

Criteria 1.3.2:	Average percentage of courses that include experiential learning through project work/field work/internship during last five years.
Findings of DVV	Please provide as per SOP in Data Template scanned images of 1. tabulated list of programs having experimental learning through project work/field work/internship program wise, for each year, for all the 5 assessment years, showing sl. no., name of program, no. of students, department, date, year and duration, location, in the College letterhead, attested by Principal. 2. attendance sheet of all programs with signature of students, attested by Principal. 3. MoU/communication/contract with the external agency conducting the program and records of payments, highlighted in the audited Income and Expenditure accounts statement in the name of the College, certified by external auditor and countersigned by Principal.
Response/ Clarification	1) Supporting document i.e. Syllabus / Curriculum from the affiliating university, tabulated list of programs having experimental learning through project work/field work/internship program wise, for each year, for all the 5 assessment years stating provision for experimental learning through project work/field work/internship is attached for all the courses. (Appendix-1)


Cr-1 Coordinator


IQAC Coordinator

IQAC-COORDINATOR
Bhagwan Aadinath Collage of Education
Maharra-Lalitpur


Principal

भगवान आदिनाथ कॉलेज ऑफ एजुकेशन
महारा, ललितपुर (उ०प्र०)



भगवान आदिनाथ कॉलेज ऑफ एजुकेशन

ग्राम-महर्षा, जनपद-ललितपुर (उ. प्र.)

Mob- 09453675775

1.3.2 Average percentage of courses that include experiential learning through project work/field work/internship during last five years

Program name	Program code	Name of the Course that include experiential learning through project work/field work/internship	Course code	Year of offering	Name of the student studied course on experiential learning through project work/field work/internship
Bachelor of ARTS	B.A.	Home Science(30/50)	NA	2015-16 to 2019-20	All students Enrolled for the subject Home Science
		Sociology	NA		All students Enrolled for the subject Sociology
Bachelor of Science	B.Sc.	Physics (50/75)	NA	2015-16 to 2019-20	All students Enrolled for the subject Physics
		Chemistry (50/75)	NA	2015-16 to 2019-20	All Students Enrolled for the Subject Chemistry
		Zoology (50/75)	NA	2015-16 to 2019-20	All Students Enrolled for the Subject Zoology
		Botany (50/75)	NA	2015-16 to 2019-20	All Students Enrolled for the Subject Botany
Bachelor of Education	B.Ed.	Observation and Internship -I Year (50)	NA	2015-16 to 2019-20	All Students Admitted
Bachelor of physical Education	B.P.Ed.	Track and Field (Running) (100)	NA	2016-17 to 2019-20	All Students Admitted
		Swimming/ Gymnastics/Shooting (100)	NA	2016-17 to 2019-20	All Students Admitted
		Indignous Sports :Kabaddi/ Malkhambh/Lazim/Marchpast (100)	NA	2016-17 to 2019-20	All Students Admitted

	Mass Demonstration : Kho- Kho/ Dumbbling /Tipri/Wonds/Hoops/ Umbrella(100)	NA	2016-17 to 2019-20	All Students Admitted
	Track and Field (Jumping Events) (100)	NA	2016-17 To 2019-20	All Students Admitted
	Yoga/Aerobics/Swimming/Gymnastics (100)	NA	2016-17 to 2019-20	All Students Admitted
	Badminton/Table Tennis/ Squash/Tennis (100)	NA	2016-17 to 2019-20	All Students Admitted
	Teaching Practice (Class Room and Outdoor) (100)	NA	2016-17 to 2019-20	All Students Admitted
	Track and Field (Throwing Event) 100	NA	2016-17 to 2019-20	All Students Admitted
	Combative Sports, Martial Arts, Karate, Judo, fencing, Boxing, Taekwondo , wrestling (100)	NA	2016-17 to 2019-20	All Students Admitted
	Team Game : base ball, Cricket, Football, Hockey, Softball, Volley ball, Hand Ball, Basket ball, Net ball (100)	NA	2016-17 to 2019-20	All Students Admitted
	Teaching Practice : Lesson Plan for Racket sports/ team Games/ Indigenon Sports (100)	NA	2016-17 to 2019-20	All Students Admitted
	Track and Field (Swimming/ Gymnastics) 100	NA	2016-17 to 2019-20	All Students Admitted
	Kabaddi/ Kho-Kho/ base ball/ Cricket/ Football/Hockey/Softball/Volley ball/Hand Ball/ Basket Ball/ Net ball/ Badminton/ Table Tennis/Squash Tennis	NA	2016-17 to 2019-20	All Students Admitted

	Teaching Practice :-Sport Specialization: Coaching Lesson Plan Track and Field/ Swimming/ Gymnastics	NA	2016-17 to 2019-20	All Students Admitted
	Teaching Practice: Game Specialization Coaching Lesson/: Kabaddi/ kho- Kho/ Baseball/ Cricket/ Football/ Hockey/ Softball/ Volley ball/ Hand Ball/ Basket Ball/ Net ball/ Badminton/ Table Tennis/ Squash/ Tesis	NA	2016-17 to 2019-20	All Students Admitted


I.Q.A.C. Coordinator

IQAC-COORDINATOR
Bhagwan Aadinath College of Education
Maharra-Lalitpur




Principal
प्राचार्य

भगवान आदिनाथ कॉलेज ऑफ एजुकेशन
महारा, ललितपुर (उ०प्र०)

**BUNDELKHAND UNIVERSITY
JHANSI**



**कला संकाय
भाग-1**


BUNDELKHAND UNIVERSITY , JHANSI

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**Ordinances Relating to Admissions to Different
Classes / Courses of Affiliated Colleges
and University Campus
Bachelor of Arts
(10+2+3) B.A. (Three Year Course)**

1. The examination for Bachelor Degree in ARTS, (B.A.) shall consist of three parts :-
Part - I
Part - II and
Part III
2. A candidate who, after passing 10+2 pattern (i) the Intermediate Examination of the Board of High school and Intermediate Education, Uttar Pradesh or any Indian University incorporated by any Law for the time being in force or (iii) any other examination recognized by the university as equivalent thereto is eligible for admission to B.A. Part-I
3. A candidate who after passing the B.A. Part-I Examination of the three-year degree course has completed a regular course of study for one academic year in an affiliated college or a teaching dipartment of the university shall be eligible to appear at the B.A. Part-II Examination
4. A candidate who after passing the B.A. Part-II Examination of the three-year degree course has completed a regular course of study for one academic year in an affiliated college or a teaching dipartment of the university shall be eligible to appear at the B.A. Part-III Examination.
5. A candidate who has passed B.A. Part-I examination of three year degree course of another university, may also be admitted to B.A. Part-II examination provided that he/she offered for his/her B.A. Part-I examination a course of an equivalent standard almost indential syllabus as is required for Part-I examination of this universtiy with the permission of Vice-Chancellor on the recommendation of the Dean Faculty of Arts/


प्रचारक
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6. The Examination shall be conducted by means of papers only and may include a viva-voice or a practical examination as per syllabus approved by Academic Council.
7. Every candidate or student shall be examined in any three of the following subjects in B.A. Part-I and Part-II in addition to compulsory one language subject in B.A. first year only in B.A. III only two subject shall be examined opted by student.
- (i) Hindi Literature
 - (ii) English Literature
 - (iii) Sanskrit Literature
 - (iv) Urdu Literature
 - (v) Mathematics
 - (vi) Philosophy
 - (vii) Economics
 - (viii) History
 - (ix) Ancient History & Culture
 - (x) Political Science
 - (xi) Geography
 - (xii) Indian Music
 - (xiii) Home Science
 - (xiv) Sociology
 - (xv) Defence and Strategic study
 - (xvi) Psychology
 - (xvii) Education
 - (xviii) Tourism & travelling management
 - (xix) Computer Application
 - (xx) Any other subjects approved by University
8. Each subject in B.A. Part-I or B.A. part -II or B.A. part-III shall consist of two or three papers the details of which are specified in regulations relating to syllabi.


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Provided also that a private student cannot offer any subject having practicals except Education.

9. Grace Marks & Passing Marks shall be as per latest decision of Acadencie council however : In B.A. Parts-I, II and Part-III examinations each subject shall carry 100 marks and in order to pass the examination of B.A. Parts-I, II or III, it shall be necessary that a candidate obtains a minimum of 33% marks in each subject separately and also in the aggregate of all the subjects in which he/she was examined in B.A. Parts-I, II or III examination, as the case may be.

Provided that a candidate, who in B.A. Part I or Part II examination has passed in the aggregate and in any two optional subjects separately and has obtained 25% and above but less than 33% marks both in theory and practical separately in the third subject, he/she shall be declared passed with grace.

Provided further that a candidate, who in B.A. Part -I and Part-II examinations has secured the aggregate in any two optional subjects separately and also has obtained less than 25% marks either in theory and practical separately in third subject, shall be promoted provisionally to the next higher class with the condition that he/she should qualify the back paper with more than 25% marks in next back paper exam. If he/she fails to pass the back paper in Two allemt, he/she shall be declared fail in respective exam.

11. Every candidate shall have to pass the B.A. Parts-I, II and Part-III examinations separately but the division shall be awarded on the basis of the aggregate of marks obtained by a candidate in all the three parts of the examination.
12. A candidate cannot offer three literatures or more than two subjects having practicals in B.A. Part-I
13. Division shall be awarded on the basis of the aggregate of marks of the combined result of B.A., B.Sc., B.Com. A candidate who has obtained 33% marks and above but less than 45% marks in the aggregate shall be placed in the third division. A candidate who has obtained 45% marks and above but less than 60% marks shall be placed in the IIInd Division and a candidate who has obtained 60% marks or above shall be placed in the first division.


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14. The details of the course of each paper or subject of study is contained in the schedule.

BACHELOR OF ARTS

B.A. Part-I Examination


		Max. Marks	Min. Pass Marks
	Hindi Lang.		
Ist Paper		50	33
IInd Paper		50	
	English Language		
Ist Paper		50	33
IInd Paper		50	
	Sanskrit Language		
Ist Paper		50	33
IInd Paper		50	
	Urdu Languages		
Ist Paper	पठित	50	33
IInd Paper	अपठित	50	
	Hindi Literature		
प्रथम प्रश्नपत्र	हिन्दी भाषा एवं साहित्य का इतिहास	50	33
द्वितीय प्रश्नपत्र	प्राचीन काव्य	50	
	English Literature		
Ist Paper	Poetry	50	33
IInd Paper	Drama	50	
	Sanskrit Literature		
Ist Paper	नाटक, छन्द और अनुवाद	50	33
IInd Paper	पद्य, काव्य एवं व्याकरण	50	
	Urdu Literature		
Ist Paper		50	33
IInd Paper		50	
	Sociology		
Ist Paper	Introduction to Sociology	50	33
IInd Paper	Society in India	50	


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	Economics		
Ist Paper	Micro Economics	50	33
IInd Paper	Indian Economy	50	
	Education		
Ist Paper	Principle of Education	35	
IInd Paper	Development of Education in India	35	23
IIIrd Paper	Vivavoice	30	10

Note : Private candidates can offer education subject marks in each paper 50 only private candidates.

	History & Archaeology		
Ist Paper	History of India upto C.A.D. 1200	50	
IInd Paper	History of World (1453-1789)	50	33
	Philosophy		
Ist Paper	समाज एवं राजनीतिक दर्शन	35	23
IInd Paper	भारतीय दर्शन प्रायोगिक परीक्षा	35 30	10
	Geography		
Ist Paper	Physical Geography	35	33
IInd Paper	Human Geography (Element of Geomorphology)	35	
IIIrd Paper	Cartography	30	
	Political Science		
Ist Paper	Basic Principles of Political theory	50	33
IInd Paper	Indian Political thought	50	
	Psychology		
Ist Paper	Basic Psychology Processes	35	23
IInd Paper	Psychological Statistics Practical	35 30	10
	Maths		
Ist Paper	Algebra and Trigonometry	33	
IInd Paper	Calculus	33	33
IIIrd Paper	Victor Analysis and Geometry	34	


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Ancient Indian History Culture & Archaeology			
Ist Paper	Political History of India (From B.C. to 550 A.D.)	50	33
IInd Paper	Ancient Civilization	50	
Defence and Strategics Studies B.A./B.Sc.			
Ist Paper	The Arts of War in India	30/50	
IInd Paper	(A) Evidution of Armament and Western of War	30/50	23
	(b) Contemporary Problems of War & Peace	30/50	
	Practical	40/50	10
Home Science			
Ist Paper	Hygiene, Public Health and Home Nursing	35	
IInd Paper	Family Resource Management	35	23
	Practical	30	10
Indian Music			
<u>Vocal Music</u>			
Ist Paper	Science of Music	25	17
IInd Paper	Applied Theory of Music	25	
<u>Instrumental Music</u>			
Ist Paper	Science of Music	25	17
IInd Paper	Study of Ragas Talas	25	
Practical	Vocal & Instrumental	50	17

B.A. Part II Examination

प्रत्येक विषय में दो प्रश्न पत्र लिखित होंगे।

In each subject the Examination shall comprise of two written papers. In Psychology, Geography, Military Studies, Indian Music, Home Science there will be two papers and a Practical Examination in each, and a candidate is required to pass in Theory papers and Practical Examination separately.

		Max. Marks	Min. Pass Marks
Hindi Literature			
प्रथम प्रश्नपत्र	हिन्दी नाटक, निबंधक एवं एकांकी	50	33
द्वितीय प्रश्नपत्र	आधुनिक हिन्दी काव्य	50	


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महर्षि मुकुंदपुर (उ०प्र०)

		English Literature	
Ist Paper	Poetry	50	33
IInd Paper	Prose	50	
		Sanskrit Littrature	
Ist Paper	वेद एवं व्याकरण	50	33
IInd Paper	गद्य संस्कृत साहित्य का इतिहास एवं अनुवाद	50	
		Urdu Littrature	
Ist Paper		50	33
IInd Paper		50	
		Sociology	
Ist Paper	Indian Society, Issue and Problems	50	33
IInd Paper	Rural Urban Sociology	50	
		Economics	
Ist Paper	Macro Economics	50	33
IInd Paper	Money Banking & Public Finance	50	
		Education	
Ist Paper	Educational Psychology	35	23
IInd Paper	Educational Thought	35	
	Viva Voce	30	10
		History & Archaeology	
Ist Paper	History India from C.A.D. (1200-1760)	50	
IInd Paper	History world from 1789 to 1919	50	33
		Philosophy	
Ist Paper	नीति शास्त्र	35	23
IInd Paper	पाश्चात्य दर्शन	35	
	प्रायोगिक परीक्षा	30	10
		Geography	
Ist Paper	Physical Geography II (Climatology & Oceanography)	35	33
IInd Paper	Economic Geography	35	
IIIrd Paper	Cartography II	30	


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		Political Science	
Ist Paper	Indian Government and Politics	50	33
IInd Paper	Comparative Government and Politics (Govt. and Politics of U.K., USA, Russia, China, Switzerland, France)	50	
		Psychology	
Ist Paper	Psychopathology	35	23
IInd Paper	Social Psychology	35	
	Practical	30	10
		Mathematics	
Ist Paper	Advance Calculus & Tensor	33	
IInd Paper	Differantial equation & Integral Transform	33	33
IIInd Paper	Mechanics	34	
		Ancient Indian History Culture & Archaeology	
Ist Paper	Political History India (From 550 A.D. to 1200 A.D.)	50	
IInd Paper	Ancient Indian Society and State	50	33
		Defence and Strategic Studies B.A./B.Sc.	
Ist Paper	Studies of Art of war in India	30/50	
IInd Paper	National Defence and Security	30/50	20/33
	Practicals	40/50	13/17
		Home Science	
Ist Paper	Food and Nutrition	35	
IInd Paper	Fundamental of Child Development	35	23
	Practical	30	10
		Indian Music	
<u>Vocal Music (Theory)</u>			
Ist Paper	Notation Systems and History Theory	25	
IInd Paper	Study of Styles Ragas and Talas	25	17
	Practical-Vocal and Instrumental	50	17


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B.A. Part III Examination

प्रत्येक विषय में तीन-तीन प्रश्न पत्र लिखित होंगे। केवल भूगोल विषय में चार प्रश्न पत्र होंगे एवं गृहविज्ञान व संगीत में दो प्रश्न-पत्र लिखित होंगे। मनोविज्ञान, भूगोल, सैन्य अध्ययन, भारतीय संगीत, गृह विज्ञान, शिक्षा शास्त्र में लिखित एवं प्रायोगिक परीक्षा में अलग-अलग उत्तीर्ण करना आवश्यक है।

		Max. Marks	Min. Pass Marks
Hindi Literature			
प्रथम प्रश्नपत्र	हिन्दी कथा साहित्य	50	
द्वितीय प्रश्नपत्र	बुन्देली भाषा एवं साहित्य	50	50
तृतीय प्रश्नपत्र	प्रयोजन मूलक हिन्दी	50	
English Literature			
Ist Paper	Drama	50	
IInd Paper	Fiction	50	50
IIIrd Paper	Forms and Movement	50	
Sanskrit Literature			
Ist Paper	काव्य एवं काव्य शास्त्र	50	
IInd Paper	व्याकरण भाषा विज्ञान एवं निबंध	50	50
IIIrd Paper	दर्शन एवं संस्कृति	50	
Urdu Literature			
Ist Paper		50	
IInd Paper		50	50
IIIrd Paper		50	
Sociology			
Ist Paper	Foundation of Sociological thought	50	
IInd Paper	Social Research Methods	50	50
IIIrd Paper	(a) Crime and Society (b) Field visit and Report Writing	50	
Economics			
Ist Paper	Quantitative Techniques	50	
IInd Paper	International Economics	50	50
IIIrd Paper	History of Economics	50	
Education			
Ist Paper	Education Guidance and counselling	35	
IInd Paper	Problems of Indian Education	35	35
IIIrd Paper	Envioronmental Education	35	
IVth Paper	Viva Voce	45	15

Note : Private candidates can offer education subject Max. Marks in each paper 75. only private candidates.



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महारा, लालितपुर (३० प्र०)

History & Archaeology		
Ist Paper	Social & Economic History of India (1760 A.D.-1857 A.D.)	50
IIInd Paper	Indian National Movement (1857-1947)	50
IIIrd Paper	Modern World (1919-1945)	50


Philosophy		
Ist Paper	समकालीन दर्शन	35
IIInd Paper	सौन्दर्य शास्त्र	35
तृतीय प्रश्न पत्र वैकल्पिक है। छात्र इनमें से किसी एक का चयन कर सकता है, इनमें से प्रत्येक का पूर्णांक 35 अंक का होगा।		
IIInd-A Paper	न्याय दर्शन	35
IIInd-B Paper	धर्म दर्शन	35
IIIrd-C Paper	तर्क शास्त्र	35
	प्रायोगिक परीक्षा	45

Geography		
Ist Paper	Geography of India	35
IIInd Paper	Environmental Geography	35
IIIrd Paper	Study of Regional studies of any one of the following regions	50
	(i) South west Asia	
	(ii) South East Asia	
IVth Paper	for East China and Japan	35
	Cartography III	45

Political Science		
Ist Paper	Public Administration	50
IIInd Paper	International Politics	50
IIIrd Paper	Western Political Thought	50

Psychology		
Ist Paper	Psychopathology Research and Measurement	35
IIInd Paper	Environmental Psychology	35
IIIrd Paper	Organization Behaviour	35
	Practical	45

Mathematics		
Ist Paper	Analysis	50
IIInd Paper	Abstract Algebra	50
IIIrd Paper	Numerical Analysis and Statistics	50


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 मईरा, ललितपुर (झारखण्ड)

Ancient India History Culture & Archaeology

Ist Paper	Element of Indian Archaeology	50	
IInd Paper	Ancient Indian Art and Architecture	50	50
IIIrd Paper	Ancient Indian Religion	50	

Defence and Strategic Studies B.A/B.Sc.

Ist Paper	Evaluation of Strategic Thought	35/50	
IInd Paper	War and International Relation	35/50	35/50
IIIrd Paper	Military Psychology Practical	35/50 45/75	15/25

Home Science

Ist Paper	Introduction to Textiles and clothing	50	33
IInd Paper	Extension Education Practical	50 50	17

Indian Music

Vocal Music			
Ist Paper	Applied Theory (Vocal)	40	
IInd Paper	Theory Musicalology + Objectives	40	27
Practical - Vocal and Instrumental Individual		70	23



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महारा, ललितपुर (उ०प्र०)

Syllabus of U.G. Sociology

B.A. (Part One)

From Exam - 2008-09 & onwards

There shall be following Two papers, each carrying 50 marks

INTRODUCTION TO SOCIOLOGY

Paper I :

M.M. 50

Course Outline -

Sociology : Scope, Subject Matter, Nature and Significance. Sociology and other Social Sciences : Social Anthropology, Social work, Economics, History and Political Science. Sociological Perspective : Scientific and Humanistic.

Basic Concepts : Society, A Society, Human and Animal Society, Community, Association, Institution, Social Group, Social Structure, Status and Role etc.

Individual and Society : Atomism and Holism views.

Socialization; concept, its agencies and Theories.

Social Processes : Associative and Dissociative, Social Stratification and Mobility.

Social Change : Meaning and Type : Evolution, and Revolution, Progress and Development. Factors and Social Change.

Essential readings :

1. Bottomore, T.B. 1972. Sociology : A guide to problems and literature. Bombay : George Allen and Unwin (India).
2. Harlambos, M. 1998. Sociology : Themes and perspectives. New Delhi : Oxford University Press.
3. Inkeles, Alex, 1987, What is Sociology ? New Delhi : Prentice Hall of India.
4. Jayaram, N. 1988, Introductory Sociology. Madras : Macmillan India.
5. Johnson, Harry M. 1995. Sociology : Asystematic Introduction. New Delhi : Allied Publishers.
6. Schaefer. Richard T. and Robert P. Lamm. 1999. Sociology. New Delhi : Tata Mc-Graw Hill.
7. Maciver R.M. and Page C.H. : Society (English and Hindi Ed. 1990)
8. Davis, K. : Human Society


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महाराष्ट्र, अलिप्तपुर (उ०प्र०)

SOCIOLOGY
B. A. (Part One)
SOCIETY IN INDIA

Second Paper -

M.M. 50

Course Outline -

The Textual view of Indian Society : Historical Background. The Bases of Hindu Social organisation : Varnashram System, Purushartha, Karm and Rebirth, Sanskar.

The Structure and Composition of Indian Society : Village, Town, Cities, Rural-Urban Linkage (Continuum) & Tribes.

The cultural and Ethenic Diversities of Indiann Society : Geographical, Cultural, Religious, Lingustic and Castist.

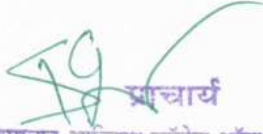
The Basis Institutions of Indian Society : Cast and Class Religion, Kinship, family and marriage.

Convergence and Intergration of Indian society : Cultural sharing of material traits. Language and Religions, Ethos and evolution of composite-cultural legacy.

Changeand Transformation of Indian Society : Major approaches and processes, Nation Building and National Identity.

Essential Readings :

1. Bose N. K. 1967 : Culture and Society in India. Bombay : Asia Publishing House.
2. Bose, N. K. 1975 : Structure of Hindu Society. New Delhi.
3. Dube, S.C. 1990 : Society in India New Delhi : National Book Trust
4. Prabhu P.H. : Hindu Social Organization.
5. Kapadia, K. M. : Marriage & Family India.
6. Karve, Irawati, 1961 : Hindu Society : An Interpretation, Poona : Deccan College
7. Lonnoy, Richard, 1971 : The Speaking Tree : A Study of Indian Society and Culture. Delhi : Oxford University Press.
8. Mandelbaum, D. G. 1970 : Society in India Bombay : Popular Prakashan.


प्रो. चार्ज
भगवान आदिनाथ कॉलेज ऑफ एजुकेशन
महारा, ललितपुर (उ०प्र०)

9. Srinivas., M.N., 1980 : India : Social Structure, New Delhi : Hindustan Publishing Corporation.
10. Sri Nivas, M.N., 1963 : Social Change in Modern India, California, Berkeley : University of California Press.
11. Singh, Yogendram, 1973 : Modernization of Indian Tradition. Delhi : Thomson Press.
12. Uberoi, Patricia, 1993 : Family, Kinship and Marriage in India. New Delhi : Oxford University Press.

SOCIOLOGY
B.A. (Part Two)
Exam - 2009-2010 & onward
First Paper -
Indian Society : Issues and Problems

M.M. 50

Course Outline -

Structural : Poverty, Inequality of caste and gender, disharmony of Religious, Ethnic and Regional, Weaker section, Dalit, backward classes and minorities.

Familial : Present status and problems of women - Dowery, Divorce, widow remarriage, Domestic violence, women empowerment, legislation regarding-women, intra and inter generational conflict & problem of elderly.


Developmental : Regional disparities, Development induced displacemnet, Ecological digration, Environmental Pollution, Consumerism and crisis of values.

Disorganizational : Social organization and disorganization, Individual, Family and cultural disorganization.

Perspectives - Socio-cultural and political economy, perspective of issues and problems of Indian Society.

Essential Readings :

1. Beteille, Andre. 1974. Social Inequality, New Delhi : OUP.
2. Betaille, Andre, 1992. Backward Classes in Contemporary India, New Delhi : OUP


भमवान आदिनाथ कॉलेज ऑफ एजुकेशन
महारा, ललितपुर (उ०प्र०)

3. Berreman, G.D. 1979 : Caste and Other Inequalities : Essays in Inequality. Meerut : Folklore Institute.
4. Dube, Leela 1997 : Women and Kinship. Comparative Perspectives on Gender in South and Southeast Asia. New Delhi : Sage Publications.
5. Gadgil Madhav and Guha, Ramchandra 1996 : Ecology and Equaity : The use and Abuse of Nature in Contemporary India., New Delhi : OUP.
6. Merton, Rabert K. & Nisbet. R.A. : Contemporary Social Problems.
7. Elliot M.A. and Merrill F.E. : Social Disorganization.
8. Inden, Ronald. 1990. Imaging India, Oxford : Brasil black ward.
9. Kothari, Rajani (Ed.). 1973 : Caste in Indian Politics. Orient long mans Ltd.
10. Brecken bridge C. 1996 : Consuming Modernity : Public Culture inu contemporary India. New Delhi : OUP.
11. Madan, T.N. 1991. Religion in India, New Delhi. : OUP
12. Guha Ramchandra 1974 : Sociology & Dilemma of Development. New Dehli : OUP.
13. Satya Murty. T.V. 1996. Region, Religion. Caste, Gender and culture in contemporary India. New Delhi : OUP.
14. Sharma, S.L. 1997 : "Towards Sustainable Development in India". In S.R. Mehta (Ed.) Population Poverty and Sustainable Development. Jaipur : Rawat Publications.
15. Sharma S.L. 2000 : "Empowerment without Antagonism : A case for Reformulation of women's Empowerment Approach". Sociological Bulletin. Vol. 49, No. 1.
16. Ahuja Ram, 1996 : Social Problems in India., Jaipur Rawat Publication.
17. Waxman 1983 : The stigma of poverty : A critique of Poverty Theories and Policies. New Delhi. OUP.



प्राचार्य

भगवान आदिनाथ कॉलेज ऑफ एजुकेशन
सहैरा, ललितपुर (उ०प्र०)

SOCIOLOGY
B.A. (Part Two)
Second Paper - Rural - Urban Sociology

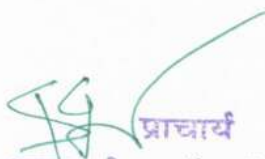
M.M. 50

Course Outline -

- Rural Sociology : Origin and Development, Scope and Significance.
Urban Sociology : Origin and Development, Scope and Significance.
Little Community : Peasant Society and Folk Culture.
Concept of Urban Society, City and classification cities.
Distinctive characteristics of rural & urban society. caste, family, rituals structures.
women, occupation, Labour Market and Technology.
Production relations, Economy, structural integration and differentiation, Hindi Jaimani
System and changing Labour Market.
Rural Urban continuum, Rural-urban migration and Rural Urban differences.
Rural and Urban Development issues.
Power, Caste and class & Changing Dimensions.
Major Rural Social Problems in India : Poverty Land less Labour, and Peasant unrest.
Major Urban Social Problems in India : Problems of Housing and slums, Urban Poverty
Urban environmental problems.
Local governance of Rural and Urban communities.

Essential Readings :

1. Desai A. R. 1959 : Rural Sociology in India, Bombay Popular Prakashan.
2. Rai M.S. A. 1974 : Urban Sociology in India New Delhi Orient Longman.
3. Desai A.R. 1979 : Rural India in Transition, Bombay Popular Prakashan.
4. D' Souza Alfred 1978 : The Indian City : Poverty, Ecology and Urban development,
Manohar Prakashan, New Delhi.
5. Redfield Robert : (i) Little Community
(ii) Peasant Society and Culture.


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भगवान आदिनाथ कॉलेज ऑफ एजुकेशन
सहैरा, ललितपुर (उत्तरप्रदेश)

6. Mckim Marriott : Village India
7. Beteille, Andre : Caste, Class Power
8. Dubey S.C. : An Indian Village.
9. Sorokim and Zimmerman : Principal of Rural Urban Sociology.
10. Sri Nivas M.N : (i) India's Village.
(ii) Cost in Modern Indian
11. Wiser W.H. : The Hindu Jajmani System.
12. Bargel E.B. : Urban Sociology (Hindi & English)
13. R.K. Mukharjee 1957 : The Dynamics of Rural Society Barlin.
14. Singh Yogendra : The Changing Power Structure of Village Community.
15. Weber Max : The Clty.

SOCIOLOGY

B.A. (Part Three)

Exam - 2010 - 2011 & onwards

M.M. 50

First Paper - Foundation of Sociological Thought

Course Outline -

Emergence and Development of Sociology, The Social, economic and Political forces. The French and Industrial Revolution. Origin and Development of Sociology in India Sociological Thought and Development of Sociological Thought in India.

The Pioneers -

Auguste Comte : Law of three stages of thinking and Positivism.

Horbet Spencer - Social Evolution (Social Darwinism) and Super Organic Evolution.

Emile Durkheim : Social Solidarity and Suicide.

Maxweber : Power and Authority, Protestant ethic and spirit of Capitalism.

Karl marx : Materialistic conception of History and class struggle.



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Vilfredo Pareto : Social Action Theory and Circulation of elite.

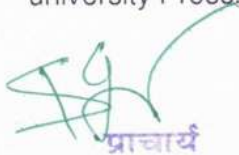
School of Sociological Theory : Functionalism - R.K. Merton.

Conflict Theory : Coser & Dohrendorf.

Social action Theory : Max Weber and Parsons.

Essential readings :

1. Aron, Raymond, 1967 : (1982 reprint) : Main Currents in sociological thought (2 Vol.) Harmondsworth, Middlesex : Penguin Books.
2. Barnes, H.E. 1959 : Introduction to the history of sociology. Chicago : The University of Chicago Press.
3. Coser, Lewis A. 1979 : Masters of sociological thought. New York : Harcourt Brace Jovanovich.
4. Fletcher, Ronald. 1994 : The making of sociology (2 Vol.) Jaipur : Rawat Pub.
5. Morrison, Ken. 1995 : Marx, Durkheim, Weber : Formation of modern social thought. London : Sage Publication.
6. Ritzer, George. 1996 : Sociological theory. New Delhi : Tata Mc Graw Hill.
7. Singh, Yogendra. 1986 : Indian Sociology : Social Conditioning and emerging trends. New Delhi : Vistaar Publication.
8. Zeitlin, Irving. 1998 (Indian edition) : Rethinking Sociology : A critique of contemporary theory. Jaipur : Rawat Publication.
9. Inkeles, Alex 1987 : What is Sociology ? New Delhi : Prentice - Hall of India.
10. Popper Karl R. 1945 : Open society and its Enemies-London-Routledge.
11. Robert K. Merton 1972 : The Social Theory & Social Structure New York. The Macmillan company.
12. Dahrendorf, Ralph 1959 : Class and class conflict in an Industrial Society. Stanford university Press.



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महारा, ललितपुर (उ०प्र०)

SOCIOLOGY

B.A. (Part Three)

Second Paper - Social Research Methods

M.M. 50

Course Outline -

Social Research : Meaning, Objectives and Significance. Concept of Hypothesis, Types of social research and research designs.

Nature of Social Phenomena, Scientific Methods, and objectivity,

Methods of Social Research : Inductive and Deductive, observation, Case study and content analysis.

Techniques of Data Collection : Social Survey, Sampling, Schedule, questionnaire and Interview. Qualities of a good Investigators or Research worker or surveyor. Primary and secondary source of data.

Classification and presentation of data - coding, Tabulation, graphs and Diagrams.

Elementary Statistics : Measures of central tendency : Mean, Median and Mode, Measures of Dispersion : Mean Deviation and Standard Deviation, Application of Computer in Social Research.

Essential Readings :

1. Young P. V. 1988 : Scientific Social Survey and Research. New Delhi : Prentice Hall.
2. Bryman, Alan. 1988 : Quality and Quantity in Social Research. London : Unwin Hyman.
3. Jayaram, N. 1989 : Sociology Methods and Theory. Madras : Macmillan.
4. Kothari, C. R. 1989 : Research Methodology : Methods and Techniques, Bangalore, Wiley Eastern.
5. Punch, Keith, 1996 : Introduction to Social Research. London : Sage Publication.
6. Bajaj and Gupta. 1972 : Elements of Statistics, New Delhi : R. Chand and Co.
7. Beteille Andre T. N. Madan. 1975. Encounter and Experience : Personal Accounts of Fieldwork. New Delhi : Vikas Publishing House.
8. Srinivas, M.N. and A.M. Shan. 1979 : Fieldworker and the Field Delhi Oxford.
9. Goode William J. and Hatt Paul K. 1972 : Methods in Social Research New York : Mcgraw Hill Book Co.


प्राचार्य

भगवान आदिनाथ कॉलेज ऑफ एजुकेशन
महारा, ललितपुर (उ०प्र०)

10. Lundberg G. A. 1951 : Social Research : New York. Longmans, Green and Co,
11. Margaret, S. : Methods of Social Research : Oxford Pergamon Press.
12. Johoda and others : Research Methods in Social Relation.
13. Ackoff R. L. Designs of Social Research.
14. Moser C.A. and Kalton G. 1961 : Survey Methods in Social Investigation, London Heinemann.

SOCIOLOGY
B.A. (Part Three)
Third Paper (a) - Crime & Society

M.M. 50

Course Outline -

Crime : Concept, Sociological, Legal and behavioral Explanation of crime. Symptoms of crime, types of crime and criminals, white collar crime, Tort, Sin, Vice and Immorality. Terrorism related crime.

Juvenile delinquency : Concept, Vagrancy and Truancy, Causes of Juvenile delinquency in India.

Theories of Crime Causation : Early Explanation-Classical, Psychological, Geographical and Positivistic.

Sociological Explanation : Defferntial association, Group processes, delinquent subculture, Social structure & anomie, marxian perspective.

Major Social Problems in India - Drug addiction and alcoholism, Prostitution, Aids, Corruption in Public life & Cybercrime.

Theories of Punishment : Retributive, Deterrant, Preventive and Refomative.

Correctional Measures : Prison based, open prison, Community based, probation & perole, Juvenile Court and jail.

Essential Readings -

1. Barnes, H.E. and Teeters N. 1959 : New Horizons in Criminology. New Delhi Prentice Hall of India.
2. Suderland, E.H. and Donald. R. Cressey 1968 : Principles of Criminology Bombay. Thmes of India Press.


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भगवान आदिनाथ कॉलेज ऑफ एजुकेशन
महाराष्ट्र, लांसतपुर (३०३०)

3. Gill S.S. 1988 : The Pathology of Corruption. New Delhi : Harper Collins Publishers (India)
4. Bedi Kiran 1998 : It is Always Possible : New Delhi. Sterling Publications Pvt. Ltd.
5. Ministry of Home Affairs 1998 : Crime in India. New Delhi - Govt. of India.
6. Ministry of Home Affairs : Report of the All India Committee on Jail Reform : 1980-83. New Delhi Govt of India.
7. Ajuja, Ram 1996 : Social Problems in India : Jaipur Rawat Publication.
8. Chandra Shushil : (i) Sociology of Deviance in India.
(ii) Juvenile Delinquency in India.
9. Sethna M. J. : Society and the Criminals.
10. Ministry of Home Affairs : Delinquent Children and juvenile offences in India New Delhi Govt. of India.
11. New Meyer M.H. 1955 : Juvenile Delinquency in Modern Society.

Or

FIELD VISIT AND REPORT WRITING

Paper III (b)

M.M. 50

For those student who secure 55% or above aggregate in B.A. I and B.A. II exam in Sociology. Evaluation will be made at the college Centres, with Internal and External Subject Expert.

ECONOMICS

Note - There shall be seven papers in Undergraduate Level.

Two Paper for B.A. part-I students are as follows :-

Paper I - Micro Economics

Paper II - India Economy

Two Paper for B.A. part - II students are as follows :-

Paper I - Macro Economics

Paper II - Money Banking & Public Finance


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भगवान आदिनाथ कॉलेज ऑफ एजुकेशन
महाराष्ट्र, ललितपुर (३०१०)

**BUNDELKHAND UNIVERSITY
JHANSI**



विज्ञान संकाय

BUNDELKHAND UNIVERSITY , JHANSI

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1.	Ordinance	1-12
2.	Botany	13-24
3.	Zoology	25-46
4.	Geology	47-59
5.	Chemistry	60-112
6.	Mathematics	113-119
	7. Physics	120-148

ORDINANCES

For Undergraduate and Graduate Programmes In Bachelor of Science (B.Sc.) And Scheme of Examination

The University offers three years regular course for the Bachelor of Science in the Institute of Basic Science. This academic program shall be executed in the University campus based on annual scheme of examination.

1. Eligibility for admission :

- (a) A candidate who has qualified/Passed the 10+2 or Intermediate in Bio. or Math's group in aggregate from C.B.S.C. of I.C.S.E. or state education board or any other school/board/Institute, which is recognized by central or state government is eligible to seek admission in B.Sc. Part I.
- (b) The candidates, who are interested to seek admission in B.Sc. II and B.Sc. III shall also be eligible to apply, provided that they have produced the specific proof of passing the B.Sc. I and B.Sc. II examination respectively from the recognized Indian University/Institute.
- (c) A candidate who passed B.Sc. I or B.Sc. II examination from affiliated college of this University may also be eligible to get admission in B.Sc. II or B.Sc. III respectively in the University Campus.
- (d) A candidate who has passed B.Sc. I or B.Sc. II from any other University or Institute may also be eligible to get admission in B.Sc. II or B.Sc. III provided that the course structure which he/she opted should have an equivalent with the syllabus of this University.

2. Procedure of Admission : Admission to eligible candidate will be given strictly on merit, drawn on the basis of qualifying examination marks or through Entrance Test examination conducted by the University, as per procedure decided by appropriate authorities of the University.

3. Normal Intake : The intake for these undergraduate program will be as provided in the academic bulletin of each academic year. Statutory reservation, as applicable, shall be applied as per rules.

4. Medium of Instruction : Shall be English/Hindi.


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5. Method of teaching : These course will be taught by the regular faculty, in house visiting faculty and visiting faculty from other academic institutions/organizations. Baside this, the experiments/exercises for the respective course as per the syllabus are alsoconducted in different laboratories for practical work.

6. Attendance : Minimum attendance required to be eligible to appear in the examination shall be 75% of all class lecture (theory & practical), seminars, tests, tours and project work may taken together for all paper and also for each paper and extracurricular activities etc. the following shall apply :

- A shortage of upto 5% shall be condoned by the Convener/Director of Institute Basic Science on the specific recommendations of the class teacher.
- A shortage of upto 10% shall be condoned by the Vice-Chancellor on the specific recomndations of the Convener/Director of Institute Basic Sciences.
- A Shortage of upto 25% may be condoned by a committee constituted by the appropriate authority of the University, on medical grounds.

7. Subject In B.Sc. Course : As prescribed by the ministry of Higher Education, Uttar Pradesh Goverment this course will be run in three academic years. The course contents/structure for each subject/paper will be same as formulated by a committee appointed by Uttar Pradesh Government for unified syllabus for its college and universities. The three subject are offered separately for Bio or Math's group in B.Sc. I and B.Sc. II. But only two subjects will be provided in the B.Sc. Final year. Beside this, the students are free to opt one of the professional/applied subject offered by university for each group.

Under this program, the course structure shall be broadly divided in to two groups.

(A) B.Sc. in Bio Group (B) B.Sc. in Math's Group

A candidate got admission in one of the above group is free to choose any three subjects allocated in the following groups, provided that two subjects among them were opted by him/her in 10+2 or intermediate or equivalent examination, conducted by C.B.S.C./I.C.S.E./State Board/or any other recognized school or Institute in India.

(A) Subjects offered for B.Sc. Bio Group

Zoology, Botany, Chemistry & Geology

(B) Subjects offered in B.Sc. Math's Group

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मईरा, ललितपुर (उ०प्र०)

Physics, Chemistry, Mathematics, Statistics & Geology

(C) **Qualifying Optional subjects for B.Sc.**

Math's Group : Computer Sciences

Bio Group : Microbiology, Biotechnology & Biochemistry

(D) **Subject Combinations**

Math's Group :

- (i) Physics, Math's and Chemistry
- (ii) Physics, Math's and Statistics
- (iii) Physics, Math's and Geology
- (iv)

Bio Group :

- (i) Zoology, Botany and Chemistry
- (ii) Geology, Botany and Chemistry

(Economics & Geography cannot be offered in Bio-Group)


There are limited numbers of seats for each combination of subjects in each group. The combination of the subjects shall be offered to the candidate exclusively on the basis of merit list scrutinized by the admission committee or the percentage of marks/score secured by the candidate in the entrance test conducted by the university.

The change for the subject and subject combination will be allowed only after the closing date of admission and if the seats, are found vacant in the desired subject/subject combination. For this, the candidates may send their request to Convener/Director of Institute of Basic Sciences up to the prescribed date scheduled for it. This change in subject/subject combination shall be provided purely on the basis of merit and the recommendation of the admission committee. No change will be allowed after the closing date.

8. Scheme of Examinations :

Bachelor of Science :

The duration of B.Sc. course shall be for three academic years. The degree will be awarded to the student after his/her evaluation in theory and corresponding practical examinations in each academic year. Each academic year shall consist of 180 days of

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teaching work including theory, practical, Sessional and educational/field tour. Educational training and field tour programmes will also be conducted at specified local areas. The pattern of question paper will be of 20% objective type, 40% short answer and 60% essay type and will be based on the unified syllabus provided by Uttar Pradesh Government for each subject.

(a) Annual Examination : It shall be conducted by the University, normally after completion of 180 days of teaching. The question paper will be set by the Examiners appointed by the Vice-Chancellor on the basis of the recommendations of the Board of Studies in the respective subjects.


(b) Practical Examination : A Practical Examination except in mathematics (including practical records/sessional and viva-voice), based on course contents offered to each subject in unified syllabus shall be conducted for each course in each academic year.

A student must clear the both theory and practical papers, separately with 33% marks in individual and 40% marks in aggregate. In case he/she fails to clear any one or more of the papers, a second chance shall be given to him/her to clear the backing by taking a back-paper examination, which shall be conducted separately or along with the annual examination at the end of academic year. In the meantime, such student may be promoted and provisionally admitted in the subsequent academic year.

9. Minimum Pass Marks :

- | | | |
|-----|---------------|-------------|
| (a) | 33% | II Division |
| (b) | 45% and above | II Division |
| (c) | 60% and above | I Division |
| (d) | 75% and above | Distinction |

(a) In the B.Sc. Part I and II a student shall opt three subjects from the offered subject combination in each group (Math's and Bio). Each shall carry 150 marks and will have three theory papers and one practical except mathematics. A maximum 100 marks are awarded to each subject and 50 marks to practical. To qualify for the subsequent year, each candidate must have secured at least 33% marks in theory as well as in practical separately in each subject. If a candidate has obtained 33% marks from his/her grand total and has also obtained 33% marks in all paper (including practical) except one paper, then


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he/she may be promoted to get admission in the subsequent academic year provided that he/she has secured at least 25% marks in that paper.

If a candidate has secured less than 25% marks in one subject and at least 33% marks in all other two subject as well as in grand total then he/she may be allowed to appear in the back paper examination which will be conducted along with the annual examination of the subsequent year. In the mean time he/she may be provisionally promoted in the subsequent academic year (B.Sc. II & III).

- (b) In order to qualify the optional subject a candidate must pass it at least with 30% marks. These marks will not be added with his/her grand total and will not affect his/her divisional rank.
- (c) In the B.Sc. final year a candidate will have to choose only two subject among the three subject which he/she had opted in B.Sc. II year. Each subject will carry 225 marks and will have three theory papers and one practical except mathematics. A maximum total of 150 marks are awarded to each subject and 75 marks to each practical.

To qualify for B.Sc. degree a candidate must have secured at least 33% marks in the final year (B.Sc. III) examination in theory as well as in practical. If a candidate has secured 33% marks from his/her grand total but fails to get it (33%) in one paper of theory or practical and only secured at least 25% marks in this paper, Then in such condition the degree in Bachelor of Science (B.Sc.) may also be awarded to him/her.

10. Course Structure :

B.Sc. Part I

Three compulsory subjects along with one optional qualifying subject (Candidate may or may not opt).

Each subject consists three theory papers and one practical (No practical in Math subject).

Each subject shall be 150 marks where 100 marks for theory papers and 50 marks for practical. The grand total of three subjects will be maximum of 450 marks.

B.Sc. Part II

Three compulsory subjects along with one optional qualifying subject (Candidate may or may not opt).

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Each subject consists three three theory papers and one practical. Grand total 450.

Each subject consists three theory papers and one practical (No practical in Math subject).

Each subject shall be 150 marks where 100 marks for theory papers and 50 marks for practical. The grand total of three subjects will be maximum of 450 marks.

B.Sc. Part III


Two compulsory subjects along with one optional qualifying subject (Candidate may or may not opt the qualifying subjects).

The chosen subject for the B.Sc. should be among the subjects offered in the B.Sc. Part I and II.

Each subject consist three theory papers and one practical

Grand total 450

11. A candidate who has discontinued the academic program during any year/semester, may on the recommendation of the HOD be permitted by the Vice-Chancellor to take readmission in the academic program at the beginning of the semester/year concerned, in a subsequent year, not however beyond a gap of two years, under the condition that the maximum period to stay in a course shall not exceed 4-7 years from the time of initial admission. Fee once paid shall not be adjusted or refunded during subsequent admissions.
12. The course fee and examination fee shall be decided by the University from time to time and will have to be deposited by the candidate, as and when asked for.
13. The academic programs may be conducted in collaboration with any institution where nexessary facilities are available.
14. Above rules are subject to amendment by appropriate authorities of the University from time to time, as and when deemed necessasry.
15. In view of the need in the actual implementation of the course, the adaptations and amendments, if any, by the Board of Studies, or the Expert Committee appointed by the Vice-Chancellor for the respective course/subject, for the first ordinances, shall be deemed passed and hence incorporated.
16. Grace Marks : A maximum of 5 marks may be awarded in every final examination in aximum of two papers and/or aggregate to those candidate who by the award of these marks can be declared to have passed in all subject and aggregate.


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B.Sc. (Botany)

FIRST YEAR

	M.M.	Practical
Paper I. Diversity of microbes and Lower cryptogams	33	
II. Higher Cryptogams	33	
III. Cell biology and genetics	34	
Total -	100	50

SECOND YEAR

	M.M.	Practical
Paper I. Diversity of Gymnospermic plants and their systematics	33	
II. Diversity of Angiospermic and their systematics	33	
III. Structure, development and reproduction of flowering plants	34	
Total -	100	50

THIRD YEAR

	M.M.	Practical
Paper I. Plant Physiology & Biochemistry	50	
II. Plant Ecology	50	
III. Biotechnology & utilization of plants	50	
Total -	150	75

B.Sc. Part - I

PAPER - I


DIVERSITY OF MICROBES AND CRYPTOGRAMS

Time - 3 Hrs.

M.M. 33.

Viruses and Bacteria : General account of viruses and Mycoplasma; Bacteria - structure, nutrition, reproduction and economic importance; General of Cyanobacteria.

Algae : General characters, classification and economic importance; Important features and life history of Chlorophyceae - *Volvox*, *Oedogonium*, *Coleochaete*; Xanthophyceae - *Vaucheria*; Phaeophyceae - *Ectocarpus*, *Sargassum*; Rhodophyceae - *Polysiphonia*.


शाचार्य
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Fibers : Cotton, coir and jute with reference to their sources, characteristic, classification & uses.

Vegetable oils : Groundnut, mustard and cocount with reference to properties, extraction & classification.

General account of sources of firewood, timber and bamboos.

Spices : General account.

Medicinal plants : General account with special reference to *Rauwolfia*, *Cinchona*, Neem & Opium.

Beverages : Tea and coffee with reference to cultivation, harvesting & processing & utility.

Rubber : Technique for manufacture, properties & uses.

B.Sc. (Zoology)

FIRST YEAR

	M.M.	Practical
Paper I. Life and Diversity of Invertebrates	33	
II. Life and Diversity of Chordates	33	
III. Cytology and Development Biology	34	
Total -	100	50

SECOND YEAR

	M.M.	Practical
Paper I. Genetics	33	
II. Animal Physiology	33	
III. Molecular Biology	34	
Total -	100	50

THIRD YEAR

	M.M.	Practical
Paper I. Applied Zoology	50	
II. Ecology and Environment	50	

III. Evolution and Microbiology 50

Total - 150 75

B.Sc. Part - I

PAPER - I

LIFE AND DIVERSITY OF INVERTEBRATES

Time - 3 Hrs.

M.M. 33

Functional morphology of the types with special emphasis on the adaptations to their modes of life and environment. General characters and classification of all phyla upto classes with examples emphasizing their biodiversity, economic importance and conservation measures.

1. Introduction to Invertebrates,
2. Protozoa - Paramoecium, Plasmodium.
3. Porifera - Sycon.
4. Coelenterata - Obelia, Coral and Coral reefs.
5. Helminthes - Liverfluke, Parasitism.
6. Annelida - Nereis, Metamerism.
7. Arthropoda - Prawn, Social insects.
8. Mollusca - Pila, Pearl formation.
9. Echinodermata - Starfish, Echinoderm larvae.
10. Hemichordata - Balanoglossus.

B.Sc. Part - I

PAPER - II

LIFE AND DIVERSITY OF CHORDATES

Time - 3 Hrs.

M.M. - 33

Functional morphology of the types with special emphasis on the adaptations to their modes of life and environment. General characters and classification of all classes upto orders with examples emphasizing their biodiversity, economic importance and conservation measures.

1. Origin of Chordata.
2. Protochordata - Herdmania, Amphioxus.

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ZOOLOGY

B.Sc. (Part I)

M.M.

Ist Paper - Life and Diversity of Invertebrates	33
IIInd Paper - Life and Diversity of Chordates	33
IIIrd Paper - Cytology and Developmental Biology	34
Practical	50

Life and Diversity of Invertebrates

Paper - I


M.M. 33

Functional morphology of the types with special emphasis on the adaptations to their modes of life and environment. General characters and classification of all phyla upto classes with examples emphasizing their biodiversity, economic importance and conservation measures.

1. Introduction of Invertebrates.
2. Protozoa - Paramecium, Plasmodium
3. Porifera - Sycon
4. Coelenterate - Obelia, Coral and Coral reefs.
5. Helminthes - Liverfluke, Parasitism
6. Annelida - Nereis, metamerism
7. Arthropoda - Prawn, Social insects
8. Mollusca - Pila, Pearl formation
9. Echinodermata - Starfish - Echinoderm larvae
10. Hemichordata – Balanoglossus

Books Recommended :

1. Hickman C.P. Jr., F.M. Hickman and L.S. Roberts, Integrated Principles of Zoology, Mosby College Publication, St. Louis.
2. Ayyar, E.K. and T.N. Ananthakrishnan, Manual of Zoology, Vol. I (Invertebrata), Parts I & II, S. Viswanathan (Printers and Publishers) Pvt. Ltd., Madras.
3. Jordan, E.L. and P.S. Verma, Invertebrate Zoology, S. Chand & Co. Ltd. Ram Nagar, New Delhi.
4. Parker and Haswell, Text Book of Zoology, Vol. I, (Invertebrata), A.Z.T.B.S. Publishers and Distributors, New Delhi - 110 051
5. Ismail, S.A., Vermicology : The Biology of Earthworms, Orient Longman, India.
6. Kotpal, R.L., Invertebrates, Rastogi Publications, Meerut.


भगवान आदिनाथ कॉलेज ऑफ एजुकेशन
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8. Blastulation and Fate map construction in Frog and Chick
9. Gastrulation in Frog and Chick upto the formation of three germinal layers
10. Elementary knowledge of Primary organizer and extra embryonic membranes and regeneration

Books Recommended :

1. Alberts, Bray, Lewis, Raff, Roberts & Watson, Molecular Biology of the Cell (Garland)
2. Balinsky, An Introduction to Embryology (CBS College Publishers)
3. Grant : Biology of Developing Systems (Holt, Reihart and Winston)
4. Gilberts : Developmental Biology (Sinauer)
5. Karp G-Cell & Mol. Biol - John wiley.
6. Lodish, H. et. al., Molecular Cell Biology (Freeman)

Practical

M.M. 50

1-Lal SS - Test Book of Practical Zoology

Vol - I, Rastogsi Pub - Meerut

ZOOLOGY

B.Sc. (Part II)

Ist Paper	Genetics	33
IIInd Paper	Animal Physiology	33
IIIrd Paper	Molecular Biology	34
	Practical	50


GENETICS

Paper I

M.M. 33

1. Elements of heredity and variation.
2. Gene Expression
3. Linkage, Sex chromosome and Sex linkage
4. Chromosomal aberrations
5. Human genetics
6. Cytoplasmic Inheritance
7. Applied Genetics

Books Recommended :


 प्राचार्य
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 मन्देश, ललितपुर (उ०प्र०)

1. Gunther S. Stent, Molecular Genetics, Macmillan Publishing Co. Inc.
2. Goodenough, V., Genetics, New York Holt, Rinehart and Winston
3. Gardner, Principles of Genetics, Wiley Eastern Pvt. Ltd.
4. Gupta, P.K., Molecular Biology, Rastogi Publishers, Meerut
5. Verma, P.S., Molecular Biology, S. Chand & Co.
6. Lewin, Genes IX, Pearson Pub.

Practical

MM 50

1. A text book of Practical Zoology Vol. II
Rastogi Pub. Meerut.
2. Rana SVS, Biological Techniques,

ZOOLOGY

B.Sc. (Part Three)

M.M.

Ist Paper	Applied Zoology	50
IInd Paper	Ecology and Environment	50
IIIrd Paper	Evolution and Microbiology	50
	Practical	75

APPLIED ZOOLOGY

Paper I

M.M. 50

1. Principles of Aquaculture
2. Sericulture
3. Apiculture
4. Lac Culture
5. Pisciculture and Aquarium fish keeping
6. Poultry keeping
7. Toxicology

Books Recommended :

1. Jhingran, V.G., Fish and Fisheries of India, Hindustan Publishing Corporation, New Delhi
2. Kovaleve, P.A., Silkworm Breeding Stocks, Central silk Board, Marine Drive, Bombay
3. Roger, A. Morse, The ABC and XYZ of Bee Culture, A. I. Root & Co., Medina, Ohio 44256
4. Metcalf, C.L. and W. P. Flint, Destructive and Useful Insects, Tata McGraw Hill Publishing Co. Ltd., New Delhi - 110 051

 प्राचार्य

भगवान आदिनाथ कॉलेज ऑफ एजुकेशन

महंगा, ललितपुर (उ०प्र०)

BUNDELKHAND UNIVERSITY SYLLABUS

Subject - CHEMISTRY

B.Sc. (Part - I) Exam. 2009-2010 & onwards

Syllabus at a glance (Theory & Pract.)

B.Sc. - I Year

Paper I CH-101 Inorganic Chemistry 60 Hrs (2 Hrs/week) 33 MM.

I	Atomic Structure	6 Hrs
II	Periodic Properties	5 Hrs
III	Chemical Bonding	20 Hrs
IV	s-Block Elements	6 Hrs
V	p-Block Elements	20 Hrs
VI	Chemistry of Noble Gases	3 Hrs

Paper II CH-8-102 Organic Chemistry 60 Hrs (2 Hrs/week) 2\34 MM.

I	Structure and Bonding	5 Hrs
II	Mechanism of Organic Reactions	8 Hrs
III	Stereochemistry of Organic Compounds	12 Hrs
IV	Alkanes and Cycloalkanes	7 Hrs
V	Alkenes, Cycloalkenes, Dienes and Alkynes	12 Hrs
VI	Arenes and Aromaticity	8 Hrs
VII	Alkyl and Aryl halides	8 Hrs

Paper III CH-103 Physical Chemistry 60 Hrs (2 Hrs/week) 33 MM.

I	Mathematical Concepts and Computers	16 Hrs
II	Gaseous State	8 Hrs
III	Liquid State	6 Hrs
IV	Solid State	11 Hrs

V	Colloidal state	6 Hrs
VI	Chemical Kinetics and Catalysis	13 Hrs

Practical CH-104 Laboratory Course

180 Hrs (6 Hrs/week) 50 MM.
(Inorganic, Organic, Physical)

Details of Chemistry Syllabus (Theory)

B.Sc. (Part One) Exam. 2009 - 2010 & onwards

Paper I - CH-101 Inorganic Chemistry

60 Hrs (2 Hrs/week) 33 MM

I Atomic Structure

6 Hrs

Idea of de Broglie matter waves, Heisenberg uncertainty principle, atomic orbitals, Schrodinger wave equation, significance of ψ and ψ^2 , quantum numbers, radial and angular wave functions and probability distribution curves, shapes of s, p and d orbitals, Aufbau and Pauli exclusion principles, Hund's multiplicity rule, Electronic configurations of the elements, effective nuclear charge

II Periodic Properties

5 Hrs

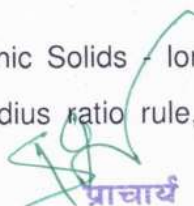
Atomic and ionic radii, ionization energy, electron affinity and electronegativity, definition, methods of determination or evaluation, trends in periodic table and applications in predicting and explaining the chemical behaviour.

III Chemical Bonding

20 Hrs

(A) Covalent Bond - Valence bond theory and its limitations, directional characteristics of covalent bond, various types of hybridization and shapes of simple inorganic molecules and ions, Valence shell electron pair repulsion (VSEPR) theory to NH_3 , H_3O^+ , SF_4 , ClF_3 , ICl_2 and H_2O . MO theory, homonuclear and heteronuclear (CO and NO) diatomic molecules, multicenter bonding in electron deficient molecules, bond strength and bond energy, percentage ionic character from dipole moment and electronegativity difference.

(B) Ionic Solids - Ionic structures, radius ratio effect and coordination number, limitation of radius ratio rule, lattice defects, semiconductors, lattice energy and Born-Haber cycle,


प्राचार्य

Syllabus for Practicals

B.Sc.

CH-104 Laboratory Course

180 Hrs (6 Hrs/week) 50 MM

Inorganic Chemistry

Semimicro Analysis - cation analysis, separation and identification of ions from Groups I, II, III, IV, V and VI. Anion analysis.

Organic Chemistry

Laboratory techniques

Calibration of Thermometer

80-82° (Naphthalene), 113.5-114° (Acetanilide).

132.5-133° (Urea), 100° (Distilled Water)

Determination of melting point

Naphthalene 80-82°, Benzoic acid 121.5-122°

Urea 132.5-133, Succinic acid 184.5-185°

Cinnamic acid 132°, Salicylic acid 157.5-158°

Acetanilide 113.5-114°, m-Dinitrobenzene 90°

p-Dichlorobenzene 52°, Aspirin 135°

Determination of boiling points

Ethanol 78°, Cyclohexane 81.4°, Toluene 110.6°, Benzene 80°

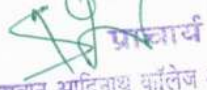
Mixed melting point determination

Urea-Cinnamic acid mixture of various compositions (1:4, 1:1, 4:1)

Distillation

Simple distillation of ethanol-water mixture using water condenser

Distillation of nitrobenzene and aniline using air condenser


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2. To study the distribution of benzoic acid between benzene and water.

Colloids

1. To prepare arsenious sulphide sol and compare the precipitating power of mono-, bi- and trivalent anions.

Viscosity, Surface Tension

1. To determine the percentage composition of a given mixture (non interacting systems) by viscosity method.
2. To determine the viscosity of amyl alcohol in water at different concentrations and calculate the excess viscosity of these solutions.
3. To determine the percentage composition of a given binary mixture by surface tension method (acetone & ethyl methyl ketone).

BUNDELKHAND UNIVERSITY SYLLABUS

Subject - CHEMISTRY

B.Sc. (Part - II) Exam. 2009-2010 & onwards

Syllabus at a glance (Theory & Pract.)

B.Sc. - II Year

Paper I CH-201 Inorganic Chemistry 60 Hrs (2 Hrs/week) 33 mm.

I	Chemistry of Elements of First Transition Series	10 Hrs
II	Chemistry of Elements of Second and Third Transition Series	10 Hrs
III	Oxidation and Reduction	8 Hrs
IV	Coordination Compounds	10 Hrs
V	Chemistry of Lanthanide Elements	6 Hrs
VI	Chemistry of Actinides	4 Hrs
VII	Acids and Bases	6 Hrs

प्राचार्य

भारत आदिनाथ कॉलेज ऑफ प्रोजेक्शन
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VIII Non-aqueous Solvents 6 Hrs

Paper II CH-202 Organic Chemistry 60 Hrs (2 Hrs/week)

34 MM.

I	Electromagnetic Spectrum; Absorption Spectra	10 Hrs
II	Alcohols	6 Hrs
III	Phenols	6 Hrs
IV	Ethers and Epoxides	6 Hrs
V	Aldehydes and Ketones	14 Hrs
VI	Carboxylic Acid	6 Hrs
VII	Carboxylic Acid Derivatives	3 Hrs
VIII	Organic Compounds of Nitrogen	12 Hrs

Paper III CH-203 Physical Chemistry

60 Hrs (2 Hrs/week)

33 MM.

I	Thermodynamics - I	12 Hrs
II	Thermodynamics - II	13 Hrs
III	Chemical Equilibrium	5 Hrs
IV	Phase Equilibrium	10 Hrs
V	Electrochemistry - I	10 Hrs
VI	Electrochemistry - II	10 Hrs

Practical CH-204 Laboratory Course

180 Hrs (6 Hrs/

week) 50 MM.

(Inorganic, Organic, Physical)

**Details of Chemistry Syllabus (Theory)
B.Sc. (Part Two) Exam. 2009 - 2010
& onwards**

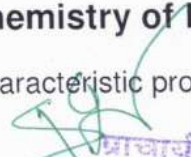
Paper I

CH-201 Inorganic Chemistry

60 Hrs (2 Hrs/week) 33 MM.

I Chemistry of Elements of First Transition Series 10 Hrs

Characteristic properties of d-block elements.


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Debye-Huckel-Onsager's equation for strong electrolytes (elementary treatment only).
Transport number, definition and determination by Hittorf method and moving boundary method.

Applications of conductivity measurements : determination of degree of dissociation, determination of K_a of acids, determination of solubility product of a sparingly soluble salt, conductometric titrations.

VI Electrochemistry - II

10 Hrs

Types of reversible electrodes - gas - metal ion, metal-metal ion, metal - insoluble salt - anion and redox electrodes. Electrode reactions, Nernst equation, derivation of cell E.M.F. and single electrode potential, standard hydrogen electrode-reference electrodes- standard electrode potential, sign conventions, electrochemical series and its significance. Electrolytic and Galvanic cells - reversible and irreversible cells, conventional representation of electrochemical cells.

EMF of a cell and its measurements. Computation of cell EMF. Calculation of thermodynamic quantities of cell reactions (ΔG , ΔH and K), polarization, over potential and hydrogen overvoltage.

Concentration cell with and without transport, liquid junction potential, application of concentration cells, valency of ions, solubility product and activity coefficient, potentiometric titrations.

Definition of pH and pKa determination of pH using hydrogen, quinhydrone and glass electrodes, by potentiometric methods.

Buffers - mechanism of buffer action, Henderson - Hazel equation. Hydrolysis of salts.
Corrosion - types, theories and methods of combating it.

PRACTICAL

CH-204 Laboratory Course

180 Hrs (6 Hrs/Week) 50 MM

Inorganic Chemistry

Calibration of fractional weights, pipettes and burettes. Preparation of standard solutions.
Dilution - 01 M to 0.0001 M solutions.

Quantitative Analysis

Volumetric Analysis

- Determination of acetic acid in commercial vinegar using NaOH
- Determination of alkali content - antacid tablet using HCl.

- (c) Estimation of calcium content in chalk as calcium oxalate by permanganometry.
- (d) Estimation of hardness of water by EDTA
- (e) Estimation of ferrous and ferric by dichromate method.
- (f) Estimation of copper using thiosulphate.

Gravimetric Analysis

Analysis of Cu as CuSCN and Ni as Ni (dimethylgloxime).

Organic Chemistry

Laboratory Techniques

A. Thin Layer Chromatography

Determination of R_f values and identification of organic compounds.

- (a) Separation of green leaf pigments (spinach leaves may be used).
- (b) Preparation and separation of 2, 4-dinitrophenylhydrazones of acetone, 2-butanone, hexan-2-one and 2-one using toluene and light petroleum (40:60).
- (c) Separation of a mixture of dyes using cyclohexane and ethyl acetate (8.5:1.5).

B. Paper Chromatography : Ascending and Circular

Determination of R_f values and identification of organic compounds.

- (a) Separation of a mixture of phenylalanine and glycine. Alanine and aspartic acid. Leucine and glutamic acid. Spray reagent - ninhydrin.
- (b) Separation of a mixture of D, L - alanine, glycine, and L-Leucine using n-butanol:acetic acid:water (4:1:5). Spray reagent - ninhydrin.
- (c) Separation of monosaccharides - a mixture of D-galactose and D-fructose using n-butanol:acetone:water (4:5:1). Spray reagent - aniline hydrogen phthalate.

Qualitative Analysis

Identification of an organic compound through the functional group analysis, determination of melting point and preparation of suitable derivatives.

Physical Chemistry

Transition Temperature

1. Determination of the transition temperature of the given substance by thermometric/dilatometric method (e.g. $\text{MnCl}_2 \cdot 4\text{H}_2\text{O}/\text{SrBr}_2 \cdot 2\text{H}_2\text{O}$).

Phase Equilibrium

1. To study the effect of a solute (e.g. NaCl, succinic acid) on the critical solution temperature of two partially miscible liquids (e.g. phenol-water system) and to determine the concentration of that solute in the given phenol-water system.
2. To construct the phase diagram of two component (e.g. diphenylamine-benzophenone) system by cooling curve method.

Thermochemistry

1. To determine the solubility of benzoic acid at different temperatures and to determine ΔH of the dissolution process.
2. To determine the enthalpy of neutralisation of a weak acid/weak base versus strong base/strong acid and determine the enthalpy of ionisation of the weak acid/weak base.
3. To determine the enthalpy of solution of solid calcium chloride and calculate the lattice energy of calcium chloride from its enthalpy data using Born Haber cycle.

BUNDELKHAND UNIVERSITY SYLLABUS

Subject - CHEMISTRY

B.Sc. (Part - III) Exam. 2009-2010 & onwards

Syllabus at a glance (Theory & Pract.)

B.Sc. - III Year

Paper I CH-301 Inorganic Chemistry 60 Hrs (2 Hrs/week) 50 MM.

I	Hard and Soft Acids and Bases (HSAB)	7 Hrs
II	Metal-ligand Bonding in Transition Metal Complexes	10 Hrs
III	Magnetic Properties of Transition Metal-complexes	7 Hrs
IV	Electron Spectra of Transition Metal-Complexes	7 Hrs
V	Thermodynamic and Kinetic Aspects of Metal-Complexes	5 Hrs
VI	Organometallic Chemistry	10 Hrs
VII	Bioinorganic Chemistry	10 Hrs
VIII	Silicones and phosphazenes	4 Hrs

Paper II CH-302 Organic Chemistry 60 Hrs (2 Hrs/week) 50 MM.

I	Spectroscopy	10 Hrs
II	Organometallic Compounds	4 Hrs
III	Organosulphur Compounds	4 Hrs

IV	Heterocyclic Compounds	8 Hrs
V	Organic Synthesis via Enolates	6 Hrs
VI	Carbohydrates	8 Hrs
VII	Amino Acids, Peptides, Proteins and Nucleic Acids	6 Hrs
VIII	Fats, Oils and Detergents	2 Hrs
IX	Synthetic Polymers	4 Hrs
X	Synthetic Dyes	8 Hrs

Paper III CH-303 Physical Chemistry 60 Hrs (2 Hrs/week) 50 MM.

I	Elementary Quantum Mechanics	20 Hrs
II	Spectroscopy	20 Hrs
III	Photochemistry	8 Hrs
IV	Physical Properties and Molecular Structure	5 Hrs
V	Solutions, Dilute Solutions and Colligative Properties	7 Hrs

Practical CH-304 Laboratory Course 180 Hrs (6 Hrs/week) 75 MM.
(Inorganic, Organic, Physical)

Details of Chemistry Syllabus (Theory)
B.Sc. (Part Three) Exam. 2009 - 2010
& onwards

Paper I

B.Sc. III - CH - 301 Inorganic Chemistry

60 Hrs (2 Hrs/week) 50 MM.


I Hard and Soft Acids and Bases (HSAB)

7 Hrs

Classification of acids and bases as hard and soft. Pearson's HSAB concept, acid-base strength and hardness and softness. Symbiosis, theoretical basis of hardness and softness, electronegativity and hardness and softness.

II Metal-ligand Bonding in Transition Metal Complexes

10 Hrs


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धनवान आदिनाथ कॉलेज ऑफ एजुकेशन
सहसरा, ललितपुर (उ०प्र०)

Improper integrals and their convergence, Cauchy-Riemann equations, Harmonic function, Mobious transformations, Fixed points, cross ratio, inverse points and conformal mappings.

Metric Spaces :- Definition and examples of metric of metric spaces, neighbourhoods, limit points, Interior points, Open and closed set, Closure, Interior and boundary points, Cauchy's sequences and convergent sequence.

Paper - II, Abstract Algebra

Time : 3 Hour

M.M. B.A. - 50

B.Sc. - 75

Group - Autoorphism, Conjugacy relation, Normalizer, class equation of a finite group, Centre of a group.

Ring theory :- Ring homomorphis, Ideal and quotient ring, Euclidean rings, Polynomial Rings.

Linear Algebra :- Vector Spaces, Sub space, Linear sum and direct sum of subspaces, L.I. and L.D. vectors, Basis and dimension of a vector space, Theorems on dimensions, Quotient space and its dimation theorem, Linearr transformations and their representation as matrices, Rank and nullity theorem, Dual space, Annihilator of a sub space.

Paper - III Numerical analysis and Statistics

Time : 3 Hours

M.M. B.A. - 50

B.Sc. - 75

Numerical Analysis :- Fundamental theorem of difference calculus, Operators in N.A., Interpolation for equal sub intervals, Interpolation for un-equal interval, Newton-Gregory Forward and backward formula, Divided differences for un-equal intervals, Newtons divided difference formula, Lagranges interpolation formula for un-equal intervals, Central difference interpolation, Stirlings-Bessels and Gauss formula, Numerical differentiation, Numerical integration, Trapezoidal, Simpsons and weddles rule for numerical integration.

Statistics :- Co-rrelation and Regression of two variables, additon and multiplication theorem of probabilities, and their uses in problems.

Binomial, Poissons and Normal distributins, their propertics and problems.

Note : Use of calculator is allowed.

B.Sc. (General) Physics Syllabus

The student will study three subjects with equal weightage in all the three years, along with supporting subjects such as a course on science, Technology and Society, one or two on Languages etc. The course structure for the three years is suggested in Table 1

Table 1 Course pattern for B.Sc. (General)

	Sub 1	Sub 2	Sub 3	Other Components
Ist Year	3	3	3	1
IIInd Year	3	3	3	1
IIIrd Year	3	3	3	1

Notes : Each course shall have two contact periods per week for B.Sc. (Gen), In addition to the 3 theory courses every year, there shall be one for laboratory experimental physics.

The Physics courses shall be as in Table 2

Table 2 Physics Course in B.Sc. (General)

Year	Paper	Title of the Course	Max Marks
I	1	Mechanics, Properties of Matter and Vectors	33
	2	Electricity, Magnetism and Electromagnetic theory	34
	3	Oscillations and Special Theory of Relativity	33
II		Laboratory I	50
	4	Optics and Lasers	33
	5	Waves, Acoustics and Statistical Physics	34
	6	Kinetic Theory and Thermodynamics	33
III		Laboratory II	50
	7	Quantum Mechanics and Nuclear Physics	33
	8	Atomic, Molecular and Solid State Physics	34
	9	Solid State Devices and Electronics	33
		Laboratory III	50

The Course contents will be as under

PAPER 1: MECHANICS, PROPERTIES OF MATTER AND VECTORS

1.1 Mechanics

प्राचार्य
शुभगवान आदिनाथ कॉलेज ऑफ एजुकेशन
महाराष्ट्र, ललितपुर (३०१०)

Text and Reference Books

- D.P. Khandelwal; "Oscillation and Waves" (Himalaya Publishing House, Bombay),
R.K. Ghosh, "The Mathematics of Waves and Vibrations" (Macmillan, 1975)
H.S. Mani and G.K. Mehta; "Introduction to Modern Physics" (Affiliated East-West Press, 1989)
A Beiser, "Perspective of Modern Physics"

LABORATORY I

This is a suggested list. Every institution may add any experiment of same standard in the same subject area.

1. 'g' by bar pendulum
2. 'g' by Kater's pendulum
3. Moment of inertia of a fly-wheel
4. Moment of inertia of an irregular body by moment of inertia table
5. Determination of ' η ' by Maxwell's needle
6. Determination of ' η ' by moment of inertia table
7. Determination of ' γ ' ' η ' and ' σ ' by Searle's method
8. Determination of ' Y ' by bending (electrical method)
9. Determination of ' Y ' by bending (optical method)
10. Determination of ' σ ' rubber
11. Determination of ' η ' by statical method
12. Determination of surface tension of water by Jager's method
13. Determination of viscosity of water by constant head method
14. Determination of frequency of electrically maintained tuning fork by Melde's experiment
15. Determination of frequency of A.C. mains by Sonometer
16. To study the variation of magnetic field along the axis of a coil
17. To calibrate an ammeter with the help of a potentiometer
18. To calibrate a volt meter with the help of a potentiometer
19. To compare two resistances with the help of a potentiometer
20. To convert a galvanometer into an ammeter
21. To convert a galvanometer into a voltmeter
22. To find out specific resistance by Carry Foster's bridge
23. To find out angle of dip by earth inductor
24. To find out ballistic constant of a ballistic galvanometer
25. To standardize one ohm coil

internal combustion engines. Entropy, principle of increase of entropy. The thermodynamics scale of temperature; its identity with the perfect gas scale. Impossibility of attaining the zero; third law of thermodynamics.

6.3 Thermodynamics relationships : Thermodynamics variables; extensive and intensive Maxwell's general relationships, application of Joule-Thomson cooling and adiabatic cooling in a general system, Van der Waals gas, Clausius-Clapeyron heat equation. Thermodynamics potential and equilibrium of thermodynamical systems, relation with thermodynamical variables. Cooling due to adiabatic demagnetization, production and measurement of very low temperatures.

6.4 Blackbody radiation: Pure temperature dependence, Stefan - Boltzmann law, pressure of radiation. Special distribution of BB radiation Wien's displacement law, Rayleigh Jean's law, the ultraviolet catastrophe, Planck's quantum postulates, Planck's law. complete fit with experiment interpretation of behaviour of specific heats of gases at low temperature.

Text and Reference Books

Zemansky : Heat and thermodynamics, TMH Publications

C Kittel and H Kroemer, Thermal Physics, CBS Publications

B K Agarwal, Thermodynamics

D P Khandelwal and A K Pandey, Thermodynamics and Statistical Physics, Himalaya Publications

LABORATORY II

This is a suggested lit. Every institution may add any experiment of same standard in the same subject area.

1. To study the variation of refractive index with wavelength by spectrometer
2. To determine wave length of Sodium light by bi-prism
3. To determine wave length of Sodium light by Newton's rings
4. To determine the resolving power of diffraction grating by spectrometer
5. To determine the resolving power of a telescope
6. To find out specific rotation of sugar by polarimeter
7. To verify Newton's formula by Nodal slide
8. To verify Cauchy's formula (spectrometer)
9. To determine refractive index of a liquid by Newton's rings
10. To determine thickness of mica sheet by biprism
11. Determination of mechanical equivalent of heat

Bundelkhand University, Jhansi

Faculty of Education

Syllabus for Two years B.Ed. Programme (Session 2015-17 onwards)

Regulations

1. Preamble

The Bachelor of Education Programme generally known as B.Ed. is a professional course that prepares teachers for Upper primary or Middle level (classes VI-VIII), Secondary (Classes IX- X) and senior secondary level (classes XI-XII).

2. Duration and working days

2.1. Duration: B.Ed. programme shall be of the duration of at least two academic years with a maximum of 03 (three) years for the completion of the course.

2.2. Working days: As per norms of NCTE/ State Government/ B.U. Jhansi

3. Attendance

A candidate will not be eligible to fill the examination form unless he/she fulfills the required attendance as per norms of NCTE/State Govt./ B.U. Jhansi.

4. Intake, Eligibility and Admission procedure

4.1- Intake: As approved by NCTE

4.2- Eligibility-

(a) As per norms of NCTE.

(b) The reservation in seats and relaxation in the qualifying marks in favour of reserved categories shall be as per the rules of the state government.

4.3- Admission Procedure: Admission shall be made as per the merit list prepared on the basis of marks obtained in the qualifying examination and/or in the entrance examination or by any other selection process as per the policy of the State Government/ B. U. Jhansi.

5. Fees

The Institution/college shall charge only such fees as prescribed by the State Government /B. U. Jhansi concerned in accordance with the provision of National Council for Teacher Education (NCTE) (Guidance for regulation of tuition fees and other fees chargeable by unaided Teacher Education


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Institutions) Regulation, 2002, as amended from time to time, and shall not charge in any way the donation and capitation fee etc. from the students.

Note: - Any Institution violating the norms of the fee structure prescribed by the State Govt. /B.U. Jhansi from time to time and charges more amount of money in any other form, will come under the charge/crime of corruption and hence, a legal action against the Manager/Principal of that institution will be taken by the Vice-Chancellor and subsequently concerned person/persons will have to bear any punishment imposed/decided against him/them by Vice-Chancellor., B.U. Jhansi. It may also lead to the withdrawal of the affiliation of the course from such Institutions.

6. Distribution of Two-Year B.Ed. Programme

Distribution of Two year B.Ed. programme in two years will be as follows:

First Year -

Part I – Theory & Practicum (Course- I, II, III, IV, V & VI) :- 600 Marks

Part III- Engagement with the field :- 200 Marks

(i) **School Internship 4 Weeks (50 Marks)**

(ii) **Enhancing Professional Capacities (EPC)**

EPC I – Reading and Reflecting on texts (50 Marks)

EPC II – Drama and Art in Education (50 Marks)

EPC III – Critical understanding of ICT (50 Marks)

Second Year -

Part I – Theory & Practicum (Course- VII, VIII, IX & X) :- 400 Marks

Part II- Teaching of Two School Subjects :- 200 Marks

(The candidate has to teach 40 lessons in all, 20 lessons in each subject).

Part III – Engagement with the field :- 200 Marks

(i) **School Internship 16 Week (150 Marks)**

(ii) **EPC IV – Understanding the self :- 50 Marks**


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7. **Examination** : The B.Ed. Examination will be conducted in Three parts –

Part I -	Theory and Practicum	: 1000 Marks
Part II -	Teaching of school subjects	: 200 Marks
Part III -	Engagement with the field	: 400 Marks

Note: Evaluation of Part III will be done by the members of teaching staff of the College/Dept. in Grading System.

A candidate in order to be declared successful in the B.Ed. Examination will be required to pass in all the three parts of the course.

Scheme of Examination and Weight-age given to each Course


First Year:-

Part I: - Theory and Practicum

Course		Name of the Course	Maximum Marks		
			External	Internal	Total
Compulsory	I	Philosophical & Sociological Perspectives in Education	80	20	100
	II	Psychological Perspectives in Education	80	20	100
	III	Physical Education , Health & Yoga	80	20	100
Elective (Any one)	IV	(i) Contemporary Issues of Education	80	20	100
		(ii) Curriculum Development	80	20	100
		(iii) Educational Measurement & Evaluation	80	20	100
Pedagogy	V	Pedagogy of School Subjects I	80	20	100
	VI	Pedagogy of School Subjects II	80	20	100
	Total		480	120	600

Note: -

1. A candidate has to offer any two of the below mentioned subjects in course (V) and course (VI).
2. The subjects chosen must figure in candidates either graduation or post- graduation level.


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3. The subjects finally chosen by the candidates will be subjected to the availability of the concerned pedagogy teacher in the department.

- 1- Hindi 2- Urdu 3- Sanskrit 4- English
 5- Social Science 6- Home Science 7- Commerce 8- Mathematics
 9- Life Science 10- Physical Science 11- Computer Science 12- Agriculture

Second Year:-

Part I - Theory and Practicum

Course		Name of Course	Maximum Marks		
			External	Internal	Total
Compulsory	VII	Historical Perspective of Indian Education	80	20	100
	VII I	Information & Communication Technology in Education	80	20	100
	IX	Inclusive Education	80	20	100
Elective (Any one)	X	(i) Value Education	80	20	100
		(ii) Educational Administration & Management	80	20	100
		(iii) Educational Guidance & Counselling	80	20	100
		Total	320	80	400

Part I - Theory and Practicum

The theory examination will be conducted on the dates as per the examination scheme of B.U. Jhansi. The theory examination will be of 1000 marks, 800 marks for external assessment and 200 marks for internal assessment.

The internal assessment of practicum will be done by In-Charge Teacher/ Teachers of the College/ Dept. and will be submitted to the Head of the Dept. The In-Charge teachers will maintain the records of the practicum. The Head of the Dept. will send the marks given by all the In-charge teachers under his/her signature to the Registrar, B.U. Jhansi before the commencement of theory examination.



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To pass in theory, a candidate has to secure at least 36% marks out of 1000 marks. A candidate has to secure at least 30 marks out of 80 marks in each paper separately in external assessment..

The successful candidates will be classified in three divisions in theory examination as below:

I-	1 st	Division	:	60% and above
II-	2 nd	Division	:	48% and above but below 60%
III-	3 rd	Division	:	36% and above but below 48%

Part II- Teaching of School Subjects

Working days: 40 Days

Maximum Marks: 200

I- A Candidate has to teach twenty lessons in each school subject offered by him/her under paper V & VI in a recognized school under the supervision of the teaching staff of the College / Dept. and has to observe ten lessons of other candidates in the subject offered by him/her.

Out of 200 marks for teaching of school subjects, 50 Marks will be for internal assessment.

The distribution of marks for internal assessments will be as follows:

1-	Planning & teaching of Lessons in first subject-----	20 Marks
2-	Planning & teaching of Lessons in Second subject-----	20 Marks
3-	Observing ten lessons note book-----	10 Marks
	Total -----	50 Marks

II- The concerned Subject teachers will submit the internal assessment of his/her subject to the Head of Department. If the marks are not submitted by some In-charge teachers in time, Head of dept. would award the marks.

III- Head of Dept. will enter the total marks of internal assessment in the award list of the practical examination in the separate column and will submit the same under his/her signature to the convener of the board of practical examiners. The Head of Dept. will maintain the record of internal assessment of marks.

IV- Out of 200 Marks for Part II practical examinations, 150 marks will be awarded for teaching skills by the board of examiners.

V- The list of marks of teaching of school subjects (External and Internal) shall be forwarded to Registrar of B.U. Jhansi by the Convener of the Board of Examiners.

VI- **Board of Examiners** -The final practical Examination, Part II (Teaching Skills)will be conducted by the board of three examiners which will be constituted by the B.U. Jhansi as follows:


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- i. **Convener-** Convener will be the permanent teacher of Government/ Govt. Aided College by rotation.

(In case of a self-financed college/Self-financed Department, the teacher should have at least three years teaching experience in the same college and approved by the University by rotation).

- ii. **Internal Examiner-** The permanent teacher of the other Govt. /Govt. Aided B.Ed. Department affiliated to B.U. Jhansi will be the internal examiner to conduct B.Ed. practical examination.
- iii. **External Examiner-** The permanent B.Ed. teachers of any other University or B.Ed. Department of the college and Retired Govt./Aided B.Ed. College Teachers of B.U. Jhansi will be external Examiner for conducting B.Ed. practical exams.

Note: No teacher will be appointed as an external examiner by the University for conducting B.Ed. Practical Examination more than once in the same college at least for a period of 5 years.

A Candidate to pass in final practical examination (Part II) will be required to obtain minimum 40% marks out of 200 marks. Details are given below-

Evaluation of Teaching of School Subjects

	Activities	Maximum Marks
I-	Evaluation of teaching skills (two lessons) by board of examiners.	75+75= 150
II-	Internal assessment of two teaching subject by subject teachers.	25+25=50
Total		200

The successful candidates will be classified in three divisions in practical examination as below:

- (i) 1st Div. : 60% and above.
- (ii) 2nd Div. : 48% and above but below 60%.
- (iii) 3rd Div. : 40% and above but below 48%.

Part III - Engagement with the Field

All the students will have to work in a recognized Middle School/Secondary School/Senior Secondary School as regular teacher under the guidance and supervision of the Headmaster/Principal of the concerned school and the member of teaching staff of the College/Dept. of Education.


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The purpose of engagement with the field is to link all the courses of the programme to bring about integrated development of the trainee teachers touching cognitive and non-cognitive aspects of their behavior. It will also help to prepare them to take care for children, enjoy to be with them, seek knowledge, own responsibility towards the society, work to build a new world and have finer inner sensibilities. It is primarily practical oriented programme giving stress on practical activities like internal assessment, project work, sessional work, internship in teaching practice, and introducing the innovative ways for conducting practical activities. This programme will develop reflective teachers with creative and positive attitudes, values and perspectives along with the skills for the craft of teaching.

Engagement with the field shall be transacted through three modes.

- (a) Tasks and assignments that run through all the courses.
- (b) School Internship
- (c) Courses on Enhancing Professional Capacities (EPC)

Course EPC 1: Reading and Reflecting on Texts
Course EPC 2: Drama and Art in Education
Course EPC 3: Critical Understanding of ICT
Course EPC 4: Understanding the Self

School Internship -

A minimum of 20 weeks (4+16) shall be allocated over two years for tasks, assignments and school internship in the field.

First Year (4 weeks)

The duration of 4 weeks of first year of B.Ed. the pupil teacher will spend in school internship during which he/she will introduce himself /herself to the staff and students of the respective school, will gather information of rules and regulations of the school and library, will go through the syllabus and annual calendar of the school. The pupil teacher will closely observe the life of the teacher in school and will try to understand the philosophy and aims, organization and management of the class rooms and the needs of physical, mental and emotional development of the children by interacting with the regular teachers and students.

Second Year (16 weeks)

In the second year of B.Ed. the pupil teacher will get Sixteen weeks of school internship during which he/she will have to work like a regular teacher, starting from the conduct of morning assembly, maintaining the attendance record of the students, teaching a regular class, checking the home works, maintaining the CCE (Continues and comprehensive evaluation) records, maintaining the teaching dairy. He/she will also participate in staff meeting, prepare examination papers, make arrangements for teacher parents meeting, and participate in organizing sports and



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other co-curricular activities. Out of the regular works he/she will also do all the duties which will be assigned to him/her by the Principal of practice teaching center from time to time.

Courses on Enhancing Professional Competencies

The programme of enhancing professional competencies of teacher trainees aims at providing a theoretical foundation of a "Thinking Teacher". It is a competency based approach to teacher training with creativity at the heart of education. It also aims towards developing a knowledge and understanding of the use of technology effectively both to aid pupil learning and to support a teacher's professional role.

EPC 1: Reading and Reflecting on Texts

This course will develop and enhance reading and writing skills and capacities as readers and writers by becoming participants in the process of reading in a variety of ways. The teacher trainees will learn to think together and make responses which may be personal, creative or critical. It will offer opportunities to read a wide variety of texts including empirical, conceptual, historical work, policy documents, and studies about schools, teaching learning and about different people's experiences of all of these. This course will help the teacher trainees in developing reflective, creative and meaningful texts. The course will be transacted as follows:

Students will be given opportunities to read a variety of texts from diverse sources including autobiographical narratives, field notes, ethnographies, etc. to address different types of reading skills and strategies. The students will also be asked to prepare brief write ups on the read text and outline its main points.

A debate session will be organized to enable students to express their views on newspapers and magazines expressing social views on education and current affairs.

The students will be asked to collect relevant material on burning issues of education and give individual presentations.

Comprehension exercises will be given to students to assess their reading and writing abilities.

EPC 2: Drama and Art in Education

This course aims at developing certain skills of cultural expressions in teacher trainees which will help them in establishing a relationship among the head, heart and hand. It will help them in improving communication and problem solving skills. It will also enhance creativity and confidence in them. This course will be transacted as follows:



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Through performing Arts, fine arts, music, literary activities, and all sorts of art and cultural activities. The Student teacher will also be encouraged to visit art galleries, exhibition and cultural festivals and will be motivated to understand the local culture and art forms by the help of art works, movies and other media available.

EPC 3: Critical Understanding of ICT

This course aims at exploring ICT along three broad strands; teaching learning, administrative and academic support and broader implications for the society. It will also enhance teacher's ownership, enhancement of expertise and engagement in ICT as an important curricular resource. It also aims at training the teacher trainees in simplifying record keeping, information management and educational administration. This course will cover the following components. :

- Critical analysis of Teaching aids and their application in instruction and learning.
- Critical analysis of a computer based media packages with reference to its use in the learning process.
- Critical analysis of the different instructional packages developed by different agencies/institutions.
- Interventions of educational technology in the current practices of teacher training programmes in India.
- Preparation of Learning Object Repository (LOR).
- Preparation and presentation of slides for teaching any topic at the school level.
- Familiarize the teacher trainees with new trends, techniques in education along with e-learning.
- Enable the student to identify the use of computer packages in education to become good practitioners of Educational technology and e-learning.

EPC 4: Understanding the Self:

The main objective of this paper is to facilitate the personal growth of the teacher trainees by helping them understand and reflect upon their personal self. It will enable the teacher trainees to develop sensibilities, dispositions and skills that will help them in facilitating the personal growth of their own students while they teach. The course will be transacted through workshops.

- There will be twelve workshop sessions of two hours each. These workshops will make use of personal narratives, film reviews, group interaction and watching movies or documentaries.
- Reflective journals shall also be developed and regular feedback on those journals shall be given.
- To help the pupil teacher to live in peace and harmony with one's surrounding, will be motivated to practice Yoga in regular basis which will help to enhance his/her abilities of body and mind.



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The assessment will be done internally by the In-charge member of the teaching staff with consultation of the Principal and teachers of the school where the candidates have completed their internship. For it, every candidate has to obtain a certificate from the Principal of the school to which he/she was attached, to.

Marks of part III i.e., Engagement with the Field (Internship & EPC) is of 400 Marks, will be converted in grades and will reflect in the final year marks-sheet separately.

The Marks secured by the students will be converted in grades in the departmental meeting. In case a student fails to get minimum C grade, he/she shall be declared fail. The list of grades will be forwarded to the Registrar, B.U. Jhansi by the Head of Department.

The system of grading will be as follows:

I-	O ----- (Above 80% marks)	:	Outstanding
II-	A ----- (70% or more but less than 80% marks.)	:	Very Good
III-	B ----- (60% or more but less than 70% marks)	:	Good
IV-	C ----- (50% or more but less than 60% marks):	:	Average
V-	D ----- (Below 50% marks)	:	Fail

Note:

- 1- The theory and Practical examinations of B.Ed. will be conducted at the Nodal Centers for sustaining transparency, quality and accountability. Only the University campus/Government/Govt. Aided College will be made the Nodal Centers for these examinations.
- 2- The Principals of Government/Govt. Aided College affiliated to B.U. Jhansi will be the coordinator of the Nodal Centers, and in case of the University Campus, the Director, Institute of Education, will be the coordinator of the Nodal Centre, the coordinator will be the examination superintendent.
- 3- Though the candidate have to complete the B.Ed. course in two years but if a candidate fails to complete the course in two years because of any reason, he/she may complete the course in three years.
- 4- In case, a candidate is declared fail in one or more than one theory paper or in total in the first year course, he/she may be allowed to take admission in the second year's course and may clear first year paper/ papers in the second year along with second year's course. In case he/she could not clear the first year paper/papers even


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- in the second year, he/she may reattempt the paper/papers in third year and if he/she fails to clear the papers even in the third year, he/she will be declared fail.
- 5- In case a candidate is declared fail in one or more than one theory paper or in total in the second year course, he/she may clear the second year paper/ papers in third year, and if he/she fails to clear the papers in the third year will be declared fail.
 - 6- In case, a candidate fails to appear in the part II (Teaching of school subjects) Examination due to illness, he/she may be allowed to appear in the examination in the next year, provided he/she submit the medical certificate along with the report of the Principal concerning the completion of teaching of 40 lessons in second year.
 - 7- If a candidate fails in part II (Teaching of School Subjects), he/she will be declared fail.
 - 8- All the candidates have to complete the activities under Part III in the scheduled time; no candidates in any case will be allowed to complete the activities next year and will be declared fail.
 - 9- In case a candidate is debarred for one year by the University for having used unfair means in the theory examinations in the first year's theory examination, he /she may be allowed to take examination in the second year after the period of punishment is over but he /she will have to clear the previous and final year examinations in the same year (i.e., third year).
 - 10- In case a candidate is debarred for more than one year by the University for having used unfair means in the first year and one or more years in second year of the examination, he/she will cease his/her right to continue B.Ed. course and will be declared fail.
 - 11- For conducting examinations orderly, smoothly and fairly, and also for timely declaration of the result, the panel of examiners constituted by the University for practical examinations of the concerned colleges should be sent to the nodal officers, who will further contact the examiners to fix the dates of practical examinations and will subsequently inform to the Principals of the concerned colleges regarding the examinations centers and dates of exams.
 - 12- The selection of schools (middle/secondary/sr. secondary level) for the purpose of practical examinations would be done by the Principals of concerned colleges with the consent of the coordinator of B.Ed. practical examinations.
 - 13- Adequate amount of money would be paid by the Principal of the colleges through University to the Principal/coordinator of the practical examinations centers in advance to meet various expenses.
 - 14- The responsibility for providing breakfast/ snacks, generator, electricity, sanitation etc to the students at the practical examination centre would be of the principal of the concerned B.Ed. colleges.


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- 15- The University would pay money in advance to the Principal of the Nodal Centers/coordinators well before the commencement of the practical examination to meet out the expenses of T.A. and D.A. of the examiners and other related expenditures.
- 16- B.Ed. Students admitted in Govt. /Govt. Aided Colleges have to submit Rs. 1000/- at the time of admission for meeting out the expenses of Part II i.e., Teaching of two school subjects & Part III i.e., Engagement in the field experience. This amount will be deposited by the student in the joint account of Principal and Head of the Department in a nationalized bank operated jointly. Rs. 100/- per student of this amount will be given to the Principal of the concern teaching practice center as maintenance charges and rest of the amount will be spent on the breakfast, lunch and evening snacks of the participating B.Ed. students by the concerned in-charge teacher on various activities of Part II & III. The in-charge teacher will be decided by the Head of the Department.
- 17- Any difficulties arising out of these regulations may be resolved by the Vice-Chancellor.



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BUNDELKHAND UNIVERSITY
JHANSI



CURRICULUM FOR:
TWO-YEAR B.P.ED. PROGRAMME
(FOUR SEMESTER)


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ORDINANCE, REGULATIONS AND SYLLABUS FOR B.P.ED.

TWO YEAR PROGRAMME (FOUR 04 – SEMESTERS)(CBCS)

Preamble: Bachelor of Physical Education (B. P. Ed.) two years (Four Semesters Choice Based Credit System) programme is a professional programme meant for preparing teachers of physical education in classes VI to X and for conducting physical education and sports activities in classes XI and XII.

B. P. Ed. programme is designed to integrate the study of childhood, social context of Physical Education, subject knowledge, pedagogical knowledge, aim of Physical Education and communication skills. The programme comprises of compulsory and optional theory as well as practical courses and compulsory school internship.

A) B.P.Ed. 1.Eligibility

Intake, Eligibility and Admission Procedure as prescribed by the Bundelkhand University, Jhansi (U.P) per the NCTE norms and standards

B) B.P.Ed.

2. Duration:

The B.P.Ed programme shall be of a duration of two academic years, that is, four semesters. However, the students shall be permitted to complete the programme requirements within a maximum of three years from the date of admission to the programme.

C) B.P.Ed. 3.

The CBCS System:

All Programmes shall run on Choice Based Credit System (CBCS). It is an instructional package developed to suit the needs of students, to keep pace with the developments in higher education and the quality assurance expected of it in the light of liberalization and globalization in higher education.



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D). B.P.Ed**4. Course:**

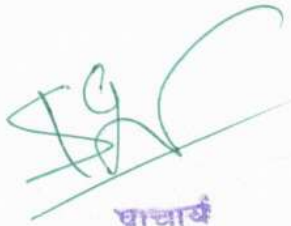
The term course usually referred to, as 'papers' is a component of a programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise Lectures/ tutorials/laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/ term papers/assignments/ presentations/ self-study etc. or a combination of some of these.

E) B.P.Ed.**5. Courses of Programme:**

The B.P.Ed. Programme consists of a number of courses, the term 'Course' applied to indicate a logical part of subject matter of the programme and is invariably equivalent to the subject matter of a "paper" in the conventional sense. The following are the various categories of courses suggested for the B.P.Ed. Programme.

Theory:**Core Course:****Elective Course:****Practical's: Teaching****Practices:****F) B.P.Ed.****6. Semesters:**

An academic year is divided into two semesters. Each semester will consist of 17-20 weeks of academic work equivalent to 100 actual teaching days. The odd semester may be scheduled from May/June to November/December and even semester from November / December to May/June. The institution shall work for a minimum of 36 working hours in a week (five or six days a week).


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There shall be at least 200 working days per year exclusive of admission and examination processes etc.

H) B.P.Ed

8. Credits:

The term 'Credit' refers to a unit by which the programme is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or one and half / two hours of practical work/field work per week. The term 'Credit' refers to the weight given to a course, usually in relation to the instructional hours assigned to it. The total minimum credits, required for completing a B.P.Ed. Programme is 90 credits and for each semester 20 credits.

provision of Bonus Credits Maximum 06 Credits in each Semester

Sr. No.	Special Credits for Extra Co-curricular Activities	Credit
1	Sports Achievement at Stale level Competition (Medal Winner) Sports Achievement National level Competition (Medal Winner)	1 2
2	Inter Uni. Participation (Any one game)	2
3	Inter College Participation (min. two game)	1
4	National Cadet Corps / National Service Scheme	2
5	Blood donation / Cleanliness drive / Community services /	2
6	Mountaineering – Basic Camp, Advance Camp / Adventure Activities	2
7	Organization / Officiating – State / National level in any two game	2
8	News Reposting / Article Writing / book writing / progress report writing	1
9	Research Project	4

Students can earn maximum 06 Bonus credits in each semester by his/her participation in the above mentioned activities duly certified by the Head of the institution / Department. This Bonus credit will be used only to compensate loss of credits in academic activities.


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9. Examinations:

- i. There shall be examinations at the end of each semester, for first semester in the month of November /December: for second semester in the month of May / June. A candidate who does not pass the examination in any course(s) shall be permitted to appear in such failed course(s) in the subsequent examinations to be held in November /December or May / June.
- ii. A candidate should get enrolled /registered for the first semester examination. If enrollment/registration is not possible owing to shortage of attendance beyond condonation limit / rules prescribed OR belated joining OR on medical grounds, such candidates are not permitted to proceed to the next semester. Such candidates shall redo the semester in the subsequent term of that semester as a regular student; however, a student of first semester shall be admitted in the second semester, if he/she has successfully kept the term in first semester.

J) B.P.Ed**10. Condonation:**

Student must have 75% of attendance in each course for appearing the examination. Students who have 74% to 65% of attendance shall apply for condonation in the prescribed form with the prescribed fee. Students who have 64% to 50% of attendance shall apply for condonation in prescribed form with the prescribed fee along with the Medical Certificate. Students who have below 50% of attendance are not eligible to appear for the examination.



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K) B.P.Ed**11. Pattern of Question Papers:**

Question Papers shall have five questions corresponding to four units of each theory course.

B.P.Ed.: Format of Question Paper for 4 Units

Each question paper shall have five questions. The pattern will be as follows:

Question No.	Description	Marks
1	Answer in detail (Long Question) Or Answer in detail (Long Question)	15
2	Answer in detail (Long Question) Or Answer in detail (Long Question)	15
3	Answer in detail (Long Question) Or Answer in detail (Long Question)	15
4	Write short notes: any two out of four (Form Unit 4)	15
5	M.C.Q. Type Questions (10 out of 12 Que.) (3 Questions. from each unit)	10
Total		70

L) B.P.Ed.**12. Evaluation:**

The performance of a student in each course is evaluated in terms of percentage of marks with a provision for conversion to grade point. Evaluation for each course shall be done by a continuous internal assessment (CIA) by the concerned course teacher as well as by end semester

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examination and will be consolidated at the end of course. The components for continuous internal assessment are;

One Test	15 Marks
Seminar / Quiz	5 Marks
Assignments	5 Marks
Attendance	5 Marks
Total	30 Marks

Attendance shall be taken as a component of continuous assessment, although the students should have minimum 75% attendance in each course. In addition to continuous evaluation component, the end semester examination, which will be written type examination of at least 3 hours duration, would also form an integral component of the evaluation. The ratio of marks to be allotted to continuous internal assessment and to end semester examination is 30:70. The evaluation of practical work, wherever applicable, will also be based on continuous internal assessment and on an end-semester practical examination.

M) B.P.Ed.

13. Minimum Passing Standard:

The minimum passing standard for CIA (Continuous Internal Assessment) and External Examinations shall be 40%, i.e. 12 marks out of 30 marks and 28 marks out of 70 marks respectively for theory courses. The minimum passing for both CIA & external examination shall be 50%, i.e. 15 marks out of 30 and 35 marks out of 70 marks for the practical courses.

N) B.P.Ed

14. Grading:

Once the marks of the CIA (Continues Internal Assessment) and SEA (Semester End Assessment) for each of the courses are available, both (CIA and SEA) will be added. The marks thus obtained for each of the courses will then be graded as per details provided in R. B.P.Ed. 17 from the first semester onwards the average performance within any semester from the first semester is indicated by Semester Grade Point Average (SGPA) while continuous performance

(including the performance of the previous semesters also) starting from the first semester is indicated by Cumulative Grade Point Average (CGPA). These two are calculated by the following formula:

$$= \frac{\sum C_i G_i}{\sum C_i}$$

Where C_i is the Credit earned for the course in any semester; G_i is the Grade point obtained by the student for the course i and n number of courses obtained in that semester; is SGPA of semester j and N number of semester. Thus CGPA is average of SGPA of all the semesters starting from the first semester to the current semester.

O) B.P.Ed.

15. Classification of Final Results:

For the purpose of declaring a candidate to have qualified for the Degree of Bachelor of Physical Education in the First class / Second class / Pass class or First class with Distinction, the marks and the corresponding CGPA earned by the candidate in Core Courses will be the criterion. It is further provided that the candidate should have scored the First / Second Class separately in both the grand total and end Semester (External) examinations.

P) B.P.Ed.

16. Award of the B.P.Ed. Degree:

A candidate shall be eligible for the award of the degree of the B.P.Ed. Only if he/she has earned the minimum required credit including Bonus Credits of the programme prescribed above.

Q) B.P.Ed.

17. Letter Grades and Grade Points:

- i. Two methods-relative grading or absolute grading- have been in vogue for awarding grades in a course. The relative grading is based on the distribution (usually normal distribution) of marks obtained by all the students in the course and the grades are awarded based on a cut-off mark or percentile. Under the absolute grading, the marks are converted to grades based on pre-determined class intervals. To implement the following grading system, the colleges and universities can use any one of the above methods.

- ii. The grades for each course would be decided on the basis of the percentage marks obtained at the end-semester external and internal examinations as per following table:

Percentage	Grade	Letter	Description	Classification of final result
85 & above	8.5-10.0	O	Outstanding	First class with Distinction
70-84.99	7.0-8.49	A ⁺	Excellent	
60-69.99	6.0-6.99	A	Very Good	First Class
55-59.99	5.5-5.99	B ⁺	Good	Higher Second Class
50-54.99	5.0-5.49	B	Above Average	Second Class
40-49.99	4.0-4.99	C	Average	Pass Class
Below 40	0.0	F	Fail/ Dropped	Dropped
	0	AB	Absent	

R) . B.P.Ed.

18. Grade Point Calculation

Calculation of **Semester Grade Point Average (SGPA)** and **Credit Grade Point (CGP)** and declaration of class for B. P. Ed. Programme.

The credit grade points are to be calculated on the following basis:

$$= \frac{\Sigma}{\Sigma}$$

Example – I

Marks obtained by Student in course CC101 = 65/100

Percentage of marks = 65 %

Grade from the conversion table is = A

Grade Point = 6.0 + 5 (0.99/9.99)

= 6.0 + 5x0.1

= 6.0+ 0.5

=6.5

The Course Credits = 04

Credits Grade Point (CGP) = 6.5 × 04 = 26

The semester grade point average (SGPA) will be calculated as a weighted average of all the grade point of the semester courses. That is Semester grade point average (SGPA) = (sum of


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grade points of all eight courses of the semester) / total credit of the semester as per example given below:

SEMESTER-1

Courses No.	Credit	Marks out of 100 (%)	Grade	Grade Point	Credit Grade point
CC-101	4	65	A	6.5	26
CC-102	4	60	A	6	24
CC-103	4	62	A	6.2	24.8
EC-101/EC-102	4	57	B+	5.7	22.8
PC-101	4	55	B+	5.5	22
PC-102	4	72	A+	7.2	28.8
PC-103	4	66	A	6.6	26.4
PC - 104	4	72	A+	7.2	28.8
	32				203.6

Examples: Conversion of marks into grade points

$$\text{CC-101 } 65 = 60 + 5 = 6.0 + 5 \times (0.99 / 9.99) = 6.0 + 5 \times 0.1 = 6.0 + 0.5 = 6.5$$

$$\text{CC-102 } 60 = 6.0$$

$$\text{CC-103 } 62 = 60 + 2 = 6.0 + 2 \times (0.99/9.99) = 6.0 + 2 \times 0.1 = 6.0 + 0.2 = 6.2$$

$$\text{EC-101/EC-102 } 57 = 55 + 2 = 5.5 + 2 \times (0.49 / 4.99) = 5.5 + 2 \times 0.1 = 5.5 + 0.2 = 5.7$$

$$\text{PC-101 } 55 = 5.5$$

$$\text{PC-102 } 72 = 70 + 2 = 7.0 + 2 \times (1.49 / 14.99) = 7.0 + 2 \times 0.1 = 7.0 + 0.2 = 7.2$$

$$\text{PC-103 } 66 = 60 + 6 = 6.0 + 6 \times (0.99 / 9.99) = 6.0 + 6 \times 0.1 = 6.0 + 0.6 = 6.6$$

$$\text{PC - 104 } 72 = 70 + 2 = 7.0 + 2 \times (1.49 / 14.99) = 7.0 + 2 \times 0.1 = 7.0 + 0.2 = 7.2$$

SEMESTER GRADE POINT AVERAGE (SGPA) = Total Credit Grade Points

$$= 203.6 / 32 = 6.3625$$

$$\text{SGPA Sem. I} = 6.3625$$

At the end of Semester-1

$$\text{Total SGPA} = 6.3625$$

$$\text{Cumulative Grade Point Average (CGPA)} = 6.3625/1 = 6.3625$$

$$\text{CGPA} = 6.66875, \text{ Grade} = \text{A}, \text{ Class} = \text{First Class}$$

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SEMESTER-2

Courses No.	Credit	Marks out of 100 (%)	Grade	Grade Point	Credit Grade point
CC-201	4	76	A+	7.6	30.4
CC-202	4	64	A	6.4	25.6
CC-203	4	59	B+	5.9	23.6
EC-201/EC-202	4	80	A+	8	32
PC-201	4	49	C	4.9	19.6
PC-202	4	64	A	6.4	25.6
PC-203	4	55	B+	5.5	22
TP - 201	4	72	A+	7.2	28.8
	32				207.6

SGPA Sem. II = 6.4875

At the end of Semester-2

Total SGPA for two Semesters = 12.85

Cumulative Grade Point Average (CGPA) = $12.85/2 = 6.425$

CGPA = 6.66875, Grade = A, Class = First Class

SEMESTER-3

Courses No.	Credit	Marks out of 100 (%)	Grade	Grade Point	Credit Grade point
CC-301	4	64	A	6.4	25.6
CC-302	4	64	A	6.4	25.6
CC-303	4	59	B+	5.9	23.6
EC-301/EC-302	4	81	A+	8.1	32.4
PC-301	4	49	C	4.9	19.6
PC-302	4	64	A	6.4	25.6
PC-303	4	68	A	6.8	27.2
TP - 301	4	75	A+	7.5	30
	32				209.6

SGPA Sem. III = 6.55

At the end of Semester-3

Total SGPA for three Semesters = 19.4

Cumulative Grade Point Average (CGPA) = $19.4/3 = 6.466667$

CGPA = 6.66875, Grade = A, Class = First Class


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SEMESTER-4

Courses No.	Credit	Marks out of 100 (%)	Grade	Grade Point	Credit Grade point
CC-401	4	83	A+	8.3	33.2
CC-402	4	76	A+	7.6	30.4
CC-403	4	59	B+	5.9	23.6
EC-401/EC-402	4	81	A+	8.1	32.4
PC-401	4	49	C	4.9	19.6
PC-402	4	78	A+	7.8	31.2
TP-401	4	81	A+	8.1	32.4
TP-402	4	75	A+	7.5	30
	32				232.8

SGPA Sem. IV = 7.275

At the end of Semester-4

Total SGPA for all the four semesters = 26.675

Cumulative Grade Point Average (CGPA) = $26.675 / 4 = 6.66875$

CGPA = 6.66875, Grade = A, Class = First Class

Note:

- (1) SGPA is calculated only if the candidate passes in all the courses i.e. get minimum C grade in all the courses.
- (2) CGPA is calculated only when the candidate passes in all the courses of all the previous and current semesters.
- (3) The cumulative grade point average will be calculated as the average of the SGPA of all the semesters continuously, as shown above.
- (4) For the award of the class, CGPA shall be calculated on the basis of:
 - (a) Marks of each Semester End Assessment And
 - (b) Marks of each Semester Continuous Internal Assessment for each course. The final Class for B.P.Ed. Degree shall be awarded on the basis of last CGPA (grade) from all the one to four semester examinations.



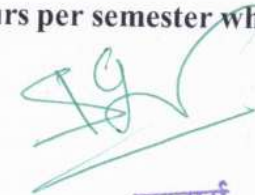
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Semester - I

Part A: Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
CC-101	History, Principles and foundation of Physical Education	4	4	30	70	100
CC-102	Anatomy and Physiology	4	4	30	70	100
CC-103	Health Education and Environmental Studies	4	4	30	70	100
Elective Course (Anyone)						
EC-101	Olympic Movement	4	4	30	70	100
EC-102	Officiating and Coaching					
Part-B Practical Course						
PC-101	Track and Field (Running Events)	6	4	30	70	100
PC-102	Swimming/Gymnastics/ Shooting	6	4	30	70	100
PC-103	Indigenous Sports: Kabaddi / Malkhambh/ lezim / March past	6	4	30	70	100
PC - 104	Mass Demonstration Activities: Kho-Kho / dumbbells / tipri / wands / hoop / umbrella	6	4	30	70	100
Total		40	32	240	560	800

Note: Total Number of hours required to earn 4 credits for each Theory Course are 68-80 hours per semester whereas 102-120 hours for each Practicum Course.



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Semester - II

PartA:Theoretical Course						
Course Code	TitleofthePapers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
CoreCourse						
CC-201	Yoga Education	4	4	30	70	100
CC-202	Educational Technology and Methods of Teaching in Physical Education	4	4	30	70	100
CC-203	Organization and Administration	4	4	30	70	100
Elective Course (Anyone)						
EC-201	Contemporary issues in physical education, fitness and wellness	4	4	30	70	100
EC-202	Sports Nutrition and Weight Management					
Part-B Practical Course						
PC-201	Track and Field (Jumping Events)	6	4	30	70	100
PC-202	Yoga/Aerobics/ Gymnastics/ Swimming	6	4	30	70	100
PC-203	Racket Sports: Badminton/ Table Tennis/ Squash/ Tennis	6	4	30	70	100
Part - C Teaching Practices						
TP - 201	Teaching Practices (05 lessons in class room teaching and 05 lessons in outdoor activities)	6	4	30	70	100
Total		40	32	240	560	800

Note: Total Number of hours required to earn 4 credits for each Theory Course are 68-80 hours per semester whereas 102-120 hours for each Practicum Course.

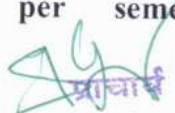

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Semester - III

Part A: Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
CC-301	Sports Training	4	4	30	70	100
CC-302	Computer Applications in Physical Education	4	4	30	70	100
CC-303	Sports Psychology and Sociology	4	4	30	70	100
Elective Course (Anyone)						
EC-301	Sports Medicine, Physiotherapy and Rehabilitation	4	4	30	70	100
EC-302	Curriculum Design					
Part-B Practical Course						
PC-301	Track and Field (Throwing Events)	6	4	30	70	100
PC-302	Combative Sports: Martial Art/ Karate/ Judo/ Fencing/ Boxing/ Taekwondo/ Wrestling (Any two out of these)	6	4	30	70	100
PC-303	Team Games: Baseball/ Cricket/ Football/ Hockey/ Softball/ Volleyball/ Handball/ Basketball/ Netball (Any two of these)	6	4	30	70	100
Part - C Teaching Practices						
TP - 301	Teaching Practice: (Teaching Lesson Plans for Racket Sport/ Team Games/ Indigenous Sports) (out of 10 lessons 5 internal and 5 external at practicing school)	6	4	30	70	100
Total		40	32	240	560	800

Note: Total Number of hours required to earn 4 credits for each Theory Course are 68-80 hours per semester whereas 102-120 hours for each Practicum Course.


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Semester - IV

Part A: Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
CC-401	Measurement and Evaluation in Physical Education	4	4	30	70	100
CC-402	Kinesiology and Biomechanics	4	4	30	70	100
CC-403	Research and Statistics in Physical Education	4	4	30	70	100
Elective Course (Anyone)						
EC-401	Theory of sports and game	4	4	30	70	100
EC-402	Sports Management					
Part-B Practical Course						
PC-401	Track and Field / Swimming / Gymnastics (Any one out of three)	6	4	30	70	100
PC-402	Kabaddi/ Kho-Kho/ Baseball/ Cricket/ Football/Hockey/Softball/ Volleyball/ Handball/ Basketball/ Netball/ Badminton/ Table Tennis/ Squash/ Tennis (Any Two of these)	6	4	30	70	100
Part - C Teaching Practices						
TP-401	Sports specialization: Coaching lessons Plans (One for Sports 5 lessons)	6	4	30	70	100
TP-402	Games specialization: Coaching lessons Plans (One for Games 5 lessons)	6	4	30	70	100
Total		40	32	240	560	800
		160	128	960	2240	3200

Note: Total Number of hours required to earn 4 credits for each Theory Course are 68-80 hours per semester whereas 102-120 hours for each Practicum Course.

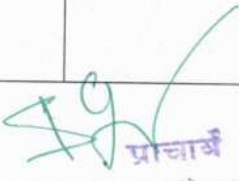
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SCHEME OF EXAMINATION**SEMESTER - I**

Paper	Subject	Internal	External	Total Marks
	<u>THEORY (400)</u>			
CC-101	History, Principles and foundation of Physical Education	30	70	100
CC-102	Anatomy and Physiology	30	70	100
CC-103	Health Education and Environmental Studies	30	70	100
EC-101/102	Olympic Movement/Officiating and Coaching (Elective)	30	70	100
	<u>PRACTICAL (400)</u>			
PC-101	Track and Field (Running Events)	30	70	100
PC-102	Swimming/Gymnastics/Shooting	30	70	100
PC-103	Indigenous Sports: Kabaddi/ Malkhambh/ lezim / March past (Any of one out of these)	30	70	100
PC-104	Mass Demonstration Activities: Kho-Kho / dumbbells / tipri / wands / hoop / umbrella (Any one out of these)	30	70	100
	Total	240	560	800


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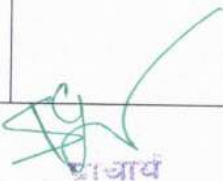
SEMESTER -II

Paper	Subject	Internal	External	Total Marks
	THEORY (400)			
CC-201	Yoga Education	30	70	100
CC-202	Educational Technology and Methods of Teaching in Physical Education	30	70	100
CC-203	Organization and Administration	30	70	100
EC-201/202	Contemporary issues in physical education, fitness and wellness/ Sports Nutrition and Weight Management (Elective)	30	70	100
	PRACTICAL (300)			
PC-201	Track and Field (Jumping Events)	30	70	100
PC-202	Yoga/Aerobics / Swimming / Gymnastics (Any of the two out of these)	30	70	100
PC-203	Racket Sports: Badminton/ Table Tennis/ Squash/ Tennis (Any of the two out of these)	30	70	100
	TEACHING PRACTICE (100)			
TP-201	Teaching Practice (Classroom and outdoor)	30	70	100
	Total	240	560	800


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SEMESTER-III

Paper	Subject	Internal	External	Total Marks
	THEORY (400)			
CC-301	Sports Training	30	70	100
CC-302	Computer Applications in Physical Education	30	70	100
CC-303	Sports Psychology and Sociology	30	70	100
EC-301/302	Sports Medicine, Physiotherapy and Rehabilitation/Curriculum Design (Elective)	30	70	100
	PRACTICAL (300)			
PC-301	Track and Field (Throwing Events)	30	70	100
PC-302	Combative Sports : Martial Art, Karate, Judo, Fencing, Boxing, Taekwondo, Wrestling (Any two out of these)	30	70	100
PC-303	Team Games: Baseball, Cricket, Football, Hockey, Softball, Volleyball, Handball, Basketball, Netball	30	70	100
	TEACHING PRACTICE (100)			
TP-301	Teaching Practice (Teaching Lesson Plans for Racket Sport/ Team Games/Indigenous Sports)	30	70	100
	Total	240	560	800


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SEMESTE IV

Paper	Subject	Internal	External	Total Marks
THEORY (400)				
CC-401	Measurement and Evaluation in Physical Education	30	70	100
CC-402	Kinesiology and Biomechanics	30	70	100
CC-403	Research and Statistics in Physical Education	30	70	100
EC-401/402	Theory of sports and games(Specifically sports and games specialization)/Sports Management (Elective)	30	70	100
PRACTICAL (200)				
PC-401	Track and Field/Swimming /Gymnastics (Any of one out of these)	30	70	100
PC-402	Kabaddi/ Kho-Kho/ Baseball/ Cricket/ Football/Hockey/Softball/ Volleyball/ Handball/ Basketball/ Netball/ Badminton/ Table Tennis/ Squash/ Tennis (Any of one out of these)	30	70	100
TEACHING PRACTICE (200)				
TP-401	Sports Specialization: Coaching lessons Plans Track and Field/Swimming /Gymnastics (Any of one out of these)	30	70	100
TP-402	Game specialization Coaching lessons: Kabaddi/ Kho- Kho/ Baseball/ Cricket/Football/Hockey /Softball/ Volleyball/ Handball/ Basketball/ Netball/ Badminton/ Table Tennis/ Squash/ Tennis (Any of one out of these)	30	70	100
Total		240	560	800

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