss's law in Differential form. Applications of Gauss's Law: E due to an Infinite Line of Charge, a Charged Cylindrical Conductor, an Infinite Sheet of Charge and Two Parallel Charged Sheets,	**12 Hours**
Unit-3:	**Dielectric Properties of Matter** **Dielectrics**:- Electric Field in Matter. Dielectric Constant. Parallel Plate Capacitor with a Dielectric. Polarization, Polarization Charges and Polarization Vector. Electric Susceptibility. Gauss's law in Dielectrics. Displacement vector D. Relations between the three Electric Vectors.	**10 Hours**
Unit-4:	Magnetic Field Magnetic Effect of Currents:- Magnetic Field B. Magnetic Force between Current Elements and Definition of B. Magnetic Flux. Biot-Savart's Law,Magnetic Dipole and its Dipole Moment Ampere's Circuital Law Gauss's law of magnetism. Relative Permeability of a Material. Magnetic Susceptibility.B-H Curve and Energy Loss in Hysteresis.	**8 Hours**
Unit-5:	Electromagnetic induction:-Faraday's law (Differential and Integral forms). Lenz's Law. Self and Mutual Induction. Energy stored in a Magnetic Field Ballistic Galvanometer Potential Energy of a Current Loop. Ballistic Galvanometer: Current and Charge sensitivity & Damping.	**10 Hours**
Text Books:	1. Electricity and Magnetism By Edward M. Purcell (McGraw-Hill Education, 1986) 2. Fundamentals of Electricity and Magnetism By Arthur F. Kip (McGraw-Hill, 1968) 3. Electricity and Magnetism by J.H.Fewkes& John Yarwood. Vol. I (Oxford Univ. Press, 1991).	
Reference Books:	1. Electricity and Magnetism. By D C Tayal (Himalaya Publishing House,1988). 2. David J. Griffiths, Introduction to Electrodynamics, 3rd Edn, (Benjamin Cummings,1998). * Latest editions of all the suggested books are recommended.	

Course Code: BELED222	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - II **INORGANIC CHEMISTRY**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of Inorganic Chemistry.	
CO2.	Explaining the atomic structures and properties & periodicity of elements.	
CO3.	Applying the periodic property of element to find out their position in periodic table.	
Course Content:		
Unit-1:	**Atomic Structure:**Bohr's theory, its limitations and atomic spectrum of hydrogen atom. Wave mechanics: de Broglie equation, Heisenberg's uncertainty principle and its significance, Schrodinger's wave equation, significance of ψ and ψ2. Quantum numbers and their significance. Shapes of *s*, *p*, *d* and *f* orbitals.	**10 Hours**
Unit-2:	Pauli's exclusion principle, Hund's rule of maximum multiplicity, Aufbau'sprinciple and its limitations, Variation of orbital energy with atomic number.	**12 Hours**
Unit-3:	**Classification of Elements based on their electronics structure** The long form of periodic table *s*, *p*, *d*, *f* block elements. Their position in periodic table and general properties related to their electronic structures.	**8 Hours**
Unit-4:	**Periodicity of Elements** Detailed discussion of the following properties of the elements, with reference to *s&p*-block. (a) Effective nuclear charge, shielding or screening effect, Slater rules, variation of effective nuclear charge in periodic table. (b) Atomic radii (Vander Waals) (c) Ionic and crystal radii. (d) Covalent radii (octahedral and tetrahedral) (e) Ionization enthalpy, Successive ionization enthalpies and factors affecting ionization energy. Applications of ionization enthalpy. (g) Electro negativity, Pauling's/ Mullikan's/ Electro negativity scales.	**12 Hours**
Unit-5:	Chemistry of Hydrogen, Hydrogen peroxide including manufacturing and structure, Heavy Hydrogen, Heavy water, ortho and Para Hydrogen. Hardness of water, removal of hardness, estimation of hardness of water.	**08 Hours**
Text Books:	inorganic chemistry are the books by **O. P. TANDON** and by **J. D. LEE**	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED223	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - II **PARTIAL DIFFERENTIAL EQUATIONS**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of partial differential equations of first order and second order.	
CO2.	Applying different methods to solve partial differential equation.	
Course Content:		
Unit-1:	Partial differential equation of I order and I degree, Origin of partial differential equation, Lagranges method for P.p +Q.q = R.	**10 Hours**
Unit-2:	Partial differential equation of II order, Linear partial differential equation, its complete integral, particular integral and general solution, general solution of linear partial differential equation with constant coefficients.	**12 Hours**
Unit-3:	Monge's form of solution of form Rr + Ss + Tt = V	**10 Hours**
Unit-4:	Classification of Partial differential Equation	**8 Hours**
Unit-5:	Application of Partial differential Equation	**10 Hours**
Text Books:	1. "Partial differential Equation" by M. D. Raisinghania, S.Chand&Company 2. "Partial differential Equation" by P. P. Gupta, G. S. Malik and S. K. Mittal, PragatiPrakshan	
Reference Books:	1. "Partial differential Equation" by I. N. Sneddon, Mc grawHill&Company 2. "Partial Differential With Boundary value Problems" S Singh ,J .P.ChauhanShikahaSahitiyaPrakashan *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED224	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - II **DIVERSITY OF CRYPTOGAMS PART-II**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the general characters, classification and life cycles of Bryophytes, Pteridophytes and Gymnosperms.	
CO2.	Explaining Paleobotany, types of fossils and geological time scale.	
Course Content:		
Unit-1:	**Bryophyta:** General characteristics and classification of Bryophyta, alternation of generation	**10 Hours**
Unit-2:	Structure, reproduction and economic importance of Hepaticopsida. Riccia, Marchantia and Pellia, Anthoceratopsida-Anthoceros, Bryopsida-Sphagnum, Polytrichum.	**10 Hours**
Unit-3:	Pteridophyta : The first vascular land plant, types of steles, important characteristies of Psilopsida, Lycopsida, Sphenopsida, and Pteropsida, classification of Pteridophyta. General characters of Lycopodium, Selaginella, Equisetum, Adiantum and Marsilea.	**12 Hours**
Unit-4:	Structure and reproduction in Fossilization, Types of fossils, Techniques of fossil study, Geological time scale.	**08 Hours**
Unit-5:	Gynosperm:-Gereralcharacteristies, classification Cycas, Pinus, Ephedra.	**10 Hours**
Text Books:	1. Pandey S.N. & others. 1995, A Text Book of Botany Vol. I, Vikas Publications Dehl	
Reference Books:	1. Pandey S.N. & others. 1995, A Text Book of Botany Vol. I, Vikas Publications Dehli *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED225	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - II **ANIMAL DIVERSITY: PART-II**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the general characters and life cycle of higher invertebrates.	
CO4.	Analyzing the structure and function of cell and cell organelles.	
Course Content:		
Unit-1:	**Bryophyta:** General characteristics and classification of Bryophyta, alternation of generation	**10 Hours**
Unit-2:	**Arthropoda**: Habit, habitat, morphology, physiology, reproduction, development of ***Palaemon***(Prawn).	**12 Hours**
Unit-3:	**Mollusca**: Habit, habitat, morphology, physiology, reproduction, development of ***Pila***(Apple snail).	**10 Hours**
Unit-4:	**Echinodermata**: Habit, habitat, morphology, physiology, reproduction, development of ***Pentacerous***(Sea star).	**8 Hours**
Unit-5:	**CellBiology**: Structure and function of cell, structure and function of cell organelles viz: mitochondria, Golgi bodies, nucleus, ribosome and endoplasmic reticulum.	**10 Hours**
Text Books:	1. Biology of non-chordates: H.C. Nigam. 2. Invertebrate Zoology: E.L. Jordan and P.S. Verma 3. A text book of Zoology Invertebrate: R.L. Kotpal	
Reference Books:	4. Cell Biology P.S. Verma & V K Agarwal, Publisher: S. Chand 5. Cytology, Genetics, Evolution & Ecology**,** P. K. Gupta, RastogiPublications *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED251	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - II ELECTRICITY AND MAGNETISM LAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Applying elementary ideas of electricity and magnetism to determine current, resistance and galvanometer sensitivity.	
CO2.	Analyzing the applications and working ofBallistic Galvanometer,electromagnetic induction, network theorem, Hysteresis loop etc.	

Course Content:

LIST OF EXPERIMENTS

Note : Select any ten experiments from the following list

1. Verify network theorem (i) Superposition Theorem (ii) Thevinen Theorem (iii) Norten Theorem.
2. Use multimeter for measuring (a) Resistance (b) AC and DC Voltage (c) DC current.
3. Calibration of ammeter by Potentiometer.
4. Calibration of Voltmeter by Potentiometer.
5. To determine a Low Resistance by Carey Foster's Bridge.
6. To determine resistance of galvanometer by Kelvin's method.
7. To determine the (a) Charge Sensitivity and (b) Current Sensitivity of a B.G.
8. To plot graph showing the variation of magnetic field with diastance along the axis of circular coil.
9. To determine internal resistance of a leclanche cell by Mance's method using post office Box.
10. To determine Self Inductance of a Coil by Rayleigh's Method.
11. Conversion of Galvanometer in ammeter of given range.
12. To verify Ohm's law in electricity.

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks)

Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT (05 MARKS)	FILE WORK (10 MARKS)	ATTENDANCE (10 MARKS)	VIVA (10 MARKS)	EXPERIMENT (05 MARKS)	VIVA (10 MARKS)	INTERNAL (50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED252	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - II INORGANIC CHEMISTRY LAB	L-0 T-0 P-4 C-2

Course Outcomes:	At the end of this course, the students will be-
CO1.	Analyze the concentration of oxidizing agents in water samples in ecological studies
CO2.	Apply the process of aromatic nitration in industrial chemistry.

Course Content:

LIST OF EXPERIMENTS

1. Estimation of Cu (II) and $K_2Cr_2O_7$ Using sodium thiosulphate solution (Iodimetrically).
2. Estimation of available chlorine in bleaching powder iodometrically.
3. Preparation of Aluminium Potassium sulphate$KAl(SO4)_2.12H_2O$ (Potash alum) or Chrome alum.
4. Acetylation of one of the following compounds: amines (aniline, o-,m- ,p- toluidines) and phenols (β-naphthol, salicylic acid)
5. Benzolyation of one of the following compounds: amines (aniline, o-,m-,p- toluidines) and phenols (β-naphthol, resorcinol) by Schotten- Baumann reaction
6. Nitration of one the following compounds: nitrobenzene, chlorobenzene, bromobenzene

Evaluation Scheme of Practical Examination:
Internal Evaluation (50 marks)
Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTA
EXPERIMENT (05 MARKS)	FILE WORK (10 MARKS)	ATTENDANCE (10 MARKS)	VIVA (10 MARKS)	EXPERIMENT (05 MARKS)	VIVA (10 MARKS)	INTERN (50 MAR

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED 253	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - II **SKILL MATHEMATICS: ALGEBRA AND MATRICES**	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of algebra and matrices.	
CO2.	Applying the fundamental theorems of algebra such as Cayley's theorem and Lagrange's theorem.	
CO3.	Analyzing vector space, properties of vector space and Eigen values and Eigen vectors.	
Course Content:		
Unit-1:	Matrices and determinants, Elementary row and column transformation, Linear transformations, Rank of matrix.	**08 Hours**
Unit-2:	Consistency of linear system of equations, Linear dependence and independence, Hermitian and skew Hermitian matrices, general form of matrices.	**10 Hours**
Unit-3:	Inverse of matrix by elementary operations, Solutions of simultaneous equations, Characteristic equation, Caley-Hamilton theorem (without proof), Eigen values and Eigen vectors, Diagonalization.	**12 Hours**
Unit-4:	Sets, Relations, Functions, Binary operations, permutation, Groups and subgroup its elementary properties.	**8 Hours**
Unit-5:	Isomorphism and Homomorphism of Groups, Caley's theorem, Order of an element, Rings, Fields and integral domains.	**12 Hours**
Text Books:	1. "Matrices" by Dr. J.K.Goel and K.P.Gupta, Students Friends & Co. 2. "Modern Algebra" by A. R. Vashisth, KrishanaPrakshanMandir	
Reference Books:	1. "Matrices" by Shanti Narain, S Chand &Co. 2. "Matrices" by N. Saran and J. K. Goyal, PragatiPrakashan *** Latest editions of all the suggested books are recommended.**	

Evaluation Scheme

Internal Evaluation (50 marks)

Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT (05 MARKS)	FILE WORK (10 MARKS)	ATTENDANCE (10 MARKS)	VIVA (10 MARKS)	EXPERIMENT (05 MARKS)	VIVA (10 MARKS)	INTERNAL (50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED254	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - II DIVERSITY OF MICROBES AND CRYPTOGAMS PART-II LAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Demonstrate the general characters, morphological and anatomical features of pteridophytes through specimens and slides.	
CO2.	Analyzing the evolution of bryophytes, pteridophytes and gymnosperms on earth.	

Course Content:

LIST OF EXPERIMENTS

1. Study of External morphology and microscopic preparations of following bryophytes :Riccia, Marchantia, Anthoceros, Sphagnum and Polytrichum.
2. Microscopic temporary, double stained preparations and study of stem/cone/sporocarp of Lycopodium, Selaginella, Equisetum, Adiantum and Marsilea.
3. Study of External morphology and microscopic preparations of following gymnosperm: Cycas. Pinus and Ephedra.

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks)

Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT (05 MARKS)	FILE WORK (10 MARKS)	ATTENDANCE (10 MARKS)	VIVA (10 MARKS)	EXPERIMENT (05 MARKS)	VIVA (10 MARKS)	INTERNAL (50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED255	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester – II **ANIMAL DIVERSITY PART-II LAB**	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Explain the general characters, morphological and anatomical features of higher invertebrates.	
CO2.	Applying knowledge of Mitosis and Meiosis by preparation of slides.	
CO3.	Analyzing the structure of Cell, Cell division and chromosome with slides.	

Course Content:

LIST OF EXPERIMENTS

Observation of the following slides / spotters / models

Arthropoda: *Palaemon, Lepas, Crab, Lobester, Squilla, Balanus, Apis, Lepisma, Apis, Limulus,* Scolopendra, Peripleneta.

Mollusca: Lamellidense, Pila,Chiton,Teredo,Doris,Aplysia,Detalium,Nautilus,Sepia.

Echinodermata: Pentacerous,Echinis,Ophiothrix,Holothuria,Antidon.

Slides:
Mouth parts of Anopheles (male and female), Culex (male and female), Cyclops, Dephnia, Zoea larva.
Cell structure, Cell division,chromosome.

Activity:
Preparation of onion root tip for the stages of mitosis.

Rexene Charts

1. Prawn nervous system.
2. Prawn digestive system.
3. *Pila* nervous system.
4. *Unio* nervous system.
5. Starfish water vascular system.
6. Anatomy of *Pheritima*.

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks)

Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTA
EXPERIMENT (05 MARKS)	FILE WORK (10 MARKS)	ATTENDANCE (10 MARKS)	VIVA (10 MARKS)	EXPERIMENT (05 MARKS)	VIVA (10 MARKS)	INTERN (50 MAR

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED226	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester – II हिन्दी नाटक और रंगमंच	L-3 T-0 P-0 C-3
पाठ्यक्रम प्रतिफल	विद्यार्थी पाठ्यक्रम के अंत में	
CO1.	हिन्दी साहित्य के अध्ययन के माध्यम से विद्यार्थी विभिन्न महान नाटककारों कीरचनाओं तथा विविध नाट्य विधाओं को समझ सकेंगे।	
CO2.	विद्यार्थी हिन्दी साहित्य में प्रचलित नाट्य विधाओं का विविध नाटककारों के सन्दर्भ मेंप्रयोग कर सकेंगे।	
CO3.	विद्यार्थी विभिन्न लेखकों की एंकांकी, विविध नाट्य विधाओं एवं नाट्यकृतियों की भाषाशैली का विश्लेषण कर सकेंगें।	
CO4.	विद्यार्थी विभिन्न लेखकों के नाटकों का वर्तमान सामाजिक परिस्थितियों के सन्दर्भ मेंमूल्यांकन कर सकेंगे।	
CO5.	विद्यार्थी विभिन्न लेखकों की एकांकी तथा नाटक के अध्ययन के द्वारा स्वयं मेंअभिनय कला को विकसित कर पायेंगे।	
Course Content:		
Unit-1:	नाटक – ध्रुवस्वामिनी–जयशंकर प्रसाद	**10 Hours**
Unit-2:	नाटक –आधेअधूरे–मोहन राकेश	**10 Hours**
Unit-3:	एकांकी– औरंगजेब की आखिरी रात (डॉ0 राम कुमार वर्मा) स्ट्राइक (भुवनेश्वर) भोर का तारा (जगदीश चन्द्र माथुर)	**10 Hours**
Unit-4:	नये मेहमान (उदयशंकर भट्ट) सूखी डाली (उपेन्द्र नाथ 'अश्क')	**10 Hours**
Unit-5:	**द्रुत पाठ–** (क) भारतेन्द्र हरिश्चन्द्र, हरिकृष्ण प्रेमी, लक्ष्मीनारायण मिश्र, धर्मवीर भारती (ख) हिन्दी रंगमंच का सामान्य परिचय	**10 Hours**
Text Books:	हिन्दी नाटकः इतिहास के सोपान – गोविन्द चातक, तक्षशिला प्रकाशन, नई दिल्ली हिन्दी नाटकः आजकल –जयदेव तनेजा, तक्षशिला प्रकाशन, नई दिल्ली आधुनिक हिन्दी नाटक और रंगमंच –लक्ष्मी नारायण लाल, साहित्य भवन, इलाहाबाद हिन्दी नाटक – बच्चन सिंह, राधाकृष्ण प्रकाशन, दिल्ली आधुनिक हिन्दी नाट्यकारों के सिद्धान्त – निर्मला हेमन्त, राधाकृष्ण प्रकाशन, दिल्ली	
Reference Books:	प्रसाद के नाटकः सृजनात्मक धरातल और भाषिक चेतना – गोविन्द	

	चातक, तक्षशिला प्रकाशन, नई दिल्ली नाटककार जगदीश चन्द्र माथुर – गोविन्द चातक राधा कृष्ण प्रकाशन, दिल्ली हिन्दी एकांकी की शिल्प विधि का विकास – सिद्धनाथ कुमार प्रतिनिधि जयशंकर प्रसाद – (सं0) सत्येन्द्र तनेजा, राधाकृष्ण प्रकाशन, दिल्ली धुवस्वामिनी –वस्तु एवं शिल्प – सुरेश नारायण *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED227	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester – II PROSE	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the different forms and styles of prose, and the life and works of English prose writers.	
CO2.	Explaining different prose compositions like essay, biography, autobiography, travelogue etc.	
CO3.	Analyzing the life and works of various English essayists	
CO4.	Evaluating the relevance and significance of the various essayists' prose compositions, their views and thoughts in the context of present social scenario	
Course Content:		
Unit-1:	Theory of Prose, Types of Prose, Types of Prose Style, Autobiography, Biography and Memoir, Travelogue	**10 Hours**
Unit-2:	Periodical Essay, Formal Essay, Familiar Essay, Poetic Prose (Euphuism), Prose of Thought	**10 Hours**
Unit-3:	Francis Bacon's 'Of Studies', Richard Steele's 'Recollections of Childhood', Joseph Addison's 'Sir Roger at Church' Doctor Johnson 'Letter To Lord Chesterfield'	**10 Hours**
Unit-4:	Charles Lamb's 'The convalescent', G.K.Chesterton's 'On Running After One's Hat', R.L.Stevenson's 'An Apology For Idlers', A.G.Gardiner's 'On Shaking Hands'	**10 Hours**
Unit-5:	Robert Lynd's 'A Disappointed Man', J.B.Priestley's 'On Doing Nothing', Hilaire Bellock's 'On Spellings'E.V.Lucas' 'Bores'	**10 Hours**
Text Books:	*A Handbook of Writing Skills* by Kalpna Rajput, Prakash Book Depot, Bareilly. *An Anthology of Literary Essays* for B.A. II by Nidhi Agarwal, Prakash Book Depot, Bareilly. *A Background to the Study of English Literature* by B. Prasad, Macmillan.	
Reference Books:	*History of English Literature* by Edward Albert, Oxford University Press, New Delhi. Learning, 2011. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED228	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester – II **POLITICAL HISTORY OF MEDIEVAL INDIA (1526-1740 AD)**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding different concepts, sources, terms and events of medieval Indian history during Mughal Empire	
CO2.	Explaining the relevance of reigns and administrations of different Mughal Emperors in the light of the other dynasties of the early Medieval India	
CO3.	Analyzing the reigns and administrations of different Mughal emperors in Medieval India	
Course Content:		
Unit-1:	**Sources** Archaeological, literary and historical works Historiography - different approaches North India – Political scene	**10 Hours**
Unit-2:	**Babur& Akbar** Invasion, conquest, personality Humayun - Struggle, exile, restoration Shershah Suri - Civil, military and revenue administration achievements Conquests, Rajput policy, religious policy Deccan plicy, revolts, consolidation of empire Revenue administration, mansubdari system, estimates of Akbar	**10 Hours**
Unit-3:	**Jahangir & Shahjahan** Accession, twelve ordinances, revolts, influence of Nurjahan, Deccan policy, character of Nurjahan, Estimate of Jahangir Accession, early revolts, N.W.F. policy, Deccan policy, Central Asian policy, War of succession	**10 Hours**
Unit-4:	**Aurangzeb** Early career, military exploits, religious policy, Deccan policy, Rajput policy, Revolts and reaction, Causes of failure of Aurangzeb character and personality.	**10 Hours**
Unit-5:	**Shivaji** Rise of Maratha Power under Shivaji, relations with Mughals, Sambhaji, Rajaram Later Mughals and emergence of new states - Awadh and Haiderabad Invasion of Nadirshah and Ahmad Shah Abdali Causes of downfall of Mughal Empire Administration: Central, provincial, military administration, revenue administration Law and justice Development of education and literature Architecture, painting	**10 Hours**

Text Books:	1. मुगल कालीन भारत – ए0एल0 श्रीवास्तव 2. Later Medieval India – A.B. Pandey 3. मुगल साम्राज्य का उत्थान और पतन – आर0पी0 त्रिपाठी 4. Akbar the Great Vol. 1, II & III – A.L. Srivastava 5. जहाँगीर – बेनी प्रसाद 6. शाहजहाँ – बनारसी प्रसाद सक्सेना	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED229	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester – II **NATIONAL MOVEMENT AND CONSTITUTION OF INDIA**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the conditions of early political awakening in Indian NationalMovement and its impact on the constitution of India	
CO2.	Explaining the role of various forces of Indian politics: religion, language, caste, tribe, regionalism etc.	
CO3.	Analyzing the important institutions of the Indian Union: theexecutive, the legislature and the judiciary	
Course Content:		
Unit-1:	**Concept & growth of Nationalism in India** The birth and growth of Nationalism in India; The Indian National Congress; the Moderates and the Extremists; Landmarks of Indian National Movement: Non-Cooperation, Civil Disobedience and Quit India Movements; The Independence Act 1947	**10 Hours**
Unit-2:	**Philosphical Premises& Making of the Indian Constitution** The ideological legacy of the Indian National Movement on the Constituent The Nature & Composition of the Constituent Assembly Preamble: The underlying Values of the Indian Constitution Salient features of the Constitution of India	**10 Hours**
Unit-3:	**Fundamental Rights& Directive Principles of State Policy** Fundamental Rights and Duties; Directive Principles of State Policy; Indian Federal System; Centre-State Relations	**10 Hours**
Unit-4:	**The Union Government** The Union Government; The President; The Prime Minister; The council of Ministers; The Parliament; The Supreme Court	**10 Hours**
Unit-5:	**State Government** State Government; The Legislature; The Executive; The High Court; Panchayati Raj System in India	**10 Hours**
Text Books:	1. D.D. Basu: An Introduction to the Constitution of India, New Delhi, Prentice Hall, 1994. 2. G. Austin: Working a Democratic Constitution the Indian Experience, Delhi, Oxford University Press-2000. 3. बी0एल0 फड़ीया – भारतीय शासन एवं राजनीति, साहित्य भवन पब्लिकेशन्स, आगरा–2007 4. डॉ0 ए0पी0 अवस्थी – भारतीय शासन व राजनीति, लक्ष्मी नारायण अग्रवाल, आगरा–2006	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED230	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester – II **MICRO ECONOMICS**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the fundamentals of Microeconomics including different concepts, terms & variables	
CO2.	Applying different tools & techniques of Microeconomics to understand the relationship between the supply/demand and the consumer behaviour	
CO3.	Explaining the relationship between inputs used in production and the resulting outputs and costs	
CO4.	Analyzing the theory of production and costs in order to measure the social welfare functions	
Course Content:		
Unit-1:	**Basic Concepts**: Nature and Scope of Economics, Methodology in Economics, Concept of Equilibrium, Various types of Equilibrium	**10 Hours**
Unit-2:	**Consumer's Behaviour**: Consumer's equilibrium (Hick & Slutsky) Giffin goods, Indifference curve analysis, theory of demand, Elasticity of demand, price, income and cross, Consumer's surplus, Engel's Law	**10 Hours**
Unit-3:	**Theory of Production and Costs:** Factors of Production, Production function, iso-quant, Factor substitution; Laws of returns, Returns to scale; Nature of cost and their inter-relation; Equilibrium of the Firm, Perfect competition, Monopoly and price discrimination; Measure of Monopoly Power, Role of time element; Various forms of markets; Price and output determination under perfect competition; Monopoly and Monopolistic competition.	**10 Hours**
Unit-4:	**Factor Pricing:** Marginal productivity theory of Distribution, Theories of wage determination, Wages and collective Bargaining, Wage differentials, Rent Scarcity Rent, Differential rent, Quasi rent, Interest-Classical and Keynesian theories. Profit – innovation, Risk and Uncertainty theories.	**10 Hours**
Unit-5:	**Welfare Economics:** Problems in measuring welfare, Classical welfare Economics, Pareto criterion;Concept of Social Welfare function.	**10 Hours**

Text Books:	1. Mansfield,E.(1997) "Microeconomics" 2. Ray,N.C. (1975)- "An Introduction to Microeconomics. 3. Stonier, A.W. and D.C. Hague (1972) " A textbook of Economics theory" 4. Varian, H.R. (2000) – "Intermediate Microeconomics: A Modern Approch" 5. झिंगन, एम0एल0– ''उच्चतर आर्थिक सिद्धान्त'' 6. गुप्ता, त्यागी, शाक्ति सहाय– ''सूक्ष्म अर्थशास्त्र'' 7. आहूजा, एच0एल0– ''व्यष्टिपरक आर्थिक विश्लेषण''	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

<table>
<tr><td>Course Code:
BELED256</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester – II
HINDI (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>पाठ्यक्रम प्रतिफल</td><td>विद्यार्थी पाठ्यक्रम के अंत में</td><td></td></tr>
<tr><td>CO1.</td><td>विद्यार्थी हिंदी साहित्य मेंप्रचलित विभिन्न महान नाटककारों की नाट्यविधाओं को मंचपरप्रदर्शितकरसकेंगे</td><td></td></tr>
<tr><td>CO2.</td><td>विद्यार्थीविभिन्न लेखकों की नाटक कृतियों, एकांकी तथा विविध नाट्यविधाओं की भाषा शैली का पी.पी.टी. के माध्यम से विश्लेषण कर सकेंगे</td><td></td></tr>
<tr><td>CO3.</td><td>विद्यार्थीविभिन्नलेखकोंके नाटकों का वर्तमान सामाजिक परिस्थितियों के संदर्भमेंमूल्यांकनकरसकेंगे</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000
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<tr><td>Practical Content:</td><td><table><tr><td>Internal</td><td>External</td><td>Total</td></tr><tr><td>50</td><td>50</td><td>100</td></tr></table>
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</table>

<table>
<tr><td>Course Code:
BELED257</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester – II
ENGLISH (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying conceptual knowledge of different prose styles and prose forms in writing the essay, biography, autobiography, travelogue etc.</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the writing styles and subject matters of the prose writers</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating therelevance of different kind prose writings in day to day life.</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
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</table>

<table>
<tr><td>Course Code:
BELED258</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester – II
HISTORY (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Explaining the structure and working of the reigns of Mughal emperors</td><td></td></tr>
<tr><td>CO2.</td><td>Analyzing the reigns and administrations of different Mughal emperors in Medieval India</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating thedifferences between the reigns and administration of Mughal Emperors and other dynasties of the early Medieval India</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
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</table>

<table>
<tr><td>Course Code:
BELED259</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester – II
POLITICAL SCIENCE (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying the underlying values of the Indian Constitution todeal with Indian political situations and other social concerns</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the functions of institutions of the Indian Union: theexecutive, the legislature and the judiciary</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the role of various forces of Indian politics: religion, language, caste, tribe, regionalism etc.</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
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</table>

<table>
<tr><td>Course Code:
BELED260</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester – II
ECONOMICS(PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying different tools & techniques of Microeconomics to understand the relationship between the supply/demand and the consumer behaviour</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the relationship between inputs used in production and the resulting outputs and costs</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the utility and significance of theory of production and costs</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000
<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
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</table>

Course Code: BELED261	PRACTICUM ACADEMIC ENRICHMENT ACTIVITIES -II (DRAMA, ARTS & MUSIC)	L-0 T-0 P-6 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the Indian cultural heritage, art forms & artisans in depth.	
CO2.	Analyzing Indian art form, cultural heritage, movies and drama.	
CO3.	Creating stories, reports & drama based on Indian cultural & social setting.	
CO4.	Understanding the importance of Handicrafts & Village Cottage Industry.	
CO5.	Understanding the importance of music instruments &cultural.	
Activities	• Meaning of Music - Note, Kind of notes, Naad, ascending, descending of note, kinds of rhythms pakad, tune. • To provide knowledge of beats in vocal music - Teen Tal, Jhaptal, Roopaktal, Kaharwa, Dadra, Ektal and Chartal . • Music - Prayer, Bhajan, local folk song, songs related to seasons, National unity (national anthem, patriotic songs) • Lives of Indian musicians. • Dance/Drama - folk dance, local dance, emotional dance, and problems related to current situation curriculum and plays of patriotism • An artist or artisam may be invited to organize a workshop on Art & Aestretics. The student-teachers may be asked to prepare atleast 5-items of different categories- Paper meshing, Pot Decoration, Wall hanging, Paper cutting, Flower making, Candle Making, Embroidery, Soft toys making, Weaving or printing of textiles, Making of poster, Making of Rangoli, Making of Puppets etc. • Visit to place of art, exhibitions & cultural Festivals & preparation of a report. • Interpretation of art work, movies & other media & preparation of a report on local cultural & art forms, | Internal | External | Total | | 50 | 50 | 100 | | | Internal | External |	

	Performance	10	20	
	File work	20	20	
	Viva	10	10	
	Attendance	10	-	
	Total	50	50	
	• Theme based project covering social, economic, cultural& socientific aspect.			
Internal	External			Total

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
SECOND YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - III									
Sr.No.	Course Code	Course/Paper	Period			Credit	Evolution Scheme		
			L	T	P		Internal	External	Total
Theory courses									
1	BELED301	CONTEMPORARY INDIA AND EDUCATION	4			4	40	60	100
2	BELED302	PHYSICAL HEALTH AND YOGA EDUCATION	2	0	4	4	40	60	100
3	BELED399	ENGLISH COMMUNICATION & SOFT SKILLS - III	3		2	4	50	50	100
4	BELED304	CORE SCIENCE	4			4	40	60	100
Liberal Course (Select Any One Science Group)									
	BELED321 Physics	OPTICS	3			3	40	60	100
Group A	BELED351 Physics	OPTICS (LAB)	0		4	2	50	50	100
	BELED322 Chemistry	PHYSICAL CHEMISTRY	3			3	40	60	100
Group B	BELED352 Chemistry	PHYSICAL CHEMISTRY (LAB)	0		4	2	50	50	100
	BELED323 Mathematics	REAL ANALYSIS	3			3	40	60	100
Group C	BELED353 Mathematics	SKILL MATHEMATICS (INTEGRAL CALCULUS)	0		4	2	50	50	100
	BELED324 Botany	PLANT TAXONOMY AND EMBRYOLOGY	3			3	40	60	100
Group D	BELED354 Botany	PLANT TAXONOMY AND EMBRYOLOGY (LAB)	0		4	2	50	50	100
	BELED325 Zoology	CHORDATA	3			3	40	60	100
Group E	BELED355 Zoology	CHORDATA (LAB)	0		4	2	50	50	100
Liberal Course (Select Any One Arts Group)									
	BELED326 Hindi Litt.	AADHUNIK HINDI KAVYA SAHITYA	3			3	40	60	100
Group A	BELED356 Hindi Litt.	HINDI (PROJECT & VIVA VOCE)	0		4	2	50	50	100
	BELED327 English Litt.	DRAMA	3			3	40	60	100
Group B	BELED357 English Litt.	ENGLISH (PROJECT & VIVA VOCE)	0		4	2	50	50	100
	BELED328 History	POLITICAL HISTORY OF MODERN INDIA (1740-1964 A.D.)	3			3	40	60	100
Group C	BELED358 History	HISTORY (PROJECT & VIVA VOCE)	0		4	2	50	50	100
	BELED329 Political Sci.	INDIAN POLITICAL THOUGHT	3			3	40	60	100
Group D	BELED359 Political Sci.	POLITICAL SCIENCE (PROJECT & VIVA VOCE)	0		4	2	50	50	100
	BELED330 Economics	MACRO ECONOMICS	3			3	40	60	100
Group E	BELED360 Economics	ECONOMOCS (PROJECT & VIVA VOCE)	0		4	2	50	50	100
Practicum									
	BELED361	ACADEMIC ENRICHMENT ACTIVITIES-III (MEDITATION, SPORTS, HEALTH EDUCATION AND OTHER ACTIVITIES			6	3	50	50	100
	TOTAL		16		16	24	310	390	700

Course Code: BELED 301	CORE COURSE BELED – Semester - II **CONTEMPORARY INDIA AND EDUCATON**	L-3 T-0 P-0 C-3
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Remembering facts, terms, basic concepts related to contemporary India and education.	
CO2.	Analyzing issues and concerns in Indian education system.	
CO3.	Distinguishing strengths and weakness of policy framework for public education.	
Course Content:		
Unit-1:	**Education and Indian Society**: • Education : Concept, process, basis and nature, Concept of education at different stages and functions of education Indian Constitution and national goals: Preamble, fundamental rights and duties, Concepts of democracy, socialism, secularism and national integration, Constitutional provisio	**10 Hours**
Unit-2:	**Philosophical and Educational Thoughts:** • Relationship between Philosophy and Education • Thoughts on Education – Idealism, Naturalism, Pragmatism, Realism, Humanism-features and their educational implications Eclectic tendencies in education	**10 Hours**
Unit-3:	**Philosophical and Educational Thoughts of Thinkers:** • Thinkers on Education – Western thinkers-Plato, Rousseau, Froebel, Montessori, Dewey Indian thinkers –Mahatma Gandhi, Ravindra Nath Tagore, Swami Vivekananda, Shri AurbindoGhosh,J.Krishnamurti	**8 Hours**
Unit-4:	**Policy Frameworks for Public Education :** • Commission and policies : Recommendations of Indian Education Commission, NPE 1986 and its review (P.O.A., 1992), National Curriculum Framework (NCF) for school education 2005, Knowledge Commission 2005. • Programme for children.- Integrated Child Developmental Scheme (ICDS); Integrated Programme for Street Children, Child-line service	**10 Hours**
Unit-5:	**Issues and concerns in education :** • Different forms of diversity and inequality, its implication for education – Religion, caste and tribe; sex, class and others • Education and economic development, education and scientific development, Role of education equality in social change. • Meaning and Concept of liberalization, globalization and privatization and its impact on education, national integration, vocationalization of education and skill development. • Laws, Policies and Programmes for Children within the framework of Human Rights	**12 Hours**

Text Books:	• Anand, C.L. *et al* (1983). *The teacher and education in emerging Indian society,* New Delhi : NCERT • Sharma, R.A. (2013) :*Philosophical and Sociological Foundation of Education*, Lal Book Depot, Meerut • Pandey, R. (2014-15) :*Teacher in Emerging Indian Society*, Alok Prakashan, Allahabad • Pathak, P.D. & Tyagi, G.S.D. (1994) :*Principle of Education*, Vinod Pustak Mandir, Agra • G.O.I. (1966) *Report of education commission : Education and national development,*New Delhi: Ministry of Educaiton • G.O.I. (1986) *National policy of education,* New Delhi: MHRD • G.O.I. (1992) *National policy of education,*(As modified in 1992) New Delhi: MHRD • G.O.I. (2009) *The right of children to free and compulsory education Act 2009* • G.O.I. (2011) *Sarva Shiksha Abhiyan : Framework for implementation based on the rightof children to free and compulsory education Act 2009* • Kumar, K. (2013). *Politics of education in colonial India,* Rout ledge • Naik, J.P. and Narullah, S. (1974). *A students' history of education in India* (1800-1973) Macmillan • NCERT (2005). *National curriculum framework for school education,* New Delhi :NCERT. • NCERT (2006). *Position paper–National focus group on gender issues in education,* New Delhi : NCERT Saxena, N.R.S. (2010). *Principles of education,*Meerut : International Publishing House	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED 302	ACADEMIC ENHANCEMENT COMPULSORY COURSE BELED – Semester - II **PHYSICAL, HEALTH AND YOGA EDUCATION**	L-2 T-0 P-4 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Remembering the concept of health, Physical fitness & Yoga Education.	
CO2.	Understanding school health programs, health problems and benefits of physical fitness.	
CO3.	Demonstrating and applying various yogic practices for health and stressmanagement.	
Course Content:		
Unit-1:	**Health** • Introduction, Definition and Meaning of health & health education • Dimensions of health & Determinants of health • Meaning & Importance of balanced diet School health programme and role of teacher in development of health	**10 Hours**
Unit-2:	**Physical Fitness** • Definition, Meaning and Types of physical fitness • Factors affecting physical fitness • Benefits of Physical Fitness • Importance of physical activities at school level Principles of physical fitness	**10 Hours**
Unit-3:	**Health Problems in India** • Communicable and Non Communicable Diseases • Obesity, Malnutrition, Explosive Population. • Personal and Environmental Hygiene for schools Objectives of school health services, Role of health education in schools	**8 Hours**
Unit-4:	**Yoga** • Introduction, Meaning and mis-concepts of Yoga • Introduction to Ashtang Yoga • Classification of Yoga Importance of Yogasanas, Pranayama and Shudhikriya	**10 Hours**
Unit-5:	**Meditation & Stress Management**	**12 Hours**

	• Meditation: Meaning, Nature & Relationship with mind. • Importance of Meditation at school level • Stress: Meaning, Nature, Types and Factors Role of Meditation in Stress Management	
Text Books:	• Dr. Ajmer Singh (2003).Essentials of physical Education. Ludhiana: Kalyani publishers. • Daryl Syedentop (1994). Introduction to physical education, fitness and sports (2nd ed.). London: Mayfield publishing company. • Dr. A.K.Uppal and Dr. G. P. Gautam (2004). Physical education and Health. Delhi: Friends publisher. • Dr. SopanKangane and Dr. Sanjeev Sonawane (2007). Physical Education (D. Ed.). Pune: Nirali publication. • Krishna Patel (2018-19). Physical Health and Yoga Education, Agarwal Publication, Agra. • Rajeev Jain Trilok (2016).SampoornYog Vidhya, Bhopal: Manjul Pub. • C.S Gore(2011). Yoga and Health, New Delhi: Sports Publication. • Wazir Singh (2013). Yoga and Health Promotions in Schools, New Delhi: Srishti Book Distributors. • I.N Singh.(2015). The Complete Book of Yoga & Health, New Delhi: The Reader Paradise. • Dr. Sanjay R. Agashe (2013). Introduction to Health Education, New Delhi: Khel Sahitya Kendra. • Dr. Anil Kumar Tripathi (2015). Fundamentals of Health Education, New Delhi: Khel Sahitya Kendra, Prof A.M Moorthy(2005). Management of Health Education(Part-II), Delhi: Friends publisher	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: TMUGE399	ACADEMIC ENHANCEMENT COMPULSORY COURSE BELED – Semester - III **English Communication – III**	L-3 T-0 P-2 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the importance of English language and communication in daily life.	
CO2.	Applying the concepts of communication, vocabulary & grammar in spoken English.	
CO3.	Developing written communication skills & applying appropriate formats of written communication	
Course Content:		
Unit-1:	**English Grammar & Vocabulary** Correction of Common Errors (with recap of English Grammar with its usage in practical context.) Synthesis : Simple , complex and compound sentence Commonly used Idioms & phrases (Progressive learning whole semester)	**14 Hours**
Unit-2:	**Speaking Skills** ·Art of public speaking ·Common coversation ·Extempore ·Power Point Presentation (PPt) Skills**:** Nuances of presenting PPTs	**10 Hours**
Unit-3:	**Comprehension Skills** ·Strategies of Reading comprehension: Four S's ·How to solve a Comprehension (Short unseen passage: 150-200 words)	**12 Hours**
Unit-4:	**Professional Writing** ·Preparing Notice,Agenda& Minutes of the Meeting	**7 Hours**
Unit-5:	**Value based text reading: Short story** ·The Barber's Trade Union – Mulk Raj Anand	**7 Hours**
Text Books:	1. Singh R.P., An Anthology of Short stories, O.U.P. New Delhi. For undergraduate	
Reference Books:	2. Allen, W. *"Living English Structure*" Pearson Education, New Delhi. 3. Joseph, Dr C.J. & Myall E.G. "*A Comprehensive Grammar of Current English*" Inter UniversityPress, Delhi *** Latest editions of all the suggested books are recommended.**	

Evaluation Scheme	**Internal Evaluation**			**External Evaluation**		**Total Marks**
	40 Marks			**60 Marks**		
	20 Marks (Best 2 out of Three CTs) ***(From Unit-***	10 Marks (Oral Assignments) ***(From Unit***	10 Marks (Attendance)	40 Marks (External Written Examination)	20 Marks (External Viva)* ***(From Unit - I & III)***	**100**

II, IV & V)	***I & III)***		***(From Unit II, IV & V)***		

*<u>Parameters of External Viva</u>

Content	**Body Language**	**Confidence**	**Question Responsiveness**	**TOTAL**
05 Marks	05 Marks	05 Marks	05 Marks	20 Marks

Note*:External Viva will be conducted by 2-member committee comprising*
a)*One Faculty teaching the class*
b)*One examiner nominated by University Examination cell.*
Each member will evaluate on a scale of 20 marks and the average of two would be the 20 marks obtained by the students.

Course Code: BELED 304	CORE COURSE BELED – Semester - III **CORE SCIENCE**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	To develop understanding of the subject matter of science	
CO2.	To educate the trainees to present the contents through resources and material available in the surroundings	
CO3.	To train them to present the content of science in interesting ways	
CO4.	To get the T.L.M./experiment prepared by the trainees related to the subject matter.	
Course Content:		
Unit-1:	**The Universe Solar system and exploring space** - Exploring space - Solar System, plants, asteroids, comets and meteors; Earth origin, evolution and structure stars, Constellations, milky way, galaxy, structure of universe and its theories. **Brief history of space explorations :-**Elementary ideas about space crafts Different types of artificial satellites and their orbits. Uses of artificial satellites in Communication, weather forecasting, remote sensing and space exploration	**10 Hours**
Unit-2:	**Source of Energy:-** Renewable and Non-renewable sources, Renewable sources : Solar energy (Solar Cooker, Solar water heater, Solar Cell); Wind energy, **Non renewable source :-**Fossil fuel (Coal, Petroleum and Natural gas). Conditions for Combustion choice of a good Fuel, Fuel efficiency, nuclear fusion and nuclear fission, chain reaction, Nuclear reactor	**10 Hours**
Unit-3:	**Metals and non-metals :-** Ores and minerals, metallurgy, Enrichment of ores, extraction of metal from ores, refinement and purification of metal with reference to Iron and aluminium, Activity series of metals, general properties and corrosion of metals, Alloys, Components, properties and uses of steel; stainless steel, Brass **Non-metals :-** Importance and general. Properties, method of preparation of hydrogen, properties and its uses. Manufacturing of ammonia (Only reactions). Its properties and uses	**10 Hours**
Unit-4:	**Life Processes :-**Nutrition, Modes of nutrition : Autotrophic, heterotruphic, Parasitic and saprophytis. **Nutrition of plants** : - Photosynthesis factors affecting the photosynthesis:	**10 Hours**

	Nutrition in animals : Ameba grasshopper, digestive system of human. **Respiration :-**Respiration and Breathing Respiration in Plants and animals type of respiration : Aerobic and anerobic respiration; Respiration through Skin, gills, trachea lungs. (Earthworm, Fishes, Grasshopper and Human). Knowledge of structure and function of respiratory system of human	
Unit-5:	**Reproduction, growth, Heredity and Evolution** **Reproduction and growth :-** Types of Reproduction **Asexual :**Fission budding, regeneration vegetative propagation in plants, cutting, grafting and layering, Pathenogenesis. Sexual reproduction and it significance Reproductive parts of plants, pollination and fertilization. Human reproductive system, Mental and physical change during human development	**10 Hours**
Text Books:	Open University Press: California. Chapter 6: Discussion in School Science: Learning Through Talking, Chapter 5: Writing for Learning Science. NCERT, (2006) *Position Paper on Science Education*, NCERT: New Delhi.	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED321	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III **OPTICS**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of ray and wave optics.	
CO2.	Applying different laws and concepts of understand optic instruments like grating, telescope etc.	
CO3.	Analyzing the applicationsof interference and diffraction andpolarization of light waves.	
Course Content:		
Unit-1:	**Geometrical Optics:** Fermat's Principle, General theory of Image formation: Cardinal points of an optical system, general relationship, thick lens, combination of two thin lenses, nodal slide and Newton's formula, Huygens and Ramsden's eyepieces.	**12 Hours**
Unit-2:	**Physical Optics I:** Interference of Light: The principle of super position, two slide interferences, coherence requirement of the sources, optical path retardation, lateral shift of fringes, Thin films, application for precision measurement for displacements. Interference in thin films, Newton's ring, its application in determination of wave length, refractive index of liquid.	**10 Hours**
Unit-3:	**Physical Optics-II Interference.** Michelson interferometer: Its application for a precision determination of wave length, wave length deference refractive index of thin transparent film and width of spectral lines. Intensity distribution in multiple bean interference, Fabry - Perot interferometer &elaton.Rayleigh refractometer and other applications.	**8 Hours**
Unit-4:	**Physical Optics-III Diffraction**. Diffraction of Light: Fresnel diffraction, intensity due to cylindrical wavefront by Fresnel half period method, zone plate, Diffraction at straight edge.Fraunhofer Diffraction: Diffraction at a slit, Diffraction at N-parallel slits, its intensity distribution, plane diffraction grating, Resolution of images, Rayleigh criterion, resolving power of grating, telescope.	**12 Hours**
Unit-5:	**Physical Optics-IV Polarization**. Double refraction and Optical Rotation: Refraction in uniaxial crystal, its electromagnetic theory, Phase retardation, Quarter waveplate and half waveplate, Rotation of plane of polarization. Fresnel explanation of rotation.	**8 Hours**
Text Books:	Optics by AjoyGhatak, Tata Mc Graw Hill.	
Reference Books:	Engineering Physics by V S Yadav, Tata Mc Graw Hill. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED322	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III PHYSICAL CHEMISTRY	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts and theories of chemical kinetics and surface chemistry.	
CO2.	Explaining the effect of temperature on catalyst.	
CO3.	Analyzing the defects of crystals and mechanism of rate of reaction.	
Course Content:		
Unit-1:	**Chemical Kinetics** • Definition of order and molecularity. Derivation of rate const. for zero first order reactions and example. • Effect of tem. Concentration, catalyst & Pressure on rate of reaction • Arhenius equation. • Pseudo order reaction • Simple Collision Theory & Transition State Theory For Reaction Rate.	**10 Hours**
Unit-2:	**Surface Chemistry** • Definition of colloids • Preparation purification & props. Of colloidal Solution (Solutions) • Hardy – Schulze law • Preparation. Properties& uses of emulsion • Preparation. Properties& uses of gel • Protective colloids	**12 Hours**
Unit-3:	**Solid State: -** • Unit cell, Lattice point (Def) • Defects in crystals- Stoichiometric and Nonstoichiometric defects • Bravis --- lattices & crystal system • Properties of solids • Types of solids	**10 Hours**
Unit-4:	**Liquid State:-** • Structural differences. between solids liquid & Gases • Properties of liquid – Surface tension Viscosity Vapourpressure • Liquid crystal & its classification in somatic &nematic type • Application of liquid crystal.	**10 Hours**
Unit-5:	**GaseousState:-** • Intermolecular attractive forces • Deviation of real gases from ideal behavior • The vanderwal's equation. • Maxwell's distribution of velocity & energies • Critical Phenomenon-Temperature, Pressure and Volume. • Andrew's isotherm of CO_2 • Calculation of root mean square vel.' Average. velocity, most probable vel. • Collision Diameter, Collision Number, Collision Frequency.	**08 Hours**

Text Books:	1. Prutton and Marron , teachings of teaching (classroom teaching). APH publishing, New Delhi.	
Reference Books:	1. Prutton and Marron , teachings of teaching (classroom teaching). APH publishing, New Delhi. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED323	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III **REAL ANALYSIS**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the basic of real analysis.	
CO2.	Applying various theorems such as Darboux's theorem and fundamental theorem of real analysis.	
CO3.	Analyzing convergence Weirstrass test and M-test.	
Course Content:		
Unit-1:	Limits, left and right hand limit, Theorems on limit, Concept of Continuity and discontinuity, Types of continuity and discontinuity, properties of continuous function, A necessary and sufficient conditions of discontinuity, Darboux's theorem, Mean Value theorems, differentiability.	**10 Hours**
Unit-2:	Sequence of real numbers convergent and non-convergent, Sequence algebra of sequences, Theorem on limit on limit of sequence, Monotone Sequence, Real sequence, Bounded sequence, convergent sequence,least upper bound and greatest lower bound, limit of a sequence, theorem on convergent sequence, Subsequence.	**12 Hours**
Unit-3:	Infinite Series and its convergences, Test for convergences of positive term series, comparison test, Ratio test, Cauchy's Root test, Raab's test, Logarithmic test, Integral test.	**10 Hours**
Unit-4:	Definition existence and properties of Riemann integral of a bounded function, Darboux theorem, Condition of integrability, Integral as limit of sum, Fundamental Theorem of Calculus.	**8 Hours**
Unit-5:	Definition of uniform convergence, Cauchy's criterion for uniform convergence Weirstress test, M-test, Uniform convergence and continuity, Definition of improper integral and convergence of improper integral.	**10 Hours**
Text Books:	1. "A course of Mathematical Analysis" by Shanti Narayan, S.Chand.& Co. 2. "Mathematical Analysis" by S. C. Malik, Willy. Eastern Co. 3. "Real Analysis" by M. L. Khanna and L. S. Varshney, Jay Prakash Nath & Co.	
Reference Books:	1. "Real Analysis" by P. K. Mittal, S.J.Prakashan. 2. "Real Analysis" by P. K. Gupta and Sharada Gupta, S. Chand &Co *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED324	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III **PLANT TAXONOMY AND EMBRYOLOGY**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concept,aim, scope and classification of plant taxonomy.	
CO2.	Appling the microsporogenesis, megasporogenesis, pollination, fertilization and endosperm development process in plants	
CO3.	Identifying the plants on the basis oftheir habitat, leaf, flower and fruit structures.	
Course Content:		
Unit-1:	**Introduction To Plant Taxonomy** • Fundamental components of taxonomy (identification, nomenclature, classification) • Taxonomic resources: Herbarium- functions& important herbaria, Botanical gardens, Flora, • Botanical Nomenclature- Principles and rules of ICBN (ranks and names; principle of priority, binomial system; type method, author citation, valid-publication)	**12 Hours**
Unit-2:	**Classification** • Types of classification- Artificial, Natural and Phylogenetic. • Bentham & Hooker's system of classification- merits and demerits. • Engler &Prantle's system of classification- merits and demerits	**12 Hours**
Unit-3:	Systematic study and economic importance of the following families: Annonaceae, Brassicaceae, Rutaceae, Curcurbitaceae, and Apiaceae	**8 Hours**
Unit-4:	Systematic study and economic importance of plants belonging to the following families: Asteraceae, Asclepiadaceae, Lamiaceae, Ephorbiaceae,Arecaceae, and Poaceae.	**8 Hours**
Unit-5:	**Embryology** • Anther structure, microsporogenesis and development of male gametophyte. • Ovule structure and types; Megasporogenesis, development of Monosporic, Bisporic and Tetrasporic types (*Peperomia ,Drusa, Adoxa*) of embryo sacs. • Pollination and Fertilization (out lines) Endosperm development and types. • Development of Dicot and Monocot embryos, Polyembryony.	**10 Hours**
Text Books:	1. Porter, C.L. ( ): Taxonomy of flowering Plants, Eurasia Publishing House, New Delhi. 2. Lawrence, G.H.M. (1953): Taxonomy of Vascular Plants, Oxford & IBH Publishers, New Delhi.	
Reference Books:	1. Bhojwani, S.S.& Bhatnagar, S.P. (2000) : The Embryology of Angiosperms (4th Edition) Vikas Publishing House(P)Ltd., UBS Publisher's Distributors, New Delhi. 2. Maheswari,P(1963) :Recent Advances in the Embryology of Angiosperms(Ed.,) International Society of Plant Morphologists- University of Delhi.	

Course Code: BELED325	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III CHORDATA	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the taxonomy of chordate and their classes	
CO2.	Appling the physiology, structure and life history ofchordata animals like fishes, amphibians, aves, reptiles and mammals.	
CO3.	Analyzing the difference between of Poisonous and non- poisonous snakes.	
Course Content:		
Unit-1:	1- **Urochordat**: Classification and detailed study (Habit, Morphology, anatomy, Physiology,) of Herdmaina 2- **Cephalochordata**: Classification and detailed study of Branchiostoma (Amphioxus)	**10 Hours**
Unit-2:	1. **Pisces**: General characters and classification of Pisces (up to orders with examples) Parental care in fishes. 2. **Amphibia:** General characters and classification of amphibia (up to orders with examples) Parental care in amphibia.	**12 Hours**
Unit-3:	**Reptilia**: General characters and classification of Reptilia (up to orders with examples) Identification of Poisonous and non- poisonous snakes. Biting mechanism of poisonous snakes	**10 Hours**
Unit-4:	**Aves**: General characters and classification of Aves (up to orders with examples) Characters of Archaeopteryx, Flight adaptation in Birds.	**10 Hours**
Unit-5:	**Mammalis**: General characters and classification of Mammalia up to orders. Dentition in Mammals.	**08 Hours**
Text Books:	1- Young, J. Z, The life of Vertebrates III^{ed} edition oxford University press. London. 2- Vertebrate Zoology: E.L. Jordan and P.S. Verma.	
Reference Books:	1- A text book of Zoology vertebrate: R.L. Kotpal Rastogi publication 2- vertebrate Zoology, Publisher: S. Chand	

Course Code: BELED351	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III OPTICS LAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Applying elementary ideas of interference and diffraction to determine the wavelength by Newton's rings, Fresnel's biprism and polarimeter.	
CO2.	Analyzing the applications and working of Laser, telescope, photocell and Interferometer.	

Course Content:

LIST OF EXPERIMENT

Note: Select any ten experiments from the following list

1. To determine the wavelength of Sodium light by Newton's rings.
2. To determine the wavelength of Sodium light by Fresnel's biprism.
3. To determine the specific rotation of the cane sugar solution with the help of Polarimeter.
4. To determine the resolving power and dispersive power by a prism.
5. To determine the resolving power of grating.
6. To study the elliptically polarised light.
7. To determine slit width using He-Ne laser.
8. To determine the Flashing & Quenching of Neon bulb.
9. To determine the Resolving power of a telescope
10. To determine the wavelength of the sodium lamp by Michelson interferometer.
11. To study characteristics of Photo-cell.
12. Familiar with Schuster's focusing, determination of angle of Prism.

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Latest editions of all the suggested books are recommended.

Course Code: BELED352	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III **ORGANIC CHEMISTRY LAB**	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Analyze the chemical behavior of unknown substance.	
CO2.	Determine the physical and chemical properties of different unknown organic compound by functional group analysis.	

Course Content:

LIST OF EXPERIMENTS

1. Estimation of Fe (II) and oxalic acid solutions using standardized $KMnO_4$ solution.
2. Estimation of Fe (II) solutions with $K_2Cr_2O_7$ using external indicator.
3. Determination of the melting points of organic compounds and unknown organic compounds (electrically heated melting point apparatus).
4. Effect of impurities on the melting point – mixed melting point of two unknown organic compounds.
5. Determination of boiling point of liquid compounds. (Boiling point lower than and more than 100° C).

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Reference text:

1. Vogel, A.I. *A Textbook of Quantitative Inorganic Analysis*, ELBS

*** Latest editions of all the suggested books are recommended.**

Course Code: BELED353	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III SKILL MATHEMATICS: INTEGRAL CALCULUS	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of integral calculus, definite and multiple integration and reduction formula.	
CO2.	Applying the beta and gamma function and its application.	
CO3.	Analyzing first order differential equation and miscellaneous differential equation.	
Course Content:		
UNIT-I	Definite integration (Miscellaneous Examples), integration as the limit of sum, Reduction Formula.	
Unit II	Multiple integration, Beta and gamma functions and applications, length of curves, Areas bounded by the curves.	
Unit III	Drichlet's integral, Volume and surfaces of revolutions.	
Unit IV	Differential equation of first order and first degree, Differential equation of first order but not of first degree. Miscellaneous differential equations.	
Unit V	Linear differential equation of second order with constant coefficient, Linear differential equation of other types.	
Text Books:	1. "Integral Calculus" by Gorakh Prasad, Pothishala Pvt. Ltd. 2. "Integral Calculus" by M. Ray, Shiv Lal Agarwal & Co Agra.	
Reference Books:	1. "Integral Calculus" by Shanti Narayan and P.K Mittal, S.Chand& Company Ltd 2. "Integral Calculus by" Shani Narayan, S.Chand& Company Ltd.	
Evaluation Scheme of Practical Examination :	Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.	

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTA
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERN
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MAR

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS

*** Latest editions of all the suggested books are recommended.**

Course Code: BELED354	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III **PLANT TAXONOMY AND EMBRYOLOGYLAB**	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Demonstrate the general characters, floral formula, floral diagram and economic importance of different families of flowering plant.	
CO2.	Analyzing the Bentham& Hooker's system of classification in systematic study of local flora.	
CO3.	Developing the structure of anther, plant embryo.	

Course Content:

LIST OF EXPERIMENTS

1. Systematic study of locally available plants belonging to the families prescribed in theory syllabus.
2. Demonstration of herbarium techniques.
3. Structure of pollen grains using whole mounts (*Catharanthus, Hibiscus, Acacia*, Grass).
4. Demonstration of Pollen viability test using *in- vitro* germination (*Catharanthus*).
5. Study of ovule types and developmental stages of embryo sac using permanent slides /Photographs.
6. Structure of endosperm (nuclear and cellular); Developmental stages of dicot and monocotEmbryos using permanent slides /Photographs
7. Isolation and mounting of embryo (using *Symopsis / Senna* / *Crotalaria*)
8. Field visits. Study of local flora and submission of Field Note Book.

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

* **Latest editions of all the suggested books are recommended.**

Course Code: BELED355	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III CHORDATALAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Explaining the characteristic, classification andeconomic importance of chordata	
CO2.	Demonstrating the structure of Balanoglossus sections through probossiss,collar,branchiogenital and hepatic region.	
CO3.	Analysing placoid , cycloid and ctenoid scales via Temporary unstained preparation.	

Course Content:

LIST OF EXPERIMENTS

Study of Specimens

Urochordata– Herdmania,salpa, doliolum

Cephalochordata– Amphioxus

Cyclostomata –petromyzon,myxine

Pisces –Pristis, torpedo, notopterus, exocoetus, clarius, ophiocephalus,catla, rohu,mrigal

Amphibia– Ichthyophis,bufo, salamander, uraeotyphlus, necturus, hyla, rhacophorus

Study of permanent slide

Balanoglossus sections through probossiss,collar,branchiogenital and hepatic region

Amphioxus – oral hood, whole mount section through pharyngea, intestinal & caudal region,

Temporary unstained preparation of placoid, cycloid and ctenoid scales

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Latest editions of all the suggested books are recommended.

Definite integration (Miscellaneous Examples), integration as the limit of sum, Reduction Formula.

Course Code: BELED326	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III आधुनिक हिन्दी काव्य	L-3 T-0 P-0 C-3
पाठ्यक्रम प्रतिफल	विद्यार्थी पाठ्यक्रम के अंत में	
CO1.	विद्यार्थी हिंदी साहित्य के छायावादी काल के विभिन्न कवियों की कविताओं तथा हिंदी भाषा को विस्तृत रूप से समझ सकेंगे।	
CO2.	विद्यार्थी विभिन्न कवियों की कविताओं के संदेश से अपनी चिंतन शक्ति का विकास कर सकेंगे।	
CO3.	विद्यार्थी छायावादी काल के विभिन्न कवियों की कविताओं की भाषा शैली तथा साहित्यिक प्रवृत्तियों का विश्लेषण कर सकेंगे।	
CO4.	विद्यार्थी छायावादी काल की कविताओं का आधुनिक काल के संदर्भ में मूल्यांकन कर सकेंगे।	
CO5.	विद्यार्थी विभिन्न कवियों की कविताओं के माध्यम से अपनी भाषायी कुशलता तथा जिज्ञासा की भावना को विकसित कर सकेंगे।	
Course Content:		
Unit-1:	मैथिलीशरण गुप्त – साकेत का अष्टम सर्ग जयशंकर प्रसाद– बीती विभावरी जाग री, आंसू के प्रारम्भिक पांच छन्द अरूण यह मधुमय देश हमारा, पेशोला की प्रतिध्वनि। सूर्यकान्त त्रिपाठी निराला – सरोज स्मृति, भिक्षुक	**10 Hours**
Unit-2:	सुमित्रानन्दन पन्त – नौका विहार, बादल, अल्मोड़े का बसन्त, द्रुत झरो जगत के जीर्ण पत्र, मौन निमंत्रण।	**10 Hours**
Unit-3:	महादेवी वर्मा – मैं नीर भरी दुख की बदली, पंथ रहने दो अपरिचित, विरह का जल जात जीवन, यह मंदिर का दीप, चिर सजग आंखें उनींदी।	**10 Hours**
Unit-4:	रामधारी सिंह दिनकर – आलोक धन्वा, परम्परा, पाप, राजर्षि अभिनन्दन, विपथगा।	**10 Hours**
Unit-5:	द्रुतपाठ – श्रीधर पाठक, माखनलाल चतुर्वेदी, बालकृष्ण शर्मा 'नवीन' सुभद्रा कुमारी चौहान।	**10 Hours**
Text Books:	1. आधुनिक कवियों की काव्य साधना–राजेन्द्र सिंह और गौड़–श्रीराम मेहरा एण्ड संस, आगरा। 2. हिन्दी के आधुनिक प्रतिनिधि कवि–द्वारिका प्रसाद सक्सेना–विनोद पुस्तक मंदिर, आगरा। 3. आधुनिक हिन्दी काव्य के नवरत्न–रमेश चन्द्र शर्मा–सरस्वती प्रकाशन, कानपुर 4. प्रसाद का काव्य–प्रेम शंकर 5. प्रसाद की कला–गुलाबराय 6. प्रसाद–रामरतन भटनागर 7. प्रसाद–नन्ददुलारे बाजपेयी	
Reference Books:	*** Latest edition of all the suggested books are recommended.**	

Course Code: BELED327	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III DRAMA	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts and elements of drama, and the life and plays of English playwrights	
CO2.	Applying conceptual knowledge of the different types of drama for the better understanding of the English plays	
CO3.	Analyzing the life and works of different playwrights like Shakespeare, Congreve and Shaw	
CO4.	Evaluating the relevance and utility of dramatic compositions, their enactments and writer's views and thoughts in the context of present social scenario	
CO5.	Creating new kinds of plays, developing their skills of acting and exploring new dimensions of critical observations of social ways and manners	
Course Content:		
Unit-1:	**History of Drama** Theory of Drama: Characteristics of Drama, Structure of Drama, Elements of Drama Forms of Drama: Tragedy & various types, Comedy & various types, Tragi –Comedy, Drama of Ideas, Poetic Drama, Theatre of Absurd etc.	**10 Hours**
Unit-2:	William Shakespeare : *Othello*	**10 Hours**
Unit-3:	William Congreve : *The Way of the World*	**10 Hours**
Unit-4:	G.B. Shaw : *Candida*	**10 Hours**
Unit-5:	Harold Pinter : *The Birthday Party*	**10 Hours**
Text Books:	1. *The Theory and Analysis of Drama* by Manfred Pfister, Cambridge University Press, 1993. 2. *A History of English Drama* by Allardyce Nicoll. 3. *History of English Literature* by Edward Albert, Oxford University Press, New Delhi. 4. *A Background to the Study of English Literature* by B. Prasad. 5. *Shakespearean Tragedy* by A.C. Bradley, Macmillan. 6. *Routledge History of Literature in English: Britainand Ireland* by Ronald Carter. 7. *Shakespeare's Othello* by S. Sen, Unique Book Publishers. 8. *Harold Pinter's The Birthday Party*, Rama Brothers. 9. *G.B. Shaw's Candida*, Rama Brothers. 10. *Essay of Dramatic Poesy* by John Dryden. 11. *Poetics* by Aristotle.	

	12. *A Glossary of Literary Terms* by M. H. Abrams, Cengage Learning.	
Reference Books:	*** Latest edition of all the suggested books are recommended.**	

Course Code: BELED328	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III **POLITICAL HISTORY OF MODERN INDIA 1740 - 1964 A.D.**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding different events and National movements of Modern Indian history during British imperialism and Freedom struggle and transfer of power	
CO2.	Analyzing the governance and policies of British rulers and impact of various National movements for independence	
CO3.	Explaining the impact and significance of British governance and the relevance of revolutionary movements for the emergence of New India	
Course Content:		
Unit-1:	**Foreigners up to Dalhousie** Advent of Europeans in India; Policies and Programme of Expansion, Instruments of Expansion (Diplomacy & Wars) Governor General of Bengal - Warren Hasting to Cornwallis Anglo - Mysore Relations & Carnatic War; Anglo - Maratha Struggle William Bentinck and his Policies; Army and Police Administration; Dalhousie and his policies	**10 Hours**
Unit-2:	**Ideology** Ideology of Raj and Racial Attitudes First war of Independence of 1857 - Causes, Nature, Ideology,Programme, Leadership, People's Participation British Repression and Response, Failure & impactof the First war of Independence of 1857	**10 Hours**
Unit-3:	**Governance** British Relations with Princely States; Policies of Lord Canning, Lytton, Ripon & Curzon; The Acts - 1858, 1892, 1919 & 1935 Emergence of Organized Nationalism - Formation of Indian National Congress and its Programme; Trends till 1919 - Partition of Bengal, Swadeshi Movement	**10 Hours**
Unit-4:	**Revolution verses Politics** Gandhian Movement - Nature, Programme, Social Composition; The Revolutionary Movements; Pre-Partition Politics - Simon Commission, August Offer, Cripps Mission, Cabinet Plan; Communal Politics and Partition of India -Mountbatten Plan, C. Rajgopalacharya Plan	**10 Hours**

Unit-5:	**Emergence of New India** Transfer of Power; Vision of New India - Planned Economy, Working of J.L. Nehru as Prime Minister; Development of Science and Technology in Modern India	**10 Hours**
Text Books:	1. Advanced History of Modern India - Vol. I - III, G.S. Chabra. 2. Modern India - Sumit Sarkar 3. Freedom Struggle - Bipan Chandra 4. Modern India - S.B. Chaudhary	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED329	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III INDIAN POLITICAL THOUGHTS	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the sources and development of the Indian political thoughts from ancient India to modern India	
CO2.	Explaining the features of Indian Renaissance, religious nationalism, democratic egalitarianism	
CO3.	Analysing the political thoughts of different Indian political thinkers.	
Course Content:		
Unit-1:	**Traditions of Ancient Indian Political Thought** Sources & Features of Ancient Indian Political Thought Manu: Social Laws Kautilya: Theory of the state	**10 Hours**
Unit-2:	**Renaissance Thought** Rammohan Ray: Religious & Social reforn Pandita Ramabai: Gender	**10 Hours**
Unit-3:	**Early Nationalism** Dadabai Naoroji: Drain Theory & Poverty Ranade M G: The role of the State & Religious Reform	**10 Hours**
Unit-4:	**Religious Nationalism** Savarker V D: Hindutva or Hindu Culture Nationalism Mohammad Iqbal: Islamic Communitarian Nationalism	**10 Hours**
Unit-5:	**Democratic Egalitarianism:** Gandhi-Swaraj and Satyagraha Jawaharlal Nehru- Democratic Socialism Dr. Ambedkar B R – Annihilation of caste system M.N. Roy: Radical Humanism	**10 Hours**
Text Books:	1. B.R. Purohit, Development of Political thought, Rajasthan Hindi Granth Academy, Jaipur-2000 2. Purshottam Nagar, Indian Modern Social and Political Thought, Rajasthan Hindi Granth Academy, Jaipur-2000 3. V.R. Mehta, Foundations of Indian Political Thought, Manohar Publishers and Distributors, New Delhi-1999. 4. पुखराज जैन–भारतीय राजनीतिक विचारक, साहित्य भवन पब्लिकेशन, आगरा 5. मधुकर श्याम चतुर्वेदी–भारतीय राजनीतिक विचारक, कॉलेज बुक हाउस जयपुर	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED330	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - III **MACRO ECONOMICS**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the fundamentals of Macroeconomics including Theory of employment, Trade cycles, monetary policies and theories of Distribution	
CO2.	Analyzing the differences and similarities between different economic systems such as capitalism, socialism and mixed economy and the relationship between Microeconomics and Macroeconomics	
CO3.	Explaining the relevance and utility of theories of Employment, Macroeconomic theory of distribution and Monetary policies.	
Course Content:		
Unit-1:	**Introduction**: Meaning and Limitations of Macro Economics, Integration with Micro Economics, Macro Statics and Macro Dynamics, National Income- Concept, Component and Measurement of National Income, Social Accounting Technique	**10 Hours**
Unit-2:	**Theory of Employment:** Say's Law of Market & Classical Theory of Employment, Keynes Objection of the Classical Theory, Aggregate Demand and Aggregate supply functions, Keyne's Theory of Employment, Effective Demand, Consumption Function, Average and Marginal Propensity to consume the investment multiplier and accelerator. Equilibrium between saving and investment	**10 Hours**
Unit-3:	**Trade Cycles:** Nature and Characteristics, Monetary and Non Monetary Theories of Trade cycle, Interaction of Multiplier and Accelerator.Samuelson and Hicksian Approach	**10 Hours**
Unit-4:	**Monetary Policies:** Objectives and instruments of Monetary Policy; Monetary Policy in developing economy; Objectives and instruments of Fiscal Policy; Fiscal Policy in developing and developed economy; Interaction of Monetary Policy and Fiscal Policy	**10 Hours**
Unit-5:	**Macroeconomic Theories of Distribution:** Classical and New Classical theories of Distribution; Economic Systems- capitalism, Socialism and mixed economy	**10 Hours**
Text Books:	1. Ackley, G. (1976) – "Macroeconomics: Theory and Policy" 2. Gupta, S.B.(1994)- "Monetary Economics" 3. Keynes, J.M.(1936)- "The General Theory Of Employment, Interest and Money" 4. Powelson, J.P.C.(1960)-"National Income and Flow Of Funds Analysis".	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

<table>
<tr><td>Course Code:
BELED356</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester - III
HINDI (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>पाठ्यक्रम प्रतिफल</td><td>विद्यार्थी पाठ्यक्रम के अंत में</td><td></td></tr>
<tr><td>CO1.</td><td>विद्यार्थी विभिन्न कवियों की कविताओं के संदेश को मंच पर प्रदर्शित कर सकेंगे</td><td></td></tr>
<tr><td>CO2.</td><td>विद्यार्थी छायावादी काल के विभिन्न कवियों की कविताओं की भाषा शैली तथा साहित्यिक प्रवृत्तियों का पी.पी.टी. के माध्यम से विश्लेषण कर सकेंगे</td><td></td></tr>
<tr><td>CO3.</td><td>विद्यार्थीछायावादीकाव्यकीकविताओंकाआधुनिककालकेसंदर्भमेंमूल्यांकनकरसकेंगे</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000
<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
<tr><td>Practical Content:</td><td><table><tr><td>Internal</td><td>External</td><td>Total</td></tr><tr><td>50</td><td>50</td><td>100</td></tr></table>
<table><tr><td></td><td>Internal</td><td>External</td></tr><tr><td>Performance</td><td>10</td><td>20</td></tr><tr><td>File work</td><td>20</td><td>20</td></tr><tr><td>Viva</td><td>10</td><td>10</td></tr><tr><td>Attendance</td><td>10</td><td>-</td></tr><tr><td>Total</td><td>50</td><td>50</td></tr></table></td><td></td></tr>
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<table>
<tr><td>Course Code:
BELED357</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester - III
ENGLISH (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying conceptual knowledge of the different types of drama while performing on the stage.</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the techniques and style of different playwrights like Shakespeare, Congreve and Shaw through enactment.</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the relevance and utility of theatrical performances in the present social scenario.</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000
<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
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<table>
<tr><td>Course Code:
BELED358</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester - III
HISTORY (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Understanding different events and National movements of Modern Indian history during British imperialism and Freedom struggle and transfer of power</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the governance and policies of British rulers and impact of various National movements for independence</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the impact of British governance and the relevance of revolutionary movements for the emergence of New India</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
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<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
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<table>
<tr><td>Course Code:
BELED359</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester - III
POLITICAL SCIENCE (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying the political theories of Indian political thinkers in the context of contemporary political scenario for better understanding</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the political thoughts of different Indian political thinkers with relation to one another</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the role and relevance of Indian political thinkers in the light of present socio-political condition of India</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000
<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
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<table>
<tr><td>Course Code:
BELED360</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester - III
ECONOMICS (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying different tools & techniques of Macroeconomics to understand the relationship between demand and supply and the functioning of Trade cycles and monetary policies</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the differences and similarities between different economic systems such as capitalism, socialism and mixed economy.</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the utility of theories of Employment, Macroeconomic theory of distribution and Monetary policies.</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000

<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
<tr><td>Practical Content:</td><td><table><tr><td>Internal</td><td>External</td><td>Total</td></tr><tr><td>50</td><td>50</td><td>100</td></tr></table>
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</table>

Course Code: BELED361	ACADEMIC ENRICHMENT ACTIVITIES - III MEDITATION, SPORTS, HEALTH EDUCATION AND OTHER ACTIVITIES	L-0 T-0 P-6 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Remembering the concept of health, Physical fitness & Yoga Education.	
CO2.	Understanding school health programs, health problems and benefits of physical fitness.	
CO3.	Demonstrating and applying various yogic practices for health and stressmanagement.	
	Physical Education and Health **Content:** **Health Education** Meaning of health education, scope and aim, factors that effect health, problems of child, role of health centers, diagnosis of children's health and its follow up , contagious diseases and vaccination, awareness programmes for prevention against fatal diseases as Polio and Aids,. Personal cleanliness and regular inspection by teachers.Institutional cleanliness. •First Aid and importance of first aid in various accidents. Red Cross - Introduction and importance of Red Cross. **Physical Education** Games, Exercise and Yoga. Activities to warm up the body as running here and there. Exercise of hand- leg and body. For efficiency of exercise long jump, high jump, gymnastics, marching, ball and rope jump related activities. Various races - race 10 mt, 200mt, 400 mt, 600 mt, relay race, hurdle race. Meditation and various Yoga postures - Pranayam as Bhastika, Kapal Bharti, Anulom - Vilom, Bhramri and udgith and their advantages exercises through lazium and dumbles. Various throws - Hammer throw, discuss throw **Games**	

Kabbadi, Kho-Kho, Football, hockey, Volleyball, Badminton.

Guava race, touch and run, one legged race, cat and rat race, catching the shadow,

gend tadi.

Yoga

Introduction to Ashtang Yoga

Importance of Yogasanas, Pranayama and Shudhikriya

Meditation & Stress

- Importance of Meditation at school level
- Stress: Meaning, Nature, Types and Factors

Role of Meditation in Stress Management.

Evaluation

The assessment will be done in two components: Internal 50% and External 50%

- The External assessment shall be done by the external examiner appointed by the controller of examination of university.

The Internal assessment shall be done by the Faculty Concerned or internal examiner appointed by the principal.

File work-

Topic to be given by the concern teacher
Project File Report Maximum Word 2000

Topic	Introduction	Discussion	Conclusion

Practical Content:

Internal	External	Total
50	50	100

	Internal	External
Performance	10	20
File work	20	20
Viva	10	10
Attendance	10	-
Total	50	50

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
SECOND YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - IV									
Sr.No.	**Course Code**	**Course/Paper**	**Period**			**Credit**	**Evolution Scheme**		
			L	**T**	**P**		**Internal**	**External**	**Total**
Theory courses									
1	BELED401	**INFORMATION AND COMMUNICATION TECHNOLOGY**	**4**			**4**	**40**	**60**	**100**
2	BELED402	**HUMAN VALUES AND ETHICS**	**4**			**4**	**40**	**60**	**100**
3	BELED499	**ENGLISH COMMUNICATION & SOFT SKILLS - IV**	**3**		**2**	**4**	**50**	**50**	**100**
4	BELED404	**CORE SANSKRIT**	**4**			**4**	**40**	**60**	**100**
Liberal Course (Select Any One Science Group)									
	BELED421 Physics	**OSCILLATIONS & WAVE**	**3**			**3**	**40**	**60**	**100**
Group A	BELED451 Physics	**OSCILLATIONS & WAVE (LAB)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED422 Chemistry	**ORGANIC & INORGANIC CHEMISTRY**	**3**			**3**	**40**	**60**	**100**
Group B	BELED452 Chemistry	**ORGANIC & INORGANIC CHEMISTRY (LAB)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED423 Mathematics	**COMPLEX ANALYSIS**	**3**			**3**	**40**	**60**	**100**
Group C	BELED453 Mathematics	**SKILL MATHEMATICS (ORDINARY DIFFERENTIAL EQUATIONS)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED424 Botany	**PLANT PHYSIOLOGY AND METABOLISM**	**3**			**3**	**40**	**60**	**100**
Group D	BELED454 Botany	**PLANT PHYSIOLOGY AND METABOLISM (LAB)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED425 Zoology	**EVOLUTION AND DEVELOPMENTAL BIOLOGY**	**3**			**3**	**40**	**60**	**100**
Group E	BELED455 Zoology	**EVOLUTION AND DEVELOPMENTAL BIOLOGY (LAB)**	**0**		**4**	**2**	**50**	**50**	**100**
Liberal Course (Select Any One Arts Group)									
	BELED426 Hindi Litt.	**HINDI KATHA SAHITYA**	**3**			**3**	**40**	**60**	**100**
Group A	**BELED456 Hindi Litt.**	**HINDI (PROJECT & VIVA VOCE)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED427 English Litt.	**FICTION**	**3**			**3**	**40**	**60**	**100**
Group B	**BELED457 English Litt.**	**ENGLISH (PROJECT & VIVA VOCE)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED428 History	**POLITICAL HISTORY OF ANCIENT INDIA (B.C.600 To 606 A.D.)**	**3**			**3**	**40**	**60**	**100**
Group C	**BELED458 History**	**HISTORY (PROJECT & VIVA VOCE)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED429 Political Sci.	**WESTERN POLITICAL THOUGHT**	**3**			**3**	**40**	**60**	**100**
Group D	**BELED459 Political Sci.**	**POLITICAL SCIENCE (PROJECT & VIVA VOCE)**	**0**		**4**	**2**	**50**	**50**	**100**
	BELED430 Economics	**NATIONAL INCOME ANALYSIS AND MOENY & BANKING**	**3**			**3**	**40**	**60**	**100**
Group E	**BELED460 Economics**	**ECONOMICS (PROJECT & VIVA VOCE)**	**0**		**4**	**2**	**50**	**50**	**100**
Practicum									
	BELED461	**ACADEMIC ENRICHMENT ACTIVITIES – IV (ICT IN OFFICE AND SCHOOL MANAGEMENT)**			**6**	**3**	**50**	**50**	**100**
	Total		**18**		**12**	**24**	**310**	**390**	**700**

Course Code: BELED 401	CORE COURSE BELED – Semester - II UNDERSTANDING DISCIPLINES AND SUBJECTS	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understanding the nature and role of disciplinary knowledge in the school curriculum and its paradigm shifts	
CO2.	Identifying the history of teaching of different disciplinary areas like Language, Math,Social Science and Science	
CO3.	Analyzing the role of school subjects as a tool for social reconstruction and national development	
CO4.	Interpreting the differences among curriculum, syllabus and text books and determining the criteria for selection of good text books and magazines	
CO5.	Evaluating the advancementand changes in different disciplinary areas	
Course Content:		
Unit-1:	**Disciplinary Knowledge :** • Meaning, definition and nature of discipline. Role of disciplinary knowledge in overall scheme of school curriculum. • History of the teaching of different disciplinary areas like Language, Math, Social Science and Science. Paradigm shift in the nature of discipline	**10 Hours**
Unit-2:	**Syllabus and Content in Disciplinary Areas :** • Meaning, definition and nature of Syllabus in different disciplinary areas. • Selection criteria of contents in the syllabus, Sequencing and transformation of the contents in the syllabus for construction of learners own knowledge through it. Criteria of inclusion and exclusion of subject area from the school curriculum	**10 Hours**
Unit-3:	**Notion of the Disciplinary Doctrine**: • Discipline oriented vs. learner oriented school subject, School subject as the tool of social reconstruction and national development	**8 Hours**
Unit-4:	**Advancement of Knowledge and Sea Changes in Disciplinary Areas :** In respect of Social Science, Science, Math and Language	**10 Hours**

Unit-5:	**Designing of Discipline and Subject :** • Differentiate among curriculum, syllabus and text book, • Designing of curriculum, syllabus and text book, • Criteria of selection of good text books, magazine and journals, Importance of practical, community and intuitive of tacit knowledge in the design of school subject	**12 Hours**
Text Books:	• Naik, J.P., & Nurullah, S. A students‟ history of education in India • Macmillan NCERT.National curriculum framework. NCERT. • Apple, M.W. Can schooling contribute to a more just society? Education, Citizenship and Social Justice, 3(3), 239–261. • Apple, M.W., Au, W., & Gandin, L.A. (The Routledge international handbook of critical education. Taylor & Francis. • Apple, M.W., & Beane, J.A. Democratic schools: Lessons in powerful education. Eklavya. Retrieved from http://www.arvindguptatoys.com/ • Armstrong, M. The practice of art and the growth of understanding. In Closely observed children: The diary of a primary classroom (pp. 131–170). Writers & Readers Jain payal Bhola & Ruhela Understanding Desciplines & Subjects, Agarwal Publication, Agra	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED 402	ACADEMIC ENHANCEMENT COMPULSORY COURSE BELED – Semester - IV COMPUTER FUNDAMENTALS, INTERNET & MS-OFFICE	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understand the fundamental hardware components that make up a computer's hardware and the role of each of these components	
CO2.	Applying theconcept of operating system, application program, and what each is used for in a computer.	
CO3.	Accomplish creating basic documents, worksheets, presentations with their properties.	
Course Content:		
Unit-1:	**Introduction and Definition of Computer:** Computer Generation, Characteristics of Computer, Advantages and Limitations of a computer, Classification of computers, Functional components of a computer system (Input, CPU, Storage and Output Unit), Types of memory (Primary and Secondary) Memory Hierarchy. Hardware: a) Input Devices- Keyboard, Mouse, Scanner, Bar Code Reader b) Output Devices – Visual Display Unit (VDU), Printers, Plotters etc. Software: Introduction, types of software with examples, Introduction to languages, Compiler, Interpreter and Assembler. Number System: Decimal, Octal, Binary and Hexadecimal Conversions, BCD, ASCII and EBCDIC Codes.	**10 Hours**
Unit-2:	**MS – DOS:** Getting Started on DOS with Booting the System, Internal Commands: CHDIR(CD),CLS, COPY, DATE, DEL(ERASE), DIR, CHARACTER, EXIT,MKDIR(MD), REM, RENAME(REN), RMDIR(RD), TIME, TYPE, VER, VOL, External Commands: ATTRIB, CHKDSK, COMMAND, DOSKEY, EDIT, FORMAT,HELP, LABEL, MORE, REPLACE, RESTORE, SORT, TREE, UNDELETE, UNFORMAT,XCOPY. **Introduction of Internet:** History of internet, Web Browsers, Searching and Surfing, creating an E-Mail account, sending and receiving E-Mails.	**10 Hours**
Unit-3:	**MS Word:** Starting MS WORD, Creating and formatting a document, changing fonts and point size, Table Creation and operations, Autocorrect, Auto text, spell Check, Word Art, inserting objects, Page setup, Page Preview, Printing a document, Mail Merge.	**8 Hours**
Unit-4:	**MS Excel:** Starting Excel, Work sheet, cell inserting Data into Rows/ Columns, Alignment, Text wrapping,Sorting data, Auto Sum, Use of functions, Cell Referencing form,generating graphs, Worksheet data and charts with WORD, Creating Hyperlink to a WORD document, Page set up, Print Preview, Printing Worksheets.	**10 Hours**
Unit-5:	MS Power Point: Starting MS–Power Point, creating a presentation using auto content Wizard, Blank Presentation, creating, saving and printing a	**12 Hours**

	presentation, adding a slide to presentation, navigating through a presentation, slide sorter, slide show, editing slides, Using Clipart, Word art gallery, Adding Transition and Animation effects, setting timings for slide show, preparing note pages, preparing audience handouts, printing presentation documents. MS – Access: creating table and database. pages, preparing audience handouts, printing presentation documents.	
Text Books:	1. Sinha P.K., Computer Fundamentals, BPB Publishing. 2. Bill Bruck., The Essentials Office 2000 Book, BPB Publishing.	
Reference Books:	1. Peter Norton_s, Introductions to Computers, Tata McGraw Hill. 2. Price Michael, Office in Easy Steps, TMH Publication. ***Latest editions of all the suggested books are recommended.**	

Course Code: TMUGE499	ACADEMIC ENHANCEMENT COMPULSORY COURSE BELED – Semester - IV ENGLISH COMMUNICATION – IV	L-3 T-0 P-2 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the essence of effective listening and speaking, about proposal and report writing and acquiring the adequate knowledge of grammar and vocabulary	
CO2.	Applying the acquired knowledge of grammar and vocabulary in the practice of professional writing and interview.	
CO3.	Analyzing the effect of applied knowledge of grammar and job oriented skills in the presentation	
CO4.	Evaluating the role and relevance of the story reading in the inculcation of professional ethics as well as the value of effective listening and speaking in modifying the job-oriented skills.	
CO5.	Designing impressive proposals and resume by using the skill of professional writing and developing good presentation skills for interviews to maximize their opportunity of job as well as to fulfill corporate expectations	
Course Content:		
Unit – I	Homophones and Homonyms Correction of Common Errors (with recap of English Grammar with its usage in practical context.) Transformation of sentences.	**10 Hours**
Unit – II	**Essence of Effective listening & speaking** Listening short conversation/ recording (TED talks / Speeches by eminent personalities) *Critical Review of these abovementioned* ·Impromptu	**10 Hours**
Unit – III	**Professional Writing** ·Proposal: Significance, Types, Structure & AIDA ·Report Writing: Significance,Types, Structure& Steps towards Report writing	**12 Hours**
Unit – IV	**Job Oriented Skills** ·Cover Letter ·Preparing Rèsumè and Curriculum-Vitae ·Interview: Types of Interview, Tips for preparing for Interview and Mock Interview ·Corporate Expectation & Professional ethics: Skills expected in corporate world	**10 Hours**
Unit – V	**Value based text reading: Short story** A Bookish Topic – R.K. Narayan	**8 Hours**
Text Books:	Singh R.P., An Anthology of Short stories, O.U.P. New Delhi.	

Reference Books:	**1.** Raman Meenakshi & Sharma Sangeeta, "Technical Communication-Principles & Practice" OxfordUniversity Press, New Delhi. **2.** Mohan K. & Sharma R.C., "Business Correspondence of Report Writing",TMH, New Delhi. **3.** Chaudhary, Sarla "Basic Concept of Professional Communication" Dhanpat Rai Publication, NewDelhi. **4.** Kumar Sanjay &Pushplata "Communication Skills" Oxford University Press, New Delhi. **5.** Agrawal, Malti "Professional Communication" KrishanaPrakashan Media (P) Ltd. Meerut.

7. The content will be conveyed through Real life situations, Pair Conversation, Group Talk and Class Discussion.
8. Language Lab software.
9. Sentence transformation on daily activities and conversations.
10. Conversational Practice will be effectively carried out by Face to Face & Via Media(Audio Video Clips)
11. Modern Teaching tools (PPT Presentation & Motivational videos with sub-titles) will be utilized.

Note:

·Class (above 30 students) will be divided in to two groups for effective teaching.

·For effective conversation practice, groups will be changed weekly.

Evaluation Scheme

Internal Evaluation			***External Evaluation***		***Total Marks***
40 Marks			***60 Marks***		
20 Marks (Best 2 out of Three CTs) ***(From Unit – I, III,IV& V)***	***10 Marks (Oral Assignments)*** ***(From Unit –II & IV)***	***10 Marks (Attendance)***	***40 Marks (External Written Examination)*** ***(From Unit –I, III, IV & V)***	***20 Marks (External Viva)**** ***(From Unit –II & IV)***	***100***

*Parameters of External Viva

Content	**Body Language**	**Communication skills**	**Confidence**	**TOTAL**
05 Marks	05 Marks	05 Marks	05 Marks	20 Marks

Note*:External Viva will be conducted by 2-member committee comprising*

a)*One Faculty teaching the class*

b)*One examiner nominated by University Examination cell.*

Each member will evaluate on a scale of 20 marks and the average of two would be the 20 marks obtained by the students.

Course Code: BELED 404	CORE COURSE BELED – Semester - IV **CORE SANSKRIT**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	• संज्ञा, लिंग एवं वचन के माध्यम से बच्चों में शुद्ध उच्चारण एवं लेखन के कौशल का विकास करेंगे।	
CO2.	• शब्द व धातु रूप का ज्ञान कराते हुए उनके प्रयोग का कौशल विकसित करेंगे।	
CO3.	• संस्कृत भाषा के महत्व से परिचित होकर बच्चों में उच्चारण, वाचन, लेखन की दक्षता के विकास हेतु धातु रूप का ज्ञान कराते हुए उनके प्रयोग का कौशल विकसित करेंगे।	
CO4.	• संस्कृत भाषा के महत्व से परिचित होकर बच्चों में उच्चारण, वाचन, लेखन की दक्षता के विकास हेतु ऑडियो/वीडियो/आई0सी0टी0 का प्रयोग करना।	
CO5.	• संस्कृत ध्वनियों के उच्चारण स्थान से अवगत कराना एवं उनका शुद्ध उच्चारण हेतु प्रेरित करना।	
CO6.	बच्चों में सरल हिन्दी वाक्यों का संस्कृत में अनुवाद करने का कौशल विकसित करना।	
Course Content:		
Unit-1:	– सज्ञा, लिग एव वचन का सस्कृतानुरूप विवरण । 2– विभिन्न प्रकार के संस्कृत शब्दों की जानकारी (फल, फूल, शाक, पशु और पक्षी आदि) । 3– संस्कृत वर्णमाला का ज्ञान ।	**10 Hours**
Unit-2:	1– सज्ञा शब्द रूप (कवल अकारान्त, आकारान्त, इकारान्त आर उकारान्त ताना लिंगों में) । 2– कालान्तर्गत – लट्, लड़ और लृट लकार की जानकारी । 3– सरल संस्कृतानुवाद (हिन्दी से संस्कृत में) ।	**10 Hours**
Unit-3:	1– सवनाम सव रूप 2– लाट् आर विधालग लकार का प्रयाग 3– सन्धि ज्ञान 1– सर्वनाम सर्व रूप । – सामान्य परिचय ।	**8 Hours**
Unit-4:	1– धातु रूप – परस्मदा रूप म । 2– संस्कृत सुभाषित श्लोकों का भावार्थ सहित वाचन । 3– कारक चिह्न और विभक्ति ज्ञान ।	**10 Hours**
Unit-5:	1– समास प्रकार – सस्कृत सामासक विग्रह साहत । 2– संस्कृतानुरूप उपसर्ग और प्रत्ययों का परिचय और प्रयोग । 3– संस्कृतानुवाद – (संस्कृत से हिन्दी में)	**12 Hours**
Text Books:		
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED421	**DISCIPLINE SPECIFIC ELECTIVE COURSE** **BELED – Semester - IV** **OSCILLATIONS AND WAVE**	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts and idea of geometrical oscillations including the wave motion.	
CO2.	Applying the properties of simple harmonic motion.	
CO3.	Analyzing the applications of SHM like pendulum & Mass spring System.	
Course Content:		
Unit-1:	**Oscillations SHM:** Simple Harmonic Oscillations. Differential Equation of SHM and its Solution. Amplitude, Frequency, Time Period and Phase. Velocity and Acceleration. Kinetic, Potential and Total Energy and their Time Average Values. Reference Circle. Rotating Vector Representation of SHM.	**10 Hours**
Unit-2:	**Free Oscillations of Systems with One Degree of Freedom:** (1) Mass-Spring system, (2) Simple Pendulum, (3) Torsional Pendulum, (4) Oscillations in a U-Tube, (5) Compound pendulum: Centres of Percussion and Oscillation	**12 Hours**
Unit-3:	**Superposition of Two Collinear Harmonic Oscillations :-** Linearity and Superposition Principle. (1) Oscillations having Equal Frequencies and (2) Oscillations having Different Frequencies. Superposition of Two Mutually Perpendicular Simple Harmonic Motions with Frequency Ratios 1:1 and 1:2.	**10 Hours**
Unit-4:	**System with Two Degrees of Freedom :** Free Oscillations. Damped Oscillations, Forced oscillation, Transient and Steady States, Amplitude, Phase, Resonance,Power Dissipation and Quality Factor. Coupled Oscillators. Normal Coordinates and Normal Modes.	**8 Hours**
Unit-5:	**Wave Motion:** Longitudinal and Transverse Wave Equation. Particle and Wave Velocities. Velocity of Transverse Vibrations of Stretched Strings. Velocity of Longitudinal Waves in a Fluid in a Pipe. Newton's Formula for Velocity of Sound. Laplace's Correction.	**10 Hours**
Text Books:	1- Vibrations and Waves by A. P. French.(CBS Pub. & Dist., 1987) 2- The Physics of Waves and Oscillations by N.K. Bajaj (Tata McGraw-Hill, 1988) 3- Fundamentals of Waves & Oscillations By K. Uno Ingard (Cambridge University Press, 1988) .	
Reference Books:	1- An Introduction to Mechanics by Daniel Kleppner, Robert J. Kolenkow (McGraw-Hill, 1973). 2- Waves: BERKELEY PHYSICS COURSE (SIE) by Franks Crawford (Tata McGraw-Hill, 2007). *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED422	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV **ORGANIC AND INORGANIC CHEMISTRY**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts and theories of chemical bonding and the concept of Organic,Inorganic Chemistry.	
CO2.	Analyzing the p block elements.	
CO3.	Evaluating the different types of Alcohol and amino acids.	
Course Content:		
Unit-1:	**Chemical Bonding:** Valence Bond Theory., Molecular orbital Theory., Construction of Mo. Diagrams for homo nuclear &heleronulear diatomic unbleules (N_2,O_2,CO,no), Types of bond (Ionic covalent, Coordinate, metallic), Concept of Hybridization, Definition Types, Prediction of Hybridization ($BeCl_2$, CH_4, ClF_4, $POCl_3$, NH_4^+, $H_3O^+CO_3^{-2}$, Cl_4^-)	**10 Hours**
Unit-2:	**P-Block Element (I)** Group13- Synthesis & structure of diborane, higher borane (B_4H_{10}) (B_5H_9), Boron nitrogen compounds. ($B_4HN_3H_6$) (BN), Group14- Preparation & Application of silane & Silicones. Group15-Preparation & Reaction of hydrazine and hydroxylamine. Group16-Classification of oxides based on 1- Chemical behaviour 2- Oxygen content. Group17-Inter halogen compounds(Hydro and oxy acids of Chlorine, Structure and comparison of acid strength.) Preparation, properties & Applications of alkyls of Lithium.	**12 Hours**
Unit-3:	Hydrogen Bonding and Vanderwal Forces, Hydrogen bonding and Vanderwals forces **Hydrogen Bonding**- Definition,types, effects of H-bonding on properties of substances, applications brief discussion of various types of vanderwals forces. Metallic Bond, Bond Theory of metallic bond, Semiconductors Types of Applications.	**6 Hours**
Unit-4:	**Alcohols Phenols &Ether:** **Alcohols**: Preparation, Physical Props, Reaction of Alcohol, Industrial sources of ethyl alcohol Proof Spirit, Denatured Spirit, absolute alcohol. **Phenols**: Preparation. cCumene Hydroperoxide method, from dizonium salts, Reaction-Electrophilic Substitution. Nitration, halogenation &salphonation, Reimer-Tiemann Reaction, Gattarmann-Koch Reaction, Houben-Hoesch condensation. **Ether**:Nomenclature, Physical Properties, Laboratory Preparation, Williamsons Synthesis, Diazomethane method, Reactions of ether.	**10 Hours**
Unit-5:	Amino acids, Peptides & proteins Preparation of Amino Acids • Strecker synthesis using Gabriels phthalimide synthesis, Zwitterion, Isoelectric Point & Electrophoresis. • Reactions of Amino acid. • Nin Hydrin test • Overview of primary, secondary & Tertiary &quaterneryst. of protein • Determination of Primary St. of peptides by Edmann degradation of (N	**12 Hours**

	Terminal) & (C-Terminal) • Synthesis of simple Peptides (up to dipeptides) By N- Protection (t butyloxycarbonyl&phtholoye), Merrifield Solid phase synthesis.	
Text Books:	**NCERT Chemistry**. **Physical Chemistry**: **O.P. Tandon**. Inorganic Chemistry: **Concise Inorganic Chemistry** by **J.D. Lee**. **Organic Chemistry**: M.S. Chouhan. Modern's ABC of Chemistry for Class 11th and 12th. Comprehensive Chemistry Study Material For NEET & AIIMS.	
Reference Books:	***Latest editions of all the suggested books are recommended.**	

Course Code: BELED423	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV COMPLEX ANALYSIS	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of complex analysis, analytic function and complex integration.	
CO2.	Applying the taylor's theorem, Laurent's theorem and Liouville's theorem.	
CO3.	Analyzing zero's and singularity of a complex function.	
Course Content:		
Unit-1:	Analytic functions, conjugate function, Harmonic function, N.S.C. for Cauchy Remann equations, construct conjugate analytic functions.	**10 Hours**
Unit-2:	Complex Integration, Complex line integral, Cauchy integral function, Poisson integral, Lioville's theorem taylor theorem, Lorentz theorem.	**12 Hours**
Unit-3:	Zero's & Singularity, Zero's of a function, singular point, poles and different types of singularities, limiting point of zero's and poles, Weirstress theorem	**10 Hours**
Unit-4:	The Calculus of Residue, Residue of a pole at infinity Residue theorem Integration around $\int_{-\infty}^{\infty} f(z)\,dz$ unit circle, evaluation of integral .	**8 Hours**
Unit-5:	Conformal mappings, transformation w = z2, w = z1/2 , z = c sin w	**10 Hours**
Text Books:	1. "Complex Variable" by T Pati, Pothishala Pvt Ltd 2. "Complex Variable" by J. K. Goyal and K. P. Gupta, Pragati Prakashan 3. "Complex Variable" by J. C. Chaturvedi and S.S. Seth, Student Friends & Co.	
Reference Books:	1. "Complex Variable" by L. V. Alfors, Mc-GrawHill&Co, 2. "Complex Variable" by R. K. Gupta, R. V. Churchiland J. W. Browin, Mc-GrawHill&Co, 3. Complex Variable by Shanti Narayan, S.Chand&Company *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED424	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV **PLANT PHYSIOLOGY AND METABOLISM**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts,aim and scope of Plant Physiology.	
CO2.	Applying the properties and importance of water in plant metabolism	
CO3.	Demonstrating the basic concept of mineral nutrition, photosynthesis and respiration in plants.	
CO4.	Describing the role of enzymes in plant metabolic activities.	
Course Content:		
Unit-1:	**Plant-water relations** Importance of water, water potential and its components; Transpiration and its significance; Factors affecting transpiration; Root pressure and guttation.	**08 Hours**
Unit-2:	**Mineral nutrition and Translocation** Essential elements, macro and micronutrients; Criteria of essentiality of elements; Role of essential elements, Transport of ions across cell membrane, active and passive transport, carriers, channels and pumps. Translocation in phloem. : Composition of phloem sap, girdling experiment; Pressure flow model; Phloem loading and unloading.	**12 Hours**
Unit-3:	**Photosynthesis and Respiration** Photosynthetic Pigments (Chl a, b, xanthophylls, carotene); Photosystem I and II, reaction center, antenna molecules; Electron transport and mechanism of ATP synthesis; C3, C4 and CAM pathways of carbon fixation. Respiration: **g**lycolysis, anaerobic respiration, TCA cycle; Oxidative phosphorylation.	**10 Hours**
Unit-4:	**Enzymes and Nitrogen metabolism:** Structure and properties; Mechanism of enzyme catalysis and enzyme inhibition. Nitrogen metabolism **:** Biological nitrogen fixation; Nitrate and ammonia assimilation.	**10 Hours**
Unit-5:	**Plant growth regulators and Plant response to light and temperature** Discovery and physiological roles of auxins, gibberellins, cytokinins, ABA, ethylene. Plant response to light and temperature: Photoperiodism (SDP, LDP, Day neutral plants); Phytochrome (discovery and structure), red and far red light responses on photomorphogenesis; Vernalization	**10 Hours**
Text Books:	1. Hopkins, W.G., Huner, N.P., (2009). Introduction to Plant Physiology. John Wiley & Sons, U.S.A. 4th Edition. 2. Bajracharya, D., (1999). Experiments in Plant Physiology- A Laboratory Manual. Narosa Publishing House, New Delhi.	
Reference Books:	Taiz, L., Zeiger, E., MØller, I.M. and Murphy, A (2015). Plant Physiology and Development. Sinauer Associates Inc. USA. 6th edition. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED425	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV **EVOLUTION AND DEVELOPMENT BIOLOGY**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concept and theories of the evolution and embryology.	
CO2.	Applying the knowledge of process of Gametogenesis in further studies.	
CO3.	Analyzing the process of process of blastulation,gastrulation and placentation.	
Course Content:		
Unit-1:	1. Concept of evolution. evidences of evolution 2. Theory of evolution (including Neo-Lamarckism Darwin – Wallace theory of natural selection, Neo- Darwinism modern synthetic theory.	**10 Hours**
Unit-2:	1- Gametogenesis: spermatogenesis and oogenesis, vitellogenesis egg membrane. 2- Fertilization, Parthenogenesis.	**10 Hours**
Unit-3:	1- Types of animal eggs: structure of eggs 2- Types and patterns of cleavage.	**10 Hours**
Unit-4:	1- Process of blastulaion and gastrulation 2- Development of chick up to the formation of primitive streak and extra embryonic membrane.	**12 Hours**
Unit-5:	1- Development of extra embryonic membrane in mammals 2- Placentation and types of placenta.	**8 Hours**
Text Books:	1. Gilbert, S.F. (2006) , development biology , VIII edition , sinauer associates inc publishers, sunder land, Massachusetts, USA. 2. Balinsky, B.I. (2008) An introduction to embryology, international Thomson computer press. 3. Kalthoff,(2000) Analysis of biological development ,II edition, mc graw hill professional	
Reference Books:	1. Kalthoff,(2000) Analysis of biological development ,II edition, mc graw hill professional 2. Verma P.S. & V.K. agrawal , chordate embryology, s. Chand & co. 3. Berril& crop development biology. Mc graw hill book company ,m,c,new York 4. Jain P.C. 1998, elements of development biology .vishalpublication , new delhi *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED451	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV OSCILLATIONS AND WAVE LAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Applying elementary ideas of oscillation and wave motion to determine the gravitational constant, spring constant and AC frequency.	
CO2.	Analyzing the applications and working of Lissajous figures, oscillators and CRO.	

Course Content:

LIST OF EXPERIMENT

Note: Select any ten experiments from the following list

1. To determine acceleration due to gravity (g) by Bar Pendulum.
2. To determine acceleration due to gravity (g) by Kater's Pendulum.
3. To study the Motion of a Spring and calculate (a) Spring Constant (b) acceleration due to gravity and(c)Modulus of Rigidity
4. To determine the Frequency of an Electrically Maintained Tuning Fork by Melde's experiment
5. To determine frequency of A.C. mains by mean of sonometer.
6. To determine the motion of coupled oscillator.
7. To determine frequency of A.C. mains by electric vibrator.
8. To study Lissajous figures.
9. To study AF and RF oscillator.
10. To stuy simple harmonic motion of a body.
11. To determine gravity (g) and velocity of freely falling body using digital technique.
12. To determine the wave form, voltage and frequency of a given signal using C.R.O.

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Latest editions of all the suggested books are recommended.

Course Code: BELED452	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV ORGANIC AND INORGANIC CHEMISTRY LAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Applying the knowledge of viscosity measurement in food industry	
CO2.	Analyze the chemical properties of an unknown substance.	
CO3.	Measure surface tension to improve quality of different products.	

Course Content:

LIST OF EXPERIMENTS

Inorganic Chemistry Preparation of inorganic compounds

a) Microcosmic Salt
b) Potassium Permangnate

Oraganic

- Detection of Special Elements
  (N, S, CL, Br, I&P)

Physical

- Determination of Surface tension of liquid
- Determination of Viscosity of liquid

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

* **Latest editions of all the suggested books are recommended.**

Course Code: BELED453	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV SKILL MATHEMATICS:ORDINARY DIFFERENTIAL EQUATIONS	L-0 T-0 P-4 C-2

Course Outcomes:	At the end of this course, the students will be-
CO1.	Understanding the concepts of linearand ordinary differential equation.
CO2.	Applying the integration in series.
CO3.	Analyzing Picard's iteration method and uniqueness and existence theorems.

Course Content:

Unit-1:	Linear Equation of second order finding general solution of $\frac{d^2y}{dx_2} + p\frac{dy}{dx} + Qy = 0$ by removing first derivative; changing Independent variable; Method of Variation of parameters, Normal form and Method of operational operators.	**8 Hours**
Unit-2:	Ordinary Simultaneous linear differential Equation. Linear differential Equation of the form dx = dy = dz PQ R	**12 Hours**
Unit-3:	Pfaffian differential forms and equations. Necessary and sufficient condition for Inerrability of Pdx + Qdy + Rdz = 0	**10 Hours**
Unit-4:	Integration in series	**8 Hours**
Unit-5:	Picards' Iteration method. Uniqueness and existence theorems.	**12 Hours**

Text Books:

1. "Differential Equation" by Zill, Cengage Learning.
2. "Differential Equation" by R. K. Gupta and J. N. Sharma, KrishanaPrakashan Mandir
3. "Differential Equation" by Zafar Ahsan, Prentice Hall of India.

Reference Books:

1. "Differential Equation" by M. D. Raisinghania, S .Chand& co.
2. "A Treatise on diff. Equation" by A. R. Forsyth, Macmillan & company Ltd.

*** Latest editions of all the suggested books are recommended.**

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTA
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTER
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MA

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARK

Course Code: BELED454	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV PLANT PHYSIOLOGY AND METABOLISMLAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Applying the knowledge of preparation of different types of solutions	
CO2.	Analyzing the techniques of chromatography in separation and identification of plant pigments.	
CO3.	Demonstrating the role of external and internal factors in plant growth and development	

Course Content:

LIST OF EXPERIMENTS

1. Determination of osmotic potential of plant cell sap by plasmolytic method.
2. To study the effect of two environmental factors (light and wind) on transpiration by excised twig.
3. Calculation of stomatal index and stomatal frequency of a mesophyte and a xerophyte.
4. Demonstration of Hill reaction.
5. Demonstrate the activity of catalase and study the effect of pH and enzyme concentration.
6. To study the effect of light intensity and bicarbonate concentration on O2 evolution in photosynthesis.
7. Comparison of the rate of respiration in any two parts of a plant.
8. Separation of amino acids by paper chromatography.

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED455	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV EVOLUTION AND DEVELOPMENT BIOLOGYLAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Explaining the morphology of reptiles, birds and Mammals	
CO2.	Demonstrating the role of developmental stage primitive streak in embryonic growth and development of chick and frog	
CO3.	Analyzing the Animal cell structure and function at embryonic level	

Course Content:

LIST OF EXPERIMENTS

1- **Reptiles –** study of chamelon,varanus, pharynosoma, draco, tortoise, cobra, krait, russel's, viper, sea snake testuda,
2- Hemidactytus, uromastix,ophiosaurus, hydrophis, crocodiles
3- **Birds –** study of owl, woodpecker, king fisher, kite, duck, parrot, study of dozen birds of delhi
4- **Mammals –** study of squirrel, mangoose, bat, loris, rabbit,

Development biology

1- **Frog-** study of developmental stage w.m&section through permanent slides cleavage, stage, blastula, gastrula, neurula tadpole
2- **Chick –** study of developmental stage primitive streak, - 21h, 24h, 28h, 33h, 36h, 48h, 72h.
3- Section of testis and ovary (mammalian)
4- Slides of mammalion sperm and ovum

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Latest editions of all the suggested books are recommended.

Course Code: BELED426	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV हिन्दी कथा साहित्य	L-3 T-0 P-0 C-3
पाठ्यक्रम प्रतिफल	विद्यार्थी पाठ्यक्रम के अंत में	
CO1.	हिंदी साहित्य के अध्ययन के माध्यम से विद्यार्थी विभिन्न महान उपन्यासकारों के उपन्यासों तथा कहानी विधा को विस्तृत रूप से समझ सकेंगे।	
CO2.	विद्यार्थी उपन्यासों तथा कहानी विधा के माध्यम से उसमें चित्रित समाज के विषय में अपनी कल्पना शक्ति का विकास कर सकेंगे।	
CO3.	विद्यार्थी विभिन्न लेखकों के उपन्यासों तथा कहानी विधाओं की भाषा शैली का विश्लेषण कर सकेंगे।	
CO4.	विद्यार्थी उपन्यास तथा कहानी के पात्रों की चारित्रिक विशेषताओं का वर्तमान सामाजिक परिस्थितियों के संदर्भ में मूल्यांकन कर सकेंगे।	
CO5.	विद्यार्थी विभिन्न उपन्यासों तथा कहानी के अध्ययन के माध्यम से स्वयं में रचनात्मक एवं बौद्धिक विचारों के कौशल के निर्माण के साथ–साथ मानवमूल्यों को विकसित कर सकेंगे।	
Course Content:		
Unit-1:	उपन्यास– चित्रलेखा (भगवती चरण वर्मा)	**10 Hours**
Unit-2:	रागदरबारी (श्रीलाल शुक्ल)	**10 Hours**
Unit-3:	कहानी – कफन (प्रेमचन्द), गुण्डा (जयशंकर प्रसाद), यही सच है (मन्नू भण्डारी), चीफ की दावत (भीष्म साहनी)	**10 Hours**
Unit-4:	मारे गये गुलफाम उर्फ तीसरी कसम (फणीश्वर नाथ रेणु), राजा निरवंसिया (कमलेश्वर) पिता (ज्ञानरंजन),पचीस चौका डेढ़ सौ (ओमप्रकाश वाल्मीकि)	**10 Hours**
Unit-5:	द्रुत पाठ – शैलेष मटियानी, अमरकांत, सेवाराम यात्री, मृदुला गर्ग	**10 Hours**
Text Books:	1. हिन्दी उपन्यास एवं यथार्थवाद–त्रिभुवन सिंह–हिन्दी प्रचारक पुस्तकालय, वाराणसी 2. उपन्यास कला के तत्व–श्री नारायण अग्निहोत्री–हिमालय पाकेट बुक्स, दिल्ली 3. उपन्यास और लोकजीवन–रेल्फ फॉक्स पीपुल्स पब्लिशिंग हाउस, नई दिल्ली–12 4. नयी कहानीः परिवेश एवं परिप्रेक्ष्य – डॉ0 रामकली सराफ विश्वविद्यालय प्रकाशन वाराणसी। 5. हिन्दी कहानी : प्रक्रिया और पाठ–सुरेन्द्र चौधरी, राधाकृष्ण, दिल्ली।	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED427	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV **FICTION**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the theory and elements of novel, short story and life and works of English novelists	
CO2.	Applying conceptual knowledge of different types of novel and their elements for the better understanding of the English novels	
CO3.	Analyzing the life and works of various English novelists like Austen, Dickens and Hardy	
CO4.	Evaluating the relevance and utility of the various forms of novel and the novelist's views and thoughts in the context of present social scenario	
CO5.	Creating new kinds of novel, generating new ideas and developing their critical thinking to deal with the real life situations	
Course Content:		
Unit-1:	**History of Novel** Elements of Novel (Plot, characterization, Narrative Technique and Structure) Forms of Novel (Picaresque, Historical, Gothic, Epistolary, Regional, Realistic, Psychological, Detective, Science Fiction etc. Short Story: Elements and Features.	**10 Hours**
Unit-2:	Jane Austen : Pride and Prejudice	**10 Hours**
Unit-3:	Charles Dickens : David Copperfield	**10 Hours**
Unit-4:	Thomas Hardy : The Return of the Native	**10 Hours**
Unit-5:	D. H. Lawrence : *Sons and Lovers*	**10 Hours**
Text Books:	*Pride and Prejudice* by Jane Austen, Oxford University Press, 2008. *The Return of the Native* by Thomas Hardy, Peacock Books, 2013. *David Copperfield* by Charles Dickens, Surjeet Publications, 2005.	
Reference Books:	1. *Routledge History of Literature in English: Britainand Ireland* by Ronald Carter. 2. *The Novel: Its Forms and Techniques* by S.P. Sen Gupta, Prakash Book Depot, Barielly. 3. *Charles Dickens' David Copperfield*, Rama Brothers 4. *Jane Austen's Pride and Prejudice*, Rama Brothers. 5. *Thomas Hardy's The Return of the Native*, Narayana Publications. **Latest edition of all the suggested books are recommended.**	

Course Code: BELED428	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV **POLITICAL HISTORY OF ANCIENT INDIA (B.C. 600-A.D. 606)**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding different concepts, sources, terms and events of Ancient Indian history, the foreign invasions and the rise of Magadh empire, Mauryan and Gupta Empire	
CO2.	Analyzing the causes of foreign invasion, and policies and administrations of different Indian emperors in Ancient period	
CO3.	Evaluating the relevance of economic policies and administration of different Indian empires like Magadh empire, Mauryan and Gupta empire in the light of Ancient Indian socio-political conditions	
Course Content:		
Unit-1:	**Historical Sources & Foreign Invasions** Sources of Ancient Indian History Political condition of Northern Indian during 6th Cent. B.C. a- Sixteen Mahajanapadas,b- Ten Republics Persian and Alexander's invasion on India and itts effects	**10 Hours**
Unit-2:	**Rise of Magadhan Empire** Rise of Magadhan Empire; Haryanka dynasty [Bimbisara, Ajatshatru and his successors]; Saisunga dynasty [Saisunga, Kalasoka]; Nanda dynasty [origin, Mahapadanaanda, successors and causes of downfall]	**10 Hours**
Unit-3:	**Mauryan Empire & Age of Trade & Commerce** The Mauryas [Origin, Early life &conquets of Chandragupta Maurya, Bindusara, Sources for the history of Asoka, Conquests, Extent of Empire, Dhamma Policy, Successors & Causes of Downfall] The Sungas, The Kanvas, The Satavahanas; King Kharvela of Kalinga	**10 Hours**
Unit-4:	**Foreign Invasions** The Indo-Greeks; The Indo-Synthians& the Indo-Parthians The Kushanas [Kuzul&VimaKadphysis, Kanishka, his successors]	**10 Hours**
Unit-5:	**Gupta Period & Their Inheritant State** The Guptas [Chandragupta I,Samudragupta, Historicity of Ramagupta, Chandragupta II, Kamaragupta, Skandagupta, Successors and causes of Downfall]. Brief History of the following: The Vatakas; The Maukharis; The Later Guptas; Huna Invasions of India	**10 Hours**
Text Books:	**The Wonder that was India by A.L Basham for Ancient History**	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED429	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV **WESTERN POLITICAL THOUGHT**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the dominant features of Ancient Western Political thought, Ancient Greek political thought with particular focus on political thoughts of Plato and Aristotle.	
CO2.	Explaining the political theories of Western political thinkers in the context of the contemporary political situations.	
CO3.	Analyzing the theory of Western political thinkers like Hobbes as the founder of the science of materialist politics; Locke as the founder of Liberalism, Rousseau's views on Freedom and Democracy, Bentham, John Stuart Mill, Hegel etc.	
CO4.	Evaluating the contribution and significance of Western political thinkers like Machiavelli, Marx and the like in development of modern political culture and system	
Course Content:		
Unit-1:	**Classical Western Political Thought** Plato: Theory of Justice, theory of education,Critique of Democracy,theory of Communism Aristotale: Citizenship, State,Justice,theory of revolution	**10 Hours**
Unit-2:	**Early Medieval to the Beginning of Modern Thought** St. Augustine: Earthly City & Heavenly city Machiavelli: Father of Modern political thought, Statecraft, Virtue, Fortuna	**10 Hours**
Unit-3:	**Liberal Thought** Thomes Hobbes: Human Nature, Social Contract, Liberty, State John Locke: Natural Rights, Consent, Social Contract, State Rousseau: Social Instititions and moaral man, Equality, Liberty & general will	**10 Hours**
Unit-4:	**Liberal Democratic Thought** Jeremy Bentham: Utilitarianism John Stuart Mill: Individual liberty, Reprentative Government	**10 Hours**
Unit-5:	**Philosphical Idealism & its critique** Hegel: Individual Freedom, Civil Society, State Karl Marx: Alienation, Surplus Value, Materialist Conception of History, State	**10 Hours**

Text Books:	1. Sir, E. Baker, Grteek Political Thoery: Plato and his predecessors, New Delhi, B.L. Publications, 1964. 2. K.C. Brown (Ed.) the Cambridge History of Political Thought 1450-1700, Cambridge, Cambridge University Press-1991. 3. H.J. Laski, Political thought from Locke to Bentham, Oxford, Oxford University Press-1920. 4. हरिदत्त वेदालंकर–पाश्चात्य राजनीतिक विचारक 5. बी0एल0 फड़िया–पाश्चात्य राजनीतिक विचारक साहित्य भवन पब्लिकेशन, आगरा 6. जे0पी0 सूद–प्रमुख राजनीतिक विचारक के नाथ एण्ड कम्पनी मेरठ	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED430	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV **NATIONAL INCOME ANALYSIS MONEY & BANKING**	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the fundamentals of National Income Analysis, Money and Banking and foreign exchange including their different concepts, terms and functions	
CO2.	Explaining different approaches related to value of money and banking and the relationship between inflation and unemployment, and demand and supply of the foreign exchange	
CO3.	Analyzing different theories and approaches related to value of money, prices, banking and foreign exchange.	
CO4.	Developing their vision and critical thinking in terms of value of money and banking and generating new ideas in order to enrich national economy	
Course Content:		
Unit-1:	**National Income Analysis:** Concept and methods of measurement; Circular flow of product and income; Government and foreign sectors in national income accounts; Determination of National income under classical and Keynesian system; Monatory theories of trade cycle.	**10 Hours**
Unit-2:	**Value of Money**: Fisher and Cambridge approaches; Income-expenditure approach; Keynes quantity theory.	**10 Hours**
Unit-3:	**Prices:** inflation, deflation, monetary approach; Keynesian approach; Non-monetary theories of inflation; A brief discussion of relationship between inflation and unemployment (Philips curve and modified Philip's curve), Okun's law and concept of stagflation.	**10 Hours**
Unit-4:	**Banking:** Types and function; Structure and management, assets and liabilities, creation of money; Commercial Bankings: Principles and Practices Central Banking: Instrument of monetary control and other functions of Central Banks Indian Monetary Market: Structure, concept and sources of change in money supply; Reserve Bank of India, regulatory and promotional functions.	**10 Hours**
Unit-5:	**Foreign Exchange:** Concept, demand and supply of foreign exchange, external value of moey-gold standard, exchange rate determination, purchasing power parity, theory, International monetary institution-IMF and IBRD. Exchange Control, Objectives and Methods	**10 Hours**
Text Books:	1. Manihara, K.K. – Monetary Theory 2. Crowther, G. – An Outline of Money 3. Halm, G.N. – Monetary Theory / Mudra Siddhant (in Hindi) 4. Makinen, Gale – Money; The Price Level and Interest Rate 5. Dilard, D. – Keynes Ka Arthashatra	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED456	DISCIPLINE SPECIFIC ELECTIVE COURSE BELED – Semester - IV **HINDI (PROJECT & VIVA VOCE)**	L-0 T-0 P-4 C-2
पाठ्यक्रम प्रतिफल	विद्यार्थी पाठ्यक्रम के अंत में	
CO1.	विद्यार्थीउपन्यासोंतथाकहानीविधाकेमाध्यमसेउसमेंचित्रितविभिन्न बिंदुओं को मंच पर प्रदर्शित कर सकेंगे।	
CO2.	विद्यार्थीविभिन्नलेखकोंकेउपन्यासोंतथाकहानीविधाओं के लेखन तथा भाषा शैलीका पी.पी.टी. के माध्यम सेविश्लेषणकरसकेंगे।	
CO3.	विद्यार्थीउपन्यासतथाकहानीकेपात्रोंकीचारित्रिकविशेषताओंकावर्तमानसामाजिकपरिस्थितियोंकेसंदर्भमेंमूल्यांकनकरसकेंगे।	
PPT Work	Topic to be given by the concern teacher.	
File work-	Topic to be given by the concern teacher Project File Report Maximum Word 2000 Topic | Introduction | Discussion | Conclusion	
Practical Content:	Internal | External | Total 50 | 50 | 100 | | Internal | External Performance | 10 | 20 File work | 20 | 20 Viva | 10 | 10 Attendance | 10 | - Total | 50 | 50	

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<tr><td>Course Code:
BELED457</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester - IV
ENGLISH (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying conceptual knowledge of different types of novel and their elements in story telling</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the styles of various English novelists like Austen, Dickens and Hardy through PPT presentation</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the value and relevance of the different types of novel with reference to the present social context.</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000
<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
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<table><tr><td></td><td>Internal</td><td>External</td></tr><tr><td>Performance</td><td>10</td><td>20</td></tr><tr><td>File work</td><td>20</td><td>20</td></tr><tr><td>Viva</td><td>10</td><td>10</td></tr><tr><td>Attendance</td><td>10</td><td>-</td></tr><tr><td>Total</td><td>50</td><td>50</td></tr></table></td><td></td></tr>
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<tr><td>Course Code:
BELED458</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester - IV
HISTORY (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Explaining different concepts, sources, terms and events of Ancient Indian history, the foreign invasions and the rise of Magadh empire, Mauryan and Gupta Empire</td><td></td></tr>
<tr><td>CO2.</td><td>Analyzing the causes of foreign invasion, and policies and administrations of different Indian emperors in Ancient period</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the relevance of economic policies and administration of different Indian empires like Magadh empire, Mauryan and Gupta empire in the light of Ancient Indian socio-political conditions</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000
<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
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<table><tr><td></td><td>Internal</td><td>External</td></tr><tr><td>Performance</td><td>10</td><td>20</td></tr><tr><td>File work</td><td>20</td><td>20</td></tr><tr><td>Viva</td><td>10</td><td>10</td></tr><tr><td>Attendance</td><td>10</td><td>-</td></tr><tr><td>Total</td><td>50</td><td>50</td></tr></table></td><td></td></tr>
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<tr><td>Course Code:
BELED459</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester - IV
POLITICAL SCIENCE (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying the political theories of Western political thinkers in the context of the contemporary political situations for better understanding</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the theory of Western political thinkers like Hobbes as the founder of the science of materialist politics; Locke as the founder of Liberalism, Rousseau’s views on Freedom and Democracy, Bentham, John Stuart Mill, Hegel etc.</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the contribution and significance of Western political thinkers like Machiavelli, Marx and the like in development of modern political culture and system</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000
<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
<tr><td>Practical Content:</td><td><table><tr><td>Internal</td><td>External</td><td>Total</td></tr><tr><td>50</td><td>50</td><td>100</td></tr></table>
<table><tr><td></td><td>Internal</td><td>External</td></tr><tr><td>Performance</td><td>10</td><td>20</td></tr><tr><td>File work</td><td>20</td><td>20</td></tr><tr><td>Viva</td><td>10</td><td>10</td></tr><tr><td>Attendance</td><td>10</td><td>-</td></tr><tr><td>Total</td><td>50</td><td>50</td></tr></table></td><td></td></tr>
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<table>
<tr><td>Course Code:
BELED460</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
BELED – Semester - IV
ECONOMICS (PROJECT & VIVA VOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying different tools & techniques of National income analysis to understand the circular flow of product and income, and the role of banking and foreign exchange</td><td></td></tr>
<tr><td>CO2.</td><td>Analyzing different approaches related to value of money and banking and the relationship between inflation and unemployment, and demand and supply of the foreign exchange</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the utility and significance of different theories and approaches related to value of money, prices, banking and foreign exchange in the light of National income analysis</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000
<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
<tr><td>Practical Content:</td><td><table><tr><td>Internal</td><td>External</td><td>Total</td></tr><tr><td>50</td><td>50</td><td>100</td></tr></table>
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Course Code: BELED461	PRACTICUM ACADEMIC ENRICHMENT ACTIVITIES -IV (ICT IN OFFICE AND SCHOOL MANAGEMENT)	L-0 T-0 P-6 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concept, nature and scope of ICT in Education.	
CO2.	Applying ICT in enhancing professional competencies, curriculum enrichment and Educationaladministration & management	
CO3.	Analyzing the changes occurring due to implication of ICT in Education	
PPT Work	Working with a Office Package (Microsoft"s Office 2007) • Working with MS Word • Working with MS Excel • Working with MS PowerPoint • Working with MS Access • I.C.T. in School Management • **Using Online services / tools** Official Website for communication between school and students (and their guardians), School staff etc. Online complaint portal for queries and problem eradication • **Using School Management Software application/ tools** Digitization of School Data for transparency (Attendance, Books, Uniforms, Test Scores etc.) Data mining for effective decision making • **ICT in office work** Using Office packages for record maintenance & documentation Exchange of Emails for quick & cheap communication Teleconferencing & Video conferencing to save time & money. **Evaluation** The assessment will be done in two components: Internal 50% and External 50% • The External assessment shall be done by the external examiner appointed by the controller of examination of university. The Internal assessment shall be done by the Faculty Concerned or	

<table>
<tr><td></td><td>internal examiner appointed by the principal.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000

<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
<tr><td>Practical Content:</td><td><table><tr><td>Internal</td><td>External</td><td>Total</td></tr><tr><td>50</td><td>50</td><td>100</td></tr></table>
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TEERTHANKER AADINATH COLLEGE OF EDUCATION
FOUR YEAR B.El.Ed SYLLABUS 2018-19
THIRD YEAR SYALLABUS OF B.El.Ed PROGRAM

Semester - V

S.NO	Course Code	Course/Paper	PERIOD			Credit	Evalution Scheme		
			L	T	P		Internal	External	Total
Theory Course									
1	BELED501	EDUCATIONAL MANAGEMENT AND ADMINISTRATION	**4**			**4**	**40**	**60**	**100**
2	BELED502	LANGUAGE ACROSS THE CURRICULUM	**4**			**4**	**40**	**60**	**100**
3	BELED503	SAMANYA HINDI	**4**			**4**	**40**	**60**	**100**
Pedagogy Courses (Select Any One)									
1	BELED541	PEDAGOGY OF HINDI	**4**			**4**	**40**	**60**	**100**
2	BELED542	PEDAGOGY OF ENGLISH	**4**			**4**	**40**	**60**	**100**
3	BELED543	PEDAGOGY OF SANSKRIT	**4**			**4**	**40**	**60**	**100**
4	BELED544	PEDAGOGY OF PHYSICAL SCIENCE	**4**			**4**	**40**	**60**	**100**
Liberal Courses (Select Any One Science Group)									
Group A	**BELED521 Physics**	**SEMICONDUCTOR/ SOLID STATE DEVICES**	**3**			3	40	60	100
	BELED551 Physics	**SEMICONDUCTOR/ SOLID STATE DEVICES (LAB)**	**0**		**4**	2	50	50	100
Group B	**BELED522 Chemistry**	**PHYSICAL & INORGANIC CHEMISTRY**	**3**			3	40	60	100
	BELED552 Chemistry	**PHYSICAL & INORGANIC CHEMISTRY (LAB)**	**0**		**4**	2	50	50	100
Group C	**BELED523 MATH**	**DIFFERENTIAL GEOMETRY AND TENSOR**	**3**			3	40	60	100
	BELED553 MATH	**SKILL MATHEMATICS (STATISTICS)**	**0**		**4**	2	50	50	100
Group D	**BELED524 Botany**	**ECONOMIC BOTANY AND PLANT BIOTECHNOLOGY**	**3**			3	40	60	100
	BELED554 Botany	**ECONOMIC BOTANY AND PLANT BIOTECHNOLOGY (LAB)**	**0**		**4**	2	50	50	100
Group E	**BELED525 Zoology**	**CELL BIOLOGY AND GENETICS**	**3**			3	40	60	100
	BELED555 Zoology	**CELL BIOLOGY AND GENETICS (LAB)**	**0**		**4**	2	50	50	100
Liberal Courses (Select Any one Arts Group)									
Group A	**BELED526 Hindi Lit.**	**ADHTANHINDI EVAM KAURAVI LOK KAVYA**	**3**			3	40	60	100
	BELED556 Hindi Lit.	**HINDI(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
Group B	**BELED527 English Lit.**	**HISTORY OF ENGLISH LITERATURE**	**3**			3	40	60	100
	BELED557 English Lit.	**ENGLISH(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
Group C	**BELED528 History**	**POLITICAL HISTORY OF INDIA (606 A.D.TO 1206 A.D.)**	**3**			3	40	60	100
	BELED558 History	**HISTORY(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
Group D	**BELED529 Political Sc**	**INTERNATIONAL POLITICS**	**3**			3	40	60	100
	Political Sci. ELED 559	**POLITICAL SCIENCE(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
Group E	**BELED530 Economics**	**INDIAN ECONOMICS**	**3**			3	40	60	100
	BELED560 Economics	**ECONOMICS (PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
PRACTICUM									
	BELED561	ACADEMIC ENRICHMENT ACTIVITIES-V (AGRICULTURE AND HOME SCIENCE)			6	3	50	50	100
Total			**19**		**10**	**24**	**300**	**400**	**700**

Course Code: BELED 501	CORE COURSE BELED – Semester - V **LANGUAGE ACROSS THE CURRICULUM**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understanding relationship between language and society	
CO2.	Understanding theories of language development	
CO3.	Applying language in teaching- learning process	
CO4.	Analyzing nature of speech defects	
CO5.	Evaluating reading, listening, speaking and writing skills and suggesting corrections	
Course Content:		
Unit-1:	**Language and Society :** Relationship between language and society : identity, power and discrimination Multilinguism: differential status of Indian classroom language, dialects vs standard language	**10 Hours**
Unit-2:	**Language Development and Acquisition :** Theories of language development and its implementation in teaching, Psychological basis of language. Language acquisition: stages, language and thought, Language acquisition and cognitive development, language in different contexts	**10 Hours**
Unit-3:	**Classroom Discourse :** • Classroom discourse : meaning, nature and medium, • Importance and elements of oral language, Strategies for using oral language: Discussion and questioning as tools for learning, debates, seminars. Role of teacher in classroom discourse	**10 Hours**
Unit-4:	**Developing Writing Skills :** • Need and importance of writing, • Making reading writing connections, Strategies of writing for children – note taking, 150erry150izing, Analysingchildren‟s writings, Text book analysis	**10 Hours**
Unit-5:	**Developing Writing Skills :** • Need and importance of writing, • Making reading writing connections, Strategies of writing for children – note taking, 150erry150izing,	**10 Hours**

	Analysingchildren‟s writings, Text book analysis	
Text Books:	• Agnihotri, R.K. (1995). Multilingualism as a classroom resource. In K.Heugh, A. Seigruhn&P.Pluddemann (Eds.) *Multilingual education for South Africa,* Heinemann Educational Books • Eller, R.G. (1989). Johnny can‟t talk, either : The perpetuation of deficit theory in classrooms, - *The Reading Teacher*, 670-674 • Sinha, S. (2000). Acquiring literacy in schools. *Seminar*, 38-42 • Thwaite, A. and Rivalland, J. (2009). How can analysis of classroom talk help teachers reflect on their practices? *Australian Journal of Language and Literacy*, 32(1), 38 • Anderson, R.C. (1984). Role of reader‟s schema in comprehension, learning and memory. In R.C. Anderson *et al. (eds) Learning to read in American schools: Basal readers and content texts*. Psychology Press. • Grellet, F. (1981). *Developing reading skills : A practical guide to reading comprehension exercises*. Cambridge University Press. Snehalata Chaturvedi (2017). Language Across the Curricular, Agarwal Publication. Agra • NCERT (2006). Position paper: National Focus Group on teaching of Indian language (NCF-2005). New Delhi: NCERT.	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED 502	ACADEMIC ENHANCEMENT COMPULSORY COURSE BELED – Semester - V **HUMAN VALUES AND ETHICS**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understanding the need and importance of value education.	
CO2.	Applying the different methods of value education.	
CO3.	Analyzing the process of value education.	
CO4.	Developing professional ethics in youths.	
Course Content:		
Unit-1:	**Ethics and Human Values** – Definition – Good Behaviour, Conduct and Character; Importance, Respects for Elders, Use and Relevance in Present-day Society. Need of Values Education for a Teacher	**10 Hours**
Unit-2:	**Indian Constitution and Values –** Fundamental Rights and Duties - Freedom,Equality, Fraternity, Justice; Directive Principles of State Policy; Our National Emblem	**10 Hours**
Unit-3:	**Religious and Cultural Values**–Values embedded in Hinduism, Islam, Christianity, Buddhism, Jainism, Sikhism; Religious Tolerance; Importance of a Family	**10 Hours**
Unit-4:	**Professional Ethics**–Need and Importance – Goals – Dignity of Labour – Ethical Values in Different Professions – Management, Teaching, Civil Services, Politics	**10 Hours**
Unit-5:	**Health and Nutrition**: Food Habits; Exercise; Communicable Diseases; Risk Behaviour - Substance Abuse – Drugs, Alcohol, Tobacco	**10 Hours**
Text Books:	**1-** पाण्डेय, बृजेश, (2002), मूल्यपरकशिक्षा : वर्तमानपरिदृश्य, भारतीय आधुनिकशिक्षा. **2-** पाण्डेय, रामशक्ल, एवंमिश्रा, करूणा शंकर, (2006), मूल्य शिक्षण, विनोदपुस्तकमंदिर, आगरा **3-** मिश्रा, रेणु, मूल्यपरकशिक्षा, राजस्थानबोर्डशिक्षण पत्रिका, अंक : 3–4, खण्ड 44–45 **4-** लोढ़ा, महावीरमल, (1996), नैतिकशिक्षा के विविध आयाम, राजस्थानहिन्दीग्रन्थअकादमी, जयपुर **5-** Board of Education Fountain. (1999). Peace Education UNICEF. NY: UNICEF. 6- Eisler, J. (1994). Comprehensive conflict result program (1993-94). New York: N. Y. City	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED 503	CORE COURSE BELED – Semester - V **SAMANYA HINDI**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	विद्यार्थी स्वर,व्यंजन,शब्द संरचना तथा वाक्य संरचना को समझ लेगें।	
CO2.	विद्यार्थी वर्तनी तथा लेखनी में व्याकरण के नियमों का उपयोग कर सकेगें।	
CO3.	विद्यार्थी शब्द, वाक्य, कविता, कहानी,नाटक तथा निबन्ध आदि का विश्लेषण कर सकेगें।	
CO4.	विद्यार्थी सामान्य हिन्दी के ज्ञान के माध्यम से भाषा का मूल्याकंन कर सकेगें।	
CO5.	भाषायी ज्ञान के माध्यम से छात्र वाक्यों का निर्माण कर सकेगें शब्द रचना वाक्य रचना निबन्ध नाटक तथा पत्र लेखन में पारंगत हो सकेगें।	
Course Content:		
Unit-1:	**हिन्दी ध्वनियों का स्वरूप–** • स्वर और व्यंजन • संज्ञा, सर्वमान, क्रिया, विशेषण, क्रिया विशेषण वाक्य संरचना	**10 Hours**
Unit-2:	**हिन्दी शब्द संरचना–** पर्यायवाची, समानार्थक, विलोमार्थक, अनेकार्थक, अनेक शब्दों के स्थान पर एक शब्द समूहार्थक शब्दों के प्रयोग, निकटार्थी शब्दों के सूक्ष्म अर्थ–भेद, समानार्थक शब्दों के भेद, उपसर्ग, प्रत्यय	**10 Hours**
Unit-3:	**वर्तनी, विराम चिन्ह एवं संशोधन** • र्वतनी सम्बधी अशुद्धियाँ, मात्राओं की अशुद्धियाँ • र्वतनी सम्बधी अशुद्धियो के कारण, वर्तनी सम्बधी अशुद्धियो के सुधारने उपाय। विरामचिन्ह– पूर्णविराम, प्रश्नवाचक चिन्ह सम्बोधन या आश्चर्य चिन्ह, निर्देशक चिन्ह, अवतरण चिन्ह	**8 Hours**
Unit-4:	**लेखन सम्बन्धी कौशल** • लिखित भाषा शिक्षण के उद्देश्य • लेखन की विभिन्न विधियाँ, लेखन के दोष • निबन्ध लेखन, कहानी लेखन राष्ट्रीय–अर्न्तराष्ट्रीय तात्कालिक घटना क्रमों पर लेखन	**10 Hours**
Unit-5:	**हिन्दी पत्राचार एवं लेखन** • औपचारिक पत्राचार • अनौपचारिक पत्राचार राष्ट्रीय–अर्न्तराष्ट्रीय तात्कालिक घटना क्रमों पर लेखन	**12 Hours**
Text Books:	01–राजभाष हिन्दी–गोविन्ददास–हिन्दीसाहित्य सम्मेलन, प्रयाग। 02–राष्ट्रभाषा आन्दोलन–गोपाल परशुराम– महाराष्ट्र सभा। 03–विराम चिन्ह–महेन्द्र राजा जैन– किताबघर, दिल्ली	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED 541	PEDAGOGY ELECTIVE COURSE BELED – Semester - V **PEDAGOGY OF HINDI**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understanding various approaches and methods for teaching- learning of Hindi language.	
CO2.	Describing concepts, principles and theories of assessment of learning.	
CO3.	Identifying theories, principles and techniques of pedagogy and selecting relevantpedagogical tools for learning.	
CO4.	Recognizing principles, theories and procedures of lesson plan and preparing lesson plans for the Hindi course.	
CO5.	Applying the concepts of Hindi language in inter-disciplinary situations.	
CO6.	Evaluating the learning assessment requirements and designing the assessmentinstruments for Hindi course	
Course Content:		
Unit-1:	The nature and characteristics of Hindi language, its phonology, morphology and syntax The importance of Hindi in the school curriculum in India Aims and objectives of teaching Hindi at secondary and Higher secondary stages	**10 Hours**
Unit-2:	General principles of curriculum construction A critical appraisal of the existing secondary school curriculum in Hindi General Principles of Teaching Hindi Problems of teaching Hindi at school level	**10 Hours**
Unit-3:	Audio – visual Aids for teaching of Hindi Use of test book and criteria of a good text book of Hindi Qualities of a good Hindi teacher Language (Hindi) room and librar	**10 Hours**
Unit-4:	Methods of developing listening, speaking, reading and writing skills Methods and techniques of improving pronunciation and correcting spelling mistakes Methods of teaching prose, poetry, drama, story, composition and grammar Planning of lessons for prose, poetry, drama, story, composition and essay writing Use of literary activities in teaching of Hindi	**10 Hours**
Unit-5:	Evaluation: meaning and importance Comprehensive and continuous evaluation (CCE) in Hindi Diagnostic tests and remedial teaching Preparation of achievement test	**10 Hours**

Text Books:	• Chhatriya. K. Matra Bhasha Shikshan, Vinod Pustak, Mandir, Agra. Mangal, Uma; Hindi Shikshan, Arya Book Depot, Delhi. • Pandey, R.S.Hindi Shikshan, Vonod Pustak Mandir, Agra. • Singh, N.K. madhyamic Vidhyalayon mein hindi shikshan, Rajasthan Hindi granth academy, Jaipur. • Singh, Savitri. Hindi Shikshan, Loyal book Depot, Meerut. • Shrivastava R.P.Teaching of Reading, Bahri publication, New Delhi. Girish, Pachauri, Hindi Shikshan] R. Lal Book Depot, Meerut. • HkVukxj] feuk{kh% fgUnh f'k{k.k] Jh fouksn iLrd efUnj] vkxjkA • 'kek] ekr.M% fgUnh f'k{k.k] 'kkjnk iLrd Hkou] bykgkckn A	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED 542	PEDAGOGY ELECTIVE COURSE BELED – Semester - V **PEDAGOGY OF ENGLISH**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understanding various approaches and methods for teaching- learning of English language.	
CO2.	Describing concepts, principles and theories of assessment of learning.	
CO3.	Identifying theories, principles and techniques of pedagogy and selecting relevantpedagogical tools for learning.	
CO4.	Recognizing principles, theories and procedures of lesson plan and preparing lessonplans for the English course.	
CO5.	Applying the concepts of English language in inter-disciplinary situations.	
CO6.	Evaluating the learning assessment requirements and designing the assessmentinstruments for English course	
Course Content:		
Unit-1:	The nature and characteristic of English language Aims and objectives of teaching English at the secondary and higher secondary stage Present position of English in the school curriculum and its importance in India. General principles of English curriculum construction Board principles ofteaching English	**10 Hours**
Unit-2:	Methods: Translation method, the direct method, substitution method, look and learn method, bilingual method, structural approach The procedures of teaching prose, poetry, translation and composition	**10 Hours**
Unit-3:	Place of Grammar in teaching of English Advantages and disadvantage of teaching Grammar Audio-visual Aids in teaching of English Low cost and no-cost teaching aids. In teaching of English Qualities of a good English teacher	**10 Hours**
Unit-4:	• Evaluation: meaning and importance • Tools and devices of evaluation • Comprehensive and continuous evaluation in English Preparation of achievement test	**10 Hours**
Unit-5:	Lesson planning- in English prose, poetry, translation and composition A critical appraisal of the existing secondary school curriculum in English Engagement with the field: Tasks and Assignments for the above	**10 Hours**

	course	
Text Books:	• Chaturvedi, M.G. A contractive study of Hindi – English phonology". • Frisby, A.W. Teaching English : Notes and comments in teaching English. • Gimson, A.C. An Introduction to the pronunciation of English : Edward Arnold, Second Edition, London. • Sharma, R.A.; Teaching of English, R.Lall book Depot, Meerut. • Gupta, P.K.; Teaching of English, R.Lall book Depot, Meerut. • Rai, Geeta : Teaching of English, R.Lall Book Depot, Meerut. Pahuja, Sudha; Teaching of English, Shri Vinod Pustak Mandir, Agra	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED 543	PEDAGOGY ELECTIVE COURSE BELED – Semester - V **PEDAGOGY OF SANSKRIT**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understanding various approaches and methods for teaching- learning of Sanskrit language.	
CO2.	Describing concepts, principles and theories of assessment of learning.	
CO3.	Identifying theories, principles and techniques of pedagogy and selecting relevantpedagogical tools for learning.	
CO4.	Recognizing principles, theories and procedures of lesson plan and preparing lesson plans for the Sanskrit course.	
CO5.	Applying the concepts of Sanskrit language in inter-disciplinary situations.	
CO6.	Evaluating the learning assessment requirements and designing the assessmentinstruments for Sanskrit course	
Course Content:		
Unit-1:	Sanskrit: its phonology, morphology and syntax and importance of Sanskrit in Indian society The position of Sanskrit in the school curriculum: its literacy, cultural and linguistic value, its relations with modern Indian language Aims and objectives with specification of teaching Sanskrit (cognitive, affective and psychomotor domains) in behavioral terms	**10 Hours**
Unit-2:	Need, bases and principles of curriculum construction Precaution in developing curriculum of Sanskrit Evaluation of present secondary school curriculum of Sanskrit and Suggestions for improvement	**10 Hours**
Unit-3:	Teaching Methods: Pathshala method, Bhandarkar Method, Textbook Method, Direct method and the Elective method Oral work and pronunciation, recitation of passages from prose and poetry, their aims and teaching methods Text book of Sanskrit- Characteristics and Evaluation procedure of text book	**10 Hours**
Unit-4:	Teaching aids of Sanskrit, Qualities of a good Sanskrit teacher Lesson plans for teaching of prose, poetry, grammar Composition, translation, drama, rapid reading and spelling in Sanskrit	**10 Hours**
Unit-5:	• Evaluation inteaching of Sanskrit and its need • Formative and Summative Evaluation • Comprehensive and continuous Evaluation in Sanskrit Preparation of achievement test	**10 Hours**
Text Books:	• ‘kek f’k[kk^^ lLdr f’k{k.k** vxoky ifcyd’ku] vkxjkA • ik.M; Mk0 jke’kdy] lLdr f’k{k.k] foukn iLrd efUnj] vkxjkA • oRl Mk0 oh0,y0 ^^ lLdr f’k{k.k** foukn iLrd efUnj] vkxjkA	

	• erry Mk0 lrk"k^^ lLdr f'k{k.k **] vkj0yky cd fMik] ejBA	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED 544	PEDAGOGY ELECTIVE COURSE BELED – Semester - V **PEDAGOGY OF PHYSICAL SCIENCE**	L-4 T-0 P-0 C-4
Course Outcomes:	**On completion of the course, the students will be :**	
CO1.	Understanding various approaches and methods for teaching- learning of Physical Science.	
CO2.	Describing concepts, principles and theories of assessment oflearning.	
CO3.	Applying the Physical Science concepts in inter-disciplinary situations.	
CO4.	Evaluating the learning assessment requirements and designing the assessment instruments for Physical Science course.	
Course Content:		
Unit-1:	• Nature of science, Impact of science on modern communities • Globalization and Science. • Correlation of science with other subjects • Aims and objectives of teaching physical science at secondary level. • Blooms taxonomy of educational objectives. Writing instructional objectives.	**10 Hours**
Unit-2:	• Method of science teaching-Lecture cum demonstration method Project method, Heuristic method, Laboratory method. Innovative instructional method:Tutorial, Seminar, Brain Storming Micro – Teaching, Programmed teaching, Team teaching and CAI (Computer Assistance Teaching).	**10 Hours**
Unit-3:	• Unit planning and Lesson planning: basic elements, characteristics, significance • Use of RCEM approaches in developing lesson plan • Designing Lesson plan for science teaching in school Teaching learning materials and improvised apparatus importance and construction	**10 Hours**
Unit-4:	• Curriculum organization using procedures like concentric, topical, process and integratedapproaches, • Curriculum accessories and support material- text books, journals, handbooks, student'sworkbook, display slides Co-curricular Activities:Excursion, Science museums, Science club, Science Projects and Science fair	**10 Hours**
Unit-5:	• Concept of evaluation & measurement, Formative and summative evaluation • Preparing various kinds of objectives tests. • Diagnostic testing and remedial teaching Preparation of achievement test	**10 Hours**

Text Books:	• Gaez, Alert v; 'Innovation in science education', world-wide Paris, The UNESCO press, Paris. • Heiss, obourn and hoff man, 'Modern Science teaching,' Mc Millan co, N.V. Kuhn David J; Science Education in a changing society'; Science Education 56 (3) 1972. • Sharma, R.C. (1981): 'Modern Science teaching', Dhanpat Rai and sons, Delhi. • Kulshrestha, S.P.; 'Teaching of science,'R.Lall Book Depot, Meerut. • HkVukxj] ,0oh0 % ^^fQfte dyl kbU lf'k{k.k]** vkj0yky0 c[kdfMik] ejBA • ekg'ojh] ch0d0 % ^^foKkuf'k{k.k**] JhfouknilrdefUnj] vkxjkA • fo'ukb] mUufr % ^^foKkuf'k{k.k**] vkj0yky0 c[kdfMik] ejBA • d[yJ"B] ,0d0 % foKkuf'k{k.k] vxokyifC;d'kU l] vkxjkAbUVjuVA	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED521	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.EdSemester-V SEMICONDUCTOR/ SOLID STATE DEVICES	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of semiconductor and solid state devices.	
CO2.	Appling the mechanism of drift and diffusion of charge carriers.	
CO3.	Analyzing the working of diodes like Varactor diode, photo diode, tunnel diode and solar cells.and Triodes like BJT, FET and MOSFET.	
Course Content:		
Unit-1:	**CRYSTAL AND LATTICE**: Crystal lattice, Packing fraction, Crystal planes and sections, Crystal structure of Ge, Si and GaAs, Band theory of semiconductors, Metals, semiconductors and insulators, Semiconductors crystals, Effective mass concept.	**12 Hours**
Unit-2:	**CARRIER CONCENTRATIONS**: The Fermi level, Quasi-Fermi levels, Electron and Hole concentration at equilibrium, Direct and Indirect recombination of electrons and holes, Hall effect, Steady-state carrier generation.	**10 Hours**
Unit-3:	**TRANSPORT PHENOMENA**: Drift and Diffusion of Carriers, Recombination, Continuity and Diffusion equations, Hynes-Shockley experiment. P-N JUNCTIONS: The Contact Potential, Space Charge at a junction, Steady state condition, Current at a junction, Junction breakdown, Time variation of stored charge, P-N junction capacitance, Graded junction.	**10 Hours**
Unit-4:	**JUNCTION DIODES**: Varactor Diode, Concept of negative resistance Devices, Tunnel Diode, Photo Diode, Solar Cells, Light Emitting Diode, PIN photo detector and Avalanche photodiode, Detector response time.	**8 Hours**
Unit-5:	**BIPOLAR JUNCTION TRANSISTOR (BJT)**: Charge transport and current in a BJT, Current transfer ratio, BJT switching, FET, MOSFET: Principle of Operation and I-V Characteristics of FET, MOSFET, MOS Capacitor, Threshold voltage in MOSFET.	**10 Hours**
Text Books:	1. "Solid State Electronic Devices" – B. G. Streetman, PHI 2. "Integrated Electronics" – Millman&Halkies, Tata McGraw. 3. "Physics of Semiconductor Devices" – S. M. Sze.	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED522	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V PHYSICAL AND INORGANIC CHEMISTRY	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of physical andInorganic chemistry.	
CO2.	Analyzing the different environmental problems.	
CO3.	Evaluating the chemistry of various type of substances.	
Course Content:		
Unit-1:	Specific Conductance, Equivalent Conductance, Kohlrausch's law, Arhenius Theory of electrolyte dissociation & Limitations,Oswald's dilution law, Debye Huckel – onsagar^{S}equationSeq^{n} for Strong. Electrolyte, Definition of Transport Number, Determination by Hittorf's Method.	**10 Hours**
Unit-2:	**Thermodynamics** Types of System, Intensive and Extensive Properties, Zeroth Law & First Law of thermodynamics, Enthalpy & Internal Energy (def), Heat capabilities & their relationship, Second Law of Thermodynamics, Concept of entropy, Entropy Change during Phase transitions, Carnot cycle & its efficiency, Gibbs free energy, Joule thomson effect.	**12 Hours**
Unit-3:	**Ionic Equilibria** Strong, moderate weak electrolytes, Degree of Ionization, Ionization Constant, Ionic product of water, Common ion effect, PH Scale, Salt Hydrolysis, Calculation of hydrolysis Constant. and degree of hydrolysis, Buffer solution, Buffer Action, Solubility Product of Sparingly Soluble salt, application of Solubility product.	**10 Hours**
Unit-4:	**Environmental Chemistry** Importance of environment now-a-days, Natural resources (Renewable Resources), Non renewable resources, Photochemical Smog, Biological Oxygen demand, COD, Pesticides & its Biochemical effects, toxicity of Lead, Mercury, arsenic & cadmium..	**8 Hours**
Unit-5:	**Coordination Chemistry** IUPAC Nomenclature, Werner's Theory, Valence bond Theory, Crystal field theory, Isomerism in coordinate compounds (structural and stereo Isomerism), Importance of co-ordination compounds.	**10 Hours**
Text Books:	**NCERT Chemistry**. **Physical Chemistry**: **O.P. Tandon**. Inorganic Chemistry: **Concise Inorganic Chemistry** by **J.D. Lee**. **Organic Chemistry**: M.S. Chouhan. Modern's ABC of Chemistry for Class 11th and 12th. Comprehensive Chemistry Study Material For NEET & AIIMS.	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED523	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V DIFFERENTIAL GEOMETRY AND TENSOR	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of differential geometry and tensor.	
CO2	Applying the fundamental form and relation between E, F,G coordinates.	
CO3	Analyzing contra variant and covariant vectors and tensors.	
Course Content:		
Unit-1:	Curves in space, space curves, are lengths, tangent plane lines, osculating plane, normal plane, unit vectors t, n, b, serret fernet formula, curvature and torsion of curves helix, osculating circle and osculation sphere.	**10 Hours**
Unit-2:	Fundamentals of surfaces, definition of surface, class of a surface, regular and singular point, tangent and normal planes, fundamental form and relation between E, F, G, Fundamental magnitude of slandered surface	**12 Hours**
Unit-3:	Envelopes and Developable surfaces, characteristics envelop, edge of regression, developable surface, envelops of a plane etc.	**10 Hours**
Unit-4:	Contra variant & Covariant Vectors & Tensors, Contraction, Tensor algebra, Associated Vectors and Tensors.	**8 Hours**
Unit-5:	Christoffel Symbols, Tensor law of transformation, Covariant derivative of Tensors. Riemann Christoffel Tensor.	**10 Hours**
Text Books:	1."Differential Geometry" by A. R. Vasistha and J. N. Sharma, Kedarnath Ramnath 2. "Tensor Calculus" by G. C. Sharma and S.K. Singh Laxmi Narayan Publisher Agra	
Reference Books:	1. "Differential Geometry" by A.B. Chandra Moule and J. B. Chauhan, Siksha Sahitya Prakashan 2. "Differential Geometry" by P. P. Gupta and G. S. Malik, Pragati Prakashan 3. "Differential Geometry" by S. C. Mittal and D. C. Agarwal, Krishna Pracashan 4. "Differential Geometry" by T. J. Willmore Oxford University Press, New Delhi *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED524	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V ECONOMIC BOTANY AND PLANT BIOTECHNOLOGY	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Describing the origin and diversification of cultivated plants.	
CO2.	Describing botanical name, family, morphology and uses of economically important crop plants.	
CO3.	Appling basic techniques of plant biotechnology and genetic engineering in plant genetic improvement.	
CO4.	Assessing the scope of plant tissue culture techniques for multiplication and conservation of endangered plants species having medicinal, aromatic, agricultural and economic value.	
Course Content:		
Unit-1:	**Origin of Cultivated Plants:**Concept of centres of origin and diversity of cultivated plants, Vaviloviancentres. Cereals: Rice -Origin, morphology, uses Legumes: General account with special reference to Gram and soybean	**10 Hours**
Unit-2:	**Spices and Beverges:**General account with special reference to clove and black pepper (Botanical name, family, part used, morphology and uses) Beverages: Tea (morphology, processing, uses)	**12 Hours**
Unit-3:	**Fat and Fibre yielding plants:**General description with special reference to groundnutFibre Yielding Plants: General description with special reference to Cotton (Botanical name, family, part used, morphology and uses)**.**	**10 Hours**
Unit-4:	**Environmental Chemistry** Importance of environment now-a-days, Natural resources (Renewable Resources), Non renewable resources, Photochemical Smog, Biological Oxygen demand, COD, Pesticides & its Biochemical effects, toxicity of Lead, Mercury, arsenic & cadmium..	**8 Hours**
Unit-5:	**Recombinant DNA Techniques** Blotting techniques: Northern, Southern and Western Blotting, DNA Fingerprinting; Molecular DNA markers i.e. RAPD, RFLP, SNPs; DNA sequencing, PCR.Hybridoma and monoclonal antibodies, ELISA and Immunodetection.	**10 Hours**
Text Books:	2. Kochhar, S.L. (2011). Economic Botany in the Tropics, MacMillan Publishers India Ltd., New Delhi. 4th edition. 3. Bhojwani, S.S. and Razdan, M.K., (1996). Plant Tissue Culture: Theory and Practice. Elsevier Science Amsterdam. The Netherlands. 4. Glick, B.R., Pasternak, J.J. (2003). Molecular Biotechnology-Principles and Applications of recombinant DNA. ASM Press, Washington.	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED525	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V CELL BIOLOGY AND GENETICS	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concept of cell biology and genetics.	
CO2.	Appling the Structure and function of cell and other cell organelles.	
CO3.	Analyzing the Mendel's principles on genetics, Structure of chromosomes, DNA and RNA.	
Course Content:		
Unit-1:	Structure and function of cell Ultrastructure of Plasma membrane	**08 Hours**
Unit-2:	Structure and function of cell organelles with special emphasis on mitochondria, golgibodies, nucleus, ribosome and endoplasmicreticulum.	**12 Hours**
Unit-3:	Structure of Chromosomes, Watson & Crick Model of DNA, Differences Between DNA & RNA Cell Division:Mitosisand Meiosis.	**10 Hours**
Unit-4:	Mendels principles of heredity on chromosomal basis, Monohybrid cross, test cross, dihybrid cross, backcros, incomplete dominance, Multiple Alleles, Blood group inheritance.	**8 Hours**
Unit-5:	Linkageand crossingover, interaction of genes. Theory of DNA in heredity. Sex determination, sex differentiation, Sex-linked characters, Genetic diseases and abnormalities, chromosomal aberrations,	**12 Hours**
Text Books:	1- De Robertis, E.D.P. and De Robertis, E.M.F. 2006 Cell and molecular Biology 8th edition-lippincottwillians and Wilkins, Philadelphia 2- Gupta P.K. Genetics Rastogi publication merrut .	
Reference Books:	1- Verma P.S.and V.K. Agarwal, Concept of cell Biology S chand& co. 2- Lodishetal :- molecular cell Biology (scientific American book) 3- Veer balarastogi . Introduction to Cell biology, rastogi publication merrut *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED551	Discipline Specific Practical B.Sc.-B.Ed.(Int.) Semester-V SEMICONDUCTOR/ SOLID STATE DEVICES LAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Applying elementary ideas of electronics to determine the characteristics of solar cell, photocell, Zener diode and LED.	
CO2.	Analyzing the applications of Hall Effect, Hystereises loop, logic gates and magnetic susceptibilty.	

Course Content:

LIST OF EXPERIMENTS

Note: Select any ten experiments from the following list

1. To determine Plank's constant using LEDs of at lest 4 different colors filter.
2. To determine Ionization Potential of a gas.
3. To draw forward and reverse bias characteristics of a semiconductor diode.
4. To study the characteristics of Zener Diode voltage regulation.
5. To verify the inverse square law by photo-cell.
6. To study the characteristics of a solar cell.
7. To measure the Resistivity of a Ge Crystal with Temperature by Four-Probe Method (from room temperature to 200^{o} C) and to determine the Band Gap Eg for it.
8. To determine the Hall Coefficient and the Hall angle of a Semiconductor.
9. To study the PE Hysteresis loop of a Ferroelectric Crystal.
10. To measure the Magnetic susceptibility of Solids and Liquids.
11. To determine wavelength of H-alpha emission line of hydrogen atom.
12. Study of logic gates.

Evaluation

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED552	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V PHYSICAL AND INORGANIC CHEMISTRY LAB	L-0 T-0 P-4 C-2

Course Outcomes:	At the end of this course, the students will be-
CO1.	Identify and separate preservatives and additives added in food items by chromatography.
CO2.	Apply the technique of conductometric titrations in drug industry
CO3.	Analyze a unknown organic compound.

Course Content:

LIST OF EXPERIMENTS

Inorganic

Sepration of mix of sugar solution. (glucose, Fructose & Sucrose) by paper Chromatography.

Organic

Analysis of an organic compounds through systematic qualitative procedure for functional gr. Identification including the determination of M.P & B.P (Alcohol, phenol, Aldehydes, kelons, carboxlic acid, aromatic pri amines.

Physical

Determination of $Conc^N$ of HCl Conductometrically using standard NaOH Soln.

Determination of $Conc^N$ of CH_3COOH Conductometrically using standard. NaOH Soln.

Evaluation

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED553	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V SKILL MATHEMATICS: STATISTICS	L-0 T-0 P-4 C-2

Course Outcomes:	At the end of this course, the students will be-
CO1.	Understanding the concepts of linear and ordinary differential equation.
CO3.	Applying the integration in series.
CO4.	Analyzing Picard's iteration method and uniqueness and existence theorems.

Course Content:

Unit-1:	Methods of least squares, and its use for Curve Fitting and fitting of straight lines and parabola, Normal equations, Most plausible lines.	**08 Hours**
Unit-2:	Bivariate distribution, Karl's Pearson's coefficient of Correlation, Rank Correlation and Line of Regression, Proof of $-1 < r < 1$.	**10 Hours**
Unit-3:	Consistency and Association of attributes, Theory of Attributes and their combination, class frequency. Association of datas, dependent and independent attributes	**12 Hours**
Unit-4:	Hypothesis Testing:Types of Hypothesis, level of significance, Critical Region, Power of a test, Types of Error, t-test, z-test, Anova.	**10 Hours**
Unit-5:	Properties of $\chi 2$ distribution, calculation of theorticalfreequences, problem of $\chi 2$ distribution at significant level.	**10 Hours**

Text Books:	1. "Statistics" by J.K. Goyal and J. N. Sharma, KrishanaPrakashan Mandir 2. "Statistics" by V. K. Kapur and S. C. Gupta, Sultan Chand & Sons
Reference Books:	1. "Statistics" by J. N. Kapoor and H. C. Saxena, S.Chand& Company 2. "Statistics" by B. D. Gupta and O. P. Gupta, KrishanaPrakashan Mandir *** Latest editions of all the suggested books are recommended.**

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOT
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTER
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MA

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARK

Course Code: BELED554	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V ECONOMIC BOTANY AND PLANT BIOTECHNOLOGY LAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Explaining the knowledge of molecular techniques frequently used in plant biotechnology	
CO2.	Analyzing the plant tissue culture laboratory design and set up, cleaning and sterilization of glassware and preparation of plant tissue culture media.	

Course Content:

LIST OF EXPERIMENTS

1. Study of economically important plants: Wheat, Gram, Soybean, Black pepper, Clove Tea, Cotton, Groundnut through specimens, sections and microchemical tests
2. Familiarization with basic equipments in tissue culture.
3. Study through photographs: Anther culture, somatic embryogenesis, endosperm and embryo culture; micropropagation.
4. Study of molecular techniques: PCR, Blotting techniques, AGE and PAGE.

Evaluation

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS)

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED555	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V CELL BIOLOGY AND GENETICS LAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Explaining the knowledge of Preparation and study of slides for mitosis using squash technique.	
CO2.	Demonstrating the structure of Axial skeleton and Appendicular skeleton of owl.	
CO3.	Analyzing thestructure of cell organelles through electron microscope.	

Course Content:

LIST OF EXPERIMENTS

1- Microscopy – Theoretical knowledge of light and electron microscope.
2- Study of structure of cell organelles through electron microscope.
3- Study of mitosis and meiosis from permanent slides
4- Preparation and study of slides for mitosis using squash technique (onion root tip)
5- Study of hardy – Weinberg law using simulations (seed)
6- Osteology – study of skeleton of fowl
I- Axial skeleton
II- Appendicular skeleton

Evaluation

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED526	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V अद्यतन हिन्दी एवं कौरवी लोक काव्य	L-3 T-0 P-0 C-3
पाठ्यक्रम प्रतिफल	विद्यार्थी पाठ्यक्रम के अंत में	
CO1.	विद्यार्थी आधुनिक काल तथा कौरवी लोक काव्य की विशेषताओं का विस्तृत रूप से ज्ञान प्राप्त कर सकेंगे ।	
CO2.	विद्यार्थी कौरवी लोक काव्य के प्रचलित भजन, लोकगीत तथा आधुनिकहिंदी कविता के माध्यम से अपनी समृद्ध संस्कृति को समझ सकेंगे।	
CO3.	विद्यार्थी आधुनिक काव्य तथा कौरवी लोक काव्य में प्रचलित हिंदी भाषा परिवार की बोलियों का विश्लेषण कर सकेंगे।	
CO4.	विद्यार्थी आधुनिक काल के महान कवियों के काव्य तथा कौरवी लोक काव्य के विविध पक्षों का शोधपरक गहन मूल्यांकन कर सकेंगे।	
CO5.	विद्यार्थी आधुनिक हिंदी कविता तथा कौरवी जनकवियों के काव्य में प्रचलित सामाजिक तथा राजनीतिक जागृति के स्वरों को अपने जीवन में विकसित कर सकेंगे।	
Course Content:		
Unit-1:	**कवि –** सच्चिदानन्द हीरानन्द वात्स्यायन 'अज्ञेय' – नदी के द्वीप, दीप अकेला, उधार, साम्राज्ञी का नैवेद्य दान,कलगी बाजरे की। शमशेर बहादुर सिंह – उषा, लौट आ ओ धार, पीली शाम, अमन का राग, मुक्तिबोध की मृत्यु पर गजल।	**10 Hours**
Unit-2:	नागार्जुन – सिंदूर तिलकित भाल, अकाल के बाद, बादल को घिरते देखा। भवानी प्रसाद मिश्र – गीत बेचता हूं, सतपुड़ा के जंगल, कमल के फूल।	**10 Hours**
Unit-3:	गजानन माधव मुक्तिबोध – ब्रह्मराक्षस। चौधरी पृथ्वी सिंह बेधड़क – मानवता भजन संव 01, 10, 53 तथा गीत सं0 05	**10 Hours**
Unit-4:	कृष्ण चन्द्र शर्मा – लोकगीत – 'लोक जीवन के स्वर' के अध्याय 05 से 'राष्ट्रीय आन्दोलन' गीत सं0 02 तथा शिक्षा का महत्व – गीत संख्या 04	**10 Hours**
Unit-5:	द्रुत पाठ– केदारनाथ अग्रवाल, शिवमंगल सिंह 'सुमन', दुष्यन्त कुमार, धर्मवीर भारती, नरेश मेहता।	**10 Hours**
Text Books:	1. समकालीन हिन्दी कविता–विश्वनाथ प्रसाद तिवारी, राधाकृष्ण प्रकाशन, नई दिल्ली। 2. समकालीन हिन्दी कविता–ए0 अरविन्दाक्षन, राधाकृष्ण प्रकाशन, नई दिल्ली। 3. पाश्चात्य साहित्य सिद्धान्त एवं विविधवाद–गायकवाड, साहित्य रत्नालय, कानपुर। 4. नागार्जुन की कविता–अजय तिवारी 5. लोक साहित्य विज्ञान–डॉ0 सत्येन्द्र : राजस्थानी ग्रन्थागार, जोधपुर। 6. लोक जीवन के स्वर : डॉ0 कृष्ण चन्द्र शर्मा : कुरू लोक संस्थान, मेरठ।	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED527	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V HISTORY OF ENGLISH LITERATURE	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the beginning of English Literature, the development of various literary movements like Renaissance, Romanticism, Modernism, Postmodernism, and literary theories like Feminism and Postcolonialism	
CO2.	Applying the conceptual knowledge of the literary movements and theories for the better understanding of literary compositions of the English writers	
CO3.	Analyzing the historical development of the various literary movements and theories	
CO4.	Evaluating the relevance and utility of the various literary movements and theories in the context of the contemporary as well as present social scenario	
CO5.	Developing their critical thinking and generating new dimensions of research in English literature	
Course Content:		
Unit-1:	**FromRenaissance to Seventeenth Century** Renaissance and Reformation Miracle adn Morality Plays University Wits Elizabethan Songs and Sonnets Metaphysical Poetry Neo-classicism	**10 Hours**
Unit-2:	**Eighteenth Century and the Romantic Age** Growth of the Novel Precursors of Romanticism Romanticism and the French Revolution Growth of Romantic Literature (Prose, Poetry , Drama and Novel)	**10 Hours**
Unit-3:	**Nineteenth Century** Characterstics of Victorianism Growth of Victorian Literature (Prose, Poetry, Drama and Novel) Pre-Raphaelite Poetry	**10 Hours**
Unit-4:	**The Twentieth Century** Trends in Twentieth century literature, Twentieth century Novel Twenteith Century Drama, Problem Play	**10 Hours**
Unit-5:	**The Twenty First Century** Growth of Postcolonial literature, Feminism, Post Modernism etc.	**10 Hours**

Text Books:	1. *A Glossary of Literary Terms* by M. H. Abrams, Cengage Learning. 2. *A Background to the Study of English Literature* by B. Prasad, Macmillan. 3. *Routledge History of Literature in English: Britainand Ireland* by Ronald Carter. 4. *History of English Literature* by Edward Albert, Oxford University Press. 5. *Contemporary Literary and Cultural Theory* by Pramod K. Nayar, Pearson, 2011. 6. *Beginning Theory* by Peter Barry, Viva Books, 2018.	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED528	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V POLITICAL HISTORY OF INDIA (A.D. 606 –A.D.1206)	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding different political events, the rise and fall of various Indian dynasties like Harsha and Rajputas and the Muslim invasions in India	
CO2.	Analyzing the reigns and administrations of different Indian dynasties like Harsha and Rajputas and the causes of Muslim invasions in India	
CO3.	Evaluating the significance of policies and administrations of differentIndian dynasties like Harsha and Rajputas and the impact of Muslim invasions in India	
Course Content:		
Unit-1:	**Early Regional States of India of Harsha** Harsha and his contemporaries; Shashanka; Bhaskarvarman; Yashovarman of Kanauj; LalitaDitya; Muktaped of Kashmir	**10 Hours**
Unit-2:	**Rajput & Their different States** Origin of Rajputs The GurjaraPratihars- Origin, Nagabhatta I, Vatsaraja, Nagabhatta II, Mihirbhoja, Mahendrapala I, Mahinpala I The Palas- Dharmapala, Devapala The Senas- Vijyasena, Lakshmansena	**10 Hours**
Unit-3:	**Four Powerful Rajput State** The Chandellas - Yashovarman, Dhanga, Vidyadhara and Kirttivarman The Paramaras (Munja, Bhoja) The Ghahamanas (Arnoraja, Vigraharaja IV, Prithviraja III) The Gahadawalas (Govindachandra, Jayachandra)	**10 Hours**
Unit-4:	**Kalachuris & Chaulukyas** The Kalachuris [Gangeyandeva, Lakshmikarna] The Western Chaulukyas [Jayasimha, Siddharaja, Bhima II]	**10 Hours**
Unit-5:	**Muslims Invasions:** Arab Invasion on Sindh Excursions of Mahmud of Ghanzi Invasions Mohammad Ghuri Causes of the Defeat of the Indians	**10 Hours**
Text Books:	1. Pandey, V.C. & A. Pandey: A New History of Ancient India. 2. Ray H.C.: Dynastic History of Northern India.	

	3. Majudar, R.C.: History of Bengal. 4. Puri, B.N.: History of gurjarapratiharis. 5. Dixit, R.K.: Chandellas of Jejakabhukti. 6. Gangoly, D.C.: History of Paramaras. 7. Niyogi, Roma: History of Gahawalas 7- Srivastava, B.N.:Harsha and His Times.	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED529	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V INTERNATIONAL POLITICS	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the scope and subject matter of International Relations as an autonomous academic discipline and different approaches and methods to study the discipline through Political realism, Pluralism and Worlds system's Model.	
CO2.	Explaining the principles of Diplomacy, Propaganda and Military capabilities to understand the process of foreign policy making in the real life political situations	
CO3.	Analyzing certain basic concepts like Globalisation in contemporary world order, the conditions of Cold War phases and the post Cold War era	
CO4.	Evaluating the role and relevance of UN and its organization, Peace keeping Function and Human Rights in promoting the political stability and social welfare	
Course Content:		
Unit-1:	**International Politics** Meaning, Nature and Scope of International Politics; Theories and Approaches: Traditional Vs Scientific, Behavioral, Idealist, Realist Systems, Game, Communication; Decisionmaking	**10 Hours**
Unit-2:	**The Modern state system** Power and its elements; National Interst; Balance of Power; Collective security; Role of Ideology	**10 Hours**
Unit-3:	**Foreign Policy** Its determinants; Instruments of Foreign Policy – Diplomacy, Propaganda, Economic Instruments and War	**10 Hours**
Unit-4:	**Arms Control and Disarmament:-** Cold War; Détente; New-Cold War; Post-Cold War International Politics; Non-alignment and Non-aligned Movement; Problems of the Third World	**10 Hours**
Unit-5:	**International Law & Global Organizations** International Law; Global Organization: The U.N.; Regional Organizations: The European Union; S.A.A.R.C.; A.S.E.A.N	**10 Hours**
Text Books:	1. L.M.Goodrich, United Nation in changed world, New York, Columbia University Press, 1974. 2. M.S.Rajan (ed.), United Nations at Fifty and Beyond, New Delhi, Lancer Books 1996. 3. R.A.Folk, Law, Morality and War in the Contemporary	

	World, New York, Frederick A Praegar, 1963. 4. W.D. Coplin, Introduction to International Politics, Chicago, Markham 1971. 5. Mahendra Kumar: International Politics.	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED530	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-V INDIAN ECONOMY	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the nature and structure of Indian economy as well as economy of Uttar Pradesh, the role of various sectors viz. agriculture, industry and service in the growth of Indian economy	
CO2.	Analyzing the sectoral development of Indian economy and their interrelationships and the factors like growing population, unemployment, poverty and trade union movements that affect economic policies.	
CO3.	Evaluating the contribution and significance of different sectors like agriculture, industry and service as well as the planning in the growth and development of Indian economy as well as economy of Uttar Pradesh	
CO4.	Developing new ideas and strategies through their constructive visions and developed skills to promote the sustainable growth of Indian economy	
Course Content:		
Unit-1:	**Nature and Structure of Indian Economy** Growth and composition; Sectoral development of the Indian Economy and their interrelationship.Utilization of resource-human and natural; Probloems of population and population policy of India	**10 Hours**
Unit-2:	**Planning in India** Need, objectives and strategy of planning in India; Poverty, unemployment, its nature and extent; Employment policy	**10 Hours**
Unit-3:	**Agriculture**Trends in production and productivity, reforms, tenurial system, distribution of land, ceiling consolidation of holdings; Agriculture labour and problem wages, employment and under-employment Capital agriculture financial and physical; Problems of irrigation and supply of inputs; Organizational issues; Market cooperative farming; Community development project agricultural and rural development programmes; Technology Change in Agriculture strategy; Agricultural production strategy; Price policy in agriculture	**10 Hours**
Unit-4:	**Industry and Service Sector** Growth and Structure of industry; Industrial and licensing policites of major industries, large, small and cottage industries; Industrial finance, foreign, capital and multinationals, industrial labour - wages and wage regulation, social security, housing, industrial peace, trade Union movement; Service Sector - Nature, structure and Development	**10 Hours**
Unit-5:	**Economy of Uttar Pradesh** Nature, Structure and Development of U.P.'s Economy; U.P. Economy through plans; Demographic Scenario of U.P. Infrastructure, energy, transport and water resources; Decentralization of planning in U.P. industrial development in U.P. Public Sector Units, Small scale Industries, informal Sector, Hurdles and Prospects; Agriculture, Employment, Poverty, Inter-Regional Disparties and Policy Issues	**10 Hours**

Text Books:	1. Alak Ghosh - Indian Economy 2. Rudra Dutt & Sundaram - Indian Economy 3. Government of Indian Annual - Economic Survey	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

<table>
<tr><td>Course Code:
BELED556</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
B.El.Ed Semester-V
HINDI (PROJECT & VIVAVOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>पाठ्यक्रम प्रतिफल</td><td>विद्यार्थी पाठ्यक्रम के अंत में</td><td></td></tr>
<tr><td>CO1.</td><td>विद्यार्थीकौरवीलोककाव्यकेप्रचलितभजन, लोकगीततथाआधुनिकहिंदीकविताको मंच के माध्यम सेप्रदर्शितकरकेअपनीसमृद्धसंस्कृतिकोसमझसकेंगे।</td><td></td></tr>
<tr><td>CO2.</td><td>विद्यार्थीआधुनिककाव्यतथाकौरवीलोककाव्यमेंप्रचलितहिंदीभाषापरिवारकीबोलियोंका पी.पी.टी. के माध्यम सेविश्लेषण करसकेंगे।</td><td></td></tr>
<tr><td>CO3.</td><td>विद्यार्थीआधुनिककालकेमहानकवियोंकी काव्य रचनाओं तथाकौरवीलोकसाहित्य के विविधपक्षोंकागहनमूल्यांकनकरसकेंगे।</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000
<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
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<tr><td>Course Code:
BELED557</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
B.El.Ed Semester-V
ENGLISH (PROJECT & VIVAVOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Explaining the development of various literary movements like Renaissance, Romanticism, Modernism, Postmodernism, and literary theories like Feminism and Postcolonialism</td><td></td></tr>
<tr><td>CO2.</td><td>Analyzing the historical development of the various literary movements and theories</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the relevance of the various literary movements and theories in the context of the contemporary as well as present social scenario</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
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<tr><td>Course Code:
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B.El.Ed Semester-V

HISTORY (PROJECT & VIVAVOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Explaining different political events, the rise and fall of various Indian dynasties like Harsha and Rajputas and the Muslim invasions in India</td><td></td></tr>
<tr><td>CO2.</td><td>Analyzing the reigns and administrations of different Indian dynasties like Harsha and Rajputas and the causes of Muslim invasions in India</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the value of policies and administrations of differentIndian dynasties like Harsha and Rajputas.</td><td></td></tr>
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<tr><td>Course Code:
BELED559</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
B.El.Ed Semester-V
POLITICAL SCIENCE (PROJECT & VIVAVOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying the principles of Diplomacy, Propaganda and Military capabilities to understand the process of foreign policy making in the real life political situations</td><td></td></tr>
<tr><td>CO2.</td><td>Explain the concepts like Globalisation in contemporary world order, the conditions of Cold War phases and the post Cold War era</td><td></td></tr>
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<tr><td>Course Code:
BELED560</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
B.El.Ed Semester-V
ECONOMICS (PROJECT & VIVAVOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying different tools & techniques of Economics to understand the functioning of Indian economy as well as economy of Uttar Pradesh</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the sectoral development of Indian economy and their interrelationships and the factors like growing population, unemployment, poverty and trade union movements.</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the role of different sectors like agriculture, industry and service as well as the planning in the growth and development of Indian economy.</td><td></td></tr>
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Course Code: BELED561	PRACTICUM ACADEMIC ENRICHMENT ACTIVITIES - V (AGRICULTURE AND HOME SCIENCE)	L-0 T-0 P-6 C-3

Home Science

Drafting on paper.

- Drafting, cutting, stitching and embroidering of cloths.
- Pillow cover.
- Baby frock (Jhabla).
- Kalidar petticoat.
- Plain Trouser.
- Handkerchief (decorating with different stitches).
- Table Cloth.
- Practice of making Button hole.
- Making of sweater, socks and cap.
- Making album from different types of knitting.
- Visit to a dry cleaner shop and find out the different methods of dry cleaning.
- Draw picture of washing tool and a file.
- After selecting seats of vegetables and flowers prepare them to get saplings.
- Preparation of saplings.
- Plantation of decorative flowers in rows and pots.
- Weeding of plants planted in pots and rows.
- To add fertilizer and compost in parts and do irrigation
- Digging from spade and weeding from scraping instrument.
- Write indigenous and scientific name of plants grown in your surroundings and
  classify them as tree, hedge and herb. Make a chart to show their use in day to day
  life.
- List of indigenous and modern farming tools along with it a list of fertilizers
  having nitrogen, phosphorus and potash as their components.
- Making food nutrients charts
- To prepare - vegetable soup, salad, sprouted grains breakfast, pana of mango, four
  types of sweet and salty dish.

- Study and preparation of question paper related to home science of class 6, 7 and 8.

Agriculture:

- After selecting seeds of vegetables and flowers prepare them to get saplings.
- To prepare saplings of trees.
- To plant decorative flowery plants in pots and rows.
- Weeding of plants planted in pots and rows.
- To add fertilizer and compost in parts and do irrigation.
- Digging from spade and weeding from scraping instrument.
- Write indigenous and scientific name of plants grown in your surroundings and classify them s tree, hedge and herb. Make a chart to show their use in day to day life.

List of indigenous and modern farming tools along with it a list of fertilizers having itrogen, phosphorus and potash as their components

- The External assessment shall be done by the external examiner appointed by the controller of examination of university.
- The Internal assessment shall be done by the Faculty Concerned or internal examiner appointed by the principal.

Topic	Introduction	Discussion	Conclusion

Practical Content:

Internal	External	Total
50	50	100

	Internal	External
Performance	10	20
File work	20	20
Viva	10	10
Attendance	10	-
Total	50	50

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
THIRD YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - VI									
Sr.No.	**Course Code**	**Course/Paper**	**Period**				**Evolution Scheme**		
			L	**T**	**P**	**Credit**	**Internal**	**External**	**Total**
Theory courses									
1	BELEDIX601	ENVIRONMENTAL STUDIES	**4**			**4**	**40**	**60**	**100**
2	BELED602	GENDER, SCHOOL AND SOCIETY	**4**			**4**	**40**	**60**	**100**
3	BELED603	COMPUTER FUNDAMENTALS ,INTERNET & MS-OFFICE	**4**			**4**	**40**	**60**	**100**
Pedagogy Courses (Select Any One)									
1	BELED641	PEDAGOGY OF MATHEMATICS	**4**			**4**	**40**	**60**	**100**
2	BELED642	PEDAGOGY OF BIOLOGY	**4**			**4**	**40**	**60**	**100**
3	BELED643	PEDAGOGY OF SOCIAL SCIENCE	**4**			**4**	**40**	**60**	**100**
Liberal Course (Select Any One Science Group)									
	BELED621 Physics	THERMAL & LOW TEMPERATURE PHYSICS	**3**			3	40	60	100
Group A	BELED651 Physics	THERMAL & LOW TEMPERATURE PHYSICS (LAB)	**0**		**4**	2	50	50	100
	BELED622 Chemistry	PHYSICAL & ORGANIC CHEMISTRY	**3**			3	40	60	100
Group B	BELED652 Chemistry	PHYSICAL & ORGANIC CHEMISTRY(LAB)	**0**		**4**	2	50	50	100
	BELED623 MATH	APPLIED STATISTICS	**3**			3	40	60	100
Group C	BELED653 MATH	**SKILL MATHEMATICS (OPERATION RESEARCH)**	**0**		**4**	2	50	50	100
	BELED624 Botany	ENVIRONMENTAL BIOTECHNOLOGY	**3**			3	40	60	100
Group D	BELED654 Botany	ENVIRONMENTAL BIOTECHNOLOGY (LAB)	**0**		**4**	2	50	50	100
	BELED625 Zoology	MAMMALIAN PHYSIOLOGY	**3**			3	40	60	100
Group E	BELED655 Zoology	MAMMALIAN PHYSIOLOGY (LAB)	**0**		**4**	2	50	50	100
Liberal Course (Select Any One Arts Group)									
	BELED626 Hindi Litt.	**HINDI NIBANDH TATHA ANYA GADHYA VIDHAYEIN**	**3**			3	40	60	100
Group A	BELED656 Hindi Litt.	HINDI**(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
	BELED627 English Litt.	INDIAN WRITERS IN ENGLISH	**3**			3	40	60	100
Group B	BELED657 English Litt.	ENGLISH**(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
	BELED628 History	HISTORY OF MODERN WORLD (1453-1950 A.D.)	**3**			3	40	60	100
Group C	BELED658 History	HISTORY**(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
	BELED629 Political Sc	COMPARATIVE GOVERNMENT & POLITICS	**3**			3	40	60	100
Group D	BELED659 Political Sc	POLITICAL SCIENCE **(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
	BELED630 Economics	PUBLIC FINANCE AND INTERNATIONAL TRADE	**3**			3	40	60	100
Group E	BELED660 Economics	ECONOMICS**(PROJECT & VIVA VOCE)**	**0**		**4**	2	50	50	100
Practicum									
	BELED661	PRELIMINARY SCHOOL ENGAGEMENT (SCHOOL INTERNSHIP)			8	4	50	50	100
Total			**19**		**12**	**25**	**300**	**400**	**700**

Course Code: BELEDIX601	ACADEMIC ENHANCEMENT COMPULSORY COURSE B.El.Ed Semester- VI **ENVIRONMENTALSTUDIES**	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Remembering the facts, terms, basic concepts and scopes related toenvironmenta studies	
CO2.	Applying the control measures of different types of pollution	
CO3.	Analyzing the effects of global warming	
Course Content:		
Unit-1:	Definition and Scope of environmental studies, multidisciplinary nature of environmental studies, Concept of sustainability & sustainable development. **Ecology andEnvironment**:ConceptofanEcosystem-its structure andfunctions, Energy Flow in an Ecosystem,FoodChain,FoodWeb, Ecological Pyramid& Ecological succession, Study of following ecosystems: Forest Ecosystem, Grass land Ecosystem & Aquatic Ecosystem & Desert Ecosystem.	**10 Hours**
Unit-2:	**Natural Resources:** Renewable & Non-Renewable resources;Landersources and land use change;Land degradation, Soil erosion & desertification. **Deforestation**: Causes & impacts due to mining, Dam building on forest biodiversity & tribal population. **Energy Resources**: Renewable & Non-Renewable resources, Energy scenario & use of alternate energy sources, Case studies. **Biodiversity:** Hot SpotsofBiodiversityinIndiaandWorld,Conservation,ImportanceandFactors ResponsibleforLossofBiodiversity, Biogeographical Classification ofIndia	**12 Hours**
Unit-3:	**Environmental Pollutions:** Types, Causes, Effects & control; Air, Water, soil & noise pollution, Nuclear hazards & human health risks, Solid waste Management; Control measures of urban & industrial wastes, pollution case studies**.**	**10 Hours**
Unit-4:	**Environmental policies & practices: Climate change & Global** Warming (GreenhouseEffect),Ozone Layer -Its Depletion andControl Measures,PhotochemicalSmog,AcidRain Environmental laws: Environment protection Act; air prevention & control of pollution act, Water Prevention & Control of Pollution Act, Wild Life Protection Act, Forest Conservation Acts, International Acts; Montreal & Kyoto Protocols & Convention on biological diversity, Nature reserves, tribal population & Rights & human wild life conflicts in Indian context	**10 Hours**
Unit-5:		**8 Hours**

	Human Communities & Environment: Human population growth;impacts on environment, human health & welfare, Resettlement & rehabilitation of projects affected person: A case study, Disaster Management; Earthquake, Floods & Droughts, Cyclones & Landslides, Environmental Movements; Chipko, Silent Valley, Vishnoi's of Rajasthan, Environmental Ethics; Role of Indian & other regions & culture in environmental conservation, Environmental communication &public awareness; Case studies.	
Text Books:	1. Environmental Chemistry", De, A. K., New AgePublishersPvt.Ltd. 2. "Introduction to Environmental EngineeringandScience", Masters, G. M., PrenticeHallIndia Pvt. Ltd. 3. "Fundamentals of Ecology",Odem, E. P., W. B. Sannders Co.	
Reference Books:	**1.** "BiodiversityandConservation",Bryant, P. J., HypertextBook **2.** "Textbook of Environment Studies", Tewari, Khulbe&Tewari,I.K. Publication	

Course Code: BELED602	Core Course B.El.Ed Semester- VI GENDER, SCHOOL AND SOCIETY	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of gender, gender bias,gender stereotype, empowerment, Patriarchyand feminism in society & their challenges.	
CO2.	Applying the legal provision for gender equality in present scenario.	
CO3.	Analyzing the need and importance of equality and equity in education.	
CO4.	Evaluating the paradigm shift from women studies to gender studies based on the historical backdrop.	
Course Content:		
Unit-1:	• Gender, Sex, Sexuality • Patriarchy, Masculinity and Feminism • Gender bias, Gender Stereotyping, and Empowerment • Equity and Equality in Education w.r.t. relation with caste, class, religion, ethnicity, disability and region with respect to Gender: Present status in India and prospects • Polyandrous, Matrilineal and Matriarchal Societies in India Relevance and Status of Education.	**12 Hours**
Unit-2:	• Paradigm shift from Women's studies to Gender studies • Historical backdrop: Some landmarks from social reform movements • Theories on Gender and Education and their application in the Indian context • Socialisation theory • Gender difference • Structural theory • Deconstructive theory	**12 Hours**
Unit-3:	• Power Control in Patriarchal, Patrilineal, Matriarchal and Matrilineal Societies: Assessing affect on Education of Boys and Girls • Gender Identities and Socialisation Practices in: Family, other formal and informal organisation. • Schooling of Girls: Inequalities and Resistances (issues of Access, Retention and Exclusion). • Collection of folklores reflecting socialisation processes.	**10 Hours**
Unit-4:	• Changing Perspectives with Legal Provisions: Right to Inheritance etc • Social Construction of Masculinity and Femininity • Patriarchies in interaction with other social structures and identities.	**8 Hours**
Unit-5:	• Reproducing Gender in School: Curriculum, Text-books, Classroom Processes and Student-Teacher interactions. • Overcoming Gender Stereotypes. • Working towards gender equality in the classroom: Need and Strategies Empowerment of Women: Strategies and Issues.	**8 Hours**
Text Books:	• Ambasht, et al Developmental Needs of Tribal People,NCERT • Bhattacharjee, Nandini. Through the looking-glass: Gender Socialisation in a Primary School in T. S. Saraswathi (ed.) Culture, Socialization and Human • Development: Theory, Research and Applications in India. Sage: New Delhi. • Frostig, M, and Maslow, P. Learning Problems in the Classroom: Prevention and Remediation. Grune & Stratton: New York.	

	• Geetha, V .Gender. Stree: Calcutta. • Ghai, A. Inclusive education: A myth or reality In Rajni Kumar, Anil Sethi & • Ghai, Anita .Gender and Inclusive education at all levels In Ved Prakash & K. Biswal (ed.) Perspectives on education and development: Revising Education commission and after, National University of Educational Planning and Administration: New Delhi
Reference Books:	• Jeffery, P. and Jeffery, R. Killing My Heart's Desire: Education and Female • Autonomy in Rural India. in Nita Kumar (ed.) Women as Subjects: South Asian Histories. New Delhi: Stree in association with the Book Review Literacy Trust: Kolkata pp 125-171. **∗ Latest editions of all the suggested books are recommended**

Course Code: BELED603	ACADEMIC ENHANCEMENT COMPULSORY COURSE B.El.Ed Semester- VI Information and Communication Technology	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concept, nature and scope of ICT in Education.	
CO2.	Applying ICT in enhancing professional competencies, curriculum enrichmentandEducational administration & management.	
CO3.	Analyzing the changes occurring due to implication of ICT in Education.	
CO4.	Evaluating ICT based support services	
CO5.	Developing the skills to operate computerand gadgets for e-learning.	
Course Content:		
Unit-1:	• ICT meaning, importance and tools of ICT. • Relevance of ICT in education [Radio, Television, Computer]. • Use of Audiovisual Media • Role of ICT in Construction of Knowledge	**10 Hours**
Unit-2:	• Educational Communication**:** Concept, elements, types and barriers. Components of effective Communication in teaching. • Enhancing professional competencies of teachers through the application of ICT such as Micro teaching, programmed instruction, CAI. • Multimedia: Electronic media, print media and mass media.	**12 Hours**
Unit-3:	• Online educational resources: Concept, features and application. • E- mail • Teleconferencing, • Social networking • E learning & Online classes	**8 Hours**
Unit-4:	• Computer- Definition, Main Units. • Characteristics, Classification of Computer. • Computer Hardware-input-output devices. • Functional knowledge of operating computer.	**10 Hours**
Unit-5:	• ICT and curriculum enrichment – child centered curriculum / activity centered curriculum, web based resources. • ICT in educational administration and management:-On-line admission. • E content,e magazine, e journal, edusat, e libraries • Concept of technology in education, Components- Hardware and Software , Difference between software and Hardware. • Select gadgets of ICT and their educational implication-CCTV, O.H.P.& L.C.D Projector	**10 Hours**
Text Books:	• Information and communication - Kishore, Chavan. • Information Technology - Dyne, Nandkishore.	
Reference Books:	• National policies on ICT in School Education. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED641	PEDAGOGY ELECTIVE COURSE B.El.Ed Semester- VI **PEDAGOGY OF MATHEMATICS**	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding various approaches and methods for teaching-learning of mathematics.	
CO2.	Describing concepts, principles and theories of assessment oflearning.	
CO3.	Identifying theories, principles and techniques of pedagogy and selecting relevant pedagogicaltools for learning.	
CO4.	Applying the mathematical concepts in inter- disciplinary situations	
Course Content:		
Unit-1:	• Meaning and nature of mathematics, Uses and significance of Mathematics • Contribution of Indian Mathematician –AryaBhatt, Brahmagupta, Bhaskarachrya and Ramanujam. • Contribution of Foreign Mathematician- Euclid, Pythagoras and Rene-Descartes. • Aims and objectives of teaching of Mathematics at secondary and higher secondary school stage. • Objectives of teaching mathematics in terms of behavioral outcomes.	**10 Hours**
Unit-2:	• Methods: inductive – deductive, analytic – synthetic, problem solving, heuristic, project, laboratory. • Techniques: oral, written, drill, assignment, supervised study, programmed learning, Cooperative learning, Brain storming and concept mapping.	**08 Hours**
Unit-3:	• Meaning and Importance of lesson plan • Performa of lesson plan (Herbart,Bloom,RCEM and NCERT approaches)and its rationale for unit plan and year plan. • Developing/preparing low cost improvised teaching aids, relevant to local ethos. • Skill in maintaining and using black board, models, charts, T.V. films, video tapes and VCR. • Application of computer in teaching of Mathematics, CAI	**10 Hours**
Unit-4:	• Principles and rational of curriculum development, Organizing the syllabi both logically and psychologically according the age groups of children. • Planning activities and methods of developing the substitute/ alternative material to the prescribed for completing the syllabi, Organization of library. • Text book in mathematics – qualities of a good text book in mathematics. • Using Mathematics as a game for recreation; organizing quiz programmers, skill-development in answering puzzles riddles, magic squares, word search etc. • Learning about the short cuts mentioned in Vedic mathematics Development of math's laboratory, Maths Club.	**12 Hours**
Unit-5:	• Evaluation in mathematics in terms of cognitive, affective and psychomotor behavioral development. • Need of Evaluation. • Comprehensive and continuous evaluation (C.C.E.) in Mathematics. • Development of test item (short answer and objective type). • Diagnostic testing and remedial teaching.	**10 Hours**

Text Books:	• Davis, D.R. The teaching of mathematics', Addition Wesley press, London. • Fexmont and Herbert; 'How to teach Mathematics in secondary school', w.b.saurders company, London.
Reference Books:	• Kulshrestha, A.K.; 'Teaching of Mathematics', R.Lall, Book Depot, Meerut. Vishnoi, Unnati; 'Teaching of mathematics', Shri Vinod PustakMandir,Agra. • Pratap ,Naresh, Teaching of mathematics, R.Lall book Depot, Meerut. *** Latest editions of all the suggested books are recommended.**

Course Code: BELED642	PEDAGOGY ELECTIVE COURSE B.El.Ed Semester- VI **PEDAGOGY OF BIOLOGY**	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding various approaches and methods for teaching- learning of biological science.	
CO2.	Describing concepts, principles and theories of assessment oflearning.	
CO3.	Identifying theories, principles and techniques of pedagogy and selecting relevant pedagogicaltools for learning.	
CO4.	Applying the concepts of biological science in inter-disciplinary situations.	
Course Content:		
Unit-1:	• Meaning and nature of Life Science. Path tracking discoveries and land mark development in Life Science. Impact of Life Science on modern communities. • Justification for including Life Science as a subject in school curriculum, professions in the area of Life Science, Eminent Indian and world Life Scientists-an introduction. • General aims and objectives of teaching Life Science at secondary and higher secondary school stage, Instructional objectives with special emphasis on Bloom's Taxonomy. • Concept of entering and terminal behavior.	**10 Hours**
Unit-2:	• Methods - Lecture, Demonstration, Heuristic, project, laboratory, problem solving. • Techniques - Team teaching, Micro-teaching, computer assistance teaching.	**12 Hours**
Unit-3:	• Non formal Approach to Life Science • Biology club • School gardening. • Maintenance of aquariums, herbariums and vivarium. • Excursions. • Life Science project.	**10 Hours**
Unit-4:	**1.** Content analysis, pedagogical analysis of content (Talking an example of any one topic of Life science) **2.** Developing unit plans and lesson plans. 2. Principles and approaches for curriculum development, curricular framing according to local needs. 3. Critical evaluation of the present Life science curriculum at the secondary stage and suggestion for its improvement.	**10 Hours**
Unit-5:	• Preparation and development of improvised apparatus, • Preparation, selection and use of teaching aids. • Curriculum accessories and support material - text books, journals, handbooks, student's work book. • Developing tests for measuring specific outcomes - cognitive outcomes, affective outcomes and psychomotor outcomes. • Preparation of achievement test. • Measurement : meaning and need, evaluation meaning and types, Formative and summative evaluation, Diagnostic testing and remedial teaching.	**8 Hours**
Text Books:	• Heller, R. New trends in biology teaching,' UNESCO, Pairs.	

	• Watson, N.S. Teaching Science creativity in secondary school' U.B. Saunders company, London. • Green. T.C. (1967) : 'The Teaching and learning biology,' Allman and sons, London. • Kulshrestha, S.P. : 'Teaching of biology,' Aggrawal Publications, Agra. • Pahuja, sudha : 'Teaching of Life science,' R.Lall Book Depot, Meerut.
Reference Books:	• माहेश्वरी, बी0के0 : ''जीवविज्ञान, शिक्षण'', आर0लाल0 बुकडिपो, मेरठ। • भटनागर, ए0बी0 : जीवविज्ञानशिक्षण शारदापुस्तकभवन,इलाहाबाद। • सूद, जे0के0 जैविकविज्ञानशिक्षण, राजस्थानहिन्दीग्रन्थअकादमी, जयपुर। • भूषण,शैलेन्द्रःजीवविज्ञानशिक्षण,अग्रवालपब्लिकेशन्स,आगरा। *** Latest editions of all the suggested books are recommended.**

Course Code: BELED643	PEDAGOGY ELECTIVE COURSE B.El.Ed Semester- VI **PEDAGOGY OF SOCIAL SCIENCE**	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding various approaches and methods for teaching- learning of Social Science.	
CO2.	Describing concepts, principles and theories of assessment of learning.	
CO3.	Identifying theories, principles and techniques of pedagogy and selecting relevant pedagogical tools for learning.	
CO4.	Recognizing principles, theories and procedures of lesson plan and preparing lesson plans for the Social Science course.	
CO5.	Applying the concepts of Social Science in inter-disciplinary situations.	
CO6.	Evaluating the learning assessment requirements and designing the assessment instruments for Social Science course	
Course Content:		
Unit-1:	• The need for teaching social science in school. Concept of social science and how it differs from other social science like History, Civics, Economic, Geography and Sociology. • Objectivesofteaching social scienceat upper primary andhighersecondary levels. Discipline - oriented teaching of social science reconstruction approach. • Principles of designing social science curriculum with weight-age to be given for each component subject studies areas, approaches to organizing • social science curriculum in terms of correlation, integration, unit and chronological approaches	**10 Hours**
Unit-2:	• Meaning and importance of instructional strategies for teaching social science in term of specific method like lecture, lecture – cum discussion, project and source method, socialized recitation and supervised studies. • Lesson Planning- Herbartian Evaluation, NCERT and RCEM Approaches • Lesson Planning – specification to clarify planning vise lesson, unit and year plans, micro-teaching lesson plans for developing the, skills of introduction, explanation, black board writing, questioning, stimulus variation and providing illustration with relevant examples. • Knowledge of key concepts of Geography, Economics, History and civics subjects at secondary school level.	**12 Hours**
Unit-3:	• Resources: Primary and Secondary, Library, Natural flora and fauna, People, Institutions • Audio-visual aids – need, types and its uses in Social Science teaching.	**10 Hours**

	• Qualities of a good social scienceteacher.	
Unit-4:	• Arranging and organizing field trips to places of cultural importance through planning, preparing, executing, recording and follow-up the field trip for learning the under lying importance of the subject. • Team teaching. • Organization of social studies club. • Organization of thought provoking programmes like Quizzes, wordsearches etc.	**10 Hours**
Unit-5:	• Purpose of evaluation in social Science, formative & summative evaluations and their features. • Diagnostic test and remedial teaching. Objective and essay type. • Comprehensive and continuous Evaluation in Social Science. • Preparation of achievement test.	**8 Hours**
Text Books:	• Sharma, R.A. 'Teaching of social studies'–R.Lal Book Depot, Meerut. • Saxena, Mishra & Mohanti, 'Teaching of Social Science'R.Lall Book Depot,Meerut. • Sahu, Surendra Kumar, 'Teaching of social science'. • Wesley, E.b. Teaching Social studies in high school. • Bining & Bining, 'Teaching social studies in secondary school'. • jkBkj]Mk0d|leyrk]^^lkekftd foKkuf'k{k.k**]vkj0yk0c0d fMik] ejBA • exy ,o fllkfj;k] ^^ lkekftd v/;;u f'k{k.k** • flg ,o jktiir] ^^ lkekftd foKku vkj mudk f'k{k.k** • R;kxh] xq:ljunkl] ^^lkekftd v/;;u dk f'k{k.k** foukn i|Lrd efUnj] vkxjkA	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED621	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI THERMAL PHYSICS AND STATISTICAL MECHANICS	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the laws of thermodynamics, entropy and relationship between thermodynamic variable & potential.	
CO2.	Appling the laws of radiation, low temperature physics, superconductor and probability of accessible & inaccessible states.	
CO3.	Analyzing the mechanism of real and ideal gases	
Course Content:		
Unit-1:	**Kinetic Theory of Gases:** Maxwell's speed distribution, Mean free path, flow and Thermal conduction in gases. Real gases, Andrew's curves, Equation of state, Van der Waals equation, JouleThomson effect, Inversion temperature, Thermodynamic equations for a Van der Waals gas.	**10 Hours**
Unit-2:	**Thermodynamics**: Reversible and irreversible processes, Carnot's cycle and Carnot's theorem. Second law of thermodynamics, Thermodynamic scale of temperature. Concept of entropy, Entropy change in reversible and irreversible processes. Entropy and disorder, Principle of increase of entropy, Entropy and unavailable energy, Entropy as a thermodynamic variable, S-T diagram.	**12 Hours**
Unit-3:	**Maxwell's Thermodynamics Equations and Radiation**: Maxwell's thermodynamical equations and their applications, Energy and heat capacity equations Clapeyron equations, The blackbody spectrum, Wien's displacement law, Rayleigh-Jean's law, Planck's quantum theory of radiation.	**10 Hours**
Unit-4:	**Some Systems at Low Temperatures:** Low temperature technique, liquified gases, Superfluidity in He II, Bose-Einstein Condensation in atomic clouds. Superconductivity, Soft and Hard superconductors, Specific Heat and energy band gap for superconductors, Applications and Examples of superconductors. Liquefaction of H_2 and He, Solidification of He. Liquid He II, Adiabatic demagnetization, Low temperature thermometry.	**8 Hours**
Unit-5:	**Statistical Mechanics:**Probability and thermodynamic probability, principle of equal a prior probabilities, probability distribution and its narrowing with increase in number of particles. . The expressions for average properties. Constraints; accessible and inaccessible states, distribution of particles with a given total energy into a discrete set of energy states.	**10 Hours**
Text Books:	• Corbett Jenny- Supporting inclusive Education, Routledge falmer, 2001 • Montgomary,D. (1990) Special need in ordinary school; children withlearning , difficulties, cassel Educational Ltd. London • Hallahan and Kauffman J.M. (1984), Exceptional Children and youth ohio:Columbus Charles E Merril Publishing co. A Bell and Howell co	
Reference Books:	**1.** Loreman, Tim; deppeler J. and Harrey D. (2005) Inclusive Education- A Practical guide to supporting diversity in the class. London: Ront Ledge Falmer. **2.** UNESCO (1994) The Salmanca Statement and Framework for Action on special needs education Paris, UNESCO *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED622	DISCIPLINE SPECIFIC ELECTIVE COURSE **B.El.Ed Semester-VI** Physical and Organic Chemistry	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of physical chemistry and Organic Chemistry.	
CO2.	Applying the uses of various organic compounds.	
CO3.	Analyzing the chemistry of various chemical reactions	
CO4.	Evaluating the various colligative properties.	
Course Content:		
Unit-1:	**(a) <u>Halogen Compounds:</u>** • Nomenclature &Classification of alkyl (into Primary, Secondary & Tertiary) aryl, allyl, benzyl halides, • Nucleophilic aliphatic substitution reaction classification into SN^1&SN^2(reaction mechanism with Example) • Wurtz Fitting reaction, ulmann reaction. **(b)<u>Nitro Compounds</u>:** • Preparation of Nitro Alkanes and Nitro Arenes and their chemical reaction. • Mechanism of Electrophilic Substitution Reaction in Nitro Arenes and their reduction in acidic, neutral and alkaline medium.	**10 Hours**
Unit-2:	**<u>Carbonyl Comp.</u>** • Nomenclature of aliphalic& aromatic carbonyl Compounds. • Synthesis of aldehydes from acid Chlorides. • Synthesis of aldehydes Ketones using 1,3 dithianes. • Synthesis of aldehydes from nitriles, & from carboxylic acids. • Physical Properties. • Reactivity of carbonyl group in aldehydes & ketones. • Nucleophillic addition reaction with- (1) $NaHSO_3$ HCN, RMgX, NH_2OH. (Canizaro reaction, Perkin Reaction, Benzoin Condensation)(Knoevenenagel reaction, Clemmensen reaction,)(Wolf kishner reaction,) • Analysis of aldehydes &Keloneswith→Tollen reagent fehling test, Schiff test.	**12 Hours**
Unit-3:	**<u>Carboxylic acid & derivatives.</u>** • Nomenclature & Classification of Carboxlic acids. • Method of preparation by-: a) Hydrolysis of nitriles amides. b) Hydrolysis of esters by acids & bases c) Carbonation of Grignard reagent. **<u>Physical Properties</u>** • Acidity strength of acids with Example of trimethylacetic acid	**10 Hours**

	&trichloro acetic acids. • Relative differences in acidities of aromatic & aliphatic acids. • Chemical Properties. a) Salt formation b) Anhydride formation c) Acid Chloride formation d) Amide formation e) Esterification • Degradation of carboxlicacids byhunsdiecker reaction, decorboxylation by schimadt reaction. Arndt Eistert Synthesis.Hell Volhard Zelinsky reaction .	
Unit-4:	**Dilute Solution** • Colligative properties, Raoult's law Relative Lowering of vapour pressure, Its relation to molecular weight of non Volalite solute, Elevation in B.P & Depression of F.P • Derivation of relation between molecular weight & Elevation in B.P & Depression in F.P. • Osmosis, Osmotic, presure. • Theory of dilute Solution • Abnormal colligative properties. • Vant Hoff factor.	**8 Hours**
Unit-5:	**|Electro Chemistry II** • Single electrode potential sign convention. • Reversible & irreversible cells, Nernst equation. • Reference Electrode. • Standard Hydrogen electrode calomel electrode • Indicatore Electrode • Determination of EMF of All • Potentoimetric Titration. • Spectroscopy: Electromagnetic Radiation, Regions of Spectrum, Basic Features of spectroscopy, statement of Born-oppenheimer approximation, degree of freedom.	**10 Hours**
Text Books:	• Aggarwal, J. C., (2000). Educational & Vocational Guidance and Counseling, Jalandhar :Doaba House. • Bhatia, K. K., (2002). Principles of Guidance and Counseling, Ludhiana: Vinod Publications.	
Reference Books:	• Bhatnagar, R. P.; Rani. S. (2001); Guidance and Counseling in Education and Psychology. • Gibson, R.L. and Mitchell(2008). Introduction to counseling and Guidance. New Delhi: Bachelor of *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED623	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI APPLIED STATISTICS	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of applied statistics.	
CO2.	Applying the theory of index number.	
CO3.	Analyzing different kind of decision theory, inventory control, CPM & PERT.	
Course Content:		
Unit-1:	**Statistical Quality control**: General theory of control charts, causes of variation in quality, control limits, sub-grouping, summary of out of control criteria, charts for attributes np chart, pchart, c chart, Chart for variables X R and sigma charts.	**10 Hours**
Unit-2:	**Time Series**: Introduction, components of time series, models of time series, measurement of Trend-graphic, semi-average, least square and moving average methods, Measures of seasonal variation –Simple average, Ratio to M. A., Ratio to trend, link relative method.	**12 Hours**
Unit-3:	Hypothesis Testing: Types of Hypothesis, level of significance, Critical Region, Power of a test, Types of Error, t-test, z-test, Anova.	**10 Hours**
Unit-4:	**Index Number:** Its definition, application of index numbers, price quantity and value relatives, link and chain relatives, problems involved in computation of index numbers, use of averages, simple and weighted aggregative and average methods, Laspeyre's Passche's, Marshall Edgeworth and Fisher's index numbers **.**	**10 Hours**
Unit-5:	**Decision Theory:** Different kind of decision theory, inventory control, CPM, PERT.	**08 Hours**
Text Books:	1. "Mathematical Statistics" by S.C. Gupta, S. Chand & co. 2. "Operation Research" by D. S. Hira, S. Chand & co.	
Reference Books:	1. "Operation Research" by Winston, Cengage Learning 2. "Operation Research" by H. A. Taha 3. "Statistics" by J. N. Kapoor and H. C. Saxena, S.Chand& Company. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED624	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI ENVIRONMENTAL BIOTECHNOLOGY	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the various global and regional environmental issues.	
CO2.	Remembering bio-techniques for monitoring, cleaning up oftoxic hazardous substances from the environment.	
CO3.	Explain different types of environmental pollutions and their impacts on diverse forms of life.	
CO4.	Describing the scopes of environmental biotechnology in order to protect the environment.	
Course Content:		
Unit-1:	**Introduction and Scope of Environmental Biotechnology** Definition, components and scopes of Environmental Biotechnology, Global environmental problems - global warming,ozone depletion, UV-B, greenhouse effect and acid rain, their impact and approaches for management.Environmental pollution - types of pollution, sources of pollution, measurement of pollution, methods of measurement of pollution,bioaccumulation, bioconcentration, biomagnification.	**10 Hours**
Unit-2:	**Microbiology of waste water treatmentand Xenobiotic compounds** Aerobic process - activated sludge, oxidation ponds, trickling filter, rotating drums, oxidation ditch. Anaerobic process - anaerobic digestion, anaerobic filters, upflow anaerobic sludge blanket reactors. Bioremediation: concept, methods and benefits of bioremediation.Xenobiotic compounds**:**biodegradation of xenobiotics in environment, degradation of pesticides and hydrocarbons.	**12 Hours**
Unit-3:	**Role of immobilized cells/enzymes in treatment of toxic compounds** Bioreactors, bioleaching, biomining, biosensors, biotechniques for air pollution abatement and odour control.	**10 Hours**
Unit-4:	**Role of Environmental Biotechnology in Sustainable Development** Basic concept, goals and importance of sustainable development, renewable and non-renewable energy resources, concept ofwaste and its types, concept of bioenergy and biofuels, Classification of biofuels, biofuels production from organic waste, bioethanol, biodiesel, Biogas, Biofertilisers, Biopesticides,	**10 Hours**
Unit-5:	**Public Participation for Environmental Protection** Environmental movement and people's participation with special references to Gandhamardan, Chilika and Narmada BachaoAndolan, Chipko and Silent valley Movement; Women and Environmental Protection, Role of NGO in bringing environmental awareness and education in the society.	**10 Hours**
Text Books:	• Waste water engineering - treatment, disposal and reuse, Metcalf and Eddy Inc., Tata McGraw Hill, New Delhi. • Environmental Chemistry, AK. De, Wiley Eastern Ltd, New Delhi.	
Reference Books:	1. Introduction to Biodeterioration, D.Allsopp and K.J. Seal, ELBS / Edward Arnold. *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED625	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI MAMMALIAN PHYSIOLOGY	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concept of Mammalian Physiology.	
CO2.	Explain the process of physiology of respiration.	
CO3.	Analyzing the blood pressure and Electrocardiogram through the process of physiology of blood circulation.	
CO4.	Analyzing the Structure and function of major endocrine glands.	
Course Content:		
Unit-1:	Nutrition and digestion 1- Histology and function of gastrointestinal tract and its associated glands. 2- Digestion and absorption of proteins, carbohydrates &lipids. 3- Role of hormones in digestion.	**10 Hours**
Unit-2:	Respiration 1- Mechanism and regulation of breathing. 2- Transport of oxygen and carbon dioxide 3- Respiratory disorders and effects of smoking.	**10 Hours**
Unit-3:	Blood and circulation 1- Composition, structure and functions of blood. 2- Coagulations of blood –blood group and Rh factor. 3- Cardiac cycle, heart beat & its regulation 4- Blood pressure and Electrocardiogram .	**10 Hours**
Unit-4:	Excretion 1- Structure of urinoferous tubule mechanism of urine formation 2- Role of kidney in osmoregulation, kidney failure and dialysis. **Muscle:** Histology of different types of muscle, structure and mechanism of muscle contraction **Nervous system:** - conduction of nerve impulse, reflex action.	**10 Hours**
Unit-5:	Endocrinology Structure and function of major endocrine glands – (Pituitary gland, thyroid gland, parathyroid gland, adrenal gland, pancreas, etc.) **Reproduction**: Male and female sex hormones & menstrual cycle	**10 Hours**
Text Books:	• Human physiology – chatterjee A.G. vol.- I&II • Parameswaran ,Anantakrishnan and Ananta subramanyam, 1975, outline of Animal physiology . • Tortora G.J. &Grabowski , S (2006).	
Reference Books:	1- Guyton , A.C.& hall J.E. (2006). Textbook of medical physiology . XI edition ,hercourtasia PTE Ltd . W.B. saunderscompany . 2- Wood D.W. , 1983, principle of animal physiology 3rd edition 3- Introduction to animal physiology & related biotechnology – H.R.singh *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED651	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI THERMAL PHYSICS AND STATISTICAL MECHANICS LAB	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Applying various laws of thermodynamics to various processes and real systems.	
CO2.	Analyzing the working of resistance thermometer, Thermocouple and application of radiation.	

Course Content:

LIST OF EXPERIMENTS

Note: Select any ten experiments from the following list

1- To determine J by Callender and Barne's constant flow method.
2- To determine the Coefficient of Thermal Conductivity of Copper by Searle's Method.
3- To determine the Coefficient of Thermal Conductivity of Copper by Angstrom's Method.
4- To determine the Coefficient of Thermal Conductivity of a bad conductor by Lee and Charlton's disc method.
5- To determine the Temperature Coefficient of Resistance by Platinum Resistance Thermometer (PRT).
6- To calibrate a Resistance Temperature Device (RTD) to measure temperature in a specified range using Null Method/ Off-Balance Bridge with Galvanometer based measurement.
7- To study the variation of Thermo-Emf of a Thermocouple with Difference of Temperature of its Two Junctions.
8- To Calibrate a Thermocouple to measure Temperature in a Specified Range using Null Method.
9- Measurement of Plank's constant using blackbody radiation.
10- To determine the value of Boltzmann Constant by studying Forward Characteristics of a Diode.
11- To determine the value of Stefan's Constant.

Evaluation

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED652	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI ORGANIC CHEMISTRY LAB	L-0 T-0 P-4 C-2

Course Outcomes:	At the end of this course, the students will be-
CO1.	Apply the knowledge of Ph measurement in pharma, cosmetic industry.
CO2.	Estimate water of crystallization in different compounds.
CO3.	Prepare different types of buffer solutions

Course Content:

LIST OF EXPERIMENTS

Qualitative Inorganic Analysis

Estimation of water of crystallization in mohrs salt by titrating with $KMNO_4$

Estimation of Sodium Carbonate & Sodium hydrogen Carbonate Present mixture.

Organic

Benzoic Acid, Cinnamic Acid, Phenol.

Physical

A)Measurement of ph of different solution like aerated drinks,fruit juices shampoos and soaps using ph meter

B) Preparation of Buffer Solution

1)Sodium acetate acetic acid 2)Ammonium chloride and ammonium hydroxide

Evaluation

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED653	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI SKILL MATHEMATICS:ORDINARY DIFFERENTIAL EQUATIONS	L-0 T-0 P-4 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concepts of linear andordinary differential equation.	
CO2.	Applying the integration in series.	
CO3.	Analyzing Picard's iteration method and uniqueness and existence theorems.	
Course Content:		
Unit-1:	History and Back ground of subject, Different meaning of O.R. and Phases, characteristic and Models of O.R.	**08 Hours**
Unit-2:	Linear Programming, Mathematical formation of LPP, Graphical solution of LPP, general linear programming problem, simplex methods, duality.	**10 Hours**
Unit-3:	Transportation Problem, Assignment Problem, matrix form of: Transportation Problem. Initial basic physible solution, Optimality and transportation algorithms, balanced and unbalanced transportation problem and assignment problem.	**12 Hours**
Unit-4:	Job sequencing, Replacement model, sequencing method of two machine three machine and n amachine problem, graphic solution, Replacement of item deterioting with time, Replacement of item that fails continuously, and general replacement problem.	**10 Hours**
Unit-5:	Game Theory, two persons zero sum game, sadle point maximin and minimax, game of type 2 · 2, n· 2 game graphic solution and with dominance property.	**10 Hours**
Text Books:	1. "Operation Research" by Winston, Cengage Learning 2. "Operation Research" by S. D. Sharma, KedarnathRamnath&Company 3. "Operation Research" by KantiSwroop, P. K. Gupta and Man Mohan, SultanChand& Sons	
Reference Books:	1. "Operation Research" by H.A Tata, Maemillar& Company 2. "Operation Research" by P. K. Gupta and D.S. Hira, S Chand & Company 3. "Operation Research" by R. K. Gupta, Krishna Prakasha *** Latest editions of all the suggested books are recommended.**	

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOT
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTER
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MA

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARK

Course Code: BELED654	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI ENVIRONMENTAL BIOTECHNOLOGY LAB	L-0 T-0 P-4 C-2

Course Outcomes:	At the end of this course, the students will be-
CO1.	Appling the knowledge of collection of water and soil samples for environmental monitoring.
CO2.	Analyzing the basic techniques used for environmental monitoring
CO3.	Demonstrating Isolating microbial strains from air, water, soil samples and the effect of pH and temperature on their growth.

Course Content:

LIST OF EXPERIMENTS

1. Water/Soil analysis - DO, salinity, pH, total hardness, alkalinity, acidity
2. Gravimetric analysis-Total solid, dissolved solid, suspended solid in an effluent
3. Isolation and pure culture of microbial strains from air, water and soil sample
4. Colony counting on nutrient agar media
5. Measurement and optimization of microbial growth and kinetics

Evaluation

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED655	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI MAMMALIAN PHYSIOLOGY LAB	L-0 T-0 P-4 C-2

Course Outcomes:	At the end of this course, the students will be-
CO1.	Explain the basic analytical techniques used for Test for amylase on starch, sugar, proteins and lipids
CO2.	Applying the knowledge of Histology of mammals via slides.
CO3.	Analysing the process of Osmosis, Muscle twitch by stimulating it with mechanical, chemical and thermalStimuli, Reflex action and Respiration.

Course Content:

Experiments to be performed by candidates:-

1- Test for amylase on starch
2- Preparation of haemin crystals
3- Determination of Hb% in blood sample.
4- RBC count by haemocytometer in blood.
5- Test for sugar, proteins and lipids

Experiments for demonstration and comments

1- Osmosis
2- Muscle twitch by stimulating it with mechanical, chemical and thermal stimuli.
3- Reflex action
4- Respiration
5- Recording of blood pressure using a sphygnomanometer

Prepared slides:-Study of Histological slides of mammals –

1- T.S. salivary gland, T.S. pancreas, T.S. liver, T.S. Intesting,
2- T.S. kidney, T.S. lungs, T.S. stomach
3- Pituitary, gland, thyroid gland
4- Medulated and nonmedulated nervefibre
5- Smooth & striated muscle

Evaluation

Evaluation Scheme of Practical Examination:

Internal Evaluation (50 marks) Each experiment would be evaluated by the faculty concerned on the date of the experiment on a 4-point scale which would include the practical conducted by the students and a Viva taken by the faculty concerned. The marks shall be entered on the index sheet of the practical file.

Evaluation scheme:

PRACTICAL PERFORMANCE & VIVA DURING THE SEMESTER (35 MARKS)				ON THE DAY OF EXAM (15 MARKS)		TOTAL
EXPERIMENT	FILE WORK	VIVA	ATTENDANCE	EXPERIMENT	VIVA	INTERNAL
(05 MARKS)	(10 MARKS)	(10 MARKS)	(10 MARKS)	(05 MARKS)	(10 MARKS)	(50 MARKS

External Evaluation (50 marks)

The external evaluation would also be done by the external Examiner based on the experiment conducted during the examination.

Experiment	File work	Viva	Total
(20 MARKS)	(10 MARKS)	(20 MARKS)	(50 MARKS)

Course Code: BELED626	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI हिन्दी निबन्ध तथा अन्य गद्य विधाएँ	L-3 T-0 P-0 C-3
पाठ्यक्रम प्रतिफल	विद्यार्थी पाठ्यक्रम के अंत में	
CO1.	विद्यार्थीहिंदीसाहित्य की महत्वपूर्णविधानिबंध औरअन्य गद्य विधाओं के विषय मेंज्ञानप्राप्तकरसकेंगे।	
CO2.	विद्यार्थीनिबंध तथाअन्य गद्य विधाओं के अध्ययन के माध्यम से अपने जीवन मेंमानवमूल्योंकाप्रयोगकरसकेंगे।	
CO3.	विद्यार्थीविभिन्नलेखकों के निबंधोंतथाअन्य गद्य विधाओं की भाषा शैलियोंतथालेखनकाविश्लेषणकरसकेंगे।	
CO4.	विद्यार्थीविभिन्नलेखकों के निबंध तथाअन्य गद्य विधाओंकावर्तमानसामाजिकपरिस्थितियों के संदर्भमेंमूल्यांकनकरसकेंगे।	
CO5.	विद्यार्थीविभिन्ननिबंध तथाअन्य गद्य विधाओंका अध्ययन करकेविभिन्नमहानविद्वानों के विचारोंकोअपने जीवन मेंविकसितकरसकेंगे।	
Course Content:		
Unit-1:	**निबन्ध–** शिवशम्भु के चिटठे (बालमुकुन्द गुप्त) कवियो की उर्मिला विषयक उदासीनता (आचार्य महावीर प्रसाद द्विवेदी)	**10 Hours**
Unit-2:	**निबन्ध–** लज्जा और ग्लानी, (रामचन्द्र शुक्ल) कुटज (हजारीप्रसाद द्विवेदी)	**10 Hours**
Unit-3:	**निबन्ध**– छायावाद (नन्ददुलारे वाजपेयी) तुम चन्दन हम पानी (विद्या निवास मिश्र) सौन्दर्य की उपयोगिता (रामविलास शर्मा)	**10 Hours**
Unit-4:	**गद्य विधाए–** भक्तिन (महादेवी वर्मा) सुधिया उस चन्दन वन की (विष्णुकान्त शास्त्री) अपोलो का रथ (श्री कान्त वर्मा) समन्वय और सह अस्तित्व (विष्णु प्रभाकर) अपनी अपनी हैसियत (हरिशंकर परसाई)	**10 Hours**
Unit-5:	**द्रुत पाठ**– कुबेरनाथ राय, शरद जोशी, विवके राय, रघुवीर सहाय.	**10 Hours**
Text Books:		
Reference Books:	1.हिन्दी का गद्य साहित्य – रामचन्द्र तिवारी, विश्वविद्यालय प्रकाशन वाराणसी 2. हिन्दी के प्रतिनिधि निबन्धकार – द्वरिकाप्रसाद सक्सेना 3. हिन्दी निबन्धकार –द्वरिकाप्रसाद सक्सेना 4. हिन्दी निबन्ध के आधार स्तम्भ–डा0 हरिमोहन, तक्षशिला प्रकाशन, नई दिल्ली 5 प्रतिनिधि हिन्दी निबन्धकार –तक्षशिला प्रकाशन, नई दिल्ली 6 सहित्य में गद्य की नई विद्यायें– कैलाश चन्द भाटिया तक्षशिला प्रकाशन, नई दिल्ली 7 हिन्दी रेखाचित्र– डा0 हरिवंश लाल वर्मा, हिन्दी समिति उ0प्र0 लखनऊ 8 स्वातंत्रयोत्तर हिन्दी व्यंग्य निबन्ध एंव निबन्धकार– डा0 बापूराय देसाई, चिन्तन प्रकाशन नौबस्ता, कानपुर	

	9 हिन्दी साहित्य में निबन्ध एंव निबन्धकार– डा0 गंगाप्रसाद गुप्त 10 हिन्दी की हास्य व्यंग्य विधा का स्वरूप एंव विकास– इन्द्रनाथ मादान 11 हिन्दी के व्यक्तिक निबन्ध– रामचन्द्र महेन्द्र 12 सहित्यक विद्यायें: पुर्नविचार– हरिमोहन **Latest edition of all the suggested books are recommended.**	

Course Code: BELED627	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI INDIAN WRITERS IN ENGLISH	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the beginning and development of Indian writing in English as well as the life and works of famous Indian writers in English	
CO2.	Applying conceptual knowledge of the literary genre like poetry, drama, prose and fiction for the better understanding of the literary compositions of Indian writers in English	
CO3.	Analyzing the life and works of various Indian writers in English	
CO4.	Evaluating the relevance and utility of the views and literary compositions of the Indian writers in English in the context of contemporary as well as present Indian culture and society	
CO5.	Creating new kinds of literary compositions like poetry, plays, novel and essay and generating new dimensions of critical observation to represent and strengthen Indian culture	
Course Content:		
Unit-1:	**Poetry** Sarojini Naidu : 'Palanquin Bearers' Nissim Ezkeil : 'Poet, Lover, Birdwatcher' Jayant Mahapatra : 'Hunger' Arun Kolatkar : 'An Old Woman'	**10 Hours**
Unit-2:	**Poetry** Kamala Das : 'An Introduction' Vikram Seth : 'Unclaimed' A.K. Ramanujan : 'A River' Keki N Daruwala : 'The Unrest of Desire'	**10 Hours**
Unit-3:	**Drama** Mahesh Dattani : *Tara*	**10 Hours**
Unit-4:	**Fiction** Mulk Raj Anand : *The Untouchable*	**10 Hours**
Unit-5:	**Prose** Mahatma Gandhi : *Hind Swaraj*, Chapter XIII (What is True Civilization) Anita Desai : "Games at Twilight" from *Games at Twilight and Other Stories*	**10 Hours**
Text Books:	1. *Games at Twilight and Other Stories* by Anita Desai. 2. *Collected Plays* by Mahesh Dattani, Penguin Books India, 2000. 3. *A History of Indian English Literature* by M.K. Naik, Sahitya Akademi. 4. *Indian English Literature1980-2000: A Critical Survey* by M.K. Naik, Pencraft International, Delhi. 5. *The Poetry of Nissim Ezekiel* by A. Raghu, Atlantic Publishers & Distributers, 2008.	

	6. *Sarojini Naidu: Selected Poems* by Dr. Raghukul Tilak, Rama Brothers India, 2001. 7. *Untouchable* by Mulk Raj Anand, Pearson Longman India, 2008. 8. *Mulk Raj Anand's Untouchable* by Raghukul Tilak, Rama Brothers. 9. *Mahesh Dattani's Tara*: *A Critical Study* by Dr. Rashmi Jain, Lab Academia. 10. *Indian Writing in English* by K.R.Srinivasa Iyengar, Sterling Publishers.	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED628	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI HISTORY OF MODERN WOLRD (1453 A.D.-1950 A.D.)	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding different kinds of political movements like Reformations, rise and fall of Napoleon, Unification of Europe, and the conditions of the two World Wars	
CO2.	Analyzing the Reform movements in Europe, the imperial policies of Napoleon and the causes and effects of World Wars on the International politics	
CO3.	Evaluating the utility and relevance of various Reform movements in Europe and the impact of World Wars in the light of changing political scenario of the contemporary world	
CO4.	Developing their vision and critical thinking to create a better and healthy society	
Course Content:		
Unit-1:	**Age of Reforms & Revolutions** Renaissance-Emergence, nature and Impact The Reformation and Counter Reformation – Cause mature of reformation, results American war of Independence – Causes, Events results French Revolution – Cause, Events, Impact on the World	**10 Hours**
Unit-2:	**Napoleon Age** Napoleonic Era, Early achievements if Napoleon's reforms as first consul, Napoleon as Emperor of France, Continental system, Cause of Napoleon's downfall Vienna Congress – main principles and reconstruction of Europe	**10 Hours**
Unit-3:	**Unification in Europe** The Unificationof Italy-Different steps of unification Unification of Germany – Steps of German Unification, Bismark's policy of Blood and Iron	**10 Hours**
Unit-4:	**World War First & Prevaling Circumastances** Eastern Question-Struggle of Freedom in Greece, Revolt of Egypt; The Crimean WarCause and Effects First World War-Cause, Events, Results Paris Peace Settelements, Assessment of Varsailles Paris Settlement Russia Revolution of 1917	**10 Hours**
Unit-5:	**Beteween the World Wars** The Nazi Germany-Causes of Rise of Hitler and Nazi party, Cause of rise of Fascism in Italy Rise of Japan as Modern World Power-Decline of Shogun Govet; Restoration of Meiji Emporer, Foreign Policy of Japan (1919-1945) and rise of Modern China – Revolution of 1911, San-Vat-Sen, Kuo-Min-Tang & Chiang-Kai Sekh	**10 Hours**

Text Books:	1. J.E. Swain : History of World Civilisation 2. C.D. Hazen : Modern European History 3. जैन एवं माथुर : आधुनिक विश्व इतिहास (1500–2000) 4. मैजेनिस, एलिस, ऐपल एवं कौनरेड : संसार का इतिहास	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED629	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI COMPARATIVE GOVERNMENT & POLITICS	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the fundamentals of Comparative Politics as a discipline and the conceptual distinction between Comparative Politics and Comparative Government	
CO2.	Applying the approaches and models of comparative system analysis to understand the structural differences between different governments and their functioning	
CO3.	Analyzing the functions of liberal democratic political systems like that of UK, USA, Switzerland, France etc by comparing with each other	
CO4.	Evaluating the relevance of an intensive comparative study of the Executive, Legislative and Judiciary in the light of existing political systems of the world	
Course Content:		
Unit-1:	**Comparative politics** Meanings, scope and nature, Evolution of comparative politics comparative method, Types of comparison (Vertical-Horizontal), Types of constitutions, Constitutionalism	**10 Hours**
Unit-2:	**United Kingdom** General Features; Constitutional Conventions; The Crown; Parliament; Cabinet System; The Rule of Law; The'Party System	**10 Hours**
Unit-3:	**United States of America** U.S.A: General Features; Federalism; President; Congress; Federal Judiciary; Method of Amendment of Constitution; Party System	**10 Hours**
Unit-4:	**Switzerland** Main Features; Federal Executive; Federal Legislature; Judicial System; Devices of Direct Democracy; Method of Amendment in the Constitution	**10 Hours**
Unit-5:	**France** Making of the Constitution of the Fifth Republic and its characteristics; The President and the Government; The National Assembly and the Senate; The Judicial System and Administrnative Law; The Party System	**10 Hours**
Text Books:	1. Kamrava Mehran : Understanding Comparative politics, Prentice hall of India Pvt.Ltd., New Delhi 2000. 2. Charles, A. Geared: American Government and Politics. 3. H. C. Huiton: An Introduction to Chinese Politics. London, David and Charles, 1973. 4. H.J. Laskhi: American Democracy : A commentary and An	

	Interpretation, London Unwin 1984. 5. C. Leys, Politics in Britain: An Introduction, London, Heinemann, 1983. 6. W. Zhang, Transforming China: Economic Reforms and its Political Implication, New York, St. Martin's Press, 2000.	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED630	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI PUBLIC FINANCE & INTERNATIONAL TRADE	L-3 T-0 P-0 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the fundamentals of Public Finance and international trade including the concepts of Government Budget, Fiscal Policy and Indian Tax system	
CO2.	Applying the theories of Wagner's law, Wiseman-Peacock hypothesis and theory of comparative cost to understand the functioning of public expenditure, Tax system, International trade etc	
CO3.	Analyzing the sources of public revenues, Indian tax system and the condition of foreign trade of India and trade policy	
CO4.	Evaluating the role and relevance of fiscal policy, the value of international trade and the need of free trade in the growth and stability of Indian economy	
CO5.	Generating new ideas and strategies related to financial policies to further the growth and development of the Indian economy	
Course Content:		
Unit-1:	**Introduction:** Private and Public Goods, Principle of maximum social advantage; Government Budget: Preparation and classification, Souces of Public Revenue, Taxation Satisfaction of Public wants, the benefit approach, the ability to pay approach, incidence and effects of taxation	**10 Hours**
Unit-2:	**Public Expenditure:** Wagner's law, Wiseman-Peacock hypothesis, the critical limit hypothesis; Classification of Public Expenditure: Effects of public expenditure on production and distribution Public Debt: Classification, effects, burden, repayment and management	**10 Hours**
Unit-3:	**Fiscal Policy:** Stability and Economic growth; Indian Public Finance: Sources of income – Central, State, Indian Tax System, Public expenditure in India, Indian Federal Finance	**10 Hours**
Unit-4:	**International Trade**: Theory of comparative cost; Refinements-Opportunity cost; Reciprocal demand analysis; Terms of Trade: Concepts and measurement; Free trade and production; Tariff and non-tariff methods	**10 Hours**
Unit-5:	**The balance of payments:** Equilibrium and disequilibrium; Foreign trade of India and trade policy	**10 Hours**
Text Books:	1. H. Dalton – Public Finance 2. H.L. Bhatia – Public Finance 3. Alen and Brownley – Public Finance	
Reference Books:	**Latest edition of all the suggested books are recommended.**	

Course Code: BELED656	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI	L-0 T-0 P-4

<table>
<tr><td></td><td>HINDI (PROJECT & VIVAVOCE)</td><td>C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>विद्यार्थीनिबंधतथाअन्यगद्यविधाओंकेअध्ययनकेमाध्यमसेअपनेजीवनमेंआए हुए मानवमूल्योंकामंच पर प्रदर्शितकरसकेंगे।</td><td></td></tr>
<tr><td>CO2.</td><td>विद्यार्थीविभिन्नलेखकोंकेनिबंधोंतथाअन्यगद्यविधाओंकीभाषाशैलियोंतथालेखनकापी . पी . टी . के माध्यम से विश्लेषणकरसकेंगे।</td><td></td></tr>
<tr><td>CO3.</td><td>विद्यार्थी विभिन्न लेखकों के निबंध तथा अन्य गद्य विधाओं का वर्तमान सामाजिक परिस्थितियों के संदर्भ में मूल्यांकन कर सकेंगे।</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
Project File Report Maximum Word 2000

<table><tr><td>Topic</td><td>Introduction</td><td>Discussion</td><td>Conclusion</td></tr></table></td><td></td></tr>
<tr><td>Practical Content:</td><td><table><tr><td>Internal</td><td>External</td><td>Total</td></tr><tr><td>50</td><td>50</td><td>100</td></tr></table>
<table><tr><td></td><td>Internal</td><td>External</td></tr><tr><td>Performance</td><td>10</td><td>20</td></tr><tr><td>File work</td><td>20</td><td>20</td></tr><tr><td>Viva</td><td>10</td><td>10</td></tr><tr><td>Attendance</td><td>10</td><td>-</td></tr><tr><td>Total</td><td>50</td><td>50</td></tr></table></td><td></td></tr>
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<table>
<tr><td>Course Code:
BELED657</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
B.El.Ed Semester-VI
ENGLISH (PROJECT & VIVAVOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying conceptual knowledge of the literary genre like poetry, drama, prose and fiction for the better understanding of the literary compositions of Indian writers in English</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the relevance of the literary compositions of the Indian English writers in the context of contemporary as well as present Indian culture and society</td><td></td></tr>
<tr><td>CO3.</td><td>Composing literary compositions like poetry, plays, novel, stories etc.</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
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<table>
<tr><td>Course Code:
BELED658</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
B.El.Ed Semester-VI
HISTORY (PROJECT & VIVAVOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Explaining the causes of the Reform movements in Europe, the imperial policies of Napoleon and the causes and effects of World Wars on the International politics</td><td></td></tr>
<tr><td>CO2.</td><td>Demonstrating the circumstances of the Unification of Europe.</td><td></td></tr>
<tr><td>CO3.</td><td>Analysing the factors causing Reform movements in Europe and the impact of World Wars in the light of changing political scenario of the contemporary world</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
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<tr><td>Course Code:
BELED659</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
B.El.Ed Semester-VI
POLITICAL SCIENCE (PROJECT & VIVAVOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying the approaches and models of comparative system analysis to understand the structural differences between different governments and their functioning</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the functions of liberal democratic political systems like that of UK, USA, Switzerland, France etc.</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the relevance of an intensive comparative study of the Executive, Legislative and Judiciary in the light of existing political systems of the world</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
<tr><td>File work-</td><td>Topic to be given by the concern teacher
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BELED660</td><td>DISCIPLINE SPECIFIC ELECTIVE COURSE
B.El.Ed Semester-VI
ECONOMICS (PROJECT & VIVAVOCE)</td><td>L-0
T-0
P-4
C-2</td></tr>
<tr><td>Course Outcomes:</td><td>At the end of this course, the students will be-</td><td></td></tr>
<tr><td>CO1.</td><td>Applying the theories of Wagner's law, Wiseman-Peacock hypothesis and theory of comparative cost to understand the functioning of public expenditure, Tax system, International trade etc.</td><td></td></tr>
<tr><td>CO2.</td><td>Explaining the system of public revenues, Indian tax system and the condition of foreign trade of India and trade policy</td><td></td></tr>
<tr><td>CO3.</td><td>Demonstrating the role of fiscal policy, the value of international trade and the need of free trade in the growth and stability of Indian economy</td><td></td></tr>
<tr><td>PPT Work</td><td>Topic to be given by the concern teacher.</td><td></td></tr>
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Course Code: BELED661	DISCIPLINE SPECIFIC ELECTIVE COURSE B.El.Ed Semester-VI PRELIMINARY SCHOOL ENGAGEMENT	L-0 T-0 P-8 C-4

Course Outcomes:	At the end of this course, the students will be-
CO1.	Understanding the teaching resources and teaching learning process in a school.
CO2.	Applying methods, techniques & materials in teaching learning practice in the real environment of school.
CO3.	Analyzing schools' teaching learning processes, students' leaning requirements & peers' style of teaching.
CO4.	Evaluating students' learning through assessment and identifying learning requirements of children.

Course Content:

School Experience: Details during Internship(4 weeks)

- The student-teacher is expected to critically reflect and discuss these practices and engage in activities like maintenance of records and registers, preparation of lesson and unit plans using different artefacts and technology, classroom management, activities related to school-community- parent interface, and reflections on self development and professionalization of teaching practice.

Evaluation

The assessment will be done in two components: Internal 50% and External 50%

- The Internal assessment shall be done by the Faculty Concerned or internal examiner appointed by the principal.

School engagement and practical shall be evaluated as follows:

1.	Observation of Teaching and preparation of report	20
2.	Evaluation of teaching skills (through microteaching)	30
	Total	**50**

- The External assessment shall be done by the external examiner appointed by the controller of examination of university.

Practical	External Examiner*(Marks 50)*
Performance	20
File Work	20
Viva	10
Total	**50**

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
FOURTH YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - VII									
Sr.No.	**Course Code**	**Course/Paper**	**Period**			**Credit**	**Evolution Scheme**		
			L	**T**	**P**		**Internal**	**External**	**Total**
1	BELED751	SCHOOL INTERNSHIP				16	50	50	100
2	BELED752	TEACHING SKILL-I				2	50	50	100
3	BELED753	TEACHING SKILL-II				2	50	50	100
TOTAL						20	150	150	300

Course Code: BELED751	SCHOOL INTERNSHIP B.El.Ed Semester-VII SCHOOL INTERNSHIP	L-0 T-0 P-0 C-16
Course Outcomes:	**At the end of this course, the students will be-**	
CO.1	Understanding the real world of teaching withsystematic supervisoryfeedback and tracking students' progress.	
CO.2	Developing a broad repertoire of perspectives, professional capacities, teacherdispositions, sensibilities and skills.	
CO.3	Developing an ability to cater to diverse needs of learners in schools.	
CO.4	Developing the ability to write a reflective report that would facilitate to consolidate and reflection teaching experience.	

Course Content:

Practical/Field Engagement :

This semester shall entail a school internship of 16 weeks where in the Ist week will be exclusivily dedicated to observing a regular class room with a regular teacher and would include peer observations, teacher observation.in the next 15 weeks of internship the student teacher shall be engaged in teaching experience.Next 12 weeks (06 weeks for each of the two school subjects) shall be devoted for teaching of subjects lessons with daily lesson plan. 25 lessons each shall be taught at Upper Primary and secondary levels. During next 01 week students shall carry out the duties of concerned subject teacher as per the school time table. Last 02 weeks shall be devoted to post teaching activities. Activities during this period shall be evaluated as follows :

S.No.	Components	Internal Marks	Externa Marks
1.	Evaluation based on the observations by Head of the school during teaching practice & pupil teacher participation in school activities.	**-**	**50**
2.	PPT Presentation of Internship	**10**	**-**
3	Achievement Test Report (ATR)(In one subject)	**10**	**-**
4.	Case Study	**10**	**-**
5.	Use of Teaching Learning Material	**05**	**-**
6.	Peer Group observation	**05**	**-**
7.	Scout-Gudie Camp	**10**	**-**
	Total	**50**	**50**

Course Code: BELED752	SCHOOL INTERNSHIP B.El.Ed Semester-VII TEACHING SKILL-I	L-0 T-0 P-0 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO.1	Understanding the real world of teaching withsystematic supervisoryfeedback and tracking students' progress.	
CO.2	Developing a broad repertoire of perspectives, professional capacities, teacherdispositions, sensibilities and skills.	
CO.3	Developing an ability to cater to diverse needs of learners in schools.	
CO.4	Developing the ability to write a reflective report that would facilitate to consolidate and reflection teaching experience.	

Course Content:

Evaluation of Teaching Skill

The assessment will be done in two components: Internal 50% and External 50%

- The External assessment shall be done by the external examiner appointed by the controller of examination of university.
- The Internal assessment shall be done by the Faculty Concerned or internal examiner appointed by the principal.

Practical	Internal Examiner *(Marks 50)*	External Examiner*(Marks 50)*
Lesson Plan	20	20
Presentation	10	10
Learning Aids	10	10
Viva	10	10
Total	**50**	**50**

Course Code: BELED753	SCHOOL INTERNSHIP B.El.Ed Semester-VII TEACHING SKILL-II	L-0 T-0 P-0 C-2
Course Outcomes:	**At the end of this course, the students will be-**	
CO.1	Understanding the real world of teaching withsystematic supervisoryfeedback and tracking students' progress.	
CO.2	Developing a broad repertoire of perspectives, professional capacities, teacherdispositions, sensibilities and skills.	
CO.3	Developing an ability to cater to diverse needs of learners in schools.	
CO.4	Developing the ability to write a reflective report that would facilitate to consolidate and reflection teaching experience.	

Course Content:

Evaluation of Teaching Skill

The assessment will be done in two components: Internal 50% and External 50%

- The External assessment shall be done by the external examiner appointed by the controller of examination of university.
- The Internal assessment shall be done by the Faculty Concerned or internal examiner appointed by the principal.

Practical	Internal Examiner *(Marks 50)*	External Examiner*(Marks 50)*
Lesson Plan	20	20
Presentation	10	10
Learning Aids	10	10
Viva	10	10
Total	**50**	**50**

TEERTHANKER AADINATH COLLEGE OF EDUCATION									
FOUR YEAR B.El.Ed SYLLABUS 2018-19									
FOURTH YEAR SYALLABUS OF B.El.Ed PROGRAM									
Semester - VIII									
Sr.No.	**Course Code**	**Course/Paper**	**Period**				**Evolution Scheme**		
			L	**T**	**P**	**Credit**	**Internal**	**External**	**Total**
Theory courses									
1	BELED801	EDUCATIONAL MEASUREMENT, EVALUATION AND ACTION RESEARCH	**4**			**4**	**40**	**60**	**100**
2	BELED802	GUIDANCE AND COUNSELLING	**4**			**4**	**40**	**60**	**100**
3	BELED803	KNOWLEDGE AND CURRICULUM	**4**			**4**	**40**	**60**	**100**
Liberal Course (Select Any One)									
	BELED871	PEACE EDUCATION	**4**			**4**	**40**	**60**	**100**
	BELED872	ADULT EDUCATION AND POPULATION EDUCATION	**4**			**4**	**40**	**60**	**100**
	BELED873	LIFE SKILL EDUCATION	**4**			**4**	**40**	**60**	**100**
	BELED874	WORK EDUCATION	**4**			**4**	**40**	**60**	**100**
Practicum									
1	BELED851	CRITICAL OBSERVATION OF SCHOOL INTERNSHIP	**0**		**6**	**3**	**50**	**50**	**100**
2	BELED852	ACADEMIC ENRICHMENT ACTIVITIES-VI COMMUNITY & SOCIAL WORK.(SUPW)	**0**		**6**	**3**	**50**	**50**	**100**
3	BELED853	ACADEMIC ENRICHMENT ACTIVITIES-VII (READING AND REFLECTION TEXT)	**0**		**6**	**3**	**50**	**50**	**100**
Total			**16**		**12**	**25**	**310**	**390**	**700**

Course Code: BELED801	CORE COURSE B.El.Ed Semester- VIII EDUCATIONAL MEASUREMENT, EVALUATION AND ACTION RESEARCH	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the need and importance of evaluation and describing the various methods used in evaluation process.	
CO2.	Describing continuous and comprehensive evaluation (CCE) and making teaching process learner centered.	
CO3.	Explaining how the design and blueprint of an achievement tests are prepared.	
CO4.	Understanding concepts, principal and techniques of action research.	
CO5.	Using innovative methods in teaching and understanding the subject rather than just memorizing it.	
Course Content:		
Unit-1:	**Measurement and Evaluation**: • Concept of educational measurement and evaluation. • Aims and Scope of evaluation. • Importance and need of evaluation**:** • Aspects of evaluation :Cognitive, Affective and Conative.	**10 Hours**
Unit-2:	**Continuous and Comprehensive Evaluation** • Competence based evaluation. • Comprehensive evaluation. • Continuous evaluation and its importance • Strategies and steps of continuous evaluation. • Scope of continuous evaluation	**12 Hours**
Unit-3:	**Evaluation and Setting of a Question Paper** • Oral ,Written ,Interview, Inspection, Observation and Practical • • Formative and Summative Evaluation • Planning, Blue print, Editing and marks distribution. • Types of question, (Objective, very short, short, long answer questions). (Weightage of questions according to educational objectives (knowledge, comprehension, application and skill) • Diagnostic test and Remedial teaching	**10 Hours**
Unit-4:	**Action Research** • Meaning of research, type, objectives, need and importance. • Area / Scope of Action research. • Steps of Action Research and Synopsis/Research Design. • Preparation of tools for action research. • Editing of Action research/ documentation.	**10 Hours**

Unit-5:	**Educational innovation**: • Meaning, Need and Importance of Innovations in education. Scope of educational innovation (Identification, use and evaluation of local resources for improvement in teaching learning quality, assembly activities, co-curricular activities, community participation, school management, subject wise class teaching, current illustrations, lab area. ➢	**08 Hours**
Text Books:		
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED802	CORE COURSE B.El.Ed Semester- VIII GUIDANCE AND COUNSELLING	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concept of guidance and counseling, career information and training & resource center for personal and social information.	
CO2.	Applying the various testing devices, principles of guidance and counseling tosolve thelearners'problems and issues in their life.	
CO3.	Analyzing the strength and weakness of learners in career.	
CO4.	Evaluating the requirements and developing instruments for learners' problemsin India.	
Course Content:		
Unit-1:	**Concept of Guidance -** Meaning and concept of Guidance, Need & Importance of Guidance., Principles of Guidance., Types of Guidance - Educational, vocational and personal.	**10 Hours**
Unit-2:	**Concept of Counselling -** Meaning, concept, need and importance of counselling.**,**Counselling and other terms (Guidance, advice, teaching, Interview).Principles and process of counselling. Role of counselor. Types of counseling (Directive, nondirective, eclectic).Aims to study career information at different school levels.	**12 Hours**
Unit-3:	**Meaning and concept of career information.** Meaning of career and career information, rules of career building and components of career information. Meaning, need and importance of occupational information need and importance. How to obtain occupational information.	**10 Hours**
Unit-4:	**Career Information and Training**Scores, techniques (Standardized, Non Standardized), methods, filling-up and evaluation of career information.Recommendation about teacher education primary and secondary level of schools. Role of NCERT and NCTE.	**8 Hours**
Unit-5:	**Personal Social Information and Resource Centre.** • Case Study. • Sociometry. • Guidance Services at central and state level. • Problems of guidance and India.	**10 Hours**
Text Books:	• Aggarwal, J. C., (2000). Educational & Vocational Guidance and Counseling, Jalandhar :Doaba House.	
Reference Books:	• Bhatnagar, R. P.; Rani. S. (2001); Guidance and Counseling in Education and Psychology. • Gibson, R.L. and Mitchell(2008). Introduction to counseling and Guidance. New Delhi: *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED803	CORE COURSE B.El.Ed Semester- VIII KNOWLEDGE AND CURRICULUM	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the relationship of nationalism, universalism and secularism with education	
CO2.	Explaining the relationship among curriculum, syllabus and textbooks.	
CO3.	Applying the concept of child centered education in curriculum development	
CO4.	Analyzing textbook, children's literature and teacher's handbooks with reference to NCF 2005 &2009	
CO5.	Developing skills to critically analyze curriculum	
Course Content:		
Unit-1:	**Knowledge Generation and Child-centered Education:** • Knowledge meaning and facets • Process of knowing, Different ways of knowing • Organization of knowledge in schools • Forms of knowledge: Concrete and abstract, local and universal, theoretical and practical • Teacher autonomy and accountability • Learner autonomy • Concept of child centered education: Activity, discovery, dialogue with reference to Rousseau, Dewey, Tagore, Gandhi,	**10 Hours**
Unit-2:	**Sociological Bases of Education :** • Social bases of education in the context of society, culture and modernity with reference to historical changes by industrialization and democracy • Values in the emerging social context • Education in relation to modern values like equity and equality, opportunity and social justice and dignity with reference to Ambedkar. Critical multiculturalism and democratic education • Interrelationship of nationalism, universalism and secularism with education with reference to Tagore and Krishnamurti.	**10 Hours**
Unit-3:	**Concept of Curriculum :** • Meaning and Nature of curriculum, its need in schools. • Difference in curriculum framework, curriculum and syllabus • Significance of core curriculum in Indian context, meaning and concerns of hidden curriculum • Translation of syllabus into textbooks • Curriculum visualization at national, state, school and class level.	**10 Hours**
Unit-4:	**Curriculum Determinants and Curriculum Development :** • Broad determinants of curriculum making (at the national and state level) : priorities, socio-political-cultural-geographical-economic diversities, international contexts • Considerations in curriculum development: (at the school level) – structure of disciplines, socio cultural context of students (multicultural and multilingual) learner characteristics, relevance and teachers' experiences, specificity of educational objectives, issues like gender differences and inclusiveness. • Process of curriculum making, formulating aims and objectives, criteria for	**12 Hours**

	selecting knowledge, organizing fundamental concepts and themes vertically across levels and integrating themes within (and across) different subjects, selecting and organizing learning situations.	
Unit-5:	**Curriculum and Textbooks Evaluation:** ➢ Understanding the relationship between curriculum, syllabus and textbooks. ➢ Criteria of development of learning resources. ➢ Analysis of textbooks, children's literature, and teacher's handbooks etc. ➢ Criteria and process of curriculum evaluation. ➢ Salient features of NCF 2005 and NCFTE 2009, analysis of these documents w.r.t. aspects like foundations, concerns and changes made with important considerations.	**08 Hours**
Text Books:	• Dewey, J. (2004).*Democracy and Education,*CouriesDaver Publications • Freire, P. (1998). *Pedagogy of Freedom : Ethics, democracy and civic courage,* Rowman and littlefield • Hirst, Paul H. *Knowledge and curriculum,* Routledge publication • Kelly, A.V.(2009) : *The curriculum : Theory and practice.* Sage publications • श्रीवास्तव, एस0एस0 एवंचतुर्वेदी, एम0जी0 (2010) *पाठ्यचर्याऔरशिक्षणविधियॉ*।जयपुर : षिक्षा प्रकाशन • यादव, सियाराम (2011) *पाठ्यक्रमविन्यास*।आगरा : अग्रवालप्रकाषन	
Reference Books:	• Taba, Hilda (1962) :*Curriculum Development. Theory and Practice, Har Court, Braceand Wald, New York* • Kelley, A.B. (1996) : The c*urricular Theory & Practice*. Harper and Row, U.S • Basics in Education-Textbook for B.Edcourse,NCERT- 2014 *** Latest editions of all the suggested books are recommended.**	

Course Code: BELED804	CORE COURSE B.El.Ed Semester- VIII EDUCATIONAL MANAGEMENT AND ADMINISTRATION	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concept and principles of educational management and administration.	
CO2.	Understanding the different components of human and material resources of the school.	
CO3.	Understanding the importance of communication and barriers of communication in educational administration.	
CO4.	Analysing the role of human resources- headmaster, teachers etc. and functions of State Government and the Board of Secondary Education.	
CO5.	Developing skills to critically analyze curriculum.	
Course Content:		
Unit-1:	**concept of educational administration.** • Concept of educational management, human being as inputs, process and products. • Nature, objectives and scope of educational administration.	**10 Hours**
Unit-2:	**Basic Functions of Administration** • Planning, organizing, directing and controlling • Maintenance of discipline, control management • Co-ordination and growth development • Supervision and inspection, defects in the present supervision and inspection. • Scope of educational supervision, types of supervision, providing guidance, leadership function, crisis in management, decision making	**12 Hours**
Unit-3:	**Communication in Educational Administration** • Role of communication in effective management and administration • Methods of communication • Barriers of communication in educational administration • Overcoming barriers to communication and effective communication in educational administration.	**10 Hours**
Unit-4:	**Management of Schools** • Role of headmaster in planning of school activities approaches to managementmanpower approach, cost benefit approach, social	**10 Hours**

	demand approach, and social justice approach • Involvement of other functionaries and agencies in the preparation of a plan • Delegation of authority and accountability • Role of the headmaster in monitoring, supervision and evaluation • Role of headmaster in motivating the staff, in resolution of interpersonal conflicts • Role of the headmaster in creating resources and managing financial matters • Optimum use of available resources for growth and development of the school • Staff development programmes. • Role of teachers in school management and administration	
Unit-5:	**Educational Administration in the State** • The administrative structure in the field of education in the state • Control of school education in the stage a critical analysis • Functions of the state government in relation to secondary and higher secondary schools • Functions of the board of secondary education in controlling secondary schools • Problems of secondary school administration in government schools.	**08 Hours**
Text Books:	• A study of leadership style of headmaster of High School of the district. • A study of infra-structure facilities like Black Board, Furniture, Electricity, Drinking water, ICT in number of schools. • A survey/project on any related problem. • Critical analysis of any theme of the course content in about eight to ten pages. • श्रीवास्तव, एस0एस0 एवंचतुर्वेदी, एम0जी0 (2010) *पाठ्यचर्याऔरशिक्षणविधियॉ*।जयपुर : षिक्षा प्रकाशन • यादव, सियाराम (2011) *पाठ्यक्रमविन्यास*।आगरा : अग्रवालप्रकाषन	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED871	LIBERAL COURSE B.El.Ed Semester- VIII PEACE EDUCATION	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be able to-**	
CO1.	acquiring the concept of peace and communal harmony.	
CO2.	demonstrating knowledge and developing a rich vision for a viable society.	
CO3.	understanding changes in order to make the world a better and peaceful place.	
CO4.	developing interpersonal skills and promoting the interaction for handling peer relationships and conflicts constructively.	
CO5.	analysing the nature and origins of violence and its effects on world.	
CO6.	synthesizing a framework for achieving peace and peaceful societies.	
CO7.	evaluating policies statements demonstrating an understanding of concerns, standards, issues and conflicts related to universal human rights.	
Course Content:		
Unit-1:	Concept of peace education, present need of education for peace. Indian life values for peace skill and peace tendencies in peace education. Personality and social development, Personality its nature , development and assessmenthabits and temperament, self awareness, effect of atmosphere in development of personality,five big personality traits, openness, conscientiousness, extraversion,agreeableness, neuroticism, socialization of personality and peace	**10 Hours**
Unit-2:	Role of peers in children's development. , Characteristic of peer Relationship. Social Cognition and Aggression. Technology and peer relationship. Diversity in peer relationship and social cognition. Promoting healthy peer relationships	**10 Hours**
Unit-3:	contribution of parents and family members in making of children's character and the importance of teacher in making it good. Behaviorism stimuli and responses, strategies for encouraging productive behaviors for peace.strategies for discouraging undesirable behaviors in a positive way, positive BehaviorIntervention support	**10 Hours**
Unit-4:	What is violence , types of violence (i) Verbal (ii) Psychological (iii) Physical (iv) Structural (v) Vulgarity in popular culture.Frontiers of violence (i) Caste (II) Gender (iii) Discrimination (iv) Corruption, (v) Communalism (vi) Advertisement (vii) Poverty. Perils of violence, Media and Violence Peaceful resolution of conflicts, Reconciliation after conflicts. Gandhi Darshan and Peace	**12 Hours**
Unit-5:	Peace value, human rights and democracy, national unity and religious tolerance in India, globalization and peace. Meaning and need of sustainable development- environment and sustainable development	**08 Hours**
Text Books:	Peace Education : Ian Harris and Mary	
Reference Books:	*** Latest editions of all the suggested books are recommended.**	

Course Code: BELED872	LIBERAL COURSE B.El.Ed Semester- VIII **ADULT EDUCATION AND POPULATION EDUCATION**	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding concept and scope of adult education	
CO2.	Understanding the need and adult and population importance of education	
CO3.	Applying different methods of adult teaching	
CO4.	Analyzing the role of different agencies in population education programs	
CO5.	Evaluating factors affecting population explosion	
CO6.	Developing a healthy, rational and scientific attitude towards the natural phenomeno of first and death.	
Course Content:		
Unit-1:	• Meaning, Concept and Scope of Adult and Continuing Education. • Need and Importance of Adult Education for the development of an Individual for Social Change. • National Literacy Mission - Aims, objectives and strategies	**10 Hours**
Unit-2:	• Androgogy- Nature and Scope. Basic difference between Pedagogy and Androgogy. • Agencies and Organizations: Local, State and Central level, their problems. • Adult Learner — Characteristics, problems and motivation. • Adult teaching — Different methods, Role of Mass media.	**12 Hours**
Unit-3:	• Evaluation Techniques for Adult Learning. • Adult Education, lifelong learning and continuing Education • Adult Education and Continuing education • Lifelong learning- A component of adult education • Lifelong learning in IT age- Exploring ICT as a Tool	**10 Hours**
Unit-4:	• Importance of Population Education – concept / meaning and objectives of population education – factors affecting population explosion – importance of Family Life Education, with reference to Affect of Population Growth on: Economic Development, Social Development, Educational Development, Environmental and Natural Resources, Health and Nutrition • Symptoms of AIDS – causes, Prevention of AIDS – AIDS Education – meaning and objectives. Role of different agencies in promoting AIDS Awareness Education – [Local, National and International Agencies – 2 each]	**10 Hours**
Unit-5:	• Role of Government and Non-Govt. Agencies concerning Population Education. • Integration of Population Concept in different School Subjects. • Population Education through co-curricular activities. • Role of the Teacher in Population Education Programs.	**08 Hours**
Text Books:	• Aggarwal, S. N., India's Popu1ation Problems, New Delhi,Tata McGraw Hill, Pub. House, 1985. • Ambasht, N.K.(2014)., Foundations of Adult Education in adult and lifelong learning, Indian Adult Education Association, New Delhi. • Ghosh, B.N. (1978) Population Theories and Demographic analysis, Meenakshi	

	Prakashan, New Delhi • Jacobson Wellard JU,(1979) Population Education; A knowledge base, NY, Teachers College Columbia University. • Mohankumar,V.(2014), Adult and lifelong learning: Selected articles Indian Adult Education Association. • Sheshadri, C & J.L. Pandey (1991) Population Education: A national Source Book, ND, NCERT Shah, S.Y.(1999) Encyclopaedia of Adult Education, NLM, New Delhi.
Reference Books:	*** Latest editions of all the suggested books are recommended.**

Course Code: BELED873	LIBERAL COURSE B.El.Ed Semester- VIII LIFE SKILL EDUCATION	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the theoretical foundations of Life skills education	
CO2.	Applying life skills in various spheres	
CO3.	Developing professional in life skills ability to contribute as youth workers specialized in the area of life skills education.	
CO4.	Analyzing the different life skills for integration with the teaching learning process	
CO5.	Evaluating the spirit of social responsibility in students as a social and emotional well being	
Course Content:		
Unit-1:	• Life Skills: Concept, need and importance of Life Skills for human beings. • Life Skills Education: Concept, need and importance of Life Skills Education for teachers. • Difference between Livelihood Skills and Life Skills. • Core Life Skills prescriBELED by World Health Organization. • Key Issues and Concerns of Adolescent students in emerging Indian context.	**10 Hours**
Unit-2:	• Classroom Discussions • Brainstorming and Role plays • Demonstration and Guided Practice • Audio and Visual activities, e.g. Arts, Music, Theatre, Dance • Small Groups discussions followed by a presentation of group reports. • Educational Games and Simulation • Case Studies, Storytelling, Debates • Decision making and mapping of using problem trees.	**12 Hours**
Unit-3:	• Skills of Self awareness and Empathy: Concept, Importance for Teachers in particular, Integration with the teaching learning process, learning to live together with other living beings. acceptance of diversity in perspectives of different societies and cultures. Acceptance and importance of all living being as along ecological and psychological social structures. • Skills of Coping with Stress and Emotion: Concept, importance for Teachers in particular and Integration with the teaching learning process.	**10 Hours**
Unit-4:	• Skills of Building Interpersonal relationships: Concept, Importance for Teachers in particular and Integration with the teaching- learning process. • Skills of Critical thinking and Creative thinking: Concept, importance for Educationists, Integration with the teaching learning process.	**10 Hours**
Unit-5:	• Skills of Problem Solving and Decision making: Concept, importance for Educationists, Integration within the teaching -learning process. • Skill of Effective Communication: Concept, importance for Human beings and Educationists, Integration within the teaching learning process.	**08 Hours**

Text Books:	• A Life Skills Program for Learners in Senior Phase. (2002). University of Pretoria. Chapter in Thesis. Retrieved from: http://www2.ed.gov/offices/OVAE/AdultEd/OCE/SuccessStories/success.pdf • Life Skills Based Education. (2011). Wikipedia. Retrieved from: http://en.wikipedia.org/wiki/Life_skills-based_educaion • Life Skills Based Education CCE. (2009). CBSE. Retrieved from: http://www.cbse.nic.in/cce/life_skills_cce.pdf Ministry of Education. (2006). Senior Secondary Phase. Republic of Namibia. Retrieved from: http://www.nied.edu.na/publications
Reference Books:	*** Latest editions of all the suggested books are recommended.**

Course Code: BELED874	LIBERAL COURSE B.El.Ed Semester- VIII WORK EDUCATION	L-4 T-0 P-0 C-4
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Understanding the concept of work vocational education.	
CO2.	Applying the techniques of teaching work education.	
CO3.	Analyzing the various aspects of vocational education in India	
CO4.	Analyzing the significant changes in vocational education in India	
CO5.	Developing healthy attitude towards vocationaleducation	
Course Content:		
Unit-1:	• Meaning and Concept of Nai Talim • Historical perspectives: Macaulay's Education Policy. Gandhi's philosophy of Work Education, Wardha Commission report 1938 • Commissions and Education Policies and their recommendations on Workexperience/ Work Education, post independence: Education Commission 1964, Secondary Education Commission 1958, Ishwar bhai Patel Committee report (1977), NPE 1986 , POA 1990, NCF 2005 and current status.	**10 Hours**
Unit-2:	• Concepts – Education and technical education – Need and importance. Human resources development – skilled manpower – productivity – Vocational Education –Meaning and Definition • Work experience-concept – distinction between work experience and vocational education. • S.U.P.W. : Concept and Objectives	**12 Hours**
Unit-3:	• Concept of work and Hands on activities. • Concept of work and rationale for integration of work in Education • Psychological basis for work in education: Dewey, Piaget, Vygotsky • Constructivism and Work Education	**10 Hours**
Unit-4:	• Essential and Elective Work Education • Techniques/ methods of Teaching work education. • Objectives, Need and Significance and objectives of Work Education • Evaluating students work (Preparing Rating scales, check list, Anecdotal records) • ITI and polytechnic–need and importance-classification, admission process – course of study – organization and administration at state level	**10 Hours**
Unit-5:	• Theories of integrated education and its educational implications • Pedagogy of teaching learning of work education • Planning lessons integrating work in education • Significance of integrating work in Education • Linkages of community and school	**08 Hours**
Text Books:	• Banerjee N P (1995) Work Experience in General Education, Ambala, Associated Publishers • Education commission (1964-66), Report of Government of India • Kaul ML(1983) Gandhian Thoughts of Basic Education ; Relevance and Development Journal of Indian Education 8(5) p 11-16	

	• Mahmood S (1996) Work Experience, Its Role in Educational Process in Co Curricular Activities edited by Farooqui SK and Ahmad I, New Delhi Jamia Millia Islamia, ND • Position Paper National Focus Group On Work And Education, NCF 2005, NCERT • Report National Policy on Education 1986 , Govt of India Government of India, • M.K. Gandhi The story of my experiments with truth, Navjivan Trust Tarun Rashtriya, Vocational Education(2005), APH Publishing Corporation, New Delhi,
Reference Books:	*** Latest editions of all the suggested books are recommended.**

Course Code: BELED851	B.El.Ed Semester-VII **CRITICAL OBSERVATION OF SCHOOL INTERNSHIP**	L-0 T-0 P-6 C-32

Course Outcomes:	At the end of this course, the students will be-
CO1.	Understanding the teaching resources and teaching learning process in a school.
CO2.	Applying methods, techniques & materials in teaching learning practice in the real environment of school.
CO3.	Analyzing schools' teaching learning processes, students' leaning requirements & peers' style of teaching.
CO4.	Evaluating students' learning through assessment and identifying learning requirements of children.

Course Content:

School Experience: Details during Internship(4 weeks)

- The student-teacher is expected to critically reflect and discuss these practices and engage in activities like maintenance of records and registers, preparation of lesson and unit plans using different artefacts and technology, classroom management, activities related to school-community- parent interface, and reflections on self development and professionalization of teaching practice.

Evaluation

The assessment will be done in two components: Internal 50% and External 50%

- The Internal assessment shall be done by the Faculty Concerned or internal examiner appointed by the principal.

School engagement and practical shall be evaluated as follows:

1.	Observation of Teaching and preparation of report	50
	Total	**50**

- The External assessment shall be done by the external examiner appointed by the controller of examination of university.

Practical	External Examiner*(Marks 50)*
Performance	20
File Work	20
Viva	10
Total	**50**

Course Code: BELED852	ACADEMIC ENRICHMENT ACTIVITIES - VI B.El.Ed Semester-VIII COMMUNITY & SOCIAL WORK (SUPW)	L-0 T-0 P-6 C-3

Course Outcomes:	At the end of this course, the students will be-
CO1.	Remembering the concept of health, Physical fitness & Yoga.
CO2.	Understanding school health programs, health problems and benefits of physical fitness.
CO3.	Understanding of social work.
CO4.	Demonstrating and applying various yogic practices for health and stressmanagement.

Course Content:

SECTION –A

- **SCOUT GUIDE CAMP OR NSS CAMP**

SECTION - B

Performance -

PPT work –Write Any Three Topic PPT work to be given by the concern teacher

File work-

Write **(Any Three)** Topic to be given by the concern teacher
Project File Report Maximum Word 5000

- Sarva Shiksha Abhiyan
- Beti Bachao Beti Padhao Abhiyan
- Blood Donation Camp
- Awarness for using Swakshta Abhiyan
- Polio Programme
- Child Labaur
- Early Age marriage
- Awarness for Green India Project
- Plantation Progrmme

Practical	Internal Examiner *(Marks 50)*	External Examiner *(Marks 50)*
Performance	**10**	**20**
File work	**20**	**20**
Attendance	**10**	**-**
Viva	**10**	**10**
Total	**50**	**50**

Course Code: BELED853	ACADEMIC ENRICHMENT ACTIVITIES - VII B.El.Ed Semester-VIII READING AND REFLECTING ON TEXTS	L-0 T-0 P-6 C-3
Course Outcomes:	**At the end of this course, the students will be-**	
CO1.	Analyzing the text books and reference books related to core courses & pedagogy courses.	
CO2.	Analyzing Government's Educational Policies & Reports.	
CO3.	Developing theskills of reading, writing, communication and self-study.	

Course Content:

Objectives: To enable the student-teacher to-

This course will serve as a foundation to enable student-teachers to read and respond to a variety of texts in different ways depending on the purposes of reading, like-personal or creative or critical or all of these.

Objectives: To enable student-teachers to-

- Develop study – habits
- Stengthing the skill of reading & writing summarization.
- Develop skill of summarization
- Develop skill of note-taking.
- Develop the ability to pronunciatecounectly strength the ability of communication conectly.

Activities

Student-teachers are expected to sit in the library regularly and to review at least 05-books of different categories in about 500 words each. These may be as follows –

- Review of text books related to core courses
- Review of reference Book related to core courses
- Review of Text Books related to Pedagogy courses
- Review of Reference to Book related to Pedagogy courses.
- Review of Policy Documents, Autobiography, Commission Reports, etc.
- Review of studies about school, historical books and other educational miscellaneous

Evaluation

The assessment will be done in two components: Internal 50% and External 50%

- The External assessment shall be done by the external examiner appointed by the controller of examination of university.
- The Internal assessment shall be done by the Faculty Concerned or internal examiner appointed by the principal.

Practical	Internal Examiner *(Marks 50)*	External Examiner*(Marks 50)*
Performance	10	20
File Work	20	20
Viva	10	10
Attendance	10	-