SYLLABUS

FOR

B.A. / B.Sc.

(12+3 SYSTEM OF EDUCATION)
(SEMESTER–I)

Examinations: 2014–15

GURU NANAK DEV UNIVERSITY
AMRITSAR

Combination of Subjects for B.A./B.Sc.

Compulsory Subjects: Two

1. English (Compulsory)
2. Punjabi (Compulsory) / Basic Punjabi (ਮੁੱਢਲੀ ਪੰਜਾਬੀ)

Elective Subjects: Three

(A candidate shall select three subjects in all selecting not more than one subject from any of the following sets of combinations) :–

Group Subjects:

1. English / Hindi / Punjabi / Sanskrit / Bangla / Urdu / Persian / Tamil / Assamese / French / Arabic / Russian / German / Hindi Patrakarita **(Newly Introduced)**.
2. Economics / Defence Studies / Sociology / Fine Arts / Education / Adult Education / History of Arts / Commercial Arts / Sculpture / Human Rights.
3. History / Mathematics / Psychology / Ancient Indian History & Culture / Folk Arts and Culture/ Quantitative Techniques / Religious Studies.
4. Political Science / Indian Classical Dance / Stat. / App. Stat. / Commerce / Electronics.
5. Public Admn. / Home Science / Physical Education / Computer Science / Dramatic Arts / Women Empowerment **(Newly Introduced)**.
6. Philosophy / Geography / Music Vocal / Music Inst. / Tabla / Rural Development / Agriculture Economics and Marketing / Industrial Economics.

Note:

1. The candidates shall be asked to offer both Hindi & Sanskrit as elective subjects from Group No. 1.
2. The candidates shall also be allowed to offer both Music (Vocal) & Music (Instrumental) as Elective Subjects from Group No. 6.
3. The combination of Home Science with Computer Science as Elective subject is allowed.
4. The blind candidates shall be allowed to offer any two elective subjects out of Music (Vocal), Music (Instrumental) and Tabla from Group No. 6.

5. The subject of Environmental Studies will be taught in 2nd year of all the undergraduate degree classes from the Session 2007–08. However, if a candidate fails to pass this paper in the 2nd year, two consecutive chances i.e. one supplementary and other along with 3rd year may be given to him/her. The marks obtained by the candidate in this paper will not be added to the total marks obtained, and the result will be entered as "Pass" in the DMC of the third year certificate if he/she obtains at least 35% marks in the paper.

Vocational Course Subjects: Functional English, Office Management and Secretarial Practice, Computer Equipment Maintenance, Clinical Nutrition & Dietetics, Tax Procedure and Practices, Functional Sanskrit, Functional Punjabi, Functional Hindi, Still Photography and Audio Production, Advertisement Sales Promotion and Sales Management, Computer Applications, Industrial Chemistry, Food Science and Quality Control, Microbiology, Tourism and Hotel Management, Tourism and Travel Management, Early Childhood Care & Education, Refrigeration & Air Conditioning, Dairy Farming, Non–Conventional Energy Sources, Journalism & Mass Communication, Automobile Maintenance, Fashion Design & Garment Construction, Mass Communication & Video Production, Fundamentals of Industrial Microbiology, Biotechnology, Information Technology, Jewellery Design, Cosmetology.

Note: 1. The subject of 'Human Genetics' may be offered as an elective subject in combination with any other Life Sciences subject, with English, Punjabi and Chemistry being compulsory subjects.

Note: 2. Tourism & Hotel Management should not be taken alongwith Tourism and Travel Management.

INDEX OF SEMESTER–I

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I
POLITICAL SCIENCE

PRINCIPLES OF POLITICAL SCIENCE

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setter:

The question paper consists of Five units: I, II, III, IV and V. units I, II, III, and IV will have two questions each carrying 20 marks. The students are to attempt one question from each unit approximately in 1000 words. unit–V consists of 10 short answer type questions to be set from the entire syllabus will carry 20 marks in all. Each short answer type question carries 2 marks, to be attempted in 8 to 10 lines.

UNIT–I

1. **Political Science:** Meaning, Nature and Scope.
2. Relationship of Political Science with Economics, History, Sociology and Psychology.

UNIT–II

1. **State:** Definition, Elements and its distinction from Government and Society.
2. **Theories of the Origin of State:** Social Contract, Historical / Evolutionary and Marxian Theory.

UNIT–III

1. **State:** Liberal, Marxian and Gandhian Views of State.
2. **Welfare State:** Concept and Functions of Welfare State

UNIT–IV

1. **Sovereignty:** Definition, Attributes and Types of Sovereignty.
2. **Theories of Sovereignty:** Monistic and Pluralistic.
3. Electorates and Electoral Systems.

Recommended Books:

1. J. C. Johari, *Principles of Political Science,* Sterling Publishers, New Delhi.
2. S.P. Verma, *Political Theory,* Geetanjali Publishing House, New Delhi.
3. A.C. Kapur, *Principles of Political Science*, S. Chand & Company, New Delhi.
4. E. Asirvatham, *Political Theory*, S. Chand & Company, New Delhi.
5. M.P. Jain, *Political Theory*, Authors Guild Publication, Delhi, (Punjabi & Hindi).
6. David Easton, *The Political System,* Scientific Book Agency, Calcutta.
7. D.C. Bhattacharya, *Political Theory,* Vijay Publishing House, Calcutta.
8. O.P. Gauba, *An Introduction to Political Theory*, Macmillan Indian Ltd., New Delhi.
9. Satish Kumar Sharma, *Adhunik Rajnitik Vishleshan,* Publication Bureau, Punjabi University, Patiala.
10. Andrew Heywood, *An Introduction to Political Theory*, New Delhi, Palgrave Publications, 2004.
11. Aeon J. Skoble and Tibor R. Machan, *Political Philosophy,* Ist Edition, New Delhi, Pearson, 2007.

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SEMESTER–I
HISTORY

HISTORY OF INDIA UPTO C. 1000

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setter:

Section–A: The examiner will set 10 questions from entire syllabus and the candidate will attempt 6 questions carrying 6 marks each. Answer to each question will be in 15 to 20 sentences. The total weightage of this Section will be 36 marks.

Section–B: The examiner will set 8 questions, **two** from each unit. The candidate will attempt 4 questions selecting one from each unit with at least 5 pages each. Each question will carry 16 marks. The total weightage of this Section will be 64 marks.

Important Note: Paper Setter must ensure that questions in **Section–A** do not cover more than one point, and questions in **Section–B** should cover at least 50 per cent of the theme.

UNIT – I

1. **Sources:** Meaning of the term 'ancient', Literary sources Vedic literature, Epics and Puranans, Buddhist and Jain texts, Sangam literature; Accounts of Indians and foreigners; Archeological Sources; Coins, Inscriptions and Monuments.
2. **The Indus Civilization:** Origin; Harappa and Mohenjodaro; Political organization; Town–planning and architecture; Agriculture, technology; Trade contacts with the outside world; Religion; Script, Seals and Figurines, Causes of disintegration.

UNIT – II

3. **The Indo Aryans:** Original home; Geographical area known to Vedic texts; Social Institutions: Family, Varna and the Caste system, Religious ideas and rituals; Economy; Political Organization—Changes in the later Vedic period; Emergence of the republics and kingdoms; Growth of towns.
4. **Jainism and Buddhism:** Social and political conditions; Doctrines of Jainism and sectarian development; Teachings of Gautam Buddha; The Sangha organization; Spread of Buddhism; its decline, Legacy of Buddhism and Jainism.

UNIT–III

5. **The Age of the Mauryas:** Establishment of the Mauryan Empire; Expansion of the empire; the Kalinga War; Polity and administration; Contacts with neighbouring states; Ashoka's Dhamma; Decline of the Mauryan empire.
6. **The Kushanas:** Kanishka and his successors; Mahayana Buddhism; Ghandhara Art; Literature. **The Gupta Age:** Establishment of the Gupta Empire; its expansion under Samundragupta and Chandragupta–II; Administration; Revenue system; Trade and Commerce; Art and architecture; Literature and philosophy; Science and Technology. The Huna invasions and the decline of the Gupta Empire.

UNIT–IV

7. **The Age of the Vardhanas:** Establishment of Vardhana kingdom; Harsha's campaigns and political relations; Sources of revenue; Patronage of religion, Literature and education.
8. **The Cholas:** Important centres of power in the South; Establishment of the Chola power; Extent of the Chola empire; Administration; Economy; Trade, Art and Architecture religion and Philosophy.The Rajputs**:** Origins; Polity and administration; Social and Religious life; Literature and art.

Suggested Reading

Basham, A.L., Wonder that was India, Fontana, London, 1977.

Jha, D.N., *Early India: Concise History of India*, Manohar Publication, 2010

Sharma, R.S., *India's Ancient Past*, Oxford University Press, New Delhi, 2005

Thapar, Romila, *Early India : From Origins to AD 1300*, Penguin publication, New Delhi, 2003

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SEMESTER–I

DEFENCE AND STRATEGIC STUDIES

WAR AND ITS VARIOUS ASPECTS (THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 80
Practical Marks: 20

Instructions for the Paper Setters:

Section A: The examiner shall set 10 short answer type questions from the entire syllabus and the candidates will attempt 7 questions carrying 4 marks each. Answer to each question shall not exceed half of the page. The total weightage of this section shall be 28 marks.

Section–B: The examiner shall set 8 questions from the entire syllabus–two from each unit. The candidate shall attempt four questions, one from each unit. Each question shall carry 13 marks. The total weightage of this unit shall be 52 marks.

Note: *Practicals are only meant for the regular students. For the private students the two papers shall be of **100 marks each**. For the private students, each question in Section B will be of 18 marks.*

UNIT–I

1. **War**
   - a) Nature, Concept and Definition
   - b) Origin of War
   - c) History of Warfare
     - i) Animal Warfare
     - ii) Primitive Warfare
     - iii) Historical Warfare
2. **Modern Warfare**
     - i) Meaning and Definition.
     - ii) Features of Modern Warfare.
3. **Principles of War**
   - a) Meaning and Importance.
   - b) Historical Development and Application.

UNIT–II

1. **War as an Instrument of Policy**
2. **Guerrilla Warfare**
     - i) Origin and Concept
     - ii) Principles, Techniques & Characteristics of Guerrilla Warfare.
     - iii) Counter Gurreilla Warfare.

UNIT–III

1. **Psychological Warfare**
   a) Definition and Concept
   b) Functions.
   c) Limitations
2. **Psychological Aspects of War**
   a) Leadership
   b) Discipline
   c) Motivation
   d) Morale
   e) Fear and Panic.

UNIT–IV

1. **Nuclear Warfare**
   i) Beginning of Nuclear era and effects of Nuclear explosion.
   ii) Missiles: Types and their Classification.
   iii) Nuclear weapons: Fission & fusion bombs.
   iv) Nuclear Strategies for Defence: (Preventive, Pre–emptive, Massive Retaliation and Flexible Response)

Books Recommended:

1. Bhagat P.S., Defence of India and South–East Asia.
2. Boring, E., Psychology in the Armed Forces.
3. Chandra, P., International Politics.
4. Clausewitz, V.V., On War.
5. Copeland, Norman, J Psychology of a Soldier.
6. Encyclopaedia Americana
7. Encyclopaedia Britannica
8. Hasnain, Qamar, Psychology for the fighting man.
9. Khapp, W., A History of War and Peace.
10. Lineberger, Paul, M.A., Psychological Warfare.
11. Mukherji & Shiam Lal A Text book of Military Science, Vol.11.
12. Osanka, F.M. Modern Guerrilla Warfare.
13. Palmer & Perkins International Politics.
14. Patel Satyavrata, R. A Text Book of International Law.
15. Sampooran Singh, Nuclear Warfare.
16. Sidhu, K.S., War its Principles.
17. Tripathi, K.S., Evolution of Nuclear Strategies.
18. Mao–Tse Tung, Modern Guerrilla Warfare.
19. Wright, Quincy, Study of War.
20. Kalkat, O.S. & Sidhu S., Jung: Sankalp Ate Vividh Path, (Punjabi).
21. Palit, D.K. (ed), Sanik Gyan de Mul Niyam (Punjabi). Hardial Singh Gill
22. Kamar Husnain, (ed.), Fauji Prati Mano Vigyan (Punjabi) Darshan Singh.
23. Bhupinder Singh, Defence Studies.

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SEMESTER–I
DEFENCE AND STRATEGIC STUDIES
WAR AND ITS VARIOUS ASPECTS
(PRACTICAL)

Time: 3 Hrs. **Marks: 20**
Written: 10
Discussion: 05
Record & Viva: 05

Instructions for the Examiners:

1. Examiners are required to set a question paper containing 10 marks of 1 hour duration in which he is supposed to set at least 3 questions of 5 marks each and students are required to attempt any two.
2. In the written practical Examination, choice in questions may be given to the students. The question paper is to be set at least half an hour before the examination.
3. Each student should be asked to deliver a talk/make short presentation for 5–10 minutes on any of the given topics.
4. Examiners should devote reasonable time for Viva–Voce Test and assess the practical record of a student.
5. For practical paper one group of Students will not comprise of more than 20 students at a time.

A. WRITTEN TEST **Marks: 10**

1. **Map:**
   a) Definition and Features
   b) Classification and its utility for Military
   c) Enlargement and reduction of Maps
2. **Conventional Signs:** Military and Geographical
3. **GRID System:** Four Figure and Six figure Map References.

B. TOPICS FOR DISCUSSION/PRESENTATION: **Marks: 05**

a. Principles of War
b. Military Leadership
c. Guerrilla Warfare

C. RECORD AND VIVA-VOCE **Marks: 05**

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SEMESTER–I

JOURNALISM AND MASS COMMUNICATION (VOCATIONAL)
(THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 80
Practical Marks: 20

Instructions for the Paper Setters:

Section–A shall consists of 10 questions carrying 2 marks for each question. All questions will be compulsory. Each question will carry 2 marks with the total weightage of section being 20 marks. **10x2=20**

Section–B shall consists of 10 questions. Candidates will be required to attempt any 8 questions. Each question will carry 5 marks. The total weightage of this section being 40 marks. **8x5=40**

Section-C shall consists of 4 questions. Candidates will be required to attempt any 2 questions. Each question will carry 10 marks. The total weightage of this section being 20 marks. **10x2=20**

Note:- Question paper will be set in English only but the medium of Examination will be English, Hindi & Punjabi.

– Communication, Definition, Meaning, Nature need, Process and Functions.
– Types of Communication (Intrapersonal, Interpersonal, Group and Mass Communication).
– 7 C's of communication, barriers of communication.
– Verbal and Non–verbal Communication.
– Models of Communication: Aristotle, Shannon and Weaver, Wilbur Shramm, Lassewell and Berlo.
– Latest Trend (Internet)
– Invasion of satellite channels.

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SEMESTER–I

JOURNALISM AND MASS COMMUNICATION (VOCATIONAL)
(PRACTICAL)

Marks: 20

Training in Communication Skills

Classroom Discussions and Seminars

Books Recommended:

Name of the Book	**Author**	**Publisher**
Mass Communication in India	Keval J. Kumar	Jaico, Bombay.
Mass Communication, Thoery & Practical	Uma Narula	Harvard, N. Delhi.
Media Communication and Management	C.S. Rayudu	Himalaya.

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SEMESTER–I
MASS COMMUNICATION & VIDEO PRODUCTION (VOCATIONAL)

INTRODUCTION TO COMMUNICATION (THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 80
Practical Marks: 20

Instructions for the Paper Setters:

Section–A shall consists of 10 questions carrying 2 marks for each question. All questions will be compulsory. Each question will carry 2 marks with the total weightage of section being 20 marks.

10x2=20

Section–B shall consists of 10 questions. Candidates will be required to attempt any 8 questions. Each question will carry 5 marks . The total weightage of this section being 40 marks.

8x5=40

Section-C shall consists of 4 questions. Candidates will be required to attempt any 2 questions. Each question will carry 10 marks . The total weightage of this section being 20 marks.

10x2=20

Note:- Question paper will be set in English only but the medium of Examination will be English, Hindi & Punjabi.

Communication:

* Meaning
* Definition
* Nature
* Need
* Process
* Functions
* Barriers
* 7c's of Communications

Types of Communication:

* Intrapersonal Communication
* Interpersonal Communication
* Group Communication
* Mass Communication
* Media Communication

Verbal & Non–Verbal Communication:

Traditional & Folk Media:

Models of Communication:

* Aristotle Model
* Lasswell Model
* Shannon & Weaver Model
* Wilbur Schramm Model
* Berlo's Model
* Gerbner's Model
* Dance's Model

SEMESTER–I
MASS COMMUNICATION & VIDEO PRODUCTION (VOCATIONAL)

(PRACTICAL)

Marks: 20

Training in communication skills, discussions & seminars.

Power Point Presentations in accordance with Syllabus.

Books Recommended:-

Name	**Author**	**Publisher**
Mass Communication	Kewal J. Kumar	Jaico, Bombay, in India. 2004
Mass Communication	Uma Narula	Haranand N. Delhi, Theory & Practice 1998

Note: Practicals to be conducted by external examiner

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SEMESTER–I
PUBLIC ADMINISTRATION

ADMINISTRATIVE THEORY

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setters:

Section–A: The examiner shall set 10 questions. Candidate will attempt 7 questions carrying 4 marks in 10–15 sentences each. The total weightage of this section shall be 28 marks.

Section–B: The examiner shall set 8 questions two from each unit. The candidate shall attempt 4 questions in all, at least one from each unit. Each question carries 18 marks. The total weightage of this section shall be 72 marks.

UNIT–I

Public Administration– Meaning, nature and scope; Public Administration as an Art and a Science, Distinguish between Public Administration and Private Administration, Relationship of Public Administration with other social sciences – Political Science, Sociology, Economics, History, Psychology, Law. New Public Administration, New Public Management and Good Governance.

UNIT–II

Organization– Meaning, Formal and Informal Organisation. Basic Principles of Organisation– Hierarchy, Span of control, UNITy of Command; Centralization and Decentralization. Delegation, Coordination and Supervision.

UNIT–III

Chief Executive– Meaning, Types & Functions, Line and Staff Agencies, Department, Public–Corporation and Independent Regulatory Commission, Delegated Legislation, Administrative
Tribunals.

UNIT–IV

Administrative Behaviour– Leadership, Communication, Decision making, Executive, Legislative, Judicial and Citizens, Control over Administration.

Suggested Readings:

1. Awasthi, Maheshwari S.R., Public Administration, Lakshmi Narain Aggarwal, Agra, 2004.
2. Basu Rumki, Public Administration: Concept and Theory, Sterling Publishers Pvt. Ltd., New Delhi, 1990.
3. Bhattacharya Mohit, Restructing Public Administration–Essays in Rehabiliation, IInd Edition, Jawahar Publishers and Distributors, New Delhi, 1999.
4. Kapoor Usha, Lok Prashashan–Sidhant Ate Vihar, Publication Bureau, Panjabi University, Patiala.
5. Puri K.K., Elements of Public Administration, (Punjabi). Bharat Prakashan, Jalandhar, 2004.
6. Sharma, M.P. and Sadana B.L., Public Administration, Kitab Mahal, Allahabad, 1993.
7. Sahib Singh and Swinder Singh, Public Administration: Theory and Practice, New Academic Publishers, Jalandhar, 1997.
8. White L.D., Introduction to the Study of Public Administration, Macmillan, New York, 1995.

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SEMESTER–I
SOCIOLOGY

FUNDAMENTALS OF SOCIOLOGY

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setters:

Section–A: It will consist of 10 very short answer questions with answers to each question upto five lines in length. All questions will be compulsory. Each question will carry two marks. Total weightage of the section being 20 marks.

Section–B: It will consist of short answer questions with answers to each question upto three pages in length or in 500 words. The examiner will set fifteen questions (at least 7 from each unit) and the candidate will attempt eight (four from each unit). Each question will carry ten marks. Total weightage of the section being 80 marks.

UNIT–I

a) Meaning, Nature and Scope of Sociology.
b) Importance of the Sociological Perspective. A General Understanding.
c) Social Sciences– Psychology, Anthropology, Economics and Political Science.

UNIT–II

a) Basic Concepts: Society, CommUNITy, Institution and Association
b) Social Groups: Definition, Characteristics and Types– Primary & Secondary, In group and Out group, Reference Groups.
c) Social Structure: Definition, Elements and Patterns, Norms and Values, Status and Roles.

References:

1. Ahuja, Ram: *Indian Social System*, Rawat Publications, Jaipur, 1993.
2. Abraham, M. Francis. : *Contemporary Sociology*, Oxford University, New Delhi, 2006.
3. Bottomore, T.B.S.: *Sociology*, Punjabi Translation by Parkash Singh Jammu, Publication Bureau, Punjabi University, Patiala, 1972.
4. Davis, Kingsley: *Human Society*, Punjabi Translation by Parkash Singh Jammu, Publication Bureau, Punjabi University, Patiala, 1971.
5. Gisbert, Pascual: *Fundamentals of Sociology*, Orient Longmans, Bombay, 1969.
6. Jayaram, N. *Introductory Sociology*, Macmillan, Madras, 1988.
7. Johnson, H.M. Sociology: *A Systematic Introduction*, Allied Publishers, New Delhi, 1995.
8. Kapila, S.: *A Text Book of Sociology*, Part–I & II, New Academic House, Jalandhar, 1989.
9. Kapila, S.: *Fundamentals of Sociology*, Vol. I. Panchkula, Kapila Publishers, 2001.
10. Koening, Samuel: *Sociology, An Introduction to the Science of Society*, Punjabi Translation by Baldev Singh, Publication Bureau, Punjabi University, Patiala.
11. McGee, Reece et al., *Sociology–An Introduction*, Reinehart and Winston, Hindale, 1977.
12. Murdock, George Peter: *Social Structure*, Free Press, New York, 1965.
13. MacIver, R.M. & Page, Charles H.: *Society, An Introductory Analysis*, Macmillan, London, 1974.
14. Savinderjeet Kaur: *Samaj Vigyan Nal Jan Pehchan*, Publication Bureau, Punjabi University, Patiala, 1995.
15. Sharan, Raka: *A Handbook of Sociology*, Anmol Publications, New Delhi, 1991.

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SEMESTER–I
WOMEN EMPOWERMENT
WOMEN AND SOCIETY: AN OVERVIEW.

Time: 3 Hrs. **Max. Marks: 100**

Instructions for the Paper Setters:
The question paper will consist of Sections: A, B, C, D and E. Sections A, B, C and D will have two questions from the respective portion of the syllabus and will carry 20 marks each. Section E will consist of 10 short answer type questions to be set from entire syllabus i.e. Sections A, B, C and D and will carry 20 marks in all. Each short answer type question will carry 2 marks.

Instructions for the Candidates:-
Candidates are required to attempt one question each from Section A, B, C and D of the question paper and the entire Section E. The candidates are required to answer the short questions in not less than 50 words.

UNIT–I

Gender and Feminism
1. Gender, gender equality and patriarchy.
2. Feminism and Struggle for women's equality throughout the world: West and Asia.

UNIT–II

Status of Women: Historical Perspective
1. **Status and Position of Women in History:** Women in Ancient, Vedic and Post Vedic period.
2. Status of women in pre-independence period and Social Reforms before and after independence.

UNIT–III

Women, Society and Human Rights
1. Universal Declaration of Human Rights and Human Rights Commission.
2. Gender issue and Indian Constitution.
3. **Struggles for Gender Equality:** Society, reforms and laws in India.

UNIT–IV

Status of Women in Punjab
1. **Status of women in Punjab:** History with particular reference to Sikh Scriptures.
2. **Status of women in Punjab:** Contemporary Issues.

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SEMESTER–I
PSYCHOLOGY

BASIC PSYCHOLOGICAL PROCESSES–I

Time: 3 Hours **Max. Marks: 100**
Pass Marks: 35% of the subject **Theory Marks: 75**
(Theory and Practical Separately) **Practical Marks: 25**

Instructions for the Paper Setters:

Section–A: It will consist of 10 very short answer type questions with answers to each question up to five lines in length. All questions will be compulsory. Each question will carry 1½ marks; total weightage of the section being 15 marks.

Section–B: It will consist of short answer type questions with answers to each question up to two pages in length. Six questions will be set by the examiner and four will be attempted by the candidates. Each question will carry 9 marks: total weightage of the section being 36 marks.

Section–C: It will consist of essay type questions with answer to each question up to five pages in length. Four questions will be set by the examiner and the candidates will be required to attempt two; total weightage of the section being 24 marks. The questions are to be set to judge the candidates' basic understanding of the concepts.

Note:

1. The use of Non–Programmable calculators and Statistical Tables are allowed in the examination.
2. Only one numerical question is to be set either of nine marks (from Section–B) or of twelve marks (from Section–C).

Nature: Psychology as a Science, Historical background of psychology with brief introduction to schools (Structuralism, Functionalism, Psychoanalysis, Behaviourism, Gestalt and Humanistic.

Methods: Introspection, Observation, Experiment, Case Study, Interview and Questionnaire.

Understanding Individual Differences: Nature and uses of Psychological Tests. Characteristics of Good Psychological Tests, Types of Psychological Tests (Verbal vs Non–verbal test, Individual vs Group, Speed vs power tests, Paper and Pencil Tests vs Performance Tests, Essay vs objective type Tests), Ethical issues in Psychological Testing.

Learning: Introduction to learning, Nature and characteristics of learning process. Trial and Error learning & Insight. A brief introduction to the concepts of Classical and Instrumental conditioning (Paradigm and the typical experiments), Social/observational learning.

Intelligence: Nature of Intelligence Theories (Spearman and Thurstone), Cognitive Theories (Gardener and Sternberg). Concept of Emotional Intelligence, Nature and Nurture issue in intelligence.

Measures of Central Tendency: Meaning and Characteristics of good measure of central tendency. Measures of central tendency: Arithmetic Mean, Median, Mode with their merits and demerits.

Text Books for Readings:

1. Benjamin, Jr. L.T., Hopkings, J.R. & Nation, J.R. (1987). *Psychology*. Mcmillan Publishing Company, New York.
2. Chaplin, J.R. & Kraiwic, T.S. (1985). *Systems and Theories of Psychology*. Holt, Rinehart and Winston, Inc., New York.
3. Crooks, R.L. & Strin, J. (1988). *Psychology; Sciences: Behaviour and Life*. Holt Rinehart and Winston, Inc., New York.
4. Morgan, G.T., King, P.A., Weisz, T.R. & Schopler, J. (1999). *Introduction to Psychology*. Mcgraw Hill Book Co., New York.
5. Baron, R.A. (1996). *Psychology.* New Delhi: Prentice Hall of India.
6. Carlson (2007). *Foundation of Physiological Psychology*. Pearson Education, New Delhi.
7. Aron (2007). *Statistics for Psychology*. Pearson Education, New Delhi.

SEMESTER–I
PSYCHOLOGY

(PRACTICAL)

Marks: 25

Instructions for the Practical Examination:

Students are supposed to perform five practicals out of 6 mentioned in the syllabus. Practical examination will be of 3 hours duration. External examiner will conduct the practical examination. The students will perform one practical in the exam carrying 25 marks. Evaluation of the practical would be done on the basis of write–up of file book (5 Marks), performance and viva–voce (20 Marks) relating to the practicals. In case students have not completed 5 practicals, the examiner will deduct marks at the rate of 5 for each left practical out of total evaluation of the student. No reappear will be allowed in the practical examination. Fail in the practical will be considered fail overall in the subject.

Five Practicals have to be performed out of the following:

1. Simple Reaction Time/Observations
2. Verbal Test of Intelligence.
3. Nonverbal test of Intelligence.
4. Performance Test of Intelligence
5. Trial and error Learning.
6. Effect of Practice on Learning.

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SEMESTER–I
GEOGRAPHY

PHYSICAL GEOGRAPHY–I: GEOMORPHOLOGY
(THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 70
Practical Marks: 30

Instructions for the Paper Setters:

1. A compulsory question containing 15 short answer type questions will be set covering the whole syllabus. The students will attempt any 10 questions in about 40–50 words each. Each question will carry 3 marks (Total 30 marks).
2. The whole syllabus will be divided into 4 UNITs. Eight questions will be set out of the whole syllabus, 2 from each UNIT. The students will be required to attempt one question from each UNIT. Each question carrying 10 marks. These will be in addition to the compulsory question at Serial Number 1 (Total 40 marks).
3. Special credit will be given to suitable use of maps and diagrams.

Objective: The objective of this paper is to introduce the basic concepts in the physical geography, essentially geomorphology to the students of geography in a brief but adequate manner.

UNIT–I

Geography: Definition, place of physical geography within the discipline of geography, division of physical geography–geomorphology, climatology, oceanography. Theories of the Origin of the Earth: Kant, Laplace and Jeans & Jeffreys.
Interior of the Earth: Constitution, structure and composition, continental drift (with special reference to Wegener's theory and Plate Tectonics), isostasy.

UNIT–II

Movements of the Earth: Orogenic, epeirogenic movements; landforms resulting from forces of compression and tension: folding and faulting; mountain building theories (Geosyncline, Convection Current), earthquakes and volcanoes (causes, types and distribution).

UNIT–III

Rocks: Their origin, classification and characteristics.
Major Landforms: Mountains, plateaus and plains in the world.
Geomorphic Agents: Geomorphic processes (weathering and erosion).

UNIT–IV

Geomorphological Landscapes: Fluvial, glacial, aeolian, volcanic, coastal, Karst.
Applied Geomorphology: Applications to transport, landuse, earthquake disaster and its management.

Books Recommended:

1. Chawla, I.N.: *Bhautik Bhugol (in Punjabi)*, Bharat Prakashan, Jalandhar.
2. Dayal, P.: *A Text Book of Geomorphology*, Shukla Book Depot, Patna, 1995.
3. Dury, G.H.: *The Face of the Earth Penguin*, Middlesex, England, 1973.
4. Gass, I.G.: *Understanding the Earth*, The Artemrs Press, Sussex, 1973.
5. Holmes Arthur: *Principles of Physical Geology*, Thomas Nelson & Sons, Ltd., New York, Latest Edition.
6. Kale, V. and Gupta A.: *Elements of Geomorphology*, Oxford University Press, Calcutta, 2001.
7. Kaur Dhian: *The Earth*, Edited by R.C. Chandna, Kalyani Publishers, Ludhiana, Delhi, 2000.
8. Nizamuddin: *An Introduction to Physical Geography*, Concept, New Delhi, 2001.
9. Mamoria, C.P. and Niati, J.L.: *Bhautik Bhugol Ke Tatwa (in Hindi)* Agra, 1976.
10. Monkhouse, F.J.: *Principles of Physical Geography*, Orient Longman, New Delhi, Latest Edition.
11. R.N. Tikha: *Physical Geography*, New Academic Publishing Co., Jalandhar.
12. Singh, Pritam & Bhatia S., *Bhautik Bhugol De Adhaar*, Punjabi University Publication, Patiala.
13. Singh, Savinder: *Physical Geography*, Gynodya Parkashan Gorakhpur, 1994.
14. Sparks, B.W.: *Geomorphology*, Longman, London, 1986.
15. Strahler, A.N. & Strahler A.H.: *Modern Physical Geography*, John Wiley, New York, 1992.
16. Thornbury, W.D.: *Principles of Geomorphology*, Second Edition, Wiley Eastern Ltd., New Delhi, 1993.
17. Singh Malkiat: *Principles of Physical Geography*, Rasmeet Parkashan, Jalandhar.

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I

GEOGRAPHY

CARTOGRAPHY–I

(PRACTICAL)

Time: 3 Hours **Max. Marks: 30**

Written Paper of 3 Hours: 15 Marks

Practical Record (File): 08 Marks

Viva: 07 Marks

Objective:

Geography is an amalgam of physical as well as social sciences and as such it is necessary for the students to go through laboratory exercises, particularly to show directions and bearings and different methods of representing relief. The concept of scale is to be understood in the initial stage and also different methods of representing relief.

UNIT–I

Maps and Scale: History of Cartography and types of maps, Scales: types of scales, methods of construction of graphic scales–plain scales, diagonal scales and comparative scales–different units, time scales.

UNIT–II

Representation of Relief: Spot heights, Trignometrical stations, Bench Marks, from Lines, Contours, Hachures, Hill–shading and Layer tints.

Note:

1. A compulsory question containing 10 short answer type questions will be set covering the whole syllabus. The students will attempt 6 short answer type questions in about 25–30 words each. Each short answer type question will carry ½ mark (Total 3 marks).

2. The whole syllabus will be divided into 2 UNITs. Eight questions will be set out of the whole syllabus, four from each UNIT. The students will be required to attempt two questions from each UNIT. Each question will carry 3 marks. These will be in addition to the compulsory question at serial number 1. (Total 12 marks)
3. Evaluation of Practical record will be done at the time of viva–voce examination. A minimum of 12 sheets are to be prepared by the students in each semester.
4. In case the candidate has applied for the improvement, he/she should be required to make a fresh practical note book.
5. For practical classes, the number of students in one group shall not exceed fifteen.

Recommended Books:

Essential Readings:

1. Khullar, D.R.: *Essentials of Practical Geography*, New Academic Publishing Co., Mai Hiran Gate, Jalandhar, 2000.
2. Singh, Gopal: *Mapwork and Practical Geography*, Vikas Publishing House, Pvt. Ltd., New Delhi, 1995.
3. Singh L.R. & Singh, Raghunandan: *Mapwork and Practical Geography*, Central Book Depot, Allahabad, 1993.
4. Phyllis Dink : *Mapwork*, Atma Ram & Sons

Further Readings:

1. Mishra, R.P. & Ramesh, A.: *Fundamental of Cartography*, Concept Publishing Co., New Delhi, 1989.
2. Monkhouse, F.J. & Wilkinson, H.R.: *Maps and Diagrams*, Methuen & Co., London, Third Edition, 1976.
3. Robinson, A.H. & Randall, D. Sale: *Elements of Cartography*, John Wiley & Sons, New York, (Sixth Edition), 1995.

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I
ECONOMICS

MICROECONOMICS

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper-Setters/Examiners:

(i) First question consisting of 10 short answer type based upon the entire syllabus. (Each Carrying 2 Marks) will be compulsory.
(ii) Students will attempt 1 out of 2 questions from each of the four units (20 Marks Each).

UNIT–I

Introductory: Definition of Economics, Adam Smith, Marshall, Robbins, Nature and Scope of Microeconomics. Basic Concepts: Human wants, Utility and Satisifaction, Basic Economic Problems.

Demand Function; Supply Function, Price Determination, Slope and Elasticity, Elasticity of Demand – Price, Income and Cross and their Measurement. Utility Analysis and Indifference Curve Analysis.

UNIT–II

Theory of Demand and Consumer Behavior: Revealed Preference Analysis and their Comparison.

Theory of Production and Costs: Concept of Production Function. Laws of Returns to Scale and Law of Variable Proportions and their Compatibility.

Cost: Traditional and Modern Costs Theory, Concepts and Costs curves in the short and in the long run. Revenue Curves and their relationship with elasticity of demand.

UNIT–III

Market forms: Perfect Competition; Assumptions, Price and output determination of firm and Industry in Short run and Long run; Supply Curve. Monopoly; Assumptions, Equilibrium, Supply Curve. Monopolistic Competition : Assumptions, Product differentiation, Selling costs, Excess capacity.

UNIT–IV

Marginal Productivity Theory; Factor Pricing (with reference to labour) under Perfect Competition and Imperfect Competition, Modern Theory of Distribution.

Rent: Concept; Ricardian Theory and Modern Theory of Rent.

Interest: Concept of interest; classical theory, lonable funds theory.

Profit: Concept of profit; Risk and uncertainity theories.

Recommended Texts:

1. R.G. Lipsey: Introduction to positive economics, EL BS, London, 1969
2. Stonier & Hague: A Text book of Economics Theory, 9th ed., ELBS, London, 1973.
3. Paul Samuelson : Economics, Mcgraw Hill, Kogakushad, Tokyo, 1973.
4. N.C. Ray : Microeconomic Theory, Macmillan, Delhi, 1975.
5. D. Salvatore : Microeconomics.
6. A. Koutsoyiannis: Modern microeconomics.

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SEMESTER–I

QUANTITATIVE TECHNIQUES–I

Time : 3 Hours **Max. Marks: 100**

Instructions for the Paper-Setters/Examiners:

(i) First question consisting of 10 short answer type based upon the entire syllabus, (Each Carrying 2 Marks) will be compulsory.
(ii) Students will attempt 1 out of 2 questions from each of the four units (20 marks each).

UNIT–I

Solution of Linear Equations: Solution of Simultaneous Linear Equations (upto two variable case), Application of Linear Equation in Economics; Solution of Quadratic Equations. Series: Arithmetic Progression Series, Geometric Progression Series and their applications in economics.

UNIT–II

Elements of Analytical Geometry: Straight line and circle; Basic concepts of trigonometry (with formulae); Concepts of combination and permutation, Elements of set theory, union, intersection, difference, symmetric difference, complementation, Venn diagrams.

UNIT–III

Difference between a constant and a variable, concept of functions, classifications of functions, graph of linear and quadratic functions.
Limits and continuity of a function (Excluding Trigonometric and Inverse functions): Concept of differentiation (ab-intio principle).

UNIT–IV

Derivatives (Excluding Trigonometric and Inverse Functions): Rules of derivatives; functions of functions rule; derivatives of implicit functions, parametric functions, exponential functions, logarithmic functions; successive derivatives.

Books Recommended:

1. Monga, G.S.: Mathematics and Statistics for Economics.
2. Yamane, Taro: Mathematics for Economists.
3. Allen, R.G.D.: Mathematical Analysis for Economists.
4. Edward T Dowling: Introduction to Mathematical Economics.

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SEMESTER–I
INDUSTRIAL ECONOMICS

INDUSTRIAL ECONOMICS–I

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setters / Examiners:

(i) First question consisting of 10 short answer type based upon the entire syllabus, (each carrying 2 marks) will be compulsory.
(ii) Students will attempt 1 out of 2 questions from each of the four units (20 marks each).

UNIT–I

Nature, scope and subject matter of Industrial Economics; concept and organization of the firm; optimum firm.

UNIT–II

Market Structure: Meaning and measurement: Sellers' concentration and product differentiation; Market structure, firm size and profitability.
Market Conduct: Product pricing – Theory and evidence; merger and diversification.

UNIT–III

Market Performance: Growth of the firm and its constraints; size, growth and profitability.

UNIT–IV

Process of Industrialization: Rationale, objectives, strategies and policies with reference to Indian industrial development and policy.

Recommended Texts:

1. Barthwal, R.R.: Industrial Economics: An Introductory Text, Wiley Eastern Limited, New Delhi, 1984.
2. Devine, P.J. et al: An Introduction to Industrial Economics, George Allen Unwin Ltd., London, 1976.
3. Hay, D.A. and D.J. Morris: Industrial Economics: Theory and Evidence, Oxford University Press, London, 1979.
4. Harndeen, J.B.: Economics of Corporate Economy.
5. Writes, P.J.D.: Price, Cost and Output.
6. Kirkpatrick, C.M. et al.: Industrial Structure and Policy in Less Developed Countries, N.Lee and F.L. Ninson, Heritage, New Delhi, 1985.
7. Kelkar, V.L. and V.V. Bhanoji Rao: Indian Development Policy Imperatives.

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SEMESTER–I
AGRICULTURAL ECONOMICS & MARKETING

AGRICULTURAL ECONOMICS

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setters / Examiners:

(i) First question consisting of 10 short answer type based upon the entire syllabus, (each carrying 2 marks) will be compulsory.
(ii) Students will attempt 1 out of 2 questions from each of the four units (20 marks each).

UNIT–I

Agriculture in a Growing Economy: changing importance of agriculture, inter–dependence between agriculture and industry; role of agriculture in economic development.

UNIT–II

Farming Systems: traditional, subsistence, commercial, cooperative, collective and state farming, corporate farming, contract farming.

UNIT–III

Economics of Agricultural Production: Relation between factor–product, product–product and factor–factor, farm size productivity in Indian Agriculture.

UNIT–IV

Agricultural Growth in India: Inter–regional variations in growth in output and productivity. Performance of Punjab Agriculture: cropping pattern, mechanization and problems in agriculture.

Suggested Readings:

1. Southworth, N, and A. Johnston (1967), Agricultural Development and Economic Growth, Cornell University Press.
2. Dantwala, M.L. (1986), Agricultural Growth in India, Indian Society of Agricultural Economics, Bombay.
3. Bhardwaj, K. (1984), Production Conditions in India Agriculture, Cambridge University Press.
4. Memoria, C.B. (1985), Agricultural Problems of India, Kitab Mahal.
5. Eichher, C. and L. Wilt (ed.) (1964), Agriculture in Economic Development, McGraw Hill, London.
6. S.S. Johl & T.R. Kapur, Fundamentals of Farm Business Management.
7. A.S. Kahlon & Karam Singh, Principles of Farm Business Management.
8. Agriculture Economics by R.K. Lekhi and Joginder Singh, Kalyani Publishers 1996.

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SEMESTER–I

RURAL DEVELOPMENT–I

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setters / Examiners:

First question consisting of 10 short answer type based upon the entire syllabus, each carrying 2 marks) will be compulsory.
Students will attempt 1 out of 2 questions from each of the four UNITs (20 marks each).

UNIT–I

Conceptional: Sociology as a study of social groups, Relationships, Institutions and culture, Rural urban differences.

UNIT–II

Caste, its features, functions, theories of its origin and intercaste relations.

UNIT–III

Family types, functions and changing patterns. Marriage, its forms, functions and features like bride/ bridegroom price, extravagance etc.

UNIT–IV

Political structures; structures and functions of traditional and enacted panachayats.

Suggested Readings:

1. Hutton, J.H. Caste in India, Oxford University Press, Bombay.
2. Mandelbaum, D.G. Society in India, Popular Prakashan, Bombay.
3. Jammu, P.S. (Ed). Pendu Punjab Vich Samajik Parvartan, Punjabi University, Patiala.
4. Swinderjit Kaur. Samaj Vigyan Nal Jan Pachhan, Punjabi University, Patiala.
5. Baldev Singh (tr.) Samaj Vigyan, Punjabi Univeristy, Patiala.

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SEMESTER–I
OFFICE MANAGEMENT AND SECRETARIAL PRACTICE
(VOCATIONAL)

TYPEWRITING
(THEORY)

Max. Marks: 100
Time: 3 Hours **Theory Marks: 60**
Practical Marks: 40

Section–A: The examiner will set 8 short questions from the entire syllabus. The candidate will have to attempt 6 questions out of 8 questions. Each question carrying 2 marks
(6x2=12 Marks)

Section–B: The examiner will set 8 long questions in four parts, 2 questions from each unit. The candidate will have to attempt 4 questions selecting at least one from each unit. Each question carrying 12 marks.
(4x12=48Marks)

UNIT–I

Typewriter and its maintenance:
Typewriter – Its use and importance a standard typewriter.
* Makes and categories of typewriter.
* Essential parts of a typewriter and their use.
* Care and upkeep of a typewriter.
* Ribbon changing and ribbon economy.
* Methods of typewriting.
* Touch
* Sight

UNIT–II

Approach of typing:
* Horizontal
* Vertical
* Keyboard operation
* Need for proper type and size of tables and chairs for use by typist
* Sitting postures
* Material required
* Insertion and removal of paper

UNIT–III

*Learning and second row (Home row) (guide keys and home keys).
* Learning the third row (upper–row)
* Learning the first row (bottom row)
* Learning the fourth row (number row)
* Special signs and symbols in the keyboard and their uses.

UNIT–IV

Display in Typewriting:

* Centering – horizontal, vertical.
* Types of headings.
* Use of punctuation marks
* Figures – Arabic and Roman
* Paragraphs – type and styles, numbering, pagination. Styles of typing different kinds of letters.
* Arrangement of tabular statements.
* Syllabification.
* Foot notes.

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SEMESTER–I
OFFICE MANAGEMENT AND SECRETARIAL PRACTICE (VOCATIONAL) (PRACTICAL)

Marks: 40

Key Board Operations:

1. Practising second row, third row, first row and fourth row.
2. Practising words, sentences, paragraphs and passages.
3. Use of shift keys and other non–character keys.
4. Typewriting of special symbols of the Key Board and punctuation marks.

Speed Building:

1. Different kinds of drills for typing.
2. Graded speed test leading to accurate speed of about 30 w.p.m.
3. Typing of passages each containing 300 words in ten minutes.

Teaching Guidelines:

Alternative and hand words, balanced handwords, same letters in different words, drills of common words, drills of alphabetical sentences and words division drills.

Display Techniques:

1. Centering – Horizontal and Vertical.
2. Ensuring proper margins, line spacing.
3. Typing different types of heading including spaced heading.

Letter Typing:

1. Typing exercises of personal, official and business letters in different styles with proper display.
2. Typing of applications for jobs.
3. Addressing the envelopes.
4. Using carbon papers for taking out multiple copies.

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SEMESTER–I
TRAVEL & TOURISM

FUNDAMENTALS OF TRAVEL AND TOURISM

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setters:

Section–A: The examiner will set 12 short questions, 3 questions from each unit of 2 marks each. The candidate will have to attempt 10 questions out of 12 questions.
(10x2=20 Marks).

Section–B: The examiner will set 8 long questions, 2 questions from each unit of 20 marks each. The candidate will have to attempt 4 questions out of 8 questions.
(4x20=80 Marks).

UNIT–I

Conceptual Framework of Tourism

Travelers, excursionist, tourists/visitors.
Tourism and tourist – domestic and international.
The dynamics of definitions.

Tourism Product and its Characteristics

Tourism through the ages.
Tourism as a product
Characteristics of tourism

UNIT–II

The Construct of Tourism

Notion of Travel in historical imagination
Types and forms of tourism
Motivations for tourism.

Objects of Tourism

Tourism as an object of pleasure–Scenic beauty, health and leisure.
Tourism as a preserver of heritage–Historical and religious sites.
Tourism as an object of culture–Holiday seasons,
Tourism as a social habit.
Tourism as a means of globalization–Theme of integration and identity.

UNIT–III

Issues and Problems

Infrastructure and super–structure, Levels of Study.

Global; International concerns, problems and organizations–WTO, IATA and ICAO

Macro: National concerns and problems and oganizations–Ministry of Tourism and ITDC.

Meso: Local concerns and problems.

Micro: Enterprise level concerns and problems.

UNIT–IV

Positive Effects of Tourism

Integrational

Nation building – appreciation of language, dress, food and Customs.

Information flows – travelogues.

Removal of barriers – flow of goods.

Negative Effects of Tourism

Conflicts – cultural shock.

Ecological degradation.

Dangers to protected archaeological sites

Interference in wildlife habitat

Social effects on the residents of tourist places

Suggested Readings:

1. Burkart, A.J. & Medlik, S.: *Tourism: Past, Present and Future,* Heinemann Professional Publishing, London, 1986 reprint.
2. Mill, Robert and Christie & Morrison Alastair M.: *The Tourism Systems: An Introductory Text,* Prentice–Hall International, London, 1992.
3. Holloway, Christopher – J.: *The Business of Tourism,* Pitman Publishing, London, 1989.

4. Kamra, Krishan, K & Chand, Mohinder: *Basics of Tourism: Theory Operation and Practice,* Kanishka Publishers, New Delhi, 2002.

5. Bhatia, A.K.: *Tourism Development: Principles and Practices*, Sterling, New Delhi, 1995.

6. Foster, Douglas, *Travel and Tourism Management,* Macmillan, 1985.

7. *IITTM Growth of Modern Tourism – Monograph,* IITTM, New Delhi, 1989.

8. *IITTM Tourism as an Industry,* IITTM, New Delhi, 1989.

9. Wahab, S.E., *Tourism Management,* Tourism International Press, London, 1986.

10. Gupta I.C., *Tourism Products of India,* Indore, 1995. Kasbekar Sushma.

11. Singh, Ratandeep *Tourist India: Hospitalities Services,* Kanishka, New Delhi, 1996.

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SEMESTER–I

TOURISM AND HOTEL MANAGEMENT (VOCATIONAL)

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setters:

Section–A: It will consist of 10 very short answer questions with answers to each questions up to five lines in length. All questions will be compulsory. Each question will carry two marks; total weightage being 20 marks.

Section–B: It will consist of short answer questions with answer to each question upto *two pages* in length. Twelve questions will be set by the examiner and eight will be attempted by the candidate. Each question will carry five marks. The total weightage of the section shall being 40 marks.

Section–C: It will consist of essay type questions with answers to each question upto 5 pages in length. Four questions will be set by the examiner and the candidates will be required to attempt two. Each question will carry 20 marks: total weightage of the section being 40 marks.

UNIT–I

Evolution of Hospitality Industry in India and Abroad: Accommodation and its types, Star categorization of Hotels

Front Office: Layout of front office and their importance i.e. reservation, reception, concierge, bell desk, lobby, telephone, cashier;Qualities of front office staff; Department front office coordinates with; Main functions of front office- Information**,** Reservation**,** Reception.

UNIT–II

House Keeping: Introduction, Layout of housekeeping department,Organisation of housekeeping department,Job description and qualities of house keeping staff, Departments that house keeping coordinates with,Rooms and floors–Practices and procedures.

Briefing and scheduling of staff, Knowledge of rooms, Rules on a guest floor, Cleaning of rooms, Preparing a room report, Housekeeping control desk

UNIT–III

Food and Beverages Production: Definition of 'food technology, Aims and objectives of cooking food**,** Cooking materials/ingredients**,** Methods of cooking foods**,** Spices used in Indian and western cooking**,** Principles of food storage, Planning of meals**,** Preservation of food.

UNIT–IV

Food and Beverage Service: History of Indian catering, Food and beverage outlets, Classification of catering operations, Restaurant organization, Service staff behaviour and standards.

Table layout and table manners, Rules for waiting at table, Forms/types of catering establishments i.e Commercial (non residential & residential), Welfare (industrial/institutional), Transport (Air, Road, Rail, Sea); Origin of menu and menu planning objectives and types of menu

Note:

One tour/summer training is compulsory every year of which the students shall prepare *"A Tour Report"*, This report shall be evaluated by the examiner and shall given grades A, B & C.

C. **Training: One Month**

During the summer vacation one month training is a must.

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SEMESTER–I
TOURISM AND TRAVEL MANAGEMENT (VOCATIONAL)

TOURISM BUSINESS

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setter:

Section–A: It will consist of 15 questions from the entire syllabus of the paper with answer to each question up to 50 words. Students will be required to attempt any 10 questions. Each question will carry 2 marks. This section will be of 20 marks

Section–B: It will consist of 8 essay type questions, 2 from each unit with answer to each question up to 5pages. Students will be required to attempt any 4 questions. Each question will carry 20 marks. This section will be of 80marks.

Note:– The candidates are allowed to use simple (Non–Scientific) Calculators.

UNIT–I

Definition, Nature, Characteristics, Importance and Components of tourism, Prospects of Tourism.

UNIT–II

Insulation, organization both national and international in world in promotion & development WTO, IATA, PATA, TAAI.

UNIT–III

Typology of Tourism; Concepts of Domestic And International Tourism recent trends, Motivation in tourism, Barriers to the growth of tourism

UNIT–IV

Tourism as an industry, visitor, tourist, excursionist. Growth and development of Tourism in India.
Impacts of Tourism–Economic, Social, Physical and Environmental.

Suggested Readings:

1. Chritopher J. Holloway: The Business of Tourism: McDonald and Evans, 1983.
2. A.K. Bhatia: Tourism Development, Principles and Practices: Sterling Published (P) Ltd., New Delhi, 1983.
3. Anand, M.M.: Tourism and Hotel Industry in India; Sterling Published (P) Ltd., New Delhi, 1990.
4. Kaul, R.H.: Dynamics of Tourism; A Terminology; Sterling Published (P) Ltd., New Delhi, 1996.
5. IITTM Growth of Modern Tourism, Monograph IITTM, New Delhi, 1989.
6. IITTM: Tourism as an Industry Monograph IITTM, New Delhi, 1989.
7. Burkart & Madlik Tourism – Past, Present and Future, Heinemann, London, 1974
8. Wahab, S.E.: Tourism Management: Tourism International Press, London, 1986.
9. Brymer, Robert A: Introduction to Hotel and Restaurant Management: Hub Publication, Co., I/OWA, 1984.
10. Riccline J.R. Brent: Travel and Tourism Hospitality, Research, London, 1982.
11. Surinder Aggarwal: Travel Agency Management Communication India, 1983.

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SEMESTER–I

TAX PROCEDURE AND PRACTICE
INDIAN TAX SYSTEM AND LAW

Time: 3 Hrs. **Max. Marks: 100**

Periods/week: L T
3 3

Note: The candidates are allowed to use simple (Non-Scientific) calculators.

Instructions for the paper setters:
The following pattern of setting of question paper shall be observed: The question paper covering the entire course shall be divided into three sections as follows:-

Section-A: This section will consist of 8 very short answer questions with answer to each question upto 5 lines. All questions will be compulsory. Each question will carry two marks; total weightage of the section being 16 marks.

Section-B: This section will consist of short answer questions with answer to each question upto two pages. Nine questions will be set by the examiners and the candidates will be expected to attempted six question. Each question will carry eight marks, total weightage of the section being 48 marks.

Section-C: This section will consist of essay type questions with answers to each question upto 5 pages. Four questions, will be set by the examiner and the candidates will be expected to attempt two questions. Each question will carry 18 marks; total weightage of the section being 36 marks.

UNIT–I

Meaning of Tax: Central and state powers of taxation, Distribution of revenues between central and states. Direct and indirect taxes.

Direct Taxes of the Central Government: Income tax, wealth tax, gift tax: interest tax act, 1974 with effect from 1.4.1993; expenditure tax act, 1987.

UNIT–II

Indirect Taxes of Central Government: Central Excise, Customs duty, Central sales tax.
Taxes of the State Government: Taxes on sale and purchase of goods tax on land and building octroi duty; tax on profession, trade and business; tool tax; tax on motor vehicle, transportation;

UNIT–III

Tax on advertisement, tax on luxuries, entertainment and amusements; tax on betting and gambling; tax on electricity; tax on animal. Stamp duty, agricultural income tax; and land revenue.

UNIT–IV

Income-Tax Law: Definitions, Residential Status, Incomes which do not form part of total income, Computation of total income, heads of income : salaries, income : from house property, profit & gain from business and profession, capital gains, income from other sources.

Clubbing Provisions, aggregation of incomes and set off and carry forward of losses, deduction from gross total income under chapter VIA.

References:

1. Singhania, V.K. and K. Singhania (2007), Direct Taxes Law & Practice, Taxmann Publications (P) Ltd., New Delhi, 2004.
2. Srivastava, M. (1981), Fiscal Policy & Economic Development in India, Chugh Publications, Allahabad.
3. Mehrotra, H.C. & P. Mehrotra (2007), Income Tax Law & Accounts, Sahitya Bhawan Publications, Agra.
4. Taxmann's direct Tax Laws As Amended by Finance Act, 2007 Taxmann Allied Services (P) Ltd. New Delhi, 2001.
5. www.incometaxindia.gov.in

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SEMESTER–I
ADVERTISING SALES PROMOTION AND SALES MANAGEMENT (VOCATIONAL)

MARKETING COMMUNICATION

Time: 3 Hours **Max. Marks: 100**

Periods/week:	**L**	**T**
	3	**3**

Note: The candidates are allowed to use simple (Non–Scientific) calculators.

Instructions for the Paper Setters:

Section–A: This section will consist of 8 very short answer questions with answer to each question upto 5 lines. All questions will be compulsory. Each question will carry two marks; total weightage of the section being 16 marks.

Section–B: This section will consist of short answer questions with answer to each question upto two pages. Nine questions will be set by the examiners and the candidates will be expected to attempted six question. Each question will carry eight marks, total weightage of the section being 48 marks.

Section–C: This section will consist of essay type questions with answers to each question upto 5 pages. Four questions will be set by the examiner and the candidates will be expected to attempted two questions. Each question will carry 18 marks; total weightage of the section being 36 marks.

OBJECTIVES:

This course is intended to impart knowledge and develop skill among the participants in the field of marketing communication, so as to equip them to man junior and lower–middle level positions in the fast–growing and challenging business areas of advertising, sales promotion, selling and sales management and Public relations. The course shall consist of six papers, two each of the three years of under graduate programme in the Indian Universities and other institutions. The six papers are:

1. Marketing Communication.
2. Advertising–I
3. Advertising–II
4. Personal Selling and Salesmanship.
5. Management of the Sales–Force.
6. Sales Promotion and Public relations.

All the papers will be handle so as to have practical orientation, with Indian cases and examples.

COURSE CONTENTS:

UNIT–I

Nature and importance of Communication, Communication process: Elements of the communication Process,

UNIT–II

Application of communication process in marketing. Steps in developing effective marketing communication, Methods of Marketing communication.

UNIT–III

Advertising, personal selling, Public relations, sales promotion, their meaning and distinctive characteristics; Setting up of targets: Policies, strategies and methods of achievements.

UNIT–IV

Integrated Communication in Marketing.

Suggested Readings:

1. Kotler Phillip, Kevn Lane Ketter, Abrahan Koshy and Mithileshwari Jha, Marketing Management, PHI, 13th ed., 2007.
2. Etzel, Michael J., Bruce J. Walker, William J. Stantonard Ajay Pandit. Marketing Concepts Cases, 13th edition, Tata, McGraw Hill, 2006.
3. Rampal, M.K. and S.L. Gupta, Cases & Simulations is Marketing Management, Galgotia Publishing Co., 2000.

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Economics & Business)

SEMESTER–I
COMMERCE

COMMERCE THEORY AND FUNCTIONAL MANAGEMENT

Time: 3 Hours **Max. Marks: 100**

Note: The candidates are allowed to use simple (Non–Scientific) calculators.
Instructions for the Paper Setters:

Section–A: It will consist of 10 very short answer questions with answers to each question upto five lines in length. All questions will be compulsory. Each question will carry two marks; total weightage of the section being 20 marks.

Section–B It will consist of short answer questions with answer to each question upto two pages in length. Twelve questions will be set by the examiner and eight will be attempted by the candidate. Each question will carry six marks; total weightage of the section being 48 marks.

Section–C It will consist of essay type questions with answers to each question upto 5 pages in length. Four questions will be set by the examiner and the candidate will be required to attempt two. Each question will carry sixteen marks; total weightage of the section being 32 marks.

UNIT–I

A critical evaluation of various definitions of Commerce, Commerce Art or Science or both, Commerce as a Profession, Relationship and Difference between Economics, Commerce and Management,

Functions of Commerce: Traditional and Modern.

Management: Definition, purpose and significance. Management Art or Science for both.

UNIT–II

Management as a Process: Planning, Organising, Staffing, Direction and Control and their meaning, Features and principles.

Contributions to Management thought with special reference to Taylor, Fayel, Elton Mayo.

Personnel Management: Meaning and significance, Managerial and operative Functions– Recruitment, Selection and training. Methods of wage payment, absenteism and labour turnover, Job evaluation and merit rating, Trade Unionism, worker's participation in management.

UNIT–III

Marketing Management: Concept of Marketing, functions of marketing research–meaning and, techniques, advertising and salesmanship.

UNIT–IV

Production: Functions, production, planning and control, purchasing and storekeeping, inventory control, quality control.
Finance: Meaning and importance, sources of finance.

Suggested Readings:

1. Bose Chandra, "Principles of Management and Administration", Prentice Hall of India, 2007.
2. Massie, "Essentials of Management", Fourth Edition, Prentice Hall of India, 2007.
3. Robbins and Coulter, "Management", 8th Edition, Prentice Hall of India, 2007.
4. Dholakia Nikhilesh and Khurana Rakesh, "Marketing Management", McMillan India Ltd., 2007.
5. Hitt, "Management", Pearson Education, 2007.

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I
MATHEMATICS

PAPER–I: ALGEBRA

Time: 3 Hours **Marks: 50**

Instructions for the Paper Setters:

1. Syllabus of this paper is split into two Parts Section–A and Section–B. Five questions will be set from each Section.
2. The student will attempt five questions in all selecting at least two questions from each section.
3. Teaching time for Mathematics would be six periods per week for each paper.

Section–A

Linear independence of row and column vectors. Row rank, Column rank of a matrix, Equivalence of column and row ranks, Nullity of matrix, Applications of matrices to a system of linear (both homogeneous and non–homogeneous) equations. Theorems on consistency of a system of linear equations. Eigen values, Eigen vectors, minimal and the characteristic equation of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix. Quadratic Forms, quadratic form as a product of matrices. The set of quadratic forms over a field. Congruence of quadratic forms and matrices. Congruent transformations of matrices. Elementary congruent transformations. Congruent reduction of a symmetric matrix. Matrix Congruence of skew–symmetric matrices. Reduction in the real field. Classification of real quadratic forms in variables. Definite, semi–definite and indefinite real quadratic forms. Characteristic properties of definite, semi–definite and indefinite forms.

Section–B

Relations between the roots and coefficients of general polynomial equation in one variable. Transformation of equations and symmetric function of roots, Descarte's rule of signs, Newton's Method of divisors, Solution of cubic equations by Cardon method, solution of biquadratic equations by Descarte's and Ferrari's Methods. De–Moivre's Theorem and its applications, circular and hyperbolic functions and their inverse. Exponential and Logarithm function of a complex numbers. Expansion of trigonometric functions. Gregory's series. Summation of series.

Books Recommended:

1. K.B. Dutta: Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd., New Delhi (2002).
2. H.S. Hall and S.R. Knight: Higher Algebra, H.M. Publications, 1994.
3. Chandrika Parsad: Text book on Algebra and Theory of Equations, Pothishala Pvt. Ltd., Allahabad.
4. S.L. Loney: Plane Trigonometry Part–II, Macmillan and Company, London.
5. Shanti Narayan: Text Book of Matrix.

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SEMESTER–I
MATHEMATICS

PAPER–II: CALCULUS–I

Time: 3 Hours **Marks: 50**

Instructions for the Paper Setters:

1. Syllabus of this paper is split into two Parts Section–A and Section–B. Five questions will be set from each Section.
2. The student will attempt five questions in all selecting at least two questions from each section.
3. Teaching time for Mathematics would be six periods per week for each paper.

Section–A

Real number system, its properties, lub, glb of sets of real numbers, limit of a function, Basic properties of limits. Continuous functions and classification of discontinuities. Uniform continuities, differentiation of hyperbolic functions,

Section–B

Successive differentiation. Leibnitz theorem. Taylor's and Maclaurin's theorem with various forms of remainders. Indeterminate forms. Asymptotes. Tests for concavity and convexity, Points of inflexion, Multiple Points, Curvature, Tracing of Curves (Cartesian and Parametric coordinates only).

Books Recommended:

1. N. Piskunov : Differential and Integral Calculus, Peace Publishers, Moscow.
2. Gorakh Prasad : Differential Calculus, Pothishala Pvt. Ltd., Allahabad.
3. Erwin Kreyszig : Advanced Engineering Mathematics, John Wiley and Sons, 1999.

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I
STATISTICS

PAPER – I: PROBABILITY – I

Time: 3 Hours **Marks: 50**

Instructions for the Paper Setters:
1. Question paper will consist of two sections. Each section will consist of five questions set from corresponding section of the syllabus.
2. The student will attempt five questions in all selecting at least two questions from each section.
3. Teaching time for Statistics would be six periods per week for each paper.

Section–A

Random experiments, the sample space, events, algebra of events, various definitions of the probability, probability function and its properties. Finite sample spaces; equally likely outcomes additive law of probability, conditional probability, multiplicative law of probability, independent events. Baye's Theorem. Random variable, example of random variables.

Section–B

Discrete random variables, its probability mass function and cumulative distribution function, Continuous random variable, its probability density function and cumulative distribution function. Properties of distribution function of discrete and continuous random variables. Equivalent events, real valued functions of random variables and the procedures of finding the probability functions of such functions illustrated by examples. The expected value of a random variable and of functions of a random variable. Properties of expected values. The variance of random variable and its properties.

Book Recommended:
1. Meyer, P.L. Introductory Probability and Statistical Applications, Addison—Wesley, (1970).

Books Suggested for Supplementary Reading:
1. Biswal, P.C., Probability and Statistics, Prentice Hall, India, 2007.
2. Ross, S.A. First Course in Probability, Sixth Edition, Pearson Education, 2007.
3. Hogg. R.V., Mcken, J.W. and Craig. A.T., Introduction to Mathematical Statistics, Pearson Education, 2007
4. Miller, I, and Miller, M. Mathematical Statistics with Applications, Seventh Edition, Pearson Education, 2007

SEMESTER–I
STATISTICS

PAPER II: PROBABILITY – II

Time: 3 Hours **Marks: 50**

Instructions for the Paper Setters:

1. Question paper will consist of two sections. Each section will consist of five questions set from corresponding section of the syllabus.
2. The student will attempt five questions in all selecting at least two questions from each section.
3. Teaching time for Statistics would be six periods per week for each paper.

Section–A

Discrete Distributions : The uniform distribution, the Bernoulli distribution, the binomial distribution, the Poisson distribution, Derivation of the Poisson distribution from the Binomial distribution, the Geometric distribution, the Pascal distribution and the Hyper geometric distribution. The expected value and variance of these distributions.

Section–B

Continuous Distribution; The Normal distribution, the Exponential distribution, the Uniform distribution, the Gamma distribution, the Beta distribution. The properties of these distribution including their expected values and variance. The moment generating function, its examples and properties. (The treatment in this paper is restricted to one–dimensional random variable only).

Book Recommended:

1. Meyer, P.L. Introductory Probability and Statistical Applications, Addison—Wesley, (1970).

Books Suggested for Supplementary Reading

1. Biswal, P.C., Probability and Statistics, Prentice Hall, India, 2007.
2. Ross, S.A. First Course in Probability, Sixth Edition, Pearson Education, 2007.
3. Hogg. R.V., Mcken, J.W. and Craig. A.T., Introduction to Mathematical Statistics, Pearson Education, 2007.
4. Miller, I, and Miller, M. Mathematical Statistics with Applications, Seventh Edition, Pearson Education, 2007.

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SEMESTER–I
APPLIED STATISTICS

PAPER–I: MATHEMATICAL METHODS–I

Time: 3 Hours **Marks: 50**

Instructions for the Paper Setters:

1. Question paper will consist of two sections. Each section will consist of five questions set from corresponding section of the syllabus.
2. The student will attempt five questions in all selecting at least two questions from each section.
3. Teaching time for Statistics would be six periods per week for each paper.

Section–A

Limits and continuity of functions, intermediate forms, derivatives and their geometrical interpretations. Successive differentiation. Applications of derivatives to maxima and minima, exponential and logarithmic functions, integrals of functions of one variable, geometrical interpretation of integral as area, integration of standard functions, integration by substitution and parts.

Section–B

Trigonometry: Definition of an angle, its various measures and relations between them, graphs, circular functions. Solution of Trigonometrical equations. Properties of triangle (Sine formula, and Tangent formula).

Books Recommended:

1. Loney, S.L. Plane Trigonometry, Part–I, Aitab Publishers and Publications,
2. Grewal, B.S., Elementary Engineering Mathematics, Khanna Publishers, 2007.

Books Suggested for Supplementary Reading:

1. Narayan, S., Differential Calculus, Shyamlal Charitable Trust, 2003.
2. Datta, U., Mohagaonkar, S.D. and Muktibodh, A.S., Algebra and Trigonometry, Prentice, Hall, 2007.

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SEMESTER–I
APPLIED STATISTICS

PAPER–II: MATHEMATICAL METHODS–II

Time: 3 Hours **Marks: 50**

Instructions for the Paper Setters:

1. Question paper will consist of two sections. Each section will consist of five questions set from corresponding section of the syllabus.
2. The student will attempt five questions in all selecting at least two questions from each section.
3. Teaching time for Statistics would be six periods per week for each paper.

Section–A

The solution of linear and quadratic equations in one variable, arithmetic geometric and harmonic progressions arithmetico–geometric progression, permutations and combinations, principle of induction.

Section–B

Binomial theorem for positive integral index. Coordinate Geometry : Equations of straight line, circle, parabola, ellipse and hyperbola.

Books Recommended:

1. Jain, P.K. and Ahmad, K.A., Text Book of Analytical Geometry of Two Dimensions, New Age International Publishers, 2004.
2. Allen, R.G.D., Mathematical Analysis for Economists, Macmillan India, Ltd. 2005.
3. Grewal, B.S., Elementary Engineering Mathematics, Khanna Publishers, 2007.

Book Suggested for Supplementary Reading:

1. Datta, U., Mohagaonkar, S.D. and Muktibodh, A.S. Algebra and Trigonometry, Prentice, Hall, 2007.

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I
CHEMISTRY

INORGANIC CHEMISTRY–I
(THEORY)

Time: 3 Hrs. **Marks: 35**
45 Hrs (3 Hrs/week)

The question paper shall consist of two parts as detailed below:–

Part A :- (Compulsory)
It shall consist of 8 very short answer type questions (Q. Nos. 1 to 8) from the entire syllabus and the maximum length of each question may not exceed 1/3rd of the page. Each question will be carrying one mark. **8 x 1 = 8 Marks**

Part B:-
It shall consist of three sections (Section I, II & III). It shall consist of 9 questions (Q. Nos. 9 to 17) from the entire syllabus. Each Section will consist of 3 questions from each Unit of syllabus. The maximum length of each question may not exceed 5 pages. The candidate will attempt two questions from each section. Each question will be carrying 4½ marks.
6 x 4½ = 27 Marks

SECTION–I

I. Atomic Structure **15 Hrs.**

Idea of de Broglie matter waves, Heisenberg uncertainty principle, atomic orbitals, Schrodinger wave equation, significance of ψ^1 and $\psi 2$, quantum numbers, radial and angular wave functions and probability distribution curves, shapes of s,p,d orbitals. Aufbau and Pauli exclusion principles, Hund's multiplicity rule. Electronic configurations of the elements and ions.

II. Periodic Properties

Position of elements in the periodic table; effective nuclear charge and its calculations. 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.

SECTION–II

III. Chemical Bonding **15 Hrs**

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. BeF_2 , BF_3, CH_4, PF_5, SF_6, IF_7, $SnCI_2$, XeF_4, BF_4, $SnC1_6$. Valence shell electron pair repulsion (VSEPR) theory to NH_3, H_3O+, SF_4, CIF_3, ICl_2 and H_2O. MO theory, homonuclear (elements and ions of 1st and 2nd row), and heteronuclear (BO, CN^-, CO, NO^+, CO^+, CN), diatomic molecules, multicenter bonding in electron deficient molecule (Boranes). Percentage ionic character from dipole moment and electronegativity difference.

SECTION–III

IV. Ionic Solids **15 Hrs**

Concept of close packing, Ionic structures, (NaCI type, Zinc blende, Wurtzite, CaF_2 and antifluorite, radius ratio rule and coordination number, limitation of radius ratio rule, lattice defects, semiconductors, lattice energy and Born–Haber cycle, solvation energy and solubility of ionic solids, polarizing power and polarisability of ions, Fajan's rule. Metallic bond– free electron, valence bond and band theories.

Weak Interactions –Hydrogen bonding, Vander Waals forces.

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SEMESTER–I

CHEMISTRY

ORGANIC CHEMISTRY–I
(THEORY)

Time: 3 Hrs.
45 Hrs. (3 Hrs./Week) **Marks: 35**

The question paper shall consist of two parts as detailed below:–

Part A:- (Compulsory)
It shall consist of 8 very short answer type questions (Q. Nos. 1 to 8) from the entire syllabus and the maximum length of each question may not exceed 1/3rd of the page. Each question will be carrying one mark. **8 x 1 = 8 Marks**

Part B:-
It shall consist of three sections (Section I, II & III). It shall consist of 9 questions (Q. Nos. 9 to 17) from the entire syllabus. Each Section will consist of 3 questions from each Unit of syllabus. The maximum length of each question may not exceed 5 pages. The candidate will attempt two questions from each section. Each question will be carrying 4½ marks. **6 x 4½ = 27 Marks**

SECTION–I

I. Structure and Bonding **(5 Hrs.)**

Hybridization, bond lengths and bond angles, bond energy, localized and delocalized chemical bond, Vander Waals interactions, resonance, hyperconjugation, aromticity hydrogen bonding and Inductive and electrometric effects.

II. Mechanism of Organic Reactions **(6 Hrs.)**

Curved arrow notation, drawing electron movements with arrows, half–headed and double–headed arrows, homolytic and heterolytic bond breaking. Types of reagents – electrophiles and nucleophiles. Types of organic reactions. Energy considerations.
Reactive intermediates –Carbocations, carbanions, free radicals, carbenes, arenes and nitrenes (with examples). Assigning formal charges on intermediates and other ionic species.

III. Alkanes **(4 Hrs.)**
Isomerism in alkanes, sources, methods of formation (with special reference to Wurtz reaction, Kolbe reaction, Corey–House reaction and decarboxylation of carboxylic acids), physical properties and chemical reactions of alkanes. Mechanism of free radical halogenation of alkanes: orientation, reactivity and selectivity.

SECTION–II

IV. Cycloalkanes: (**5 Hrs.)**

Baeyer's strain theory and its limitations. Ring strain in small rings (cyclopropane and cyclobutane), theory of strainless rings. The case of cyclopropane ring : banana bonds.

V. Arenes and Aromaticity **(10 Hrs.)**

Nomenclature of benzene derivatives. The aryl group. Aromatic nucleus and side chain. Structure of benzene: Molecular formula and Kekule structure. Stability and carbon carbon bond lengths of benzene, resonance structure, MO picture.

Aromaticity : the Huckel's rule, aromatic ions.

Aromatic electrophilic substitution–general pattern of the mechanism, role of σ and π complexes. Mechanism of nitration, halogenation, sulphonation, mercuration and Friedel Crafts reaction. Energy profile diagrams. Activating and deactivating substituents, orientation and ortho/para ratio. Side chain reactions of benzene derivatives. Methods of formation and chemical reactions o f alkylbenzenes.

SECTION–III

VI. Stereochemistry of Organic Compounds **(15 Hrs.)**

Concept of isomerism. Types of isomerism. Optical isomerism, elements of symmetry, molecular chirality, enantiomers, stereogenic centre, optical activity, properties of enantiomers, chiral and achiral molecules with two stereogenic centres, diastereomers, threo and erythro diasteremers, meso compounds, resolution of enantiomers, inversion, retention and racemization. Relative and absolute configuration, sequence rules, D & L and R & S systems of nomenclature. Geometric isomerism–determination of configuration of geometric isomers. E & Z system of nomenclature. Conformational isomerism–conformational analysis of ethane and n–butane; conformation of cyclohexane, axial and equatorial bonds, conformation of mono substituted cyclohexane derivatives. Newman projection and Sawhorse formulae, Fischer and flying wedge formulae. Difference between configuration and conformation.

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SEMESTER–I
CHEMISTRY

(PRACTICAL)

Duration: 3½ Hrs. **Marks: 30**
6 Period/Week

Inorganic Chemistry: Semi Micro analysis. Cation analysis, Separation and identification of ions from groups I, II, III, IV, V, and VI. Anionic analysis. Four ions with no interference.

Organic Chemistry Laboratory Techniques
Determination of Melting Point

Naphthalene 80–82^{o}C	Cinnamic acid 132.5–133^{o}C
Benzoic acid 121.5–122^{0}C	Salicylic acid 157.5–158^{o}C
Urea 132.5–133^{o}C	Acetanilide 113.5–114^{o}C
Succinic Acid 184.5–185^{o}C	m–dinitro benzene 90^{o}C
P–dichlorobenzene 52^{o}C	Aspirin 135^{o}C

Determination of Boiling Point

Ethanol 78^{o}C	Cyclo Hexane 81.4^{o}C,
Benzene–80^{o}C	Toluene 110°C

Practical Examination

1) Inorganic Mixture	18
2) Melting Point/Boiling point of organic substance	05
3) Viva–Voce	04
4) Note Book	03

SEMESTER–I
PHYSICS

PAPER–A: MECHANICS
(THEORY)

Time: 3 Hours **Marks: 35**
Total Teaching Hrs: 40
Pass Marks: 35%

Instructions for the Paper Setters:

There will be five sections. Section A will consist of eight short answer type questions covering the whole syllabus and is compulsory. Sections B, C, D and E will consist of two questions each. The candidates are required to attempt one from each section. All questions carry equal marks.

UNIT–I

Cartesian and spherical polar co–ordinate systems, area, volume, velocity and Acceleration in these systems. Solid angle, Relationship of conservation laws and symmetries of space and time.

UNIT–II

Various forces in Nature (Brief introduction) centre of mass, equivalent one body problem, central forces, equation of motion under central force, equation of orbit and turning points. Kepler Laws. Concept of Ether and Michel son–Morley experiment.

UNIT–III

Inertial frame of reference. Galilean transformation and Invariance. Non Inertial frames, coriolis force and its applications. Variation of acceleration due to gravity with latitude. Focault pendulum.

UNIT–IV

Elastic collision in Lab and C.M. system, velocities, angles and energies, crosss section of elastic scattering, Rutherford scattering. Rigid Body motion; Rotational motion, principal moments and Axes. Euler's equations, precession and elementary gyroscope.

Books Suggested:

1. Mechanics, Berkeley Vol.–I by C. Kittle.
2. Mechanics, H.S. Hans & S.P. Puri.

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SEMESTER–I
PHYSICS

PAPER–B: ELECTRICITY AND MAGNETISM
(THEORY)

Time: 3 Hours **Marks: 35**
Total Teaching Hrs: 40
Pass Marks: 35%

Instructions for the Paper Setters:
There will be five sections. Section A will consist of eight short answer type questions covering the whole syllabus and is compulsory. Sections B, C, D and E will consist of two questions each. The candidates are required to attempt one from each section. All questions carry equal marks.

UNIT–I

Basic ideas of Vector Calculus Gradient, Divergence, curl and their physical significance. Laplacian in rectangular, cylindrical and spherical coordinates. Coulomb's Law for point charges and countinuous distribution of charges. Electric field due to dipole, line charge and sheet of charge. Electric flux, Gauss's Law and its applications. Gauss's divergence theorem and differential form of Gauss's Law. Green's theorem.

UNIT–II

Work and potential difference. Potential difference as line integral of field. Electric potential due to a point charge a group of point charges, dipole and quadrupole moments, long uniformly charged wire, charged disc. Stoke's theorem and its applications in Electrostatic field, curl E=0. Electric fields as gradient of scalar potential. Calculation of E due to a point charge and dipole from potential. Potential due to arbitrary charge distribution and multipole moments.

UNIT–III

Poisson and Laplace's equation and their solutions in Cartesian and spherical coordinates. Concept of electrical images.Calculation of electric potential and field due to a point charge placed near an infinitely conducting sheet.Current and current density, equation of continuity. Microscopic form of Ohm's Law (J= E) and conductivity, Failure of Ohm's Law. Invariance of charge.

UNIT–IV

E in different frames of reference. Field of a point charge moving with constant velocity. Interaction between moving charges and force between parallel currents. Behaviour of various substances in magnetic field. Definition of M and H and their relation to free and bound currents. Permeability and susceptibility and their interrelationship. Orbital motion of electrons and diamagnetism.

Books Suggested:

1. Fundamentals of Electricity and Magnetism by Arthur F. Kipp.
2. Electricity and Magnetism, Berkeley Physics Course, Vol. II by E.M. Purcell.
3. Introduction to Classical Electrodynamics by David Griffith.
4. EM Waves and Radiating System by Edward C. Jordan and K.G. Balmain.
5. Fields and Waves Electromagnetic by David K. Cheng.

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SEMESTER–I
PHYSICS
(PRACTICAL)

General Guidelines for Practical Examination:

I. The distribution of marks is as follows : **Marks: 30**
   - i) One experiment **15 Marks**
   - ii) Brief Theory **5 Marks**
   - iii) Viva–Voce **5 Marks**
   - iv) Record (Practical file) **5 Marks**

II. There will be one sessions of 3 hours duration. The paper will have one session. Paper will consist of 8 experiments out of which an examinee will mark 6 experiments and one of these is to be allotted by the external examiner.

III. Number of candidates in a group for practical examination should not exceed 12.

IV. In a single group no experiment be allotted to more than three examinee in any group.

1. To study the dependence of moment of inertia on distribution of mass (by noting time periods of oscillations using objects of various geometrical shapes but of same mass).
2. To establish relationship between torque and angular acceleration using fly wheel.
3. To find the moment of inertia of a flywheel.
4. Study of bending of beams and determination of Young's modulus.
5. Determination of Poisson's ratio for rubber.
6. To determine energy transfer, coefficient of restitution and verify laws of conservation of linear momentum and kinetic energy in elastic collisions using one dimensional collisions of hanging spheres.
7. Melde's experiment.
8. Measure time period as a function of distance of centre of suspension (oscillation) from centre of mass, plot relevant graphs, determine radius of gyration and acceleration due to gravity.
9. Find the value of 'g' by Kater's pendulum.
10. Measure time period of oscillation of a Maxwell needle and determine modulus of rigidity of the material of a given wire.
11. To measure logarithmic decrement, coefficient of damping, relaxation time, and quality factor of a damped simple pendulum.

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SEMESTER–I
B.SC. GEOGRAPHY (GEOPHYSICS)

GEOPHYSICS–I (GENERAL GEOLOGY)
(THEORY)

Max. Marks: 100
Time: 3 Hours **Theory Marks: 70**
Teaching Hrs: 70 **Practical Marks: 30**
Pass Marks: 35%

Instructions for the Paper Setters:

There will be five sections. Section A will consist of seven short answer type questions covering the whole syllabus and is compulsory. Sections B, C, D and E will consist of two questions each. The candidates are required to attempt one from each section. All questions carry equal marks.

UNIT–I

Rock forming minerals, different type of rock structures; igneous, sedimentary and metamorphic rocks, their formation, metamorphism and charcteristics. Rock weathering, growth and nature of soils.

UNIT–II

Structural features: salt domes, plugs, igneous intrusions and volcanic eruptions.

UNIT–III

Tectonic features: The classification and criteria for recognition of joints, folds and faults, Various types of joints faults and folds; normal fault, reverse or thrust fault, strike slip, transcurrent or wrench faults.

UNIT–IV

The outline of geological formation and the rock types of India. Classification of mineral deposits. Distribution of minerals in India. Harozoic history of the Shivaliks of Himachal Pradesh (India).

Text & Reference Books:

1. Elements of Physical Geology by A. Holmes

2. Geology of India by D.N. Wadia

3. Ore Deposits of India by Gokhale and Rao

4. India's Mineral Deposits by Krishna Swamy

5. Historical Geology and Stratigraphy of India by Ravinder Kumar

LAB PRACTICAL

Marks: 30

Teaching Hrs. 40

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SEMESTER–I
HOME SCIENCE
(THEORY)
FAMILY RESOURCE MANAGEMENT & HYGIENE

Time: 3 Hours **Max. Marks: 100**
6 Periods/week **Theory Marks: 60**
Practical Marks: 40

Instructions for the Paper Setters:

The question paper will consist of five sections A, B, C, D and E. Section A, B, C, D will have two questions each from the respective sections of the syllabus & Candidates are required to attempt one question from each section. Section E is Compulsory of 12 marks consist of 6 short type questions which will cover the entire syllabus uniformly.

Section–A

Home : Meaning and importance of Home Science

Functions of Home

Renting v/s owning

Selection of site, soil, locality for a house

Principles of planning a house, orientation aspect, prospect, privacy, roominess, grouping, flexibility, circulation, sanitation, furniture requirement and practical considerations.

SECTION–B

Elements of Art: line, form, shape, texture, size.

Principles of Art in relation to interior decoration, Harmony, Balance, Rhythm, Proportion and Emphasis.

Colour

Characteristic of colour

Colour wheel

Colour schemes

d) Use of colour in Int. Decoration for various rooms.

SECTION–C

1. Hygiene

a) Definition of hygiene.

b) Definition of infection, sources, carrier and control.

c) Definition and types of immUNITy

2. Causes and Spread of following Diseases

a) Caused by insects–malaria, dengue.

b) Conveyed by ingestion–Enteric fever, Jaundice, Dysentery, and Diarrhea.

c) Spread by droplet infection, chicken pox, measles, and mumps tuberculosis.

d) Sexually transmitted diseases–AIDS.

SECTION–D

3. Food Hygiene

a) Food Hygiene – Definition

b) Hygiene during preparation, service and storage of food.

c) Food poisoning, causes and prevention.

d) Purification and storage of Water for home.

SEMESTER–I

HOME SCIENCE

FAMILY RESOURCE MANAGEMENT

(PRACTICAL)

Time: 3 Hours **Marks: 40**

4 Periods/week

Cleaning & polishing of household metals, brass, copper, silver, gold, aluminum, iron, steel, non stick pans, plastic.

Colour Wheel.

Colour Schemes– Monochromatic, Analogous, Complementary. Prepare any five texture sheets using Fevicol, Spray, Stencil, Thread, Pulling, Crayons marbling etc.

Floor decoration of Alpana & Rangoli for different Occasions.

Instruction for the practical examiner:

There will be three questions from the syllabus. The division of marks will be as follows:

Cleaning of metal.	**10 Marks**
Color schemes/textured sheet.	**10 Marks**
Rangoli/alpna	**10 Marks**
File and viva	**10 Marks**

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SEMESTER–I

COSMETOLOGY
(THEORY)

Time: 3 hrs. **Max. Marks: 100**
Periods/Week-6 **Theory Marks: 40**
Practical Marks: 60

Instructions for the Paper Setters:

Note: Question Paper will consist of 3 sections follows:-

Section–A: It will consist of 10 objective questions carrying 1 mark each. All questions are compulsory.
Section–B: It will consist of 7 short questions of 4 marks each. Students will attempt 4 questions.
Section–C: 4 questions will be set by the examiner and candidate will be required to attempt any 2 and each question will carry 7 marks.

1. Cosmetology
a) Introduction
b) Aims and Importance

2. Skin:
a) What is Skin?
b) Structure of skin
c) Functions of skin
d) Types of skin
e) Common skin problems

3. Personal Grooming:
a) Personal Hygiene
b) Care of mouth, teeth, ears, feet, removing body hair, skin care and cosmetics, care of hair, nail and hand care, care of your clothing.

4. Massage:
a) Theory of massage
b) Benefits of massage
c) Basic knowledge of facial muscles

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SEMESTER–I

COSMETOLOGY
(PRACTICAL)

Time: 4hrs. **Marks: 60**
Periods/Week – 6

Note: Paper will be set on the spot by the examiner.

Project file will be evaluated by External Examiner which carries – 10 marks.

1. **Massage:**

a) Methods of massage

b) Massage Techniques

2. **Facial Treatments:**

a) Knowledge of skin analysis

b) Facial Massage

3. **Skin Treatments:** Different types of skin treatments with the help of natural ingredients like packs, masks and creams for different skins.

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SEMESTER–I

CLINICAL NUTRITION AND DIETETICS (VOCATIONAL)
PAPER–A: BASIC NUTRITION

(THEORY)

Time-3 hrs **Marks: 40**
Pds-4/Week

INSTRUCTIONS FOR THE PAPER SETTER:

- Theory paper will be of 3 hrs duration.
- Question paper should cover all the topics of the syllabus.
- There will be 8 questions in all (8 marks for each question)
- The Student need to attempt 5 questions.
- Question 1 is compulsory. This contains short answer type questions.

OBJECTIVE:

- To understand the relationship between nutrition and human well being.
- To know the functions, sources and deficiencies of nutrient in human body.

COURSE CONTENT

UNIT–I

1. Introduction to nutrition- Food as a sources of nutrients, functions of food, definition of Nutrition, nutrients, adequate, optimum and malnutrition.
2. Classification of food.
3. Importance and functions of food.

UNIT–II

1. Carbohydrates - Composition, classification, functions, food sources, requirement, deficiencies.

UNIT–III

1. Fats and Oils- Composition, Classification, Saturated, Unsaturated fatty acids, food sources, Functions, requirement and deficiencies.

UNIT–IV

1. Protein - Composition, Classification, Essential and Non- essential amino acids, food Sources, functions, deficiencies.

SEMESTER–I

UNIT–V

1. Energy- Unit of energy, food as a source of energy, energy value of food, body need of energy.
2. Factors affecting energy requirement:
   a) Determination of energy value of foods using calorimeter
   b) Specific Dynamic action
   c) Basal Metabolism
   e) Determination of basal metabolism
   f) Factors affecting the BMR

UNIT–VI

1. Vitamin- Classification, unit of measurements sources, requirements functions and deficiency of following vitamins.
   (a) Fat Soluble vitamins A,D,E and K
   (b) Water Soluble vitamins- C, B1-B2, B3, B6, B12 and Folic acid.

UNIT–VII

1. Mineral- Functions, Sources, Bio-availability requirement and deficiency of following Minerals:
   a) Calcium, iron, iodine, fluorine, Sodium, Potassium, Phosphorus, and Magnesium'.

UNIT–VII

Methods of cooking: Boiling, Steaming, frying, baking, roasting, Braising and micro-wave cooking.

Methods of enhancing nutritive value of food: fermentation, sprouting, & supplementation.

SEMESTER–I

CLINICAL NUTRITION AND DIETETICS (VOCATIONAL)
BASIC NUTRITION
(PRACTICAL)

Pds- 3pds/ week

(THERE WILL BE NO PRACTICAL EXAM)

1) Identification of different food stuffs, weight and measures and cooking terms.
2) Beverage- e.g. Hot and cold (Tea, Coffee, fruit and milk based, beverage) etc.
3) Prepare 5 dishes using following methods:
   (a) Boiling: Pulses, rice, soups, desserts, etc.
   (b) Shallow Frying: Pancakes, snacks, etc.
   (c) Deep Frying: Sweet and savory snacks, main dishes, etc.
   (d) Fermenting and Steaming: Idli, dosa, dhokla, etc.
   (e) Supplementatation; cereal-pulse combination, cereal-vegetables combination etc.

References:

1. Guthrie, Hele, Andrews, Introductory Nutrition, 6th ed.ion St. Louts, Times Mirror/Mosby College: 1988.
2. Mudambi S.R. M.V. Rajgopal. Fundamental of Foods & Nutrition (2nd ed.) Wily Eastern Ltd. 1990.
3. Swaminathan S: Advanced text book on foods Nutrition, Vol. I, II (2nd ed. Revised & enlarged) B. app C-1985.

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SEMESTER–I

CLINICAL NUTRITION AND DIETETICS (VOCATIONAL)

PAPER–B: NUTRITIONAL BIOCHEMISTRY
(THEORY)

Time-3 hrs **Marks: 40**
Pds-4/Week

Instructions for the Paper Setters:

- Theory paper will be of 3 hrs duration.
- Question paper should cover all the topics of the syllabus.
- There will be 8 questions in all (8 marks for each question)
- The Student need to attempt 5 questions.
- Question 1 is compulsory. This contains short answer type questions.

OBJECTIVE

- This Course help, students to gain understanding of the application of Biochemistry to foods, Nutrition and diet theory.

COURSE CONTENT

1. Carbohydrate Metabolism - Digestion, Absorption, Glucose, Transport Glycloysis, Metabolism of lactate, and pyruvate, citric acid cycle, glucneoogensis, HMP Shunt pathway.
2. Lipid Metabolism- Digestion- Absorption, transport oxidation of fatty acids, biosynthesis of fatty acids mobilization of fats (lipolysis), Ketogensis, Metabolism of phospholipids and cholesterol.
3. Amino acid metabolism- Digestion, Absorption, Transport, General Pathways, Biochemical , Transformations and metabolism.
4. Enzymes - Definition, Classification, Specificity of enzymes and factors affecting enzyme activity.
5. Basal Metabolism - Definition and factors affecting basal metabolism, Specific dynamic action of food stuffs, Estimation of B.M.R.
6. Metabolism of inorganic element, calcium, iron, phosphorus and magnesium.
7. Water and electrolyte balance.

SEMESTER–I

CLINICAL NUTRITION AND DIETETICS (VOCATIONAL)
PAPER–B: NUTRITIONAL BIOCHEMISTRY
(PRACTICAL)

Time-3 Hours **Marks: 20**
3 pds/Week

Note- Paper will be set on the spot by the examiner

1. Qualitative analysis of monosaccharide's, disaccharides and polysaccharides.
2. Quantitative estimation of Glucose.
3. To test the reactions of proteins fats and carbohydrates in milk, egg and brea
4. To find out adulteration in food stuffs.

References:

1. Lehnuger: A.L. Nelson D Cox MM, Principles of Biochemistry, 1993, 2nd Edition, CBS Publication.
2. Singh Sukhdev, Dr. Om Parkash, PV's Bio Chemistry and Clinical Pathology 2005, Edition, S. Vikas & Co.

SEMESTER–I

FASHION DESIGNING AND GARMENT CONSTRUCTION (VOCATIONAL)

FASHION DESIGNING–I
(THEORY)

Time: 3 Hrs. **Max. Marks: 100**
Periods 3/week **Theory Marks: 40**
Practical Marks: 60

Instructions for the Paper Setters:

Eight questions will be set; students are required to attempt any 5 questions, carrying 8 marks each.

1. Introduction fashion fad, Style, Classic, Trends, Mass fashion, High fashion.
2. Origin of Clothing.
3. Theories of Fashion adoption.
4. Fashion cycle and factors affecting it.
5. Elements of Design and Principles related to Apparel designing

SEMESTER–I

FASHION DESIGNING AND GARMENT CONSTRUCTION (VOCATIONAL)

SCALE DRAWING AND GARMENT CONSTRUCTION (PRACTICAL)

Time: 4 Hrs **Marks: 60**
Periods 2x6/week

Instructions for the Paper Setters:

1. Construction of any one sample from Section A. **Marks: 25**
2. Two questions from Part B. **Marks: 25**
3. File Work. **Marks: 10**

SECTION–A

1. Make Samples of the Following :

a) Tacking, Running, Hemming, Back stitch, Button hole, Fasteners.

b) Seams: Plain seam, Counter seam, Run & fell seam, French seam.

c) Continuous wrap, Two piece placket, Plain dart, Fish dart, Gathers, Tucks.

2. Draft and Construct the following:

a) Child Bodice block and plain sleeve block

b) Sleeves : i) Puff ii) Cap iii) Petal

c) Collars : i) Peter pan (Flat/ Raised) ii) Sailor's Collar

SECTION–B

3. 1.Basic block figure
2. Distribution of Weight
3. Flesh Figure
4. Formulae of hand and Feet
5. Formulae of Face
6. Leg formulae
7. Necklines and collars
8. Sleeves and cuffs
9. Skirts–Pleats, gathers, frills, fringes

4. Colour Wheel 1. Colour Schemes – Monochromatic, Analogous, Complementary.

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SEMESTER–I

EARLY CHILDHOOD CARE AND EDUCATION (THEORY)

Time: 3 Hrs. **Maximum Marks: 100**
Periods/week: 6 **Theory Marks: 60**
Practical Marks: 40

Instructions for the Paper Setters:
Ten questions will be set; students are required to attempt any 6, carrying 10 marks each.

Course Contents:

1. Definition & Importance of Child Development, Stages of Child Development.
2. Principles of Development.
3. Factors affecting Development.
4. Care of Mother: Pregnancy, Discomforts, physical & psychological care, preparation for delivery.
5. Growth & Development during Pre–Natal period, Factors affecting Pre–Natal Development.
6. Reflexes of new born child.
7. Care of Infant: Breast feeding, Bottle feeding, Weaning
8. Clothing for the Infant.
9. Immunization Schedule.
10. Common Childhood Diseases: common cold, cough, fever, measles.

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SEMESTER–I

EARLY CHILDHOOD CARE AND EDUCATION

(PRACTICAL)

Time: 3 Hrs **Marks: 40**
Periods 4/week

Instructions for the Paper Setters:
Question Paper will be set on the spot by the examiner

Distribution of marks for practical examination

Written Practical:	**10 Marks**
Class Performance:	**10 Marks**
Practical File:	**5 Marks**
Oral Examination:	**5 Marks**
Preparation of Activity Material:	**10 Marks**

Course Contents:

1. Immunization schedule. Time–Table
2. Feeding Practices:
    a) Sterilization of Feeding bottles
    b) Preparation of formula milk
3. Weaning Foods: Importance, Preparation of 5 weaning foods.
4. Make a suitable Toy for an Infant.

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SEMESTER–I

FOOD SCIENCE AND QUALITY CONTROL (VOCATIONAL)

FSQC (I): FOOD CHEMISTRY AND NUTRITION (THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 75
Practical Marks: 25

Instructions for the Paper Setters:
Question paper will cover both the main topics and divided into three parts. Each part contains atleast two questions and students will be asked to attempt five questions in all with at least two from each part and not more than two from any part.

PART–I

1. Introduction to nutrition–food as a source of nutrients, function of foods, definition of nutrition, nutrients, adequate, optimum and good nutrition, malnutrition.
2. Inter–relationship between nutrition and health–parameters of good health.
3. Food guide–basic five food groups – Importance, uses.
4. Food Metabolism – digestion, absorption, transport, utilization of nutrients in the body.
5. Water–function, sources, requirement, water balance, effect of deficiency on health.
6. Carbohydrate—composition, classification, food sources, storage in body, reaction, structure, functions of mono,oligo and poly saccharides in foods.
7. Fat and oils—composition, saturated, unsaturated fatty/acids, food sources, functions of fats. Nomenclature classification. Physical and chemical properties Emulsions and emulsifiers. Role of fat and oil in food processing and its organoheptic characteristics.
8. Proteins—composition essential, non–essential amino acids, sources of protein, functions, protein deficiency diseases.
   Physico–chemical properties. Modification of Food protein during processing and storage.
9. Energy—unit of energy, food as a source of energy, calorific value of food need for energy, Basic metabolic role, utilization of fat energy requirement.
10. Minerals, function, source, bio–availability, deficiency of calcium, iron, iodine, fluorine, sodium potassium.
11. Vitamins: classification, sources, functions and deficiency, diseases of following vitamins :–

a) Fat soluble vitamins – Vitamin. A,D,E & K
b) Water soluble vitamins: vitamins C & B–Complex

12. Recommended dietary Requirements: Nutrient requirement for adult men & women as per ICMR.
13. Enzymes: Nomenclature definition, specificity, catalysis, enzyme, kinetics, Factors influencing enzyme activity, controlling enzyme action. Role of enzymes in food processing, modification of food by endogenous enzyme. Enzyme inhabitors in foods.
14. Pigments sources, chemical and physical properties, effect of processing and storage on pigments.
15. Flavours – vegetable, fruits, spice and sea foods fermented products.

PART–II

16. **Cereals & Pulses:**
Cereals and millets, breakfast cereals, cereal products, fast foods structure, processing, use in variety of preparations, selection, variety storage, nutritional aspects and cost. Pulses & legumes– Production (in brief) selection and variety, storage, processing, use in variety of preparations, nutritional aspects and cost.
17. **Milk and Milk Products :**
Composition, classification, quality processing, storage, spoilage, uses, cost, nutritional aspects of milk curds, butter milk paneer, khoa, cheese; ice–cream, kulfi and various kinds of processed milk.

PART–III

18. **Egg:** Production, grade, quality, selection storage, spoilage, uses, cost and nutritional aspects.
19. **Fish, Poultry and Meat:**
Selection, purchase, storage, uses, cost and nutritional aspects, spoilage of fish, poultry & meat.
20. **Vegetables & Fruits:**
Variety, selection, purchase, storage availability, cost use and nutritional aspects of raw and processed vegetables and fruits.
21. **Fats & Oils:**
Types and sources of fats and oils (animal and vegetable) Processing uses, storage, cost and nutritional aspects.
22. **Sugar & Sugar Products:**
Different forms of sugar, (sugar, jaggery, honey syrup) manufacture, selection, storage & use preserves.
23. Salt types, uses in the diet.
24. Convienence Foods. Tea, coffee, choclate and coca powder.
25. Processing cost and nutritional aspects.

References:

1) Guthrie, hele, andrews, Introductory Nutrition 6th ed. St. Louis, Times Mirror/Mosby College, 1988.
2) Mudambi S.R., M.V. Rajgopal, Fundamentals of Foods and nutritions (2nd ed.) Wiley Eastern Ltd., 1990.
3) Swaminathan S.: Advanced text book of Foods Nutrition Vol. 1,11, (2nd ed. revised & enlarged) B.app.C. 1985)
4) Willson, PVAD, Principles of Nutrition, 4th ed. New York John Willey & Sons, 1979.
5) Food Chemistry, ed. Or Feneema 2nd ed.
6) Food Chemistry, Mian Hoagland Meger
7) Food Chemistry He Mann

Book Recommended:

1. Food Chemistry by O.R. Fennema, 3rd ed, 1996, CRC Press, USA.

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SEMESTER–I
FSQC–2: FOOD CHEMISTRY AND NUTRITION (PRACTICAL)

Marks: 25

List of Practical

1. Determination of acid value.
2. Determination of lodine value.
3. Determination of saponification value.
4. Quantitative value (testing of proteins, lipids and carbohydrates in different foods.
5. Estimation of Vitamin C.
6. Separation of aminoacids by chromatography (paper in exchange column).
7. Clorination of water.
8. Determination of food enzymes.
9. Determination of fibres content in food.
10. Salt determination in food products.
11. Estimation of Volatile and nonvolatile acids in vinegar.
12. Estimation of fat in food sample by Soxhlet apparatus.
13. Cream separation, neutralization and ripening of milk.
14. Preparation of butter.
15. Preparation of Ghee.

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SEMESTER–I
FINE ARTS

FINE ARTS (DRAWING & PAINTING)

Max. Marks: 100

Paper A:	Theory	(50 Marks)
Paper B:	Practical – Still **Life**	(25 Marks)
Paper C:	Practical – Letter **Writing**	(25 Marks)

Note: Instructions for the Paper Setters:

(a) 50 Marks for the theory paper and 25 marks for each practical

(b) The question paper will cover the entire syllabus.

(c) Questions should be based on world famous painting and sculptures whose slides are easily available.

(d) Question paper should cover the syllabus uniformly.

(e) The paper setter should set the paper in two sections, A and B.

(f) The division of the marks will be as under:

Section–A: 25 marks for 25 objective questions. Each question carries 1 mark.

Section–B: 25 marks for 5 questions. The examiner will set 8 questions. The candidate will attempt 5 questions of 5 marks each.

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SEMESTER–I
FINE ARTS

PAPER–A: HISTORY OF INDIAN PAINTING
(THEORY)

Time: 3 Hrs. **Marks: 50**

1. **Pre–historic Paintings: Bhim Bhetka Caves**
2. **Six limbs of Indian Painting (Shadanga)**
3. **Elements of Art**
4. **Principles of Art**
5. **Ajanta Paintings**
   - (i) Boddhisatva Padampani
   - (ii) Mother and child before Buddha
   - (iii) Chhadanta Jataka
   - (iv) Dying Princess
   - (v) Dream of Maya
6. **Sculptures of Indus Valley**
   - (i) Dancing Girl
   - (ii) Priest
   - (iii) Mother Goddess
   - (iv) Pashupati Seal

SEMESTER–I
FINE ARTS

PAPER–B: STILL LIFE (DRAWING) (PRACTICAL)

Time: 5 Hrs **Marks: 25**

Objects to Study: Proportion, Volume, Texture, Study of Light and Shade.

Number of Objects: Three objects excluding drapery.

Medium: Oil/Water/Pastel Colours

Size: ½ Imperial

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SEMESTER–I
FINE ARTS

Time: 5 Hrs **PAPER–C: LETTER WRITING (PRACTICAL)** **Marks: 25**

Study of different styles of alphabets

Creative writing of different styles

Language: Any

Medium: Poster Colours/Indian Ink

Size: ½ Imperial

Design (Textile) – Design should be based on natural, decorative and geometrical motifs.

(Border, Corner, allover designs should be submitted).

Medium – Fabric Colours on cloth.

Candidates will submit:–

5 sheets of still life, 3 Designs on cloth, 3 sheets of letter writing on different creative styles
Sketch book containing 50 sketches.

Note: The paper setter should set the Paper C only on letter writing. The topic will be given by two examiners.

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SEMESTER–I

HISTORY OF ART

Time: 3 Hours **Max. Marks: 100**

Note: (a) The question paper should cover entire syllabus. It will contain subjective short questions.

(b) The paper–setter should set 12 questions in all. Students will attempt 10 questions of 10 marks each.

PART–I

History of Indian Mural Painting from earliest time to C 9th Century A.D. Pre–historic painting: the cave shelters of Central India; Ajanta, Bagh, Badami, Sittanavasal and Ellora.

PART–II

History of Indian Sculpture from the earliest times to 3rd century A.D. Indus Valley; Mauryas; Bharhut; Sanchi; Amaravati; Nagar Junikonda; Mathura under the Kushana Gandhara.

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SEMESTER–I

GEMOLOGY AND JEWELLERY DESIGN (VOCATIONAL)
(THEORY)

Max. Marks: 100
Theory Marks: 50
Practical: Marks: 50

Time: 3 Hrs.

Instructions for the Paper Setters:

Section–A: Ten questions will be set by the examiners. All questions are compulsory. Each question carries 2 marks. 10x2=20 marks

Section–B: Five Questions will be set by the examiner and the candidate will attempt any three questions of 10 marks each. 3x10=30 marks.

Brief history of Jewellery of

(i) Indus Valley,
(ii) Shunga period,
(iii) Gupta Period,
(iv) Mughal period.

2. Introduction to Jewellery – (i) Fine Jewellery (ii) Costume Design Jewellery
3. Indian Tribal Jewellery
4. Symbolic Jewellery of South India

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SEMESTER–I

GEMOLOGY AND JEWELLERY DESIGN (VOCATIONAL)

DESIGN (PRACTICAL)

Time: 5 Hours **Marks: 50**

Instruction for the paper setters:

The Paper will be set by the external examiner on the spot out of prescribed syllabus.

1. Exercises on
   i) Pencil Control
   ii) Drawing & Shading in 2 Dimensional and 3 Dimensional objects
   iii) Motif development for jewellery design
2. Development of Plain and Simple Design for necklaces, pendants, earrings
3. Collecting and recognizing forms for designing and using them in their designs

(Medium–Watercolour pencils)

Each student has to submit 20 designs of necklace with earrings, pendent sets, and other accessories at the end of semester.

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STILL PHOTOGRAPHY & AUDIO PRODUCTION
(THEORY)

Time: 3 Hours **Max. Marks: 100**

Theory Marks: 50

Practical Marks: 50

Instructions for the Paper Setters:

Total no. of questions to be set: 20

Total no. of questions to be attempted: 12

Question paper is divided in two parts.

Section–A: It will consist of 15 questions. Student will attempt 10 questions. Each question will carry 3 (three) marks.

(Total: 30 Marks)

Section–B: It will consist of 4 questions. Student will attempt 2 questions. Each question will carry 10 (ten) marks.

(Total: 20 Marks)

Course Contents:

a) Concepts: Introduction to Communication: Concept, Process & Functions.
Intra–personal, Inter– personal, Group and Mass Communication.
Feedback evaluation of Communication Barriers of communication.

b) Verbal Communication: Concept and Practice, Language and Mass Communication, Language uses in different mass media, Language and Society.

c) Non–Verbal Communication, Para Language, Dress And Body Language
Non–Verbal Communication and Mass Communication.

d) Properties of light, electromagnetic spectrum, theories of light transmission, spectrum, dispersion, reflection, transmission, refraction, polarization, Controlling light pin–hole camera, simple concave convex, mirror lenses.

e) What is Camera & types of Camera, tools of dark rooms, (B & W) accessories.

Suggested Readings:

Sr. No.	Book Name	Author
1.	Hand Book of Journalism & Mass Communication	Mr. Vir Bala Aggarwal
2.	Basic Photography	John Hedgecoe
3.	35 mm Photography	Bavister

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SEMESTER–I
STILL PHOTOGRAPHY & AUDIO PRODUCTION

BASIC PHOTOGRAPHY
(PRACTICAL)

Time: 6 Hours **Marks: 50**

Instructions for the Paper Setters:

1. The paper will be set by the external examiner on the spot considering the syllabus.
2. Creative work on the part of the students is to be emphasized.
   Technical competence is expected. The students should also use updated and latest techniques in his/her work.
3. Photographs clicked during examination are supposed to be submitted by the student in the form of C.D. or D.V.D. as desired by the examiner.

Instructions for Students:

1. Attendance in departmental seminars and extension lectures and college tours shall be obligatory for all students.
2. Students are not allowed to use previous clicked Photographs.
3. Sizes of photographs will be given by External Examiner (Class– Teacher) as per requirement.

Course Contents:

1. Mechanism Shutter, aperture, focus, camera body, film transport, view finder.
2. Comparison/ classification of camera their focusing mechanism, view finder, range finder T.C.R.S.C.R. films format: large, medium miniature disc etc.
3. Handling of camera.
4. Loading and shooting B/W films.
5. Effects of aperture.
6. Effects of shutter speed.
7. Making of grey scale.

Suggested Readings:

Sr. No.	Book Name	Author
1.	Hand Book of Journalism & Mass Communication	Mr. Vir Bala Aggarwal
2.	Basic Photography	John Hedgecoe
3.	35 mm Photography	Bavister

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COMMERCIAL ART

ART APPRECIATION AND ADVERTISING (THEORY)

Max. Marks: 100
Time: 3 Hours **Theory Marks: 50**
Practical Marks: 50

Instructions for the Paper Setters:

1. No. of questions to be set : 15
2. No. of questions to be attempted: 10
3. The questions are to be equitably distributed among all the topics of the Syllabus.
4. Each question will carry 5 marks.

Course Contents:

- Definition of Color. Elements of colors: Primary Colors, Secondary Colors, Tertiary Color. Tones in Colors. Detailed Significance of each Color.
  Importance of Color.
- Logo and Monogram.
- What is Commercial Art and use of Commercial Art.

Suggested Readings:

Sr. No.	Book Name	Author
1.	2000 Color Palette Swatches	Graham Davis
2.	Logo Cafe	Page 1 Publisher

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COMMERCIAL ART

GREETING CARDS AND LOGO (PRACTICAL)

Time: 6 Hours **Marks: 50**
Size: ¼ imperial
Medium: Poster Color/ Ink

Instructions for the Paper Setters:

1. The paper will be set by the Examiner on the spot considering the syllabus.
2. Imaginative and Creative work on the part of the students is to be emphasized. Imagination and Technical competence is expected. The students should also use updated and latest techniques in his/her work.

Instructions for the Students:

1. Attendance in departmental seminars and extension lectures and college tours shall be obligatory for all students.
2. Minimum 2 works should be enhanced in Photoshop.
3. Size: As required.

Course Contents:

Greeting Cards: Greeting Cards, Greeting Card Envelopes, Gift Paper Designing, Gift Name Card Designing and Bookmark Designing.
Logo: Logos, Monograms, Visiting Cards, Letterheads and Envelopes.

Suggested Readings:

Sr. No.	Books Name	Author
1.	Logo Café	Page 1 Publisher
2.	Logo Design	ED Julius, Viedemall Taschan Publisher
3.	Letter Head & Logo Design	Design Army, Rock Pot Publisher

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Faculty of Visual Arts & Performing Arts)

SEMESTER–I

SCULPTURE
(THEORY)

Time: 3 Hours **Max. Marks: 100**

Theory Marks: 50

Practical Marks: 50

Instructions for the Paper Setters:

1. The question paper should cover the practical syllabus also.
2. The paper setter should set 8 questions in all and students will have to attempt five questions in all.
3. Each question will carry 10 marks.

What is Sculpture, Meaning of Relief and Round Sculpture, Quality and Preparation of Clay, Form and Shape, Clay Modeling and Carving, Process of Plaster mould and Casting, Composition, Texture, Contours, Uses of Material in Sculpture.

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Visual Arts & Performing Arts)

SEMESTER–I

SCULPTURE
(PRACTICAL)

Time: 6 Hours **Marks: 50**

1. Low Relief in Terracotta (Total No. 2) (Based on natural and geometrical form)
2. Mix Media (Total No. 2) (Paper Clay, Wire, M–Seal etc.)
3. Mask. (Total No. 2) (Paper, Plaster on Paper Mache)

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Visual Arts & Performing Arts)

SEMESTER–I
MUSIC (VOCAL)
(THEORY)

Max. Marks: 100
Theory: 3 Hours **Theory Marks: 50**
Practcal Marks: 50

Teaching 3 Periods per week

Note: There should not be more than ten students in one group of Practical class.

Instructions for the Paper Setters/Examiners:

1. There should not be more than ten students in a batch for practical examination.
2. Harmonium will be allowed as accompaniment in Vocal Music.
3. While sending the syllabus to paper setter in theory the syllabus prescribed for the practical paper should also be sent.
4. The paper setter will set **Eight** questions in all. The candidate may be asked to attempt **Five** questions in all.
5. The Practical Paper will be of 50 Marks for Private and Regular candidates.
6. Candidate can take both subjects i.e. Vocal & Instrumental Music as elective subject.
7. Candidate can take Tabla subject along with Music Vocal or Music Instrumental.

Course Contents:

1. Historical Development of Indian Music in Vedic Period.
2. Definition and explanation of the following Musical Terms: Sangeet, Swar, Naad, Gram, That.
3. Method of tuning your instrument (Tanpura).
4. Contribution and Life Sketches of the following musicians: Tansen, Swami Hari Das, Abdul Karim Khan.

5. Description and notation of the following Ragas: Durga, Bhairav, Kalyan.
6. Description and notation of the following Taals: Teentaal, Dadra.
7. Elementary knowledge of Wedding Song of Punjabi culture with special reference to Ghorian.
8. Elementary Knowledge of the following non – detailed Ragas: Kalingra, Shudh Kalyan, Asa.
9. Contribution of Sri Guru Nanak Dev Ji towards Indian Music.
10. Definition and explanation of the following terms in the contexssst of Gurmat Sangeet: Raga, Mohalla, Rahao, Rababi.

SEMESTER–I
MUSIC (VOCAL)

(PRACTICAL)

Time: 20 Minutes **Marks: 50**

Teaching 9 Periods per week

1. One Drut Khayal in each of the following Ragas with simple Alaps and Tanas: Durga, Bhairv, Kalyan.
2. One Vilambit Khayal in any of the Ragas prescribed in the course with simple Alaps and Tanas.
3. One Shabad from Ragas prescribed.
4. Ability to play five alankars on the Harmonium based on the Thatas of prescribed Ragas in the course.
5. Ability to recite Teental and Dadra showing Khali Tali with hand motion in Ekgun, Dhugan Layakaries.
6. Recitation of Ghorian.

Books Recommended:

1. Rag Parichya Part – I, II, and III by Shri Harish Chnder Srivastava.
2. Sangeet Shastra Darpan Part – II (Punjabi) published by Punjabi University, Patiala.
3. Sangeet Vishard Sangeet Karayalya, Hathras.
4. Sangeet Shastra Darpan Shanti Govardhan.
5. Hamare Sangeet Rattan Sangeet Karyalaya, Hathras.
6. Kramik Pustak Malika by Vishnu Narayan Bhathkhande.
7. Sangeet Nibandhavli, Dr. Gurnam Singh, published by Punjabi University, Patiala.
8. Sikh Dharam Ate Bhakti Sangeet, Dr. Jitender Kaur.
9. Gurmat Sangeet (Vishesh Ank) Amrit Kirtan Trust, 422, 15/A, Chandigarh.

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Visual Arts & Performing Arts)

SEMESTER–I
MUSIC (INSTRUMENTAL)
(THEORY)

Max. Marks: 100
Time: 3 Hrs. **Theory Marks: 50**
Practical Marks: 50

Teaching 3 periods per week

Note:–There should not be more than Ten Students in one group of practical class.

Instructions for the Paper Setters/Examiners:

1. There should not be more than ten students in a batch for practical examination.
2. While sending the syllabus to paper setter in theory the syllabus prescribed for the practical paper should also be sent.
3. The paper setter will set eight questions in all. The candidate may be asked to attempt five questions in all.
4. The practical paper will be of 50 marks for private and regular candidates.
5. Candidate can take both subjects .i.e Instrumental music and Vocal music as elective subjects.
6. Candidate can take Tabla subject along with instrumental music or vocal music.

Course Contents:

1. Define Raag, Explain its Rules and Jatis.
2. History of your own instrument.
3. Definition and Explaination of the following musical terms:– Sangeet, Shruti, Swar, Saptak, Aaroh,Avroh,Pakad and Thata.
4. Define laya and taal, its types and features:– vibhag, matra, taali, khali, sam.
5. Life–Sketch and Contribution of the following musicians:– Allaudin khan, Pt.Ravi Shankar & Prof. Tara Singh.

6. Description and Notation of the following ragas:– Kalyan, Bilawal, Vrindavani Sarang.
7. Brief knowledge of the following ragas:– Shudh Kalyan, Alhaiya Bilawal & Madhmadh Sarang (aaroh,avroh and pakad).
8. Brief knowledge of the following Talas:– Teen taal and Dadra taal.
9. Contribution of Guru Arjun Dev ji towards Indian music.
10. Definition and explanation of the following terms in the context of Gurmat Sangeet: Raga, Mohalla, Rahao, Rababi.

Books Recommended:

1. Raag Parichey (Part 1, 2) by H.C.Shrivastava.
2. Sangeet Shaster Darpan (Part–1, 2) by Shanti Gowardhan.
3. Sangeet Visharad, Sangeet Karyalaya Hathras.
4. Hamare Sangeet Ratan.
5. Punjab Ki Sangeet Prampara by Geeta Paintal.
6. Sangeet Subodh by Dr.Davinder Kaur
7. Gurmat Sangeet (Vishesh Ank) Amrit kirtan Trust, Chandigarh.

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Visual Arts & Performing Arts)

SEMESTER–I
MUSIC (INSTRUMENTAL)
(PRACTICAL)

Time: 20 Minutes **Marks: 50**

Teaching 9 periods per week

1. Ability to play Ten Alankars on your Instrument.
2. One Razakhani Gat in each of the following ragas with toras and jhalla:– Raag Kalyan, Bilawal & Vrindavani Sarang.
3. One Maseetkhani Gat in any ragas prescribed in the course.
4. Brief knowledge of following non detailed Ragas Shudh Kalyan, Alhaiya Bilawal & Madhmadh Sarang.
5. Ability to recite Teen taal and Dadra taal by hand in ekgun and dugun layakaries.
6. Ability to play five alankars on harmonium.

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SEMESTER–I
INDIAN CLASSICAL DANCE
(THEORY)

Max. Marks: 100
Time: 3 Hrs. **Theory Marks: 50**
Practical Marks: 50

Teaching 3 periods per week

Note: There should not be more than ten students in a group of practical class.

Instructions for the Paper Setters/Examiners:

1. There should not be more than ten students in one batch for practical examinations.
2. Harmonium will be allowed as accompaniment to perform Nagma.
3. While sending the syllabus to paper setter in theory the syllabus prescribed for the practical paper should also be sent.
4. The practical paper will be of the 50 marks for the private & regular candidates.
5. The paper setter will set **Eight** questions in all. The candidate may be asked to attempt **Five** questions in all.
6. Candidates can take Dance as elective subject along with music vocal or music Inst. **Or** Tabla.

Course Contents:

1. Definition of the following:–Theka, Tatkar, Thaat, Amad, Salami, Tora, Paran, Tehai.
2. Knowledge of: Ang, Pratyang, Upang
3. Study of Rasa and their importance in Kathak Dance.
4. Origin and development of Kathak Dance from Ancient to Mughal period.
5. Knowledge of the Folk Dances of Punjab with their style, costume and music.
6. Role of Dance in Society.

7. Notation of Teen Taal with its:
   (a) Tatkar in Thaah, Dugun and Chaugun Layakaries.
   (b) Thaat – 2
   (c) Tehai – 1
   (d) Amad – 1
   (e) Salami – 1
   (f) Tora – 2
   (g) Paran – 1
   (h) Chakardar Paran – 1
   (i) Kavit – 1

8. Description of following talas with their Thaah, Dugun, Tigun and Chaugun Layakaries of Thekas.
   (i) Teentaal (ii) Tilwara (iii) Kehrva

9. Recognition of the following taals through some bols given by the examiner:
   (a) Teentaal (b) Tilwara (c) Kehrva

10. Notation of Nagma in Teen Taal.

SEMESTER–I
INDIAN CLASSICAL DANCE
(PRACTICAL)

Time: 20 Minutes **Marks: 50**

Teaching 9 periods per week

Practical demonstration of the following:

1. **Teen Taal its:**
   (a) Tatkar in Thaah, Dugun, Tigun and Chaugun Layakaries.
   (b) Thaat – 2
   (c) Tehai – 1
   (d) Amad – 1
   (e) Salami – 1
   (f) Tora – 2
   (g) Paran – 1
   (h) Chakardar Paran – 1
   (i) Kavit – 1

2. Padhant of whole material by hand in all Taal mentioned above.
3. Recognition of the compositions such as Tehai, Layakaries etc. composed by the Examiner.
4. Practice of Hand movements with Tal.
5. Ability to demonstrate Punjabi Folk Dance.
6. Ability to play Nagma on Harmonium in Teen Taal.

Books Recommended:

1. Kathak Nritya Ka Prichey — Subhashni Kapoor, Radha Publications, New Delhi, 1997.
2. Kathak Sundaryatmak Shashtriya Nritya — Shikha Kharey, Knishka Publishers, New Delhi, 2005.
3. Atihasik Pripeksh Mein Kathak Naritya — Maya Tak, Knishka Publishers, New Delhi, 2006.
4. Nibandh Sangeeet — Laxmi Naryan Garg, Sangeet Karyalya, Hathras, 2004.
5. Kathak Naritya Shiksha — Dr. Puru Dadhich, Bindu Parkashan, Ujjain (MP.)

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I

TABLA
(THEORY)

Time: 3 Hrs. **Max. Marks: 100**
Theory Marks: 50
Practical Marks: 50

Teaching 3 Periods per week

Note: There should not be more than ten students in one group of practical class.

Instructions for the Paper Setters/Examiners:

1. There should not be more than ten students in a batch for practical examinations.
2. Harmonium will be allowed as accompaniment to perform the Nagma.
3. While sending the syllabus to paper setter in theory the syllabus prescribed for practical paper should also be sent.
4. The paper–setter will set eight questions. The candidate will be asked to attempt five questions.
5. The practical paper will be of the 50 marks for the private & regular candidates.
6. Candidate can take Tabla subject with Vocal or Instrumental Music (Sitar, Sarangi, Veena, Sarod, Dilruba, Violin, Guitar, Bansuri, Shehnai, Rabab, Saranda, Taus, Santoor and any other Swar Vadhya to the played on the basis of Indian Classical Music).

Course Contents:

1. Definitions with full explanations of the following: Dayan, Bayan, Laya, Avartan, Tala, Qayada, Tihaai, Laggi.
2. Ten Paraans of Tala.
3. Importance of tala in Music and Dance.
4. Life & Contribution of the following Musicians in the field of Tabla Vadan:–
   Zakir Husain Khan, Anindo Chatterjee, Pt Kishan Maharaj.
5. Origin & Development of Tabla and its present form.
6. Notation and Comparative study of the following Taals:–
   Teentaal – Tilwara, Ektaal – Chautal.
7. Notation and description of the following :–
   i) Teental (Peshkara, Two Quadas with Four Paltas, Two mukhras, Two Tihaais, Two Parans, Two Tukdas.)
   ii) Rupak– (Peshkar, Quadas, Tukra, Laggi, Tihaai)
8. Job Avenues and Scope of Tabla learning in th field of Music.
9. Detailed Study of Gharanas in tabla vaadan.
10. Role of Tabla in Gurmat Sangeet.

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I

TABLA
(PRACTICAL)

Time: 20 Minutes **Marks: 50**
Teaching 9 Periods per week

1. Talas Prescribed: Dadra, Kaharva, Teental, Ektal.
2. Laggis in Dadra and Kaharva.
2. Teental Peshkara–Two Quadas with Four Paltas each, Two Mukhras, Two Tukra, Two Tihaais.
3. Ektal–One quada, Two Tukra, Two Tihaais.
4. Practice of playing the above taals with Vocal and Instrumental performance.
5. Practice of Dholak playing in Kaharva Tal.
6. Ability to play Nagma on harmonium in Teental.
7. Tuning of Tabla.

Books Recommended:

1. Sangeet Visharad: Basant, Sangeet Karyalaya Hathras, 2004.
2. Tal Prabandh: Pt. Chhote Lal Misher Knishka Publisher, New Delhi, 2006.
3. Bharti Sangeet Vadhya: Lal Muni Misher, Bhartiya Gayan Peeth Parkashan, 1973.
4. Hamare Sangeet Rattan: Sangeet Karyalaya Hathras, 1978.
5. Tal Martand: Sataya Narayan Vishesht Sangeet Karyalaya Hathras, 1994.
6. Tal Parichaie Part I-IV Garish Chandar Srivastav Sangeet Karyalaya Hathras
7. Tal Parkash Bhagwat Sharan Sharma Sangeet Karyalaya Hathras
8. Sangeet Mein Tal Vadon Ki Upyogita Chitragupta Radha Publication New Delhi 1992

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Faculty of Engineering & Technology)

SEMESTER–I

COMPUTER SCIENCE

COMPUTER FUNDAMENTAL & PC SOFTWARE

(THEORY)

Time: 3 Hours **Max. Marks: 100**

4 Hours/week **Theory Marks: 75**

Practical Marks: 25

Instructions for the Paper Setters:

(i) Eight questions are required to be set giving the equal weightage to all the units. The candidates will be required to attempt any five questions. All questions will carry equal marks.

(ii) Practical marks will include the appropriate weightage for proper maintenance of Lab record.

(iii) The students can use only Non Programmable & Non Storage Type Calculator.

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UNIT–I

1. Introduction to computer and its uses: milestones in hardware and software. Batch oriented/Online/real time application.
2. Computer as a system: basic concepts: stored programs, functional units and their inter –relation: communication with the computer.
3. Data storage devices and media: primary storage: storage addressed, and capacity, type of memory: secondary storage; magnetic tape – data representation and R/W: magnetic disc, fixed & removable, data representation and R/W, floppy disc drives, Winchester disc drive, conventional disc drives, Data organization, Compact Disc.
4. Input/Output devices: Key–tape/diskette devices, light pen mouse and joystick, source data automation (MICR, OMR, and OCR), screen assisted data entry; portable/hand held terminals for data collection, vision input system.
5. Printed output: Serial, line, page, printers; plotters, visual output; voice response units.

UNIT–II

Introduction to Windows based operating system and Desktop icons

UNIT–III

MS–Office:

Introduction to Word, Introduction to Parts of Word Window (Title Bar, Menu Bar, Tool Bar, The Ruler, Status Area), Page Setup, Creating New Documents, Saving Documents, Opening an Existing documents, insert a second document into an open document, Editing and formatting in document, Headers and Footers, Spell Checking, Printing document, Creating a Table Using the Table Menu and table formatting, Borders and Shading, Templates and Wizards, Mail Merge

MS Power Point:

Introduction to MS Power point, Power point elements, Templates, Wizards, Views, Exploring Power Point Menu, Working with Dialog Boxes, Adding Text, Adding Title, Moving Text Area, Resizing Text Boxes, Adding Art, Starting a New Slide, Starting Slide Show, Saving presentation; Printing Slides, Views (View slide sorter view, notes view, outlines view) Formatting and enhancing text formatting, Creating Graphs (Displaying slide show and adding multi–media)

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Engineering & Technology)

SEMESTER–I
COMPUTER SCIENCE

PRACTICAL

Marks: 25

2 Hours/week

Practical based on Computer Fundamental & PC Software
Windows, MS Word, Power Point,

References:

1. R.K. Taxali: Introduction to Software Packages, Galgotia Publicaions.
2. MS–Office 2003 compiled by SYBIX
3. MS–Office 2003 BPB Publications.
4. Introduction to Computer by P.K. Sinha
5. Windows Based Computer Courses by Gurvinder Singh & Rachpal Singh, Kalyani Publishers.

SEMESTER–I
INFORMATION TECHNOLOGY (VOCATIONAL)

COMPUTER FUNDAMENTAL & OFFICE AUTOMATION
(THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 75
Practical Marks: 25

Instructions for the Paper Setters:

(i) Eight questions are required to be set giving the equal weightage to all the units. The candidates will be required to attempt any five questions. All questions will carry equal marks.
(ii) Practical marks will include the appropriate weightage for proper maintenance of Lab record.
(iii) The students can use only Non Programmable & Non Storage Type Calculator.

UNIT–I

Fundamentals:

Basic Block Diagram of the Computer System, Basic Elements of the Computer System (CPU, Keyboard, Mouse, Monitor), Generations of computers, Computer Number System BIT, Byte, binary, Decimal, Hexadecimal, Octal system, Conversion from one System to another, Binary Arithmetic Subtraction, Multiplication), Input Devices (Keyboard, Mouse Joystick, light pen, and trackball), Output Devices (Monitors or Printers), Memories (Primary and Secondary), RAM, PROM, EPROM, EEROM), cache memory, Storage Devices (Floppy disk, hard Disk, compact Disk, tape)

Computer Languages: machine Language, assembly language, High level languages, operating System, Batch Processing multi–programming, time sharing.

UNIT–II

Windows: Windows concepts features, Windows structure, desktop, taskbar, start menu, My computer, recycle bin, Windows Accessories.

Word Processing: Introduction to Word, Introduction to Parts of Word Window (Title Bar, Menu Bar, Tool Bar, The Ruler, Status Area), Page Setup, Creating New Documents, Saving Documents, Opening an Existing documents, insert a second document into an open document, Editing and formatting in document, Headers and Footers, Spell Checking, Printing document, Using the Thesaurus, Using Auto Correct, Auto Complete and Auto Text, Creating a Table Using the Table Menu and table formatting, Borders and Shading, Templates and Wizards, Mail Merge, Drawing Objects, Using Frames to position Objects, Handling Graphics, Tables and Charts.

UNIT–III

Worksheets: MS–Excel: Creating worksheets, entering data into worksheet, saving & quitting worksheet, opening and moving around in an existing worksheet, Toolbars and menus, Working with single and multiple workbook, Working with formulae, formatting of worksheet.

MS Power Point: Introduction, elements, Text, Title, Sliders Formatting and enhancing text formatting, Views, Creating Graphs, Displaying slide show and adding multi–media.

PRACTICAL

1. On the basis of Computer Fundamental & Office Automation: **Marks: 25**

Books Recommended:

1. M.S. Office, The Complete Reference by Keitel, McGraw Hill.
2. Office XP the Complete Reference by Kelly, Edition 2001, McGraw Hill.
3. B.RAM, "Computer Fundamental" First Edition, Dhanpat Rai & Sons Pub.
4. Peter Norton, "Introduction to Computers" 6th Edition 2004, McGraw Hill, HTML, DHTML Java Script, "Gyan Bayrose" 3rd Edition BPB.

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Engineering & Technology)

SEMESTER–I
COMPUTER MAINTENANCE

PRINCIPLE OF ELECTRONICS
(THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 75
Practical Marks: 25

Instructions for the Paper Setters:

(i) Eight questions are required to be set giving the equal weightage to all the units. The candidates will be required to attempt any five questions. All questions will carry equal marks.
(ii) Practical marks will include the appropriate weightage for proper maintenance of Lab record.
(iii) The students can use only Non Programmable & Non Storage Type Calculator.

UNIT–I

Introduction to Electronics: Voltage Source, Current Source, Electronic Components, CRO, Digital Multimeter.
Network Theorems: Thevenin's Theorem, Maximum Power Transfer Theorem, Norton's Theorem, Power Supplies.

UNIT–II

Semiconductor Devices: P–N Junction, Zener Diode, LEDs, Photodiodes, Transistors, Field Effect Transistor, Metal Oxide Field Efect Transistor.

UNIT–III

Digital Fundamentals: Number System, Logic Gates, Boolean algebra.
Digital Logic Circuits: Multiplexers, Demultiplexers, Encoders, Decoders, Flip–Flops, Counters, Shift Registers, Semiconductor Memories.

References:

1. Basic Electronics and Linear Circuits: NN Bhargava (TTTI Chandigarh) –Tata McGraw Hill, 2004.
2. Principles of Electronics V.K. Mehta–S. Chand–2004
3. Digital Computers Electronics: Malvino–Tata McGraw Hill 3rd Edition, 1995.

SEMESTER–I
COMPUTER MAINTENANCE

PRACTICAL

List of Practicals Based on Principle of Electronics **Marks: 25**

1. To Study the Characteristics of P–n junction diodes in forward bias.
2. To Study the Characteristics of P–n junction diodes in reverse bias.
3. To Study the Characteristics of transistor in common base mode.
4. To Study the Characteristics of zener diode.
5. To verify Thevenin's Theorem.
6. To verify maximum power transfer theorem.
7. To verify the truth tables of various logic gates.
8. To verify the truth tables of universal gates and construction of different gates from them.
9. To verify the truth tables of SR and JK flip–flops.

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I

COMPUTER APPLICATIONS (VOCATIONAL)

COMPUTER FUNDAMENTALS & PC SOFTWARE (THEORY)

Time: 3 Hours **Max. Marks: 100**
4 Hours /week **Theory Marks: 75**
Practical Marks: 25

Instructions for the Paper Setters:

(i) Eight questions are required to be set giving the equal weightage to all the units. The candidates will be required to attempt any five questions. All questions will carry equal marks.

(ii) Practical marks will include the appropriate weightage for proper maintenance of Lab record.

(iii) The students can use only Non Programmable & Non Storage Type Calculator.

UNIT–I

1. Elements of a Computer System:

1.1 What is a Computer?
1.2 Evolution of Computers, their classification and limitations, Computer organization.
1.3 Uses of Computers in modern society (e.g. Weather forecasting, Census, Oil Exploration, Speech Recognition, Banking, Publishing, Accounting, Research, etc.)
1.4 Characteristics of Desktop
1.5 Characteristics of Portables/Laptops
1.6 Introduction to Hardware, Software, Operating System, Translators.

2. Input Output Devices:

2.1 Input Devices and Functions
* Keyboard and teletypewriter terminals
* Joystick
* Mouse
* Light Pen
* Magnetic Tapes and cassettes
* Magnetic Disks
* Floppy and Winchester Disks
* Optical Marks Reader (OMR)
* Optical Character Reader (OCR)
* Magnetic Ink Character Reader (MICR)
* Punched Cards

2.2 **Output Devices and Functions:**

a) Visual Display UNIT (Monitor), Pixel & resolution, Monitors Size, Monochrome & Color, VGA & SVGA
b) Plotters
c) Printers
d) CTD

3. H/W Organization of a Desktop Computer:

3.1 Introduction to hardware components
3.2 C.P.U. Control units, ALU, Registers
3.3 Instruction Characteristic and Instruction Cycle
3.4 Memory
  a) RAM – Dynamic RAM, Static RAM
  b) ROM–PROM, EPROM, EEPROM
  c) Cache, Virtual, Extended and Expanded Memories
3.5 Secondary Memory (Storage devices)
  a) Floppy Disk
  b) Hard Disk
  c) DAT
  d) Video or Optical Disk (CD ROM)
  e) CTD
3.6 Moderns and its Types

UNIT–II

4. Basics of Windows Vista:

a) The Desktop, the Taskbar
b) Start Menu
c) Program, Document, Settings, Find, Help, Run, Shutdown
d) About the My Computer Icon
e) About the networking neighborhood Icon
f) Recycle bin
g) Folders–Creation and Definition
h) New Rules for File Names
i) Windows Explorer (Definition)
j) Shortcut Icons with creation and definition

UNIT–III

MS–Word 2003:

Introduction to Word, Introduction to Parts of Word Window (Title Bar, Menu Bar, Tool Bar, The Ruler, Status Area), Page Setup, Creating New Documents, Saving Documents, Opening an Existing documents, insert a second document into an open document, Editing and formatting in document, Headers and Footers, Spell Checking, Printing document, Creating a Table Using the Table Menu and table formatting, Borders and Shading, Templates and Wizards, Mail Merge Drawing Objects, Using Frames to position Objects.

MS Power Point 2003:

Introduction to MS Power point, Power point elements, Templates, Wizards, Views, Exploring Power Point Menu, Working with Dialog Boxes, Adding Text, Adding Title, Moving Text Area, Resizing Text Boxes, Adding Art, Starting a New Slide, Starting Slide Show, Saving presentation; Printing Slides, Views (View slide sorter view, notes view, outlines view) Formatting and enhancing text formatting, Creating Graphs (Displaying slide show and adding multi–media)

Text Books:

1. MS–Office 2003 Compiled by SYBIX
2. MS–Office 2003 BPB Publications.
3. Introduction to Computer by P.K. Sinha

PRACTICAL

2 Hours/week **Marks: 25**

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I

ELECTRONICS
PRINCIPLE OF ELECTRONICS–I (101)
(THEORY)

Time: 3 Hours **Marks: 40**

Instructions for the Paper Setters/Examiners:
1. Equal weightage should be given to each unit of the syllabus.
2. Question Paper should be set strictly according to the syllabus.
3. The distribution of marks is as given below:

Section A: It will consist of 10 (ten) very short answer type questions. All questions will be compulsory. Each question will carry 1 mark; total weightage of the section being 10 marks.

Section B: It will consist of short–answer questions. The examiner will set Fifteen (15) questions and the candidates will attempt ten (10) questions. Each question will carry 2 marks each, total weightage of the section shall being 20 marks.

Section C: It will consist of essay type questions. The examiner will set three (3) questions and the candidates will be required to attempt two (2). Each question will carry 5 marks each; total weightage of the section being 10 marks.

Note for Teacher / Student: Minimum number of hours for theory are three (3) = 4x45 minutes per week.

UNIT–I

Voltage source, Current source, Dependent source, Independent source, R parameters, L parameters, C parameters, Ohm's law, Kirchhoff's Current law, Kirchhoff's Voltage law. Methods of Analysing of Circuits: Analysis of one element kind network, loop node variable analysis, source transformations, Duality, Network topology, basic definitions and properties. Simple RC, RL, RLC, LC dc and ac circuits, concept of time constant. Effect and evaluation of initial conditions, Characteristics of sinusoidal —average, peak and effective values, Phasor representation, Impedance concept, Active power, reactive and complex power, power factor, Q of coil and capacitor, series resonance, parallel resonance, Bandwidth and selectivity.

Network Theorems and Transformation: Superposition theorem, reciprocity theorem, Thevenin's theorem, Norton's theorem, Maximum power transfer theorem, Tellegen's theorem.

UNIT–II

Junction Diode and their Atomic structure and energy levels of intrinsic semiconductors and extrinsic semiconductors. Semiconductor diode, diode under forward bias, Reverse bias, current voltage characteristics, diode breakdown, diode resistance, circuit model of PN diode, ideal diode. Zener diode (structure and characteristics), zener regulator. Photo diode, light emitting diode, solar cell and varactor diode

.

Application of Diode: Rectifier circuits: half wave, full wave, center tap and bridge), filters (shunt capacitor, series inductor, LC filter, filter).

UNIT–III

Transistors: Bipolar Junction Transistor, Characteristics and structure of BJT, transistor amplifying action, CB, CE, CC connection and their comparison, Transistor biasing, need of biasing, biasing circuits (Fixed bias, self–bias, potential divider bias).

Field Effect Transistor: Junction Field Effect Transistor (Physical structure, Principle of operation), Metal Oxide Field Effect Transistor (Physical structure, Principle of operation), Complimentary MOSFET (CMOS) (Physical structure only).

Recommended Books:

1. Basic Electronics & Linear Circuits by N.N. Bhargava (TMH) Reprint 2002.
2. Basic Electronics by B.L. Theraja (S. Chand & Co.), 1998.
3. Electronic Design from Concept to Reality by M.S. Roders, G.L. Carpenter, Shroff Publishers, Kolkata.
4. Network Analysis & Synthesis by Soni Gupta.
5. Network Analysis & Synthesis by R. Sudhakar.
6. Network Analysis & Synthesis by Van Valkenburg.

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Engineering & Technology)

SEMESTER–I

ELECTRONICS

DIGITAL ELECTRONICS–I (102)
(THEORY)

Time: 3 Hours **Marks: 40**

Instructions for the Paper Setters/Examiner:
1. Equal weightage should be given to each unit of the syllabus.
2. Question paper should be set strictly according to the syllabus.
3. The distribution of marks is as given below:

Section A: It will consist of 10 (ten) very short answer type questions. All questions will be compulsory. Each question will carry 1 mark; total weightage of the section being 10 marks.

Section B: It will consist of short–answer questions. The examiner will set Fifteen (15) questions and the candidates will attempt ten (10) questions. Each question will carry 2 marks each, total weightage of the section shall being 20 marks.

Section C: It will consist of essay type questions. The examiner will set three (3) questions and the candidates will be required to attempt two (2). Each question will carry 5 marks each; total weightage of the section being 10 marks.

Note for Teacher / Student: Minimum number of hours for theory are three (3) = 4x45 minutes per week.

UNIT–I

Binary System: Number system (Decimal, binary, octal, hexadecimal), binary addition and subtraction, negative number represntation, 1's complement, 2's complement of binary number, subtraction using 1's and 2's complement method.

UNIT–II

Digital Codes: Weighted Codes – Binary Coded Decimal (BCD), Unweighted Codes – Excess–3 Code, Gray Code, Code conversion— binary to BCD, BCD to binary, binary to Gray, Gray to binary, decimal to Excess–3.

UNIT–III

Boolean Algebra–Logic Gates–Karnaugh Map

Boolean Algebra, Logic Gates, universal property of NAND and NOR gates, Duality theorem, De Morgans' Laws, Minimization using Boolean algebra, Karnaugh mapping (up to 4 variables), SOP and POS form, Don't care terms.

Books Recommended:

1. Digital Design by Mano M. Morris (PHI), 3rd Edition, 2006.
2. Fundamentals of Digital Circuits by A. Anand Kumar, 2004 (PHI).
3. Digital Principles & applications by Leach & Donald (TMH), 6th Edition, 2006.
4. Digital Logic Design by Leach/Mal. (McGraw Hill), 2006.

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SEMESTER–I

ELECTRONICS

BASIC ELECTRONICS LAB-I (103)
(PRACTICAL)

Time: 3 Hours & 30 Minutes **Marks: 20**

Note:

1. *Perform two experiments at least one from each section*
2. *Minimum hours per week for practical 6.*

Section–A

1. Measurement of (1) voltage (dc and ac); (2) time period of a sinusoidal signal, (3) phase difference, using a cathode ray oscillocope.
2. Study of parallel and series resonance circuit (RLC circuit).
3. Transient Response of RC circuit:– To students the effect of RC time constant when square wave driving voltages of various time periods are applied across series RC circuit.
4. To verify (1) Thevemis's theorem; (2) Reciprocity theorem; (3) Maximum power transfer theorem. (4) Nortin theorem.

Section–B

1. To study a single–stage transistor CE amplifier.
2. To designs a transistor voltage amlifier having given specifications.
3. To design a regulated power supply using Zener diode.
4. To use a digital trainer to verify the given Bollean identity.

Books Recommended:

1. Basic Electronics and Linear Circuits by N.N. Bhargava et. al. (TMH, New Delhi).
2. Circuits and Systems by K.M. Soni (S.K. Kataria & Sons, New Delhi).
3. Digital Electronics Circuit and System by V.K. Puri (TMH, New Delhi).
4. Digital Design by M. Morris Mano (PHI, New Delhi).

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I

AUTOMOBILE MAINTENANCE (VOCATIONAL)
(THEORY)

Time: 3 Hours **Max. Marks: 100**
Periods per week: Theory: 6 **Theory Marks: 60**
Practical Marks: 40

Instructions for the Paper Setters:
Question paper should be set strictly according to the syllabus and preferably in Punjabi.
The language of the paper should be straight and simple Punjabi.

Theory shall consist of three parts:
(a) Ten short compulsory questions requiring short replies of five lines each. Each question carries one and half mark. **Total Marks: 15**
(b) Ten questions of six marks each giving to the points replies. Eight questions carrying twenty four marks will be attempted by the candidates. **Total Marks: 25**
(c) Two questions of descriptive types to be attempted by the condidates out of set of four questions. **Total Marks: 20**

Orientation of the Course:

UNIT–I

General Introduction to the Automobile:

Introduction, Light commercial vehicle, Medium & Heavy Commercial vehicle, Main parts of Automobiles, Body, Chassis, Main parts of Chassis, classification of Chassis with respect to fitting of Engines, Wheel Base, Front overhang, Gear overhang, Wheel Track. Long Wheel–base chassis.

UNIT–II

Shop Safety and Tools:

Safety in the shop. Safety rules. Measuring systems and measuring tools. Shop Hand Tools.

UNIT–III

Frames:

Introduction, Types of Frame, Types of sections used in Frame, Chassis Repair. Frameless Integral frame, properties of body of Vehicle, Safety standards for vehicles. Accidental Repair Special tools used for Denting.

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SEMESTER–I

AUTOMOBILE MAINTENANCE (VOCATIONAL) (PRACTICAL)

LAB–I

Time: 3 Hours **Marks: 40**
Period Per week Practical: 6

Practical:

1. Engine dismentling and assembling.
2. Valve Timings.
3. Ignition Timings.
4. Injection Timings.

References:

1. Basic Automobile Engineering Written by CP Nakra (Punjabi Edition) Published by Dhanpat Rai and Sons, Jalandhar, Delhi.
2. Automotive Mechanics William H. Crouse. (English Edition) Donald L. Angkin Published by Tata McGraw–Hill Publishing Company Ltd., New Delhi.

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Faculty of Engineering & Technology)

SEMESTER–I
REFRIGERATION & AIR CONDITIONING (VOCATIONAL)
(THEORY)

Time: 3 Hours **Max. Marks: 100**

Periods 6 Hours/week **Theory Marks: 60**

Practical Marks: 40

Instructions for the Paper Setters:

Section–A: It will consist of 10 very short answer questions with answer to each question upto five lines in length. All questions will be compulsory. Each question will carry one & half marks i.e. (1½ marks); total weightage of the section being 15 Marks.

Section–B: It will consist of short answer questions with answer to each question upto 2 pages in length. Eight questions will be set by the examiner and 5 will be attempted by the candidates. Each question will carry 4 marks; total weightage of the section being 20 marks.

Section–C: It will consist of essay type question with answer to each question upto 5 pages in length. Four questions will be set by the examiner & candidates will be required to attempt two. Each question will carry 12½ marks; total weightage of the section being 25 marks.

UNIT–I

Introduction: Basic concepts & definition Thermodynamics, System properties State process, Cycle, pressure, density specific volume. First & Second law of Thermodynamics, Processes, Constant volume, constant pressure, isothermal & isotropic etc.

a) **Work & Heat:** Work, power & energy Heat, sp. Heat, sensible heat Latent Heat of vapour & fusion specific Heat of gases & units of Heat.

b) **Elementry Heat Transfer:** Conduction operation, Radiation, Thermal conductivity & phase.

UNIT–II

Refrigeration: Terminology of Refrigeration; Definition of "TON" as applied to refrigeration. Methods of Refrigeration & applications, Definitions of C.O.P.; Refrigeration effect & work Input.

Refrigerants: Introduction, classification of Refrigerant, proporties of Important Refrigerants as (R–II, R–12, R–22, NH3 etc.) Secondary, Refrigerants & brines antifreozer solutions, selection of Refrigerant for required purpose.

Effect of Refrigerants on Environment: Introduction regarding Environmental friendly refrigerants.

UNIT–III

Vapour Compression System: Introduction, vapour compression cycle on PV.Ts & PH diagrams. Simple calculations on work done, C.O.P. etc.

Factors affecting the performance of vapour compression system, cycle description, C.O.P. Sub cooling super Heating, Multistage cascade system. Non–idealities, effects of pressure drop & non–isontropic compression. Calculation of ref. effect, power.

Vapour Absorption System: Simple absorption cycle, analysis with NH3–Water or Lithium bromide, C.O.P. use of Charts, Electral use system. Comparison of Vapour Compression with Z Vapour absorption system.

SEMESTER–I
REFRIGERATION & AIR CONDITIONING (VOCATIONAL)
PRACTICAL: LAB–I

Time: 3 Hours
Period Per week Practical: 6 **Marks: 40**

List of Experiments:

1. To study the basic tools eg. spanners, cutting & Throading tools, bending tools etc.
2. Cutting, flatting & joining of tubes.
3. Bending of tubes of diff. sizes.
4. Soldering, brazing & pinching of tubes.
5. Cutting of G.I. & Copper tubes.

List of Reference Books:

1. Ref & AC S. Domkundwar Dhanpat Rai
2. Ref & AC S.C. Arora —do—
3. A Course in P.L. Batlaney Khanna Ref. & A.C. M. Singh Khurmy Publishers Royal Pub.

SEMESTER–I

ਧਰਮ ਅਧਿਐਨ
ਧਰਮ, ਆਦਿ ਧਰਮ ਅਤੇ ਧਰਮ ਸੰਬੰਧੀ ਆਧੁਨਿਕ ਮੁੱਦੇ

ਸਮਾਂ: 3 ਘੰਟੇ **ਕੁਲ ਅੰਕ: 100**
ਲੈਕਚਰਾਂ ਦੀ ਗਿਣਤੀ: 75
ਪਾਸ ਹੋਣ ਲਈ ਅੰਕ: 35

ਪੇਪਰ ਸੈਟਰ ਲਈ ਹਦਾਇਤਾਂ:

ਪੇਪਰ ਦੇ ਪੰਜ ਭਾਗ ਹੋਣਗੇ: ੳ,ਅ,ੲ,ਸ, ਅਤੇ ਹ; ਭਾਗ ੳ,ਅ,ੲ,ਸ ਵਿਚੋਂ 2–2 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਵਿਦਿਆਰਥੀਆਂ ਨੇ ਇਕ–ਇਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਹੋਵੇਗਾ ਅਤੇ ਹਰ ਇਕ ਪ੍ਰਸ਼ਨ ਦੇ 15 ਅੰਕ ਹੋਣਗੇ। ਭਾਗ ਹ ਵਿਚੋਂ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ 10 ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹੋਣਗੇ, ਜਿਹੜੇ ਸਾਰੇ ਸਲੇਬਸ ਵਿਚੋਂ ਹੋਣਗੇ ਅਤੇ ਉਨ੍ਹਾਂ ਦੇ 40 ਅੰਕ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ 4–4 ਅੰਕ ਹੋਣਗੇ।

ਪ੍ਰੀਖਿਆਰਥੀ ਲਈ ਹਦਾਇਤਾਂ:

ਭਾਗ ੳ,ਅ,ੲ,ਸ ਵਿਚੋਂ ਕੇਵਲ ਇਕ–ਇਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਹੈ ਅਤੇ ਭਾਗ ਹ ਦੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਜ਼ਰੂਰੀ ਹਨ।

ਭਾਗ (ੳ): ਧਰਮ ਦੀ ਆਮ ਜਾਣਕਾਰੀ

1. ਧਰਮ: ਪਰਿਭਾਸ਼ਾ ਤੇ ਸਰੂਪ
2. ਧਰਮ ਤੇ ਦਰਸ਼ਨ: ਸਮਾਨਤਾ ਅਤੇ ਅੰਤਰ
3. ਧਰਮ ਤੇ ਨੈਤਿਕਤਾ: ਸਮਾਨਤਾ ਅਤੇ ਅੰਤਰ

ਭਾਗ (ਅ): ਆਦਿ ਧਰਮ

1. ਪ੍ਰਾਚੀਨ ਮਨੁੱਖ ਅਤੇ ਉਸਦਾ ਧਰਮ: ਕੁਦਰਤ ਦੀ ਕਰੋਪੀ ਤੇ ਧਰਮ ਦਾ ਆਰੰਭ
2. ਮੁਢਲੇ ਧਾਰਮਿਕ ਵਿਸ਼ਵਾਸ: ਐਨੀਮਿਜ਼ਮ, ਮਾਨਾ, ਟੋਟਮ, ਫਿਟਿਸ਼
3. ਧਾਰਮਿਕ ਪ੍ਰਗਟਾਵੇ: ਜਾਦੂ, ਟੈਬੂ, ਮਿਥ

ਭਾਗ (ੲ): ਧਾਰਮਿਕ ਸੰਸਕਾਰ

1. ਧਾਰਮਿਕ ਸੰਸਕਾਰ: ਅਰਥ ਅਤੇ ਸਰੂਪ
2. ਜਨਮ, ਧਰਮ–ਪ੍ਰਵੇਸ਼, ਵਿਆਹ ਅਤੇ ਮ੍ਰਿਤਕ ਸੰਸਕਾਰ
3. ਧਾਰਮਿਕ ਤਿਉਹਾਰਾਂ ਦਾ ਸਮਾਜਿਕ–ਧਾਰਮਿਕ ਮਹੱਤਵ

ਭਾਗ (ਸ): ਧਰਮ ਸੰਬੰਧੀ ਆਧੁਨਿਕ ਮੁੱਦੇ

1. ਧਰਮ ਅਤੇ ਸਮਾਜ ਦਾ ਸੰਬੰਧ
2. ਮਾਨਵਵਾਦ
3. ਵਿਸ਼ਵ–ਸ਼ਾਂਤੀ ਅਤੇ ਸਹਿਹੋਂਦ

ਸੁਝਾਈਆਂ ਪੁਸਤਕਾਂ ਦੀ ਸੂਚੀ:

ਗੁਪਤਾ, ਸ਼ਾਂਤੀ ਨਾਥ, *ਭਾਰਤੀ ਦਰਸ਼ਨ (ਪੰਜਾਬੀ),* ਸਟੇਟ ਯੂਨੀਵਰਸਿਟੀ ਟੈਕਸਟ ਬੁੱਕ ਬੋਰਡ, ਚੰਡੀਗੜ੍ਹ, 1974.

ਦਲਜੀਤ ਸਿੰਘ, *ਭਗਵਦ ਗੀਤਾ* (ਪੰਜਾਬੀ ਅਨੁਵਾਦ)।

ਨਿਰਾਕਾਰੀ, ਆਰ.ਡੀ., *वैदिक शासतरों का समाजिक परिचय (हिंदी),* ਵੇਦਾਂਤ ਪ੍ਰਕਾਸ਼ਨ, ਪਟਿਆਲਾ, 1973.

ਪੰਨੂ,ਹਰਪਾਲ ਸਿੰਘ, *ਭਾਰਤ ਦੇ ਪੁਰਾਤਨ ਧਰਮ*, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2000

ਭੱਲਾ, ਬੀ. ਐਸ. ਰਾਇ, *ਆਧੁਨਿਕ ਭਾਰਤੀ ਦਰਸ਼ਨ ਦੀਆਂ ਕੁਝ ਮੁੱਖ ਪ੍ਰਵਿਰਤੀਆਂ*, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 1997.

English Book:

1. Harbans Singh & L.M.Joshi, *An Introduction to Indian Religions*, Punjabi University, Patiala.

Hindi Book:

1. ਲਾਲ, ਬਸੰਤ ਕੁਮਾਰ, ਸਮਕਾਲੀ ਭਾਰਤੀਯ ਦਰਸ਼ਨ, ਮੋਤੀ ਲਾਲ ਬਨਾਰਸੀ ਦਾਸ, ਦਿੱਲੀ, 2006.

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Humanities & Religious Studies)

SEMESTER–I

PHILOSOPHY
ELEMENTARY PHILOSOPHY

Time: 3 Hours **Max. Marks: 100**

Lectures to be delivered: 6 per week
Pass Marks 35%

Note:- Instructions for the Paper Setters:-

The question paper will consist of five sections A, B, C, D and E. Sections A,B,C and D will have two questions from the respective sections of the syllabus and will carry 15 marks each. Section E will consist of 10 short answer type questions and will cover the entire syllabus uniformly and will carry 40 marks in all, each short answer type question carrying 4 marks.

Instructions for the candidate
Candidates are required to attempt one question each from the sections A, B, C and D of the question paper and the entire Section E.

SECTION–A

1. An Introduction to Philosophy: Definition, Meaning and Uses
2. Introduction to the Branches of Philosophy: Metaphysics, Epistemology and Ethics.
3. Relation of Philosophy with Religion.

SECTION–B

1. Human Rights: Definition, Philosophical Perspectives and Scope
2. Social Problems: Casteism and Gender Discrimination.
3. World Peace: Problems and Solution.

SECTION–C

1. Sikhism: Sangat, Pangat and Sarbat da Bhala.
2. Vivekanand: Humanism.
3. Gandhism: Ahimsa and Satyagrah.

SECTION–D

1. Culture: Definition and Components
2. Civilization: Definition and Components.
3. Culture and Civilization: Relation & Difference.

SECTION–E

Ten short answer type questions.

Recommended Readings:

1. Chandra, U., *Human Rights,* Allahabad Law Agency, Allahabad. 2000.
2. Gautam, S.P. (Dr.), *Samaj Darshan*, Haryana Sahit Academy, Panchkula.
3. Human Rights (NCERT) Teja Singh, *Sikhism; Its Ideals and Institutions,* Khalsa Brothers, Amritsar, 1970.
4. Lal, B.K., *Contemporary Indian Philosophy,* Motilal Banarsidas, Delhi, 1978.
5. Mackenzie, J.S., *Outlines of Social Philosophy,* Allen and Union, London, 1963.
6. Narvane, V.S., *Modern Indian Thought; a Philosophical Survey,* Asia, Bombay, 1967.
7. Robert and Beck, Handbook of Social Philosophy.
8. Sinha, Himat Singh (Dr.), *Sanskrit Darshan*, Haryana Sahit Academy, Panchkula.
9. Titus, H.H., *Living Issues in Philosophy,* Eurasia, New Delhi, 1968.
10. Wingate, Alan, *Human Rights, Comment and Interpretation*, UNESCO, 1949.

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Faculty of Life Sciences)

SEMESTER–I

ZOOLOGY

ZOO–IA: CELL BIOLOGY (THEORY)

Time: 3 Hrs. **Marks: 35**

Credit 3 Hours/week

Instructions for the Paper Setters:

1. There will be a total of 9 questions of which five are to be attempted.
2. Question 1 will be compulsory and will be of 7 short answer type. (One mark each)**.**
3. The remaining 8 questions shall include two questions from each unit. Candidates shall be required to attempt 4 questions, one from each unit. All questions shall have equal marks. (7 marks each)

UNIT–I

Methods in Cell Biology.

(a) Principles of light and phase contrast microscopy
(b) Electron microscopy (TEM and SEM)
(c) Fixation and fixatives
(d) Staining techniques.

UNIT–II

Organization of Cell: Extra nuclear and nuclear, ultrastructure and functions of cell organelles

(a) Plasma Membrane: Structure, osmosis, active and passive transport, endocytosis and exocytosis.
(b) Endoplasmic reticulum: Structure, types and associated enzymes.
(c) Mitochondria: Structure, mitochondrial enzymes and role of mitochondria in respiration and mitochondrial DNA.

UNIT–III

Organization of Cell:

(a) Golgi complex: Structure and functions.
(b) Ribosomes: Types of ribosomes, their structure and functions.
(c) Lysosomes: Polymorphism and their function.
(d) Centrosome: Structure and functions.

UNIT–IV

Nucleus: Structure and functions of nuclear membrane, nucleolus and chromosomes.

An elementary idea of cell transformation in cancer.

An elementary idea of cellular basis of immunity.

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(Faculty of Life Sciences)

SEMESTER–I

ZOOLOGY

ZOO–IB: BIODIVERSITY-I
(PROTOZOA TO ANNELIDA)
(THEORY)

Time: 3 Hrs. **Marks: 35**
Credit 3 Hours/week

Instructions for the Paper Setters:

1. There will be a total of 9 questions of which five are to be attempted.
2. Question 1 will be compulsory and will be of 7 short answer type. (one mark each)
3. The remaining 8 questions shall include two questions from each unit. Candidates shall be required to attempt 4 questions, one from each unit. All questions shall have equal marks. (7 marks each)

UNIT–I

Detailed Type study of the following animals:
Protozoa: *Amoeba proteus,*
Paramecium caudatum (with special reference to Kappa particles in *P. aurelia*)
Plasmodium vivax. Introduction to Parasitic Protozoans.

UNIT–II

Detailed Type study of the following animals:
Parazoa (Porifera): *Sycon,*
Cnidaria (Coelentrata): *Obelia*

UNIT–III

Detailed Type study of the following animals:
Platyhelminthes: *Fasciola hepatica,*
Taenia solium
Larvae of *Fasciola hepatica* and *Taenia solium*

UNIT–IV

Detailed Type study of the following animals:
Aschelminthes: *Ascaris,* Parasitic adaptations in Helminthes
Annelida: *Pheretima posthuma* (Earthworm)

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SEMESTER–I

ZOOLOGY

PRACTICAL–I (RELATED TO ZOO-IA and ZOO-IB)

Time: 3 Hrs. **Marks: 30**
Credit Hours/week = 4½

Important Note for Practical:

1. Candidates will be required to submit their original note books containing record of their laboratory work.

2. Wherever possible, students must be taken out for excursion to the field (Zoological gardens, sea shores, ponds and hill stations etc.) to study habitat and ecology of the animals.

3. As per the latest UGC guidelines (D.O.No. F. 14-6/2014(CPP-II) dated 01-08-2014) the dissections should not be conducted. The guidelines on this issue are available on the UGC website: www.ugc.ac.in

I. Classification up to orders with ecological notes and economic importance (if any) of the following animals (Through Specimens or slides):

A. **Protozoa.** *Amoeba, Euglena, Trypanosoma, Noctiluca, Eimeria, Monocystis, Paramecium Opalina, Vorticella, Balantidium, Nyctotherus* and *Polystomella.*

B. **Parazoa.** *Sycon, Grantia, Euplectella, Hyalonema, Spongilla, Euspongia.*

C. **Cnidaria.** *Porpita, Velella, Physalia, Aurelia, Rhizostoma, Metridium, Millipora, Alcyonium, Tubipora, Zoanthus, Madrepora, Favia, Fungia and Astrangia.*

Hydra (W.M.), *Hydra* with buds, *Obelia* (colony and medusa), *Sertularia, Plumularia, Tubularia, Bougainvillea* and *Aurelia*

D. **Platyhelminthes.**

Dugesia, Fasciola, Taenia, Echinococcus.

Miracidium, Sporocyst, Redia, Cercaria of *Fasciola,* scolex and proglottids of *Taenia* (mature and gravid).

E. **Aschelminthes.** *Ascaris* (male and female), *Trichinella, Ancylostoma.*

F. **Annelida**. *Pheretima, Nereis, Heteronereis, Polynoe, Eunice, Aphrodite, Chaetopterus, Arenicola, Tubifex* and *Pontobdela*

2. **Study of the following permanent stained preparations**:

A. L.S. and T.S. *Sycon*, gemmules, spicules and spongin fibers of a sponge.

B. T.S. *Hydra* (Testis and ovary region)

C. T.S. *Fasciola* (Different regions)

D. T.S. *Ascaris* (Male and Female)

E. T.S. *Pheretima* (pharyngeal and typhlosolar regions), Setae, septal nephridia, spermathecae and ovary of *Pheretima* (Earthworm).

3. **Preparation of the following slides**:

Temporary preparation of freshwater Protozoan culture.

4. **Demonstration of** digestive, reproductive and nervous systems of earthworm with the help of charts/videos/models.

5. **Cell Biology:**

A. Paper chromatography.

B. Gel electrophoresis through photographs or through research laboratories

C. Familiarity with TEM & SEM.

D. Study of different ultra structures of cell organelles through photographs.

6. Visit to a vermi–composting unit and submission of report.

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Life Sciences)

SEMESTER–I

MICROBIOLOGY

FUNDAMENTALS OF MICROBIOLOGY (THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 75
Practical Marks: 25

Instructions for the Paper Setters:

There will be a total of nine questions. Question No. 1 will be compulsory and will be of short answer type (3–4 lines). However no multiple choice one–word answer type questions shall be set. The remaining 8 questions will include two questions from each unit. Candidates will be required to attempt one question from each of the four units. They will have to attempt five questions in all and all questions will carry equal marks.

UNIT–I

1. **Introduction and Scope of Microbiology:** Discovery of microorganisms, history of microbiology, controversy over spontaneous origin or microorganisms, discovery of anaerobic life, germ theory of fermentation as life without oxygen, germ theory of disease.
2. **Characterization and Identification of Microorganisms:** Place of microorganisms in living world, Hackel's and Whittaker's system of classification, prokaryotic and eukaryotic cells, characteristics of main groups of microorganisms.

UNIT–II

3. **Methods in Microbiology :** Bright field microscopy and its applications, Methods of sterilization, preparation of a culture media, pure culture concept, staining technhiques of bacteria such as simple, negative and differential methods.
4. **Structure of Bacteria:** Fine structure of bacterial cell, cell wall, cell membrane, capsule, pili, flagella, ribosomes, Cytoplasmic inclusions, Bacterial movement, Endospore and physiology of endospore formation.

UNIT–III

5. **Nutrition :** Nutritional requirements of microorganisms, nutritional types of bacteria, autotrophs, heterotrophs, parasites, types of culture media, differential media, and selective media enrichment media. Control of microorganisms by physical, chemical and chemotherapeutic agents.
6. **Reproduction and Growth in Microorganisms:** Modes of cell division, growth curve of bacteria, continuous culture, synchronous growth, quantitative measurement of bacterial growth, Effect of various factors on growth of bacteria.

UNIT–IV

7. Reproduction and Growth in Microorganisms: Modes of cell division, growth curve of bacteria, continuous, culture, synchronous growth, quantitative measurement of bacterial growth effect of various factors on growth of bacteria, DNA as genetic material.
8. **Clinical Microbiology:** Epidemiology reservoirs and modes of transmission of infectious diseases. Pathogenesis, diagnosis and treatment of common bacterial and viral diseases in humans.

Books Recommended:

1. Pelczar, M.I., Chan, E.C.S. and Krieg, N.R. 1993, Microbiology. Tata McGraw Hill Publishing Co., Ltd., New Delhi.
2. Stanier, R.Y., Ingraham, J.L., Wheelis, M.L. and Painter, P.R. 1986, General Microbiology, MacMillan Education Ltd. Publisher.
3. Powar, C.B. and Dagniwala, H.F. 1992, General Microbiology, Volume I and II, Himalaya Publishing House, Delhi.
4. Sharma, P.D. 1997, Microbiology, Rastogi Publications, Meerut.

SEMESTER–I
MICROBIOLOGY

(PRACTICAL)

Time: 4 Hours **Marks: 25**

1. To study the essentials of a Microbiology laboratory.
2. To study various parts of a laboratory microscope.
3. To study various sterilization techniques.
4. To prepare the cultures media for the cultivation of various microorganisms.
5. To study various laboratory techniques for the cultivation and isolation of pure cultures of microorganisms.
6. To perform the simple staining of bacterial cell.
7. To perform the differential staining of bacterial cell.
8. To study the typical growth curve of bacteria.

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I
INDUSTRIAL MICROBIOLOGY (VOCATIONAL)

INTRODUCTION TO MICROBIOLOGY
(THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 75
Practical Marks: 25

Instructions for the Paper Setters:

There will be a total of nine questions. Question No. 1 will be compulsory and will be of short answer type (3–4 lines). However no multiple choice one–word answer type questions shall be set. The remaining 8 questions will include two questions from each UNIT. Candidates will be required to attempt one question from each of the four UNITs. They will have to attempt five questions in all and all questions will carry equal marks.

UNIT–I

1. Introduction and scope of microbiology: Historical background of Microbiology (In brief). Difference between prokaryotic and eukarotic microorganisms.
2. Methods in Microbiology. Bright field microscopy and its application in Microbiology, Methods of sterilization, concept of media and its preparation i.e. broth, solid and semisolid, Staining of bacteria Simple and Gram's staining to differentiate G(+) and (G–) bacteria. Isolation of pure cultures using techniques like pour plating, streaking, spreading and serial dilution. Maintenance and preservation of cultures and culture collections.

UNIT–II

3. Morphology and basic structure of bacteria, Fungi and Virus. Life cycle of bacteria, yeast, fungi and virus.
4. Reproduction and growth in microorganisms, Mode of cell division, Growth Curve of bacteria, continuous and synchronous culture, Quantitative measurement of bacterial growth, Effect of various factors on growth of bacteria. Control of microorganisms by physical methods.

UNIT–III

5. Basic concepts of microbial genetics (In brief). Structure of DNA, RNA and protein, replication, transcription and translation. Concept of gene and mutations.

UNIT–IV

6. Clinical microbiology: Epidemiology, reservoirs and mode of transmission of infectious diseases. Pathogenesis, diagnosis and treatment of common bacterial and viral diseases in man.

Books Recommended:

1. Pelczar, M.I., CJam, E.C.S. and Krieg, N.R. 1993, Microbiology. Tata McGraw Hill Publishing Co., Ltd., New Delhi.
2. Stanier, R.Y., Ingraham, J.L., Wheelis, M.L. and Painter, P.R. 1986, General Microbiology, MacMillan Education Ltd. Publisher.
3. Powar, C.B. and Dagniwala, H.F. 1992, General Microbiology, Volume I and II, Himalaya Publishing House, Delhi.
4. Sharma, P.D. 1997, Microbiology, Rastogi Publications, Meerut.

SEMESTER–I
INDUSTRIAL MICROBIOLOGY (VOCATIONAL)
(PRACTICAL)

Time: 4 Hours **Marks: 25**

1. To study the essential of a Microbiology laboratory.
2. To study various part of a laboratory microscope.
3. To study various sterilization techniques.
4. To prepare the culture media for the cultivation of various micro–organisms.
5. To study various laboratory techniques for the cultivation and isolation of pure culture of micro–organisms.
6. To perform simple staining of bacterial cell.
7. To perform the differential staining of bacterial cell.

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I
MICROBIAL & FOOD TECHNOLOGY

FUNDAMENTALS OF MICROBIOLOGY
(THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 75
Practical Marks: 25

Instructions for the Paper Setters:

There will be a total of nine questions. Question No. 1 will be compulsory and will be of short answer type (3–4 lines). However no multiple choice one–word answer type questions shall be set. The remaining 8 questions will include two questions from each UNIT. Candidates will be required to attempt one question from each of the four UNITs. They will have to attempt five questions in all and all questions will carry equal marks.

UNIT–I

Introduction and Scope of Microbiology: Discovery of Microorganism, history of microbiology, controversy over spontaneous origin or microorganism, discovery of anaerobic life, germ theory of fermentation, fermentation as life without oxygen, germ theory of disease. Differences between prokaryotic and Eukaryotic cells, characteristics of main groups of microorganism (Bacteria, fungi, yeast, Virus).

UNIT–II

Methods in Microbiology: Bright field microscopy and its application in Microbiology, Methods of sterilization, preparation of a culture media, pure culture concept, staining of bacteria.

Structure of Bacteria: Cell wall, cell members, capsule, pili, flagella, bacterial movement, endospore.

UNIT–III

Nutrition: Nutritional requirements of Microorganisms, nutritional types of bacteria, autotrophs, heterotrophs, parasites, types of culture media, differential media, and selective media, enriched media.

Reproduction and Growth in Microorganisms: Modes of cell division, growth curve of bacteria, continuous culture, synchronous growth, quantitative measurement of bacterial growth, effect of various factors on growth of bacteria.

UNIT–IV

Mutations and their chemical basis, DNA as genetic material, recombination in prokaryotes by transformation and conjugation transduction, bacterial plasmids.

Control of Microorganisms: Control of microorganisms by physical, chemical and chemotherapeutic agents.

Books Recommended:

1. Pelczar, M.I., Chan, E.C.S. and Krieg, N.R. 1993. Microbiology. Tata McGraw Hill Publishing Col. Ltd., New Delhi.
2. Stanier, R.Y., Ingraham, J.L., Wheels, M.L. and Painter, P.R. 1986. General Microbiology, MacMillan Education Ltd. Publisher.
3. Power, C.B. and Dagniwala, H.F. 1992, General Microbiology, Volume I and II. Himalaya Publishing House, Delhi.
4. Sharma, P.D. 1997. Microbiology, Rastogi Publications, Meerut.

SEMESTER–I
MICROBIAL & FOOD TECHNOLOGY

FUNDAMENTAL AND FOOD MICROBIOLOGY (PRACTICAL)

Time: 4 Hours **Marks: 25**

1. To study the essential of a Microbiology laboratory.
2. To study various part of a laboratory microscope.
3. To study various sterilization techniques.
4. To prepare the culture media for the cultivation of various micro–organisms.
5. To study various laboratory techniques for the cultivation and isolation of pure culture of micro–organisms.
6. To perform simple staining of bacterial cell.
7. To perform the differential staining of bacterial cell.

SEMESTER–I
BOTANY

PAPER–I A: DIVERSITY OF MICROBES (THEORY)

Time: 3 Hrs.
Theory Lectures: 3 Hours/Week **Max. Marks: 35**

Instructions for the Paper Setters:

There will be a total of nine questions. Question No. 1 will be compulsory and questions in this will be of short answer–type (3–4 lines). No multiple choice questions, answer of one–word answer type be set. The remaining 8 questions will be set from equal distribution of the syllabus out of which candidates will be required to attempt 4 questions. All questions (including Q. No. 1) will have equal marks i.e. 7 each.

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

Viruses, Bacteria and Fungi: General account of viruses and mycoplasma; bacteria–structure, nutrition, reproduction and economic importance; general account cyanobacteria. General characters, classification and economic importance of Fungi. Important features and life history of Mastigomycotina–*Pythium, Phytophthora;* Zygomycotina–*Mucor*, Ascomycotina–*Saccharomyces, Eurotium, Chaetomium. Peziza;* Basidiomycotina–*Puccinia, Agaricus;* Deuteromycotina–*Cercospora. Colletotrichum;* general account of Lichens.

Suggested Readings:

1. Dube, H.C., 1990, An Introduction to Fungi, Vikas Publishing House Pvt. Ltd., Delhi.
2. Sharma, O.P., 1992, Text Book of Thallophytes, McGraw Hill Publishing Co.
3. Sharma, P.D., 1991, The Fungi, Rastogi & Co. Meerut.
4. Vashishta B.R. and Sinha A.K. (2010 Reprint). Botany for degree students. Fungi. S. Chand and Company Ltd., New Delhi.

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I
BOTANY

PAPER–I B: DIVERSITY OF CRYPTOGAMS (THEORY)

Time: 3 Hrs.
Theory Lectures: 3 Hours/Week **Max. Marks: 35**

Instructions for the Paper Setters:

There will be a total of nine questions. Question No. 1 will be compulsory and questions in this will be of short answer–type (3–4 lines). No multiple choice questions, answer of one–word answer type be set. The remaining 8 questions will be set from equal distribution of the syllabus out of which candidates will be required to attempt 4 questions. All questions (including Q. No. 1) will have equal marks i.e. 7 each.

Bryophyta: Amphibians of plants kingdom displaying alternation of generations; structure, reproduction and classification of Hepaticopsida (e.g. *Marchantia*); Anthocerotopsida *(e.g. Anthoceros),* Bryopsida *(e.g. Funaria).*

Pteridophyta: The first vascular plant; important characteristics of Psilopsida, Lycopsida, Sphenopsida and Pteropsida; structure, reproduction in *Rhynia, Lycopodium Selaginella. Equisetum, Pteris* and *Marsilea.*

Suggested Readings:

1. Puri, P., 1980 Bryophyta, Atma & Sons, Delhi.
2. Sharma, O.P. 1990, Text Book of Pteridophyta, McMillan India Ltd.
3. Smith G.M. 1971, Cryptogamic Botany, Vol. II, Bryophytes & Pteridophytes. Tata McGraw Hill Publishing Co., New Delhi.

SEMESTER–I

BOTANY

PRACTICALS–I (BASED ON PAPER–I A AND I B)

Practical Hours: 4½ Hours/week **Marks: 30**

Suggested Laboratory Exercises

Teachers may select plants/material available in their locality/institution.

1. Study of the genera included under algae and fungi.
2. Study of morphology, reproductive structures and anatomy of the examples cited in theory under Bryophyta and Pteridophyta.
3. Observation of disease symptoms in hosts infected by fungi, viruses and mycoplasma Section cutting of diseased material and identification of the pathogens as per the theory syllabus.
4. Gram staining of bacteria.

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SEMESTER–I
BIOINFORMATICS (VOCATIONAL)

FUNDAMENTALS OF COMPUTERS, MOLECULAR BIOLOGY & rDNA TECHNOLOGY (THEORY)

Time: 3 Hrs. **Max. Marks: 100**
Credit Hours: 6 **Theory Marks: 75**
Practical Marks: 25

Instructions for the Paper Setters and Candidates:

1. There will be a total of 9 questions.
2. Question 1 will be compulsory and will be of 10 short answer type. **(1½ X10=15)**
3. The remaining 8 questions shall include 2 questions from each unit. Candidates shall be required to attempt 1 question from each unit. All questions shall have equal marks **(15x4=60)**

UNIT–I

History of Computers: Evolution, Generation of Computers (I, II, III, IV, V)
Classification of Computers: Notebook, Personal, Mainframe, Minicomputers, Workstation and Supercomputers)-comparison with memory, power, cost, size-then and now.
Computer Organization and Architecture: Computer Architecture, I/O Devices, ALU, Memory chips (RAM, ROM, DRAM), Storage devices, Memory hierarchy.

MS-Word: Introduction to parts of Window, Creating, Opening, Saving and Printing a Document, Text formatting, Page Setup, Margins, Line spacing, Page break, Header and Footers, Spell Checking, Table , Mail Merge.
MS-Power Point: Introduction Power Point Elements, Creating, opening, saving of Power Point slide, Adding text and title, moving and resizing text, text formatting (using Bullets, font style, font size, color and effects) custom animation, slide transition, insert pictures and sound file to slide.
MS-Excel: Introduction, format of electronic worksheet, adding data in worksheet, cell Addressing Ranges, applying and copying formula, various mathematical and statistical functions, Inserting charts.

UNIT–II

Computer Networking: OSI reference model, Network Topologies, Router, Switch, LAN, WAN, MAN, Wireless LAN and Mobile Computing, TCP/IP protocol.
Internet: Introduction to Internet, World Wide Web, Concepts of Domain, Concept of Web Browser, Concept of Intranet and Extranet, Computer network and security
Internet Services and Applications: Internet Tools. Telnet, FTP, E-Mail, Chat, newsgroups,
HTML: Introduction, common tags, creating hyper links, incorporation of images, Tables; Frames, Formatting of text with fonts.

UNIT–III

Introduction to Molecular Biology: Structure and properties of Nucleic acids: (DNA, RNA), Organization of DNA in chromosome in (Prokaryotes and Eukaryotes), Heterochromatin/Euchromatin, Repetitive sequences.

Proteins: Amino acids and their properties; Primary, secondary, tertiary and quaternary structures.

DNA Replication: Mechanisms of prokaryotic and Eukaryotic DNA replication,

Expression of the Genome: Mechanisms of Transcription (Prokaryotes and Eukaryotes), RNA processing (Capping, Polyadenylation, splicing), Translation (The Genetic Code and Protein Synthesis).

UNIT–IV

Gene Regulation: Principles of gene regulation, regulation of gene expression in bacteria (Lactose operon, Tryptophan operon), regulation of gene expression in eukaryotes.

rDNA Technology: Restriction digestion, Ligation, Plasmid and Lambda Vectors, PCR, Cloning etc, Genetic engineering and transgenic organisms. DNA sequencing methods. Concepts of Mapping, Construction of physical maps, Genetic maps and radiation hybrid maps etc.

Recommended Books:

1. Norton's P. (2001). Introduction to Computing Fundamental. *McGraw Hill Education, New Delhi.*
2. Sinha P.K. (2001). Fundamental of Computers. *BPB Publication, New Delhi.*
3. Deborah S. Ray, Eric J. Ray (2002) Mastering HTML and XHTML, Sybex Inc.
4. HTML Complete, 3rd Edition (2003), Sybex Inc.
5. Kapila H. (2003). PC Computing Window Based Computer System. *Dinesh Publishers, Jalandhar.*
6. Grauer B. (2005). Exploring Microsoft Office 2003 (Volume 1). *Prentice Hall, New Jersey.*
7. Norton's P. (2001). Introduction to Computing Fundamental. *McGraw Hill Education, New Delhi.*
8. Sinha P.K. (2001). Fundamental of Computers. *BPB Publication, New Delhi.*
9. Brooker, R.J. Genetic Analysis and Principles. Addison Wisely Longman, N.Y. (2001).
10. Pevzner, J. Introduction to Bioinformatics. John Wiley and Sons, N.Y. (2003).
11. Baxevanis A.D. Bioinformatics: A practical guide to the analysis of Gene and Proteins (2nd Edition) 2001.
12. Lodish H, Berk A, Zipursky, S.L., Baltimore, D. Darnel, J. Molecular Cell Biology. W.H. Freemen and Company, USA (2000).
13. Lesk A. M. (2002). Introduction to Bioinformatics. *Oxford University Press.*
14. Krane D. E. and Raymer M. L. (2002). Fundamental Concepts of Bioinformatics. *Benjamin Cummings.*
15. Lehninger, A.L. Nelson, DL and Cox, MM (2008). Principles of Biochemistry, 5th Ed., *Worth Publishers, New York.*
16. Benjamin. E (2004). Immunology, *Willey and Liss, New York.*
17. Kubey, J and Goldby, R.A. (2003). Immunology Freeman and Co., *New York.*
18. De Roberties, E.D and De Roberties, E.M (1987). Cell and Molecular Biology, 8th Ed, *Lippincott Williams and Wilkins Publication.*

B.A./B.Sc. (Semester System) (12+3 System of Education)
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SEMESTER–I

BIOINFORMATICS (VOCATIONAL)

(LAB IN COMPUTER FUNDAMENTALS)
(PRACTICAL)

Time: 3 Hrs. **Marks: 25**
Credit Hours: 4½

MS-WORD
1. To create, open, close a document and toolbar operations.
2. Practical to demonstrate formatting options
3. Practical based on page setup, print a document.
4. To add headers, footer, pagebreak.
5. Table handling, Mail Merge.

MS-POWERPOINT
1. Concept of slide, presentation, custom animation.
2. To insert pictures and sound file to slide.
   Slide transition.

MS-EXCEL
1. To create, open, close worksheet.
2. To add numeric as well as character data in a cell.
3. To develop formulas, create and modify charts.

Installation of Windows and LINUX
Basic commands of LINUX.
Basic DOS commands.
Basic Exercises on HTML.

SEMESTER–I

BIOTECHNOLOGY (VOCATIONAL)

MICROBIOLOGY
(THEORY)

Time: 3 Hours **Max. Marks: 100**
Credit Hours: 6 **Theory Marks: 75**
Practcal Marks: 25

Instructions for the Paper Setters and Candidates:

1. There will be a total of 9 questions.
2. Question 1 will be compulsory and will be of 10 short answer type. **(1½ X10=15)**
3. The remaining 8 questions shall include 2 questions from each unit. Candidates shall be required to attempt 1 question from each unit. All questions shall have equal marks **(15x4=60)**

UNIT–I

Development of microscopy (optical, TEM and SEM); Pasteur's experiments disproving spontaneous generation; The concept of sterilization. Methods of Sterilization (Dry heat, wet heat, radiation, chemical and filteration etc.)

UNIT–II

Concept of microbial species and strains; The various forms of microorganisms-PPLOs-cocci, bacilli and spirilla; Spontaneous and induced variation arising in microbial population; Nature of the microbial cell surface. Gram positive and gram negative bacteria. Kinds of flagella. Serotypes; Prokaryotic and eukarotic microbial cells.

UNIT–III

Nutritional classification of microorganisms; Microbes in extreme environments–the thermophiles and alkalophiles; Pathogenic microorganisms. Defence mechanism against microorganisms; Symbiosis and antibiosis among microbial populations; N2-fixing microbes in agriculture.

UNIT–IV

Microbial metabolism; Fermentation products; A survey of products from micro-organisms; Strain improvement by enrichment, selection and recombinant DNA methods; Production of heterologous proteins of interest in micro-organisms.

Books Recommmended:

1. Davis, B.D. Dulbecco. R., Eisen, H.N. and Ginsberg, H.S. (1990), Microbiology: 4th Edition, Harper & Row, Publishers. Singapore.
2. Tortora, G.J., Funke, B.R. and Case, C.L. (1994), Microbiology: An Introduction: 5th Edition, The Benjamin / Cummings Publishing Company, Inc.
3. Stanier, R.Y. (1995), General Microbiology, MacMillan Press, London.
4. Pelezar, M.T. (1995), Microbiology, Tata McGraw Hill Publication, New Delhi.
5. Schlegel, H.G. (1995), General Microbiology, 7th Edition, Cambridge Univ. Press.
6. Prescott and Dunn (1999), Industrial Microbiology, 4th Edition. By S.K. Jain for CBS Publishers & Distributors.
7. Purohit, S.S. (2000), Microbiology; Fundamentals and Applications (6th Edition), Agrobios (India).
8. Postage, J. (2000), Microbes & Man, 4th Edition, Cambrige Univ. Press.
9. Tortora, G.J., Funke, B.R., 2001, Microbiology: An Introduction, Benjammin Cummings.

SEMESTER–I

BIOTECHNOLOGY (VOCATIONAL)

MICROBIOLOGY
(PRACTICAL)

Time: 3 Hours **Marks: 25**

Microbiological Techniques

Aseptic techniques

Cleaning of glassware

Preparation of media, cotton-plugging and sterilization

Personal hygiene-Microbes from hands, tooth-scum and other body parts.

Isolation of microorganisms from air, water and soil samples.

Dilution and pour plating. Colony purification.

Enumeration of micro-organisms. Total vs. viable counts.

Identification of isolated bacteria. Gram staining, other staining methods, metabolic characterization (e.g. IMViC test)

Growth curve of microorganisms.

Antibiotic sensitivity of microbes, use of antibiotic discs.

Testing of water quality.

One step growth of bacteriophage.

Alcoholic and mixed-acid fermentation

Book Recommended:

Cappucin J.G. and Sherman, N. (1992), Microbiology: A Laboratory Manual, 3rd edition, Benjamin/Cummings Publishing Company, Inc.

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Education)

SEMESTER–I
EDUCATION

FOUNDATIONS OF EDUCATION

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setters:

Note: (i) The question paper will consists of five Units: I, II, III, IV & V. Units I, II, III & IV will have two questions each carrying 20 marks. The students are to attempt one question from each unit approximately in 1000 words. Unit –V consists of 10 short answer type questions to be set from their entire syllabus and will carry 20 marks in all. Each short answer type question carries 2 marks, to be attempted in 8 to 10 lines.

UNIT–I

1. Meaning , nature , functions & scope of Education
2. Types of Education- Formal, Informal & Non-formal

UNIT–II

1. Analysis of concepts of Education – Schooling, Training & Indoctrination
2. Meaning, need & importance of aims & objectives of Education

UNIT–III

1. Individual Vs Social, Liberal Vs Vocational aims of Education & their synthesis
2. Aims & objectives of Education as recommended by Secondary Education Commission (1952-53) and Indian Education Commission (1964-66)

UNIT–IV

1. Aims of Education as recommended by NPE (1986)
2. Aims of Education for Modern Indian Society in the context of globalization

UNIT–V

This Unit (V) will consist of 10 short type questions to be set from the entire syllabus of first four Units (I, II, III, IV)

Books Recommended:

1.	Bhatia and Narang	Philosophical & Sociological Foundations Education Doaba House, New Delhi, 1992.
2.	Bhatia and Narang	Theory & Principles of Education, Parkash Brothers, Ludhiana, 1986.
3.	Govt. of India	Ministry Report of Secondary Education Commission (1952–53).
4.	Prasad and Chandra	Sociological Foundations of Education, Deepak KSK Publishers, Delhi, 2006.
5.	Sodhi, T.S.	Philosophical and Sociological Foundations of Education, Bawa Publications, Patiala, 2007.
6.	Taneja, V.R.	Foundation of Education, Chandigarh, Mahindra Capital, Punjab, 2006.
7.	Taneja. V.R.	Socio-Philosophical Approach to Education, Delhi : Atlantic Publishers, 1983

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Education)

SEMESTER–I

HUMAN RIGHTS

Conceptual understanding of Human Rights

Time: 3 Hours **Max. Marks: 100**

Instructions for the Paper Setters:
The question paper will consist of five sections A,B,C,D and E.Section A,B,C and D will have two questions from the respective portion of the syllabus and will carry 20 marks each.Section E will consist of 10 short answer type questions to be set from the entire syllabus i.e. sections A,B,C & D and will carry 20 marks in all ,such short answer type questions carry 2 marks.

Instructions for the Candidates:
Candidates are required to attempt one question each, from sections A,B,C and D of the question paper and the entire section E. The candidates are required to answer the short questions in not less than 50 words.

UNIT–I

Emergence of human rights in society from ancient to the modern times.

UNIT–II

Basic Concepts: Individual, group, state, civil society, freedom, equality, justice, violence, counter violence.

UNIT–III

Universal Declaration of human rights (1948); international conventions on civil and political; rights, social, economic and cultural rights and responsibilities.

UNIT–IV

Constitutional vision of fundamental rights, directive principles and fundamental duties.

Recommended Books:

1. Kashyap, Subhash, Human Rights and Parliament, Metropolitan Book Co.Delhi.
2. Sinha, P.C. Global source book on Human Rights Part–I, Kanishka Publishers, New Delhi.
3. Sinha, P.C., Global source book on Human Rights Part–II, Kanishka Publishers, New Delhi.
4. Singh, Nagender, Human Rights and International Conventions, S.Chand, New Delhi.
5. Sharma, N.R. Human Rights in the World, Pointer Publishers, New Delhi.
6. Desai, A.R. (ed.), (1986), Violations of Democratic Rights in India, Bombay: Popular Prakashan.
7. Dikshit, R.C., (1998), Human Rights and the Law, Universal and Indian, New Delhi: Deep and Deep.
8. Mehta, P. L. and Neena Verma, (1995), Human Rights Under the Indian Constitutions, New Delhi: Deep and Deep Publications.

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Agriculture & Forestry)

SEMESTER–I

DAIRY FARMING (VOCATIONAL)
(THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 50
Practical Marks: 50

Instructions for the Paper Setters:

1. Question paper should be set strictly according to the syllabus and in the Punjabi Language.
2. The language of questions should be straight and simple.
3. Theory paper shall consist of three parts:
   (a) Ten short compulsory questions of 1 mark each requiring replies up to five lines each **(Total Marks: 10x1=10)**
   (b) Ten questions of 3 marks each requiring short replies shall be asked. The candidate has the choice to attempt eight questions **(Total Marks 8x3=24)**
   (c) Four questions of descriptive type requiring five pages for each answer shall be asked. The candidate has the choice to attempt two questions. **(Total Marks : 08x2=16)**
4. The question paper should cover the whole syllabus.

General

Advantages and constraints in dairy farming. Importance of livestock in agriculture and its relation to national economy. Live stock census, Milk production in Punjab, India, Per capita consumption of milk in Punjab and India as compared to some western countries.

Breeds

Important Breeds of Different Livestock Species, Their Origin, Morphological Traits and Economic Traits:

i) Indigenous cattle i.e. Sahiwal, Haryana, Red Sindhi.

ii) Exotic cattle, i.e. Holstein Friesian, Jersery, Red Dane, Brown swiss, Ayrshire and Guernsey.

iii) Buffaloes breeds, i.e. Murrah, Nilli Ravi, Surti, Mehsana.

iv) Milch type goat breeds (both Indian and Exotic)

Housing

Location of dairy farm, grouping of different farm buildings. Sanitation, drainage in cattle sheds, disinfections of sheds. Heat stress. Methods of cooling in sheds. Supply of clean and fresh water.

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SEMESTER–I

DAIRY FARMING (VOCATIONAL)
(PRACTICAL)

Time: 3 Hours. **Marks: 50**

Note: Preparation of practical note book and weekly write-ups of daily jobs assigned is compulsory.

1. Visits to Dairy farms having machine milking, fodder harvesting, feed mixing etc., Veterinary hospitals, Milk collection centre and milk plant. Visit and working study of Milk Producers Co-operative Society.
2. External body parts of Cow and Buffalo.
3. Identification of various breeds of Cows and Buffaloes.
4. Differentiation between 'Desi' and Crossbreed Cow and their calves.

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SEMESTER–I

RSL101: RUSSIAN

PAPER–I (WRITTEN)

Time: 3Hrs **Marks: 40**

Grammar

Course of Reading & Prescribed Text-Book:

"RUSSIAN" – by Wagner V.N. & Ovsienko Y.G. (Lessons 1to 12)

"RUSSIAN" – by Ovsienko Y.G. & Skopina (Part-I)

Five in one Multilingual glossary, published by Saraswati House Pvt. Ltd.

Note: Exercises in the text-book not related with the prescribed Grammar be excluded while paper setting.

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SEMESTER–I

RUSSIAN

PAPER–II (WRITTEN)

Time: 3 Hours **Marks: 40**

1. Translation from English to Russian **20 Marks**
2. Translation from Russian to English **20 Marks**

Course of Reading & Prescribed Text-Book:

"RUSSIAN" – by Wagner V.N. & Ovsienko Y.G. (Lessons 1 to 12)
Five in one Multilingual glossary, published by Saraswati House Pvt. Ltd.

Note: Dictionaries are allowed in Paper–II

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SEMESTER–I

RUSSIAN

PAPER–III (ORAL)

Marks: 20

- Reading of a text	**05 Marks**
- Dictation	**05 Marks**
- Simple conversation	**10 Marks**

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SEMESTER–I

FRL–101 **FRENCH**

PAPER–I (WRITTEN)

Time: 3Hrs **Marks: 40**

1. Questions of general comprehension related to the text.
   e.g.:- Qu'est ce que vous faites le dimanche ou
   Apprenez – vous le français? **10 Marks**
2. Questions on comprehension of an unseen passage of about 200 words. **10 Marks**
3. Composition of dialogue of one of three topics covered in the text book. **10 Marks**
4. Simple questions of general interest on French pertaining to the text. Questions on important cities, regions, mountains, Monuments, rivers, national day, National Flag, National song, Cuisine. **10 Marks**
   Ten questions to be attempted out of 15. These questions are to be asked in the form of fill in the blanks or multiple choice questions.

Course of Reading & Prescribed Text-Book:

Nouveau Sans Frontières 1 by Philippe Dominique & Jacky Girardet

Reference: "CONNEXIONS-1" by Regine Merieux & Yves Loiseau, Published by Didier

Five in one Multilingual Glossary, published by Saraswati House Pvt. Ltd. New Delhi 2011

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SEMESTER–I

FRENCH

PAPER–II (WRITTEN)

Time: 3 Hours **Marks: 40**

1. Translation of a simple unseen passage or short sentences from English to French **10 Marks**
2. Translation of a simple unseen passage or short sentences from French to English **10 Marks**
3. Questions on applied grammar pertaining to the textbook. **20 Marks**

Course of Reading & Prescribed Text-Book:

Nouveau Sans Frontières 1 by Philippe Dominique & Jacky Girardet

Reference: "CONNEXIONS-1" by Regine Merieux & Yves Loiseau, Published by Didier

Five in one Multilingual Glossary, published by Saraswati House Pvt. Ltd.New Delhi 2011

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SEMESTER–I

FRENCH

PAPER–III (ORAL)

Marks: 20

-Reading of a text	**05 Marks**
- Dictation	**05 Marks**
-Simple conversation	**05 Marks**
- Oral Comprehension	**05 Marks**

Course of Reading & Prescribed Text-Book:

Nouveau Sans Frontières 1 by Philippe Dominique & Jacky Girardet

Reference: "CONNEXIONS-1" by Regine Merieux & Yves Loiseau, Published by Didier Five in one Multilingual Glossary, published by Saraswati House Pvt. Ltd.New Delhi 2011.

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SEMESTER–I

URDU

URL–101 **(PROSE AND POETRY)**

Time: 3 Hours **Max. Marks: 100**

Book Prescribed:

Urdu NISAB, Part-II (Prose-Part), Published by M/S Educational Book House A.M.U. Market, Aligarh.

COURSE OF STUDY

I. Translation of Prose passages

II. Explanation of verses

III. Summary of a poem or a lesson

IV. Word Meanings

V. Direct Questions on Poets and Writers studied

UNITS AND THEME

1.	Passages for Translation (Four out of five)	**05x04=20**
2.	Stanzas for explanation (four out five)	**05x04=20**
3.	Theme/ Summary/ Central Idea of a Poem or Lesson	**10x01=10**
4.	Word Meanings	**10x01=10**
	Questions on life and works of poets studied (Two out of four)	**20x02=40**

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(Faculty of Languages)

SEMESTER–I

PERSIAN

PRL–101 PROSE AND POETRY

Time: 3 Hours **Max. Marks: 100**

I) Translation of Prose passages
II) Explanation of verses
III) Summary of a poem or a lesson
IV) Word Meanings
V) Direct Questions on Poets and writers studied

UNITS AND THEME

1. Passages for Translation (Four out of five)	**05x04=20 Marks**
2. Stanzas for explanation (four out five)	**05x04=20 Marks**
3. Theme/ Summary/ Central Idea of a Poem or Lesson	**10x01=10 Marks**
4. Word Meanings	**10x10=10 Marks**
5. Questions on life and works of poets studied (Two out of four)	**20x02=40 Marks**

Books Prescribed:

Farsi–O–Dastur Part–II by Dr. Zehra Khanlari, Published by Idara Adabiayat, 5803–Sadar Bazaar, Delhi-6.
Following lessons are included in Syllabus:
1, 2, 11, 20, 26, 27, 29, 30, 32, 33, 38, 39, 47, 49 and 50.

Books Recommended:

1. Sher-ul-Ajam, Part-I, Pages-30-36 and 144-152.), Anjuman Tarriqi, Urdu Hindi, Delhi
2. Sher-ul-Ajam, Part-II, (Pages-212-298.), Anjuman Tarraqi Urdu, Jama Masjid, Delhi- 6.
3. Tarikh-e-Adabiyat-e-Iran by Raza Zada Shafaq, Tr.By Mubariz-ud-din Rif'at, Edara Musannifin, hydeabad. 1998, age-87-95 and 150-157)
4. Tarikh-e-Islam by Akbar Shah khan Najibabadi, Part-II, (Pages-362-380) Edara Musannifin, Azamgarh
5. Subak Shinasi Part-II, By Malik-ush-Sho'ara Bahar (pages-124-126)
6. Gulistan-e-Sa'di. Anjuman Tarraqi Urdu, Jama Masjid, Delhi, 110006.
7. Qabus Nameh. Anjuman Tarraqi Urdu, Jama Masjid, Delhi- 06
8. Marzban Nameh. Anjuman Tarraqi Urdu, Jama Masjid, Delhi, 110006.
9. A literary History of Persia, Vol. I, By E. G. Brown - (Pages-275-289 & Vol. II, (Page-489)

SEMESTER–I

हिन्दी

आधुनिक कविता, व्याकरण तथा अनुवाद

समय : 3 घण्टे **कुल अंकः 100**

नोटः यह प्रश्न-पत्र तीन भागों में विभक्त होगा ।

खण्ड-एक

इस भाग में से 10 प्रश्न पूछे जाएंगे। इस का पांच पंक्तियों में उत्तर देना होगा। इस भाग के सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न दो अंकों का है। कुल अंक 20 हैं।

खण्ड-दो

इस भाग में 12 प्रश्न पूछे जाएंगे जिन में से 8 प्रश्नों का उत्तर देना अनिवार्य होगा। प्रत्येक प्रश्न का उत्तर दो पृष्ठों तक सीमित होगा। प्रत्येक प्रश्न के छः अंक हैं। कुल अंक 48 है।

खण्ड-तीन

इस भाग में 4 प्रश्न पूछे जाएंगे जिन में से दो प्रश्नों का उत्तर देना अनिवार्य है। प्रत्येक प्रश्न का उत्तर पांच पृष्ठों का होगा। प्रत्येक प्रश्न सोलह अंकों का होगा। कुल अंक 32 हैं।

निर्धारित पाठ्यक्रम

पाठ्य पुस्तकें :

1. **काव्य पथ : संपादक – डॉ.सुधा जितेन्द्र, प्रकाशक गुरु नानक देव यूनिवर्सिटी, अमृतसर केवल पहले 10 कवि रखे गए हैं।** 1 से 7, 9, 10 तथा 11
2. **आदर्श हिंदी व्याकरण तथा सैद्धांतिकी : डॉ एच.एम.एल. सूद, वागीश प्रकाशन, जालंधर।**
   (क) संज्ञा, सर्वनाम, विशेषण, क्रिया, उपसर्ग, प्रत्यय।
   (ख) विपरीतार्थक तथा समानार्थक, अनेक शब्दों के लिए एक शब्द।
3. **अनुवादः अर्थ और उपयोगिता**

विषयानुकूल अंक विभाजन :

1. प्रथम खण्ड में व्याकरण, तथा पाठ्य पुस्तक में निर्धारित कवियों तथा उनकी कविताओं में से प्रश्न समान अनुपात से पूछे जायेंगे।
2. दूसरे खण्ड में चार सप्रसंग व्याख्याएं होंगी जिनमें से दो करनी होंगी। चार प्रश्न कवि परिचय एवं कविताओं के होंगे, उनमें से दो प्रश्न करने अनिवार्य होंगे। दो प्रश्न व्याकरण के तथा दो प्रश्न अनुवाद के होंगे। जिनमें से एक एक करना अनिवार्य होगा।
3. तीसरे खण्ड में निर्धारित कविताओं के काव्य-मूल्यांकन तथा निर्धारित कविताओं सम्बन्धी विस्तृत प्रश्न होंगे।
4. व्याकरणांश के लिए प्राश्निक निर्धारित पाठ्य पुस्तक 'आर्दश हिंदी व्याकरण तथा सैद्धांतिकी' से ही प्रश्न पूछेंगे।

SEMESTER–I

QD'kuy fgUnh

funs'k

1. योग्यताः

d½ efVªd esa fgUnh&fo"k; gksuk vfuok;Z ¼**60%** vadks a l½

[k½ **+2** dh ijh{kk fgUnh &ek/;e @ fgUnh fo"k; esa gksuk vfuok;Z ¼**50%** vadks a l½

2. पेपर और पीरीयडः

d½ izfr leLrj nks isij ¼**I-II**½ gksxsA

[k½ izfr leLrj 4&4 ihjh;M fl)kar vkSj 2&2 ihjh;M iz;ksx ds gksxsA

3. अंक–विभाजनः

d½ nksuks isij 40&40 vad ds gksxsA

[k½ fo|kfFk;ksa dks izfr&leLrj 20 vad dh iz;ksx&iqfLrdk* rS;kj djuh gksxhA ^iz;ksx&iqfLrdk* ds fo"k; ikB~;Øe esa fu/kkZfjr gSA

x½ ^iz;ksx&iqfLrdk* dk vkdyu vkSj ekSf[kd&ijh{kk x# ukud nso fo'ofo|ky; }kjk fu/kkZfjr ijh{kk&fu;eksa ds vuqlkj dh tk,xhA

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SEMESTER–I

QD'kuy fgUnh

iij&,d

भारत सरकार की राजभाषा नीति और आदिकालीन हिन्दी साहित्य का विशेष संदर्भ

le;% 2½ ?k.Vs i.kkZad% 40

d½ ;g ç'ui= rhu Òkxksa esa cVk gqvk gSA igyk Òkx esa lHkh nl ç'u iNs tk,xsA bl Òkx dk lÒh ç'u vfuok;Z gSA çR;sd ç'u 1 vad dk gSA dqy vad 10 gSA

[k½ bl Òkx esa 8 ç'u iNs tk,x ftuesa ls 4 ç'uksa dk mÙkj nsuk gSA bu ç'uksa dk mÙkj nks i"Bksa rd dh lhek dk gksxkA çR;sd ç'u ds 4 vad gSA dqy vad 16 gSA

x½ bl Òkx esa 4 ç'u iNs tk,x ftuesa ls 2 ç'uksa dk mÙkj nsuk vfuok;Z gSA bu ç'uksa dk mÙkj 3&4 i"Bksa rd lhfer gksxkA çR;sd ç'u ds 7 vad gSA dqy vad 14 gSA

fu/kkfjr ikB;Øe%

(क) भारत सरकार की राजभाषा नीति

– राजभाषा हिन्दी

– राजभाषा हिन्दी को लागू करने सम्बन्धी प्रावधान (अधिनियम–343, 344, 348, 349)

– राजभाषा अधिनियम–1963 और उसके 1976 में बनाए गए नियम और उनकी विशिष्ताएँ।

– राजभाषा के सम्बन्ध में समिति

– राजभाषा का आदेश –1960

– राजभाषा संकल्प (त्मेवसनजपवद), 1968

– राजभाषा हिन्दी–कार्यान्वयन समितियां

(ख) हिन्दी प्रशिक्षण (Training) और प्रोत्साहन (Incentives)

(ग) हिन्दी साहित्य का संदर्भ

– हिन्दी साहित्य के आदिकाल की विशेषताएं, परिस्थितियाँ, नामकरण, रासो–काव्य परम्परा, रासो ग्रन्थों की प्रामणिकता और अप्रामाणिकता।

vad foÒktu%

– प्रथम खंड में अधिनियम 343, 344, 348, 349 और हिन्दी साहित्य के इतिहास/हिन्दी प्रशिक्षण और प्रोत्साहन में से 10 प्रश्न करने होगें। 1x10=10

– द्वितीय खंड में भारत सरकार की राजभाषा नीति (क और ख) भाग में से प्रश्न पूछे जाएंगे। (8 में से प्रश्न करने होंगे) 4x4=16

– तृतीय खंड में भाग (ग) हिन्दी साहित्य के आदिकाल में से 4 प्रश्नों में से 2 प्रश्न करने होगें। दोनों 7–7 अंक के होंगे। 7x2=14

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SEMESTER–I

QD'kuy fgUnh

i:ij&nk:

fgUnh dk ç;k:xkRed 0;kdj.k vkj dFkk lkfgR; dh leh{kk

le;% 2½ ?k.V: i.kkd% 40

d½ ;g ç'ui= rhu Òkxk: e: cVk gvk gA igy: Òkx e: l: nl ç'u iN: tk,:xA bl Òkx d: lÒh ç'u vfuok;: gA çR;:d ç'u 1 v:d dk gA dy v:d 10 gA

[k½ bl Òkx e: 8 ç'u iN: tk,:x ftue: l: 4 ç'uk: dk mÙkj nuk gA bu ç'uk: dk mÙkj nk: i"Bk: rd dh lhek dk gk:xkA çR;:d ç'u d: 4 v:d gA dy v:d 16 gA

x½ bl Òkx e: 4 ç'u iN: tk,:x ftue: l: 2 ç'uk: dk mÙkj nuk vfuok;: gA bu ç'uk: dk mÙkj 3&4 i"Bk: rd lhfer gk:xkA çR;:d ç'u d: 7 v:d gA dy v:d 14 gA

<u>fu/kkfjr ikB:;Øe%</u>

¼d½ 'kCnk: vkj okD;k: dh lkekU; v'kf);k:

¼[k½ fgUnh dk i:;k:xkRed 0;kdj.k vkj lo:oknkRed fgUnh

– हिन्दी भाषा का स्वरूप
– वाक्य संरचना सम्बन्धी नियम।
– लिंग, वचन, क्रिया, विशेषण का सामान्य परिचय उपसर्ग का व्यावहारिक पक्ष।
– स्वन प्रक्रिया (Phonology) अक्षर (Syllable) बलघात (Accent) और सम्पर्क और एक सूत्रीय भाषा (Connected Speech) लयात्मकता (Rhythm) और अनुतान (Intovation)
– विविध स्थितियों में हिन्दी का प्रयोगात्मक रूप

¼x½ dgkuh vkj mi U;kl dh ifjÒk"kk] rÙo vkj çdkj

v:d foÒktu%

– प्रथम खंड में शब्दों तथा वाक्यों की 10 अशुद्धियाँ करनी होगी। **01x10=10 Marks**
– द्वितीय खंड में लिंग, वचन, क्रिया, विशेषण, उपसर्ग, प्रत्यय, अक्षर, बालघात, एक–सूत्रीय भाषा, लयात्मकता, अनुतान में से 8 प्रश्नों में से 4 प्रश्न करने होंगे। **04x04=16 Marks**
– तृतीय खंड में 4 में से 2 प्रश्न कथा–साहित्य में से करने होंगे। **07x02=14 Marks**

SEMESTER–I

QD'kuy fgUnh

ç;kx vkj ekf[kd

i.kkd% 20

ç;kx

- शब्दों और वाक्यों की सामान्य अशुद्धियों को शुद्ध करने का अभ्यास।
- बैंकों में प्रयुक्त वाक्य–वाक्यांश
- राष्ट्रीयकृत बैंको/पब्लिक सैक्टर/अंडर टेकिंग्स/कार्पोरेशंस और कम्पनियों में हिन्दी में प्रयुक्त होने वाले आंकड़े एकत्रित करना।

SEMESTER–I
SANSKRIT (ELECTIVE)
¼dk0; ,o 0;kdj.k½

le;&3 ?k.Vs pw.kkZad&100

iz'u&i= dk ek/;e fgUnh gksxkA mŸkj laLd`r@fgUnh@iatkch@vaxzsth esa gks ldrs gSA

i'ui= fuekZ.k funs'k &

I i.kZlk/kk'krde~ ds fu/kkZfjr va'k esa ls 10 'yksdks esa ls 5 dh izlax lfgr 0;k[;k & 5x7 = 35

II i.kZlk/kk'krde~ ds fu/kkZfjr va'k esa ls HkDri.kZ flag th ds thouoŸk ,oa f'k{kkvksa ds lEcU/k esa 4 cMs iz'u iwNs tk,xsa ftuesa ls 2 dk mŸkj nsuk gksxk & 2x7½ = 15

III ¼d½ 4 o.kZ ndj 2 dk mPpkj.k LFkku & 2x2 = 4
¼[k½ 6 v0;; ndj 3 dk okD;ksa esa iz;ksx & 3x2 = 6

IV fu/kkZfjr lw[;kvksa esa ls fgUnh esa 20 lw[;k;sa ndj 10 dks laLd`r esa fy[kokuk & 10x1 = 10

V Loj lfU/k ds 10 lfU/k@lfU/kfoPNsn ndj 5 dk lfU/kfoPNsn@lfU/k & 5x2 = 10

VI fu/kkZfjr /kkrqvksa esa ls 8 /kkrq ndj 4 ds fu/kkZfjr ydkjks esa :i & 4x5 = 20

ikB~;Øe &

¼d½ i.kZlk/kk'krde~ ¼'yksd 1&65½ 50 vad
¼ikfly LFkku & ifCyds'ku C;wjks] xq# ukud nso fo'ofo|ky;] ver`lj½

iz'uksa ds fy, fu/kkZfjr fcUnq &

(i) HkDri.kZ flag th dk thouoŸk]
(ii) HkDri.kZ flag th dk thoun'kZu]
(iii) HkDri.kZ flag th dk LokHkko]
(iv) HkDri.kZ flag th dh lsok ds fofo/k iz*lax
(v) fu/kkZfjr Hkkx dk dFkklkj

¼[k½ 0;kdj.k 50 vad

o.kkPpkj.k

v0;;

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B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Languages)

SEMESTER–I
FUNCTIONAL SANSKRIT (VOCATIONAL)

Time: 3 Hours **Max. Marks: 100**

Note: Paper will have 3 Sections i.e. Section A, B & C. Question Paper will be set in Hindi.

Section–A

In this Section 10 objective type questions of 2 marks each will be asked. All questions will be compulsory with a total weightage of 20 marks.

Section–B

In this Section 12 short answer type questions will be asked. Candidates will have to attempt 8 questions carrying 6 marks each with a total weightage of 48 marks.

Section–C

In this Section 4 questions will be asked. Candidates will have to attempt 2 questions. Each question will carry 16 marks with a total weightage of 32 marks.

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B.A./B.Sc. (Semester System) (12+3 System of Education)

(Faculty of Languages)

SEMESTER–I
ENGLISH (COMPULSORY)

Time: 3 Hours **Max. Marks: 50**

Texts Prescribed:

1. *Tales of Life* (Guru Nanak Dev University, Amritsar)
2. Prose for Young Learners (Guru Nanak Dev University, Amritsar)
3. *Exploring Grammar in Context* by Ronald Carter, Rebecca Hughes, and Michael McCarthy, CUP

Course Contents:

1) Stories at Sr.No. 1,2,3,5,6 from *Tales of Life*.
2) Essays at Sr.No. 1,2,3,5,6 from *Prose for Young Learners*.
3) Section A & B from *Exploring Grammar in Context*

Instructions for the Paper Setter and Distribution of Marks:

Note:- The paper setters should avoid questions of theoretical nature on English Grammer.

The question paper will consist of three sections and distribution of marks will be as under:

Section A: 12 Marks

Section B: 24 Marks

Section C: 14 Marks

SECTION–A

FIFTEEN (15) questions on the usage of grammar related to Section A & B of *Exploring Grammar in Context* will be set for the students to attempt any TWELVE (12) of these questions. **(1 x 12=12 Marks)**

SECTION–B

I. EIGHT (8) questions (four from each literary text) on theme, characterization, tone, and style etc. will be set for the students to attempt any FIVE questions, choosing at least TWO from each prescribed text. The answer to each question should not exceed 15-20 sentences. **(3x5=15 Marks)**

II. A question requiring the students to write the meaning and usage of four vocabulary items, two from each literary text, will be set. **(1x 4 = 4 Marks)**

III. A question requiring the students to translate a short unseen passage from English to Hindi/Punjabi will be set. **(5 Marks)**

OR

A question requiring the **foreign students** (who do not know Punjabi / Hindi) to write the precise of a short passage will be set. **(5 Marks)**

SECTION–C

I. TWO questions, one from each literary text, will be set for the students to answer any ONE. **(1x7=7Marks)**

II. A question requiring the students to write a paragraph on one of the two given topics will be set. **(1x7=7 Marks)**

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Languages)

SEMESTER–I
ENGLISH (ELECTIVE)

Time: 3 Hours **Max. Marks: 100**

Prescribed Books:

1. *The Apple Cart* by G.B. Shaw
2. *Spots of Time* G.N.D.U. Amritsar
3. *Glossary of Literary Terms* by M.H. Abrams, Wadsworth CENGAGE Learning Publishers, 8th Edn., 2008.
4. *Better Pronunciation of English* by J.D.O'Connor

Course Contents:

1. The Apple Cart—Complete text
2. *Spots of Time:* Poems at serial No. 1-3,5, 7-12,14, 19-20
3. Literary Terms: Ballad, Character, Comedy, Conceit, Epic, Irony, Plot, Paradox
4. Transcription of Words: comb, crèche, dose, gauge, ghost, castle, gross, mauve, sure, sample, wolf, wool, arch, off, of, door, stair, what, cough, clerk, tooth, yak, yawn, sing, tongue.

Distribution of Marks & Instructions for the Paper Setters:

The question paper will consist of three sections and distribution of marks will be as under:

Section A: 20 Marks

Section B: 48 Marks

Section C: 32 Marks

SECTION–A

I. FIVE questions, each to be answered in 5-7 sentences, from the play & the poems prescribed in the syllabus. All questions will be compulsory. **(2x5=10 Marks)**

II. Transcription of TEN words, five from the prescribed list and five other monosyllabic words. **(1x10=10 Marks)**

SECTION–B

I. ONE question requiring the students to explain one of the two extracts/ dialogues from the play with reference to the context. **(1x6=6 Marks)**

II. THREE questions on the textual and thematic aspects of the prescribed play will be set and the students will attempt any TWO of these questions. **(6x2= 12 Marks)**

III. ONE question requiring the students to explain one of the two stanzas from the prescribed poems with reference to the context. **(1x6=6Marks)**

IV. THREE questions on the textual and thematic aspects of the prescribed poems will be set and the students will attempt any TWO of these questions. **(6x2= 12 Marks)**

V. Notes on TWO Literary Terms out of those prescribed in the syllabus. **(6x2= 12 Marks)**

SECTION–C

I. ONE essay type question, with internal choice, on theme, characterization, plot, tone, and style etc. of the prescribed play. **(16 Marks)**

II. ONE essay type question, with internal choice, on central idea, theme, tone, and style etc. of a poem prescribed in the syllabus. **(16 Marks)**

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Languages)

SEMESTER–I

FUNCTIONAL ENGLISH
(VOCATIONAL)

PHONETICS AND PHONOLOGY
(THEORY)

Time: 3 Hours **Max. Marks: 100**
Theory Marks: 60
Practical Marks: 40

Book Prescribed:
J.D.O'Connor, *Better Pronunciation of English*
Course Contents:
Unit–I : The phonology of English: Phonetic Symbols for Consonants, Vowels and Diphthongs, Consonant clusters
Unit–II: The Syllable
Unit–III: Weak Forms and Contractions
Unit–IV: Word Stress
Unit–V: Sentence Stress
Unit–VI: Intonation: Patterns of Intonation in simple sentence types.

Distribution of Marks and instructions for the Paper Setter.
Theory:
Section-A: 10 Marks
Section-B: 30 Marks
Section-C: 20 Marks

SECTION–A

Transcription of 10 words. **(1x10=10 Marks)**

SECTION–B

FIVE out of SIX questions related to description of English sounds, use of word stress, exercises related to the use of intonation, weak forms and syllable structure of words. The examinees may also be asked to point out the problems related to pronunciation of Punjabi speakers of English.
(6x5 =30 Marks)

SECTION–C

Two questions requiring the examinees to explain concepts, to mark stress and intonations in the given sentences/stress in tri-syllabic and compound words. **(10x2=20 Marks)**

SEMESTER–I
FUNCTIONAL ENGLISH
(VOCATIONAL)

PRACTICAL

Marks: 40

The main emphasis in the practical examination should be to assess the pronunciation of the examinees. Some of the suggested tasks for practical examination are given below:

1. The examinees may be asked to pronounce some individual words, or loudly read a passage. **10 Marks**
2. The examinees may be asked to form groups and to engage in conversation on the given topic. **10 Marks**
3. The examinees may be asked to listen to a recorded conversation and transcribe that conversation. **10 Marks**
4. Any other practical activity **10 Marks**

Note: The examiner may use some other similar modes of testing.

Suggestions for Teaching:

1. Lists of minimal pairs may be used (e.g. cot–court, ship–sheep, etc.) for practice in listening and speaking.

2. Emphasis is to be placed on the use of spoken language rather than on theory. Once the learners are familiar with the speech sounds, patterns of stress and intonation, they must be given intensive practice in these areas.

3. It must be made clear that the model of pronunciation is not strictly R.P. Learners should follow the dictionary as closely as possible but wherever there are differences between R.P. and the sounds used in Indian English, these differences can be accepted if they do not interfere with intelligibility and clarity of speech. (Teachers may not insist on a perfect articulation of RP sounds).

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Faculty of Languages)

SEMESTER–I

ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)

ਸਮਾਂ : 3 ਘੰਟੇ **ਕੁਲ ਅੰਕ : 50**

ਪਾਠ-ਕ੍ਰਮ ਅਤੇ ਪਾਠ-ਪੁਸਤਕਾਂ

1. **ਦੋ ਰੰਗ** (ਕਵਿਤਾ ਭਾਗ) (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ ਅਤੇ ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ), ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ।
2. **ਪੰਜਾਬ ਦੇ ਮਹਾਨ ਕਲਾਕਾਰ** (ਬਲਵੰਤ ਗਾਰਗੀ), ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ। ਲੇਖ : ਕੇ.ਐਲ.ਸਹਿਗਲ, ਬੜੇ ਗ਼ੁਲਾਮ ਅਲੀ ਖਾਂ, ਸੋਭਾ ਸਿੰਘ, ਪ੍ਰਿਥਵੀਰਾਜ ਕਪੂਰ, ਭਾਈ ਸਮੁੰਦ ਸਿੰਘ।
3. **ਪੈਰ੍ਹਾ ਰਚਨਾ**
4. **ਪੈਰ੍ਹਾ ਪੜ੍ਹ ਕੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ।**
5. (ੳ) **ਪੰਜਾਬੀ ਧੁਨੀ ਵਿਉਂਤ** : ਉਚਾਰਨ ਅੰਗ, ਉਚਾਰਨ ਸਥਾਨ ਤੇ ਵਿਧੀਆਂ, ਸਵਰ, ਵਿਅੰਜਨ, ਸੁਰ।
   (ਅ) **ਭਾਸ਼ਾ ਵੰਨਗੀਆਂ** : ਭਾਸ਼ਾ ਦਾ ਟਕਸਾਲੀ ਰੂਪ, ਭਾਸ਼ਾ ਅਤੇ ਉਪ-ਭਾਸ਼ਾ ਦਾ ਅੰਤਰ, ਪੰਜਾਬੀ ਉਪਭਾਸ਼ਾਵਾਂ ਦੇ ਪਛਾਣ-ਚਿੰਨ੍ਹ।
6. **ਮਾਤ ਭਾਸ਼ਾ ਦਾ ਅਧਿਆਪਨ**
   (ੳ) ਪਹਿਲੀ ਭਾਸ਼ਾ ਦੇ ਤੌਰ ਉੱਤੇ
   (ਅ) ਦੂਜੀ ਭਾਸ਼ਾ ਦੇ ਤੌਰ ਉੱਤੇ

ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

1.	ਕਿਸੇ ਕਵਿਤਾ ਦਾ ਸਾਰ ਜਾਂ ਉਸਦਾ ਵਿਸ਼ਾ ਵਸਤੂ (ਦੋ ਵਿਚੋਂ ਇਕ)	**10 ਅੰਕ**
2.	ਰੇਖਾ ਚਿਤਰ : ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਸ਼ਖ਼ਸੀਅਤ ਦੇ ਗੁਣ	**10 ਅੰਕ**
3.	ਪੈਰ੍ਹਾ ਰਚਨਾ : ਤਿੰਨ ਵਿਸ਼ਿਆਂ ਵਿਚੋਂ ਕਿਸੇ ਇਕ ਉਤੇ ਪੈਰ੍ਹਾ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇ ।	**5 ਅੰਕ**
4.	ਪੈਰ੍ਹਾ ਦੇ ਕੇ ਉਸ ਬਾਰੇ ਪੰਜ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ	**5 ਅੰਕ**
5.	ਨੰਬਰ 5 ਉਤੇ ਦਿੱਤੀ ਵਿਆਕਰਣ ਦੇ ਆਧਾਰ 'ਤੇ ਵਰਣਨਾਤਮਕ ਪ੍ਰਸ਼ਨ	**10 ਅੰਕ**
6.	ਨੰਬਰ 6 ਵਿਚ ਮਾਤ ਭਾਸ਼ਾ ਦੇ ਪਹਿਲੀ ਭਾਸ਼ਾ ਅਤੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਜੋਂ ਅਧਿਆਪਨ, ਮਹੱਤਵ ਅਤੇ ਸਮੱਸਿਆਵਾਂ ਬਾਰੇ ਚਾਰ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ, ਜਿਨ੍ਹਾਂ ਵਿਚੋਂ ਵਿਦਿਆਰਥੀ ਨੇ ਦੋ ਦਾ ਉੱਤਰ ਦੇਣਾ ਹੋਵੇਗਾ।	**5×2=10 ਅੰਕ**

SEMESTER–I

ਪੰਜਾਬੀ (ਇਲੈਕਟਿਵ)

ਸਮਾਂ : 3 ਘੰਟੇ **ਕੁਲ ਅੰਕ: 100**

ਪਾਠ-ਕ੍ਰਮ ਅਤੇ ਪਾਠ-ਪੁਸਤਕਾਂ

1. **ਸੁਖਨ ਦੇ ਸੂਰਜ (ਆਧੁਨਿਕ ਪੰਜਾਬੀ ਕਾਵਿ-ਸੰਗ੍ਰਹਿ : 1901-1995),** **40 ਅੰਕ**
(ਸੰਪਾ. ਡਾ. ਬਲਜੀਤ ਕੌਰ ਅਤੇ ਡਾ. ਟੀ.ਡੀ. ਜੋਸ਼ੀ), ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ।
ਕਵੀ : ਭਾਈ ਵੀਰ ਸਿੰਘ, ਪ੍ਰੋ. ਪੂਰਨ ਸਿੰਘ, ਮੋਹਨ ਸਿੰਘ, ਅੰਮ੍ਰਿਤਾ ਪ੍ਰੀਤਮ, ਬਾਵਾ ਬਲਵੰਤ,

ਹਰਿਭਜਨ ਸਿੰਘ, ਸੋਹਣ ਸਿੰਘ ਮੀਸ਼ਾ, ਸ਼ਿਵ ਕੁਮਾਰ, ਜਸਵੰਤ ਸਿੰਘ ਨੇਕੀ, ਜਗਤਾਰ, ਪਾਸ਼, ਸੁਰਜੀਤ ਪਾਤਰ।

2. **ਪਵਿਤਰ ਪਾਪੀ** (ਨਾਨਕ ਸਿੰਘ), ਨਾਨਕ ਸਿੰਘ ਪੁਸਤਕਮਾਲਾ, ਅੰਮ੍ਰਿਤਸਰ। **20 ਅੰਕ**

3. **ਮੰਚ ਘਰ** (ਸੰਪਾ. ਕੁਲਦੀਪ ਸਿੰਘ ਧੀਰ ਅਤੇ ਹਿਰਦੇਜੀਤ ਸਿੰਘ ਭੋਗਲ), ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ। ਇਕਾਂਗੀ : ਬੇਬੇ ਰਾਮ ਭਜਨੀ, ਦੂਜਾ ਵਿਆਹ, ਮਨ ਦੀਆਂ ਮਨ ਵਿਚ, ਅੱਖ ਅੱਗੇ ਕੱਖ, ਬ੍ਰਹਮ ਭੋਜ, ਕੁੱਤਾ ਤੇ ਮਨੁੱਖ। **20 ਅੰਕ**

4. ਉਪਰੋਕਤ ਪੰਜਾਬੀ ਨਾਵਲ ਅਤੇ ਇਕਾਂਗੀਆਂ ਵਿਚੋਂ ਪਾਠ ਆਧਾਰਿਤ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ ਦਸ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਸਾਰੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦੇਣੇ ਲਾਜ਼ਮੀ ਹਨ।

10×2= 20 ਅੰਕ

ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

1. **ਸੁਖਨ ਦੇ ਸੂਰਜ (ਆਧੁਨਿਕ ਪੰਜਾਬੀ ਕਾਵਿ-ਸੰਗ੍ਰਹਿ : 1901-1995)**

   (ੳ) ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ (ਚਾਰ ਵਿਚੋਂ ਦੋ) । **10+10= 20 ਅੰਕ**

   (ਅ) ਕਿਸੇ ਇਕ ਕਵਿਤਾ ਦਾ ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਵੀ ਬਾਰੇ ਜਾਣਕਾਰੀ ਤੇ ਉਸਦਾ ਯੋਗਦਾਨ (ਦੋ ਵਿਚੋਂ ਇਕ) । **10 ਅੰਕ**

   (ਏ) ਪੰਜ ਮਲਟੀਪਲ ਚੋਣ ਪ੍ਰਸ਼ਨ **5×2= 10 ਅੰਕ**

2. **ਪਵਿਤਰ ਪਾਪੀ**

   ਨਾਵਲ ਦਾ ਵਿਸ਼ਾ-ਵਸਤੂ/ਕਥਾਨਕ/ਪਾਤਰ (ਦੋ ਵਿਚੋਂ ਇਕ) **20 ਅੰਕ**

3. **ਮੰਚ ਘਰ**

   ਕਿਸੇ ਇਕ ਇਕਾਂਗੀ ਦਾ ਵਿਸ਼ਾ-ਵਸਤੂ/ਕਲਾ/ਇਕਾਂਗੀ ਲੇਖਕ ਬਾਰੇ ਜਾਣਕਾਰੀ ਤੇ ਉਸਦਾ ਯੋਗਦਾਨ (ਦੋ ਵਿਚੋਂ ਇਕ) **20 ਅੰਕ**

4. ਪਾਠ-ਕ੍ਰਮ ਵਿਚ ਅੰਕਿਤ ਨਾਵਲ ਅਤੇ ਇਕਾਂਗੀਆਂ ਵਿਚੋਂ ਪਾਠ ਆਧਾਰਿਤ 10 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ, ਜਿਨ੍ਹਾਂ ਦੇ ਵਿਦਿਆਰਥੀ ਨੇ ਸੰਖੇਪ ਉੱਤਰ ਦੇਣੇ ਹਨ।

10×2= 20 ਅੰਕ

SEMESTER–I

ਪੰਜਾਬੀ ਪ੍ਰਕਾਰਜੀ (ਫੰਕਸ਼ਨਲ)
(ਥਿਊਰੀ)

ਕੁਲ ਅੰਕ : 100

ਪਰਚਾ ਏ : ਲਿਖਣ ਸ਼ੈਲੀਆਂ ਅੰਕ : 50

ਪਰਚਾ ਬੀ : ਰਸਮੀ ਲਿਖਤਾਂ ਅੰਕ : 50

ਮੰਤਵ : 1. ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦੇ ਉਚਾਰਨ ਅਤੇ ਲਿਖਤ ਨਾਲ ਮੁੱਢਲੀ ਜਾਣ ਪਛਾਣ

2. ਉਚਾਰਨ ਅਤੇ ਲਿਖਣ ਦਾ ਅਭਿਆਸ

ਥਿਊਰੀ

ਪਰਚਾ ਏ–ਲਿਖਣ ਸ਼ੈਲੀਆਂ

ਸਮਾਂ: ਦੋ ਘੰਟੇ ਅੰਕ: 50

ਪਾਠ–ਕ੍ਰਮ

1.	(ੳ)	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦੀ ਸੰਰਚਨਾ (ਵਾਕ, ਸ਼ਬਦ)	
	(ਅ)	ਪੰਜਾਬੀ ਉਚਾਰਨ ਅਤੇ ਗੁਰਮੁਖੀ ਲਿਪੀ	5+5=10
2.	(ੳ)	ਉਚਾਰਨ ਅੰਗਾਂ ਦੀ ਬਣਤਰ ਅਤੇ ਕਾਰਜ, ਧੁਨੀਆਂ ਦਾ ਵਰਗੀਕਰਨ	
	(ਅ)	ਪੰਜਾਬੀ ਸੁਰ, ਵਿਅੰਜਨਾਂ ਤੇ ਸੁਰਾਂ ਦੇ ਉਚਾਰਨ ਤੇ ਵਰਤੋਂ ਦੇ ਨੇਮ	5+5=10
3.	(ੳ)	ਅੰਤਰ–ਰਾਸ਼ਟਰੀ ਧੁਨੀ ਲਿਪੀ : ਮੁੱਢਲੀ ਜਾਣ ਪਛਾਣ	
	(ਅ)	ਅੰਤਰ–ਰਾਸ਼ਟਰੀ ਧੁਨੀ ਲਿਪੀ ਦੀ ਵਰਤੋਂ	5+5=10
4.	(ੳ)	ਗੁਰਮੁਖੀ ਔਰਥੋਗਰਾਫ਼ੀ ਦੇ ਤੱਤ ਅਤੇ ਨਿਯਮ	
	(ਅ)	ਪੰਜਾਬੀ ਉਚਾਰਨ ਨੂੰ ਅੰਤਰ–ਰਾਸ਼ਟਰੀ ਧੁਨੀ ਲਿਪੀ ਅਤੇ ਗੁਰਮੁਖੀ ਵਿਚ ਲਿਖਣ ਲਈ 10–10 ਸਤਰਾਂ ਦੇ ਪੰਜ ਅਭਿਆਸ	5+5=10
5.	(ੳ)	ਕੰਪਿਊਟਰ ਦੀ ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਮੁਖ ਕਾਰਜ	
	(ਅ)	ਸੂਚਨਾ ਤਕਨਾਲੋਜੀ : ਇੰਟਰਨੈਟ, ਈ-ਮੇਲ	5+5=10

SEMESTER–I

ਪ੍ਰੈਕਟੀਕਲ
ਪਰਚਾ ਬੀ– ਰਸਮੀ ਲਿਖਤਾਂ

ਸਮਾਂ : 1 ਘੰਟਾ ਅੰਕ : 50

ਪਾਠ-ਕ੍ਰਮ

1. ਲਿਖਤ ਨੂੰ ਉੱਚੀ ਆਵਾਜ਼ ਵਿਚ ਪੜ੍ਹਨ ਦਾ ਅਭਿਆਸ
2. ਜ਼ੁਬਾਨੀ ਬੋਲਣ ਦਾ ਅਭਿਆਸ
3. ਯਾਦ ਕਰਕੇ ਜ਼ੁਬਾਨੀ ਬੋਲਣ ਦਾ ਅਭਿਆਸ
4. ਬਿਨਾਂ ਤਿਆਰੀ ਤੋਂ ਕਿਸੇ ਘਟਨਾ, ਖ਼ਬਰ, ਸਥਿਤੀ, ਦ੍ਰਿਸ਼ ਜਾਂ ਵਿਅਕਤੀ ਬਾਰੇ ਮੌਖਿਕ ਪੱਧਰ ਉੱਤੇ ਵਰਣਨ।
5. ਰਿਸ਼ਤਾ-ਨਾਤਾ ਪ੍ਰਣਾਲੀ ਨਾਲ ਸੰਬੰਧਿਤ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ ਦੀ ਜਾਣਕਾਰੀ

ਨੋਟ : ਪ੍ਰੈਕਟੀਕਲ ਵਿਚ ਵਿਦਿਆਰਥੀ ਦੀ ਪੰਜਾਬੀ ਉਚਾਰਨ ਦੀ ਸਮਰੱਥਾ ਦੀ ਮੌਖਿਕ ਪਰੀਖਿਆ ਲਈ ਜਾਵੇਗੀ।

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Languages)

ਸਮੈਸਟਰ ਪਹਿਲਾ

ਮੁੱਢਲੀ ਪੰਜਾਬੀ

(In lieu of Compulsory Punjabi)

ਪਾਠ-ਕ੍ਰਮ

ਸਮਾਂ : ਤਿੰਨ ਘੰਟੇ **ਕੁੱਲ ਅੰਕ : 50**

1. ਪੰਜਾਬੀ ਭਾਸ਼ਾ
   ਗੁਰਮੁਖੀ ਲਿਪੀ
   ਗੁਰਮੁਖੀ ਲਿਪੀ : ਬਣਤਰ ਅਤੇ ਤਰਤੀਬ 20 ਅੰਕ

2. ਗੁਰਮੁਖੀ ਆਰਥੋਗ੍ਰਾਫ਼ੀ
   ਸੂਰਾਂ ਦੀ ਵੰਡ ਅਤੇ ਉਚਾਰਨ
   ਵਿਅੰਜਨਾਂ ਦੀ ਵੰਡ ਅਤੇ ਉਚਾਰਨ 15 ਅੰਕ

3. ਪੰਜਾਬੀ ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਰਚਨਾ
   ਸਾਧਾਰਨ ਸ਼ਬਦ
   ਨਿੱਤ ਵਰਤੋਂ ਦੀ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ 15 ਅੰਕ

ਯੂਨਿਟ ਅਤੇ ਥੀਮ:

1. ਪੰਜਾਬੀ ਭਾਸ਼ਾ : ਨਾਮਕਰਣ ਅਤੇ ਸੰਖੇਪ ਜਾਣ ਪਛਾਣ, ਗੁਰਮੁਖੀ ਲਿਪੀ : ਨਾਮਕਰਣ, ਗੁਰਮੁਖੀ ਵਰਣਮਾਲਾ; ਪੈਂਤੀ ਅੱਖਰੀ, ਅੱਖਰ ਕ੍ਰਮ, ਸੂਰ ਵਾਹਕ (ੳ ਅ ੲ), ਲਗਾਂ ਮਾਤਰਾਂ, ਪੈਰ ਵਿਚ ਬਿੰਦੀ ਵਾਲੇ ਵਰਣ, ਪੈਰ ਵਿਚ ਪੈਣ ਵਾਲੇ ਵਰਣ, ਬਿੰਦੀ, ਟਿੱਪੀ, ਅੱਧਕ।
2. ਗੁਰਮੁਖੀ ਆਰਥੋਗ੍ਰਾਫ਼ੀ ਅਤੇ ਉਚਾਰਨ ; ਸੂਰਾਂ ਦੀ ਵੰਡ ਅਤੇ ਉਚਾਰਨ (ਲਘੂ-ਦੀਰਘ ਸੂਰ) ; ਸੂਰ ਅਤੇ ਲਗਾਂ ਮਾਤਰਾਂ ; ਵਿਅੰਜਨਾਂ ਦੀ ਵੰਡ ਅਤੇ ਉਚਾਰਨ ; ਪੈਰ ਵਿਚ ਪੈਣ ਵਾਲੇ ਵਰਣਾਂ (ਹ, ਰ, ਵ) ਦਾ ਉਚਾਰਨ ; ਲ ਅਤੇ ਲ਼ ਦਾ ਉਚਾਰਨ ; ਭ,ਧ,ਢ,ਝ,ਘ ਦਾ ਉਚਾਰਨ; ਪੈਰ ਵਿਚ ਬਿੰਦੀ ਵਾਲੇ ਵਰਣਾਂ ਦਾ ਉਚਾਰਨ।
3. ਪੰਜਾਬੀ ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਰਚਨਾ: ਸਾਧਾਰਨ ਸ਼ਬਦ; ਇਕੱਲਾ ਸੂਰ (ਜਿਵੇਂ ਆ) ; ਸੂਰ ਅਤੇ ਵਿਅੰਜਨ (ਜਿਵੇਂ ਆਰ) ; ਵਿਅੰਜਨ ਅਤੇ ਸੂਰ (ਜਿਵੇਂ ਪਾ) ; ਵਿਅੰਜਨ ਸੂਰ ਵਿਅੰਜਨ (ਜਿਵੇਂ ਪਾਰ) ; ਪੰਜਾਬੀ ਸ਼ਬਦ ਰਚਨਾ ; ਲਿੰਗ-ਪੁਲਿੰਗ, ਇਕ ਵਚਨ-ਬਹੁ ਵਚਨ; ਨਿੱਤ ਵਰਤੋਂ ਦੀ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ; ਖਾਣ-ਪੀਣ ਅਤੇ ਸਾਕਾਦਾਰੀ ਨਾਲ ਸੰਬੰਧਿਤ।

ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ:

1. ਪਹਿਲੇ ਯੂਨਿਟ ਵਿੱਚੋਂ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਤੇ ਗੁਰਮੁਖੀ ਲਿਪੀ ਦੀ ਬਣਤਰ ਅਤੇ ਤਰਤੀਬ ਨਾਲ ਸਬੰਧਿਤ 5-5 ਅੰਕਾਂ ਦੇ ਚਾਰ ਵਿਹਾਰਕ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਅੰਕਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਇਕ-ਇਕ ਜਾਂ ਦੋ-ਦੋ ਅੰਕਾਂ ਦੇ ਛੋਟੇ ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ।
2. ਦੂਜੇ ਯੂਨਿਟ ਵਿੱਚੋਂ ਗੁਰਮੁਖੀ ਆਰਥੋਗ੍ਰਾਫ਼ੀ ਅਤੇ ਉਚਾਰਨ ਨਾਲ ਸਬੰਧਿਤ 5-5 ਅੰਕਾਂ ਦੇ ਤਿੰਨ ਵਿਹਾਰਕ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਅੰਕਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਇਕ-ਇਕ ਜਾਂ ਦੋ-ਦੋ ਅੰਕਾਂ ਦੇ ਛੋਟੇ ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ।
3. ਤੀਜੇ ਯੂਨਿਟ ਵਿੱਚੋਂ ਪੰਜਾਬੀ ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ ਰਚਨਾ ਨਾਲ ਸਬੰਧਿਤ 5-5 ਅੰਕਾਂ ਦੇ ਦੋ ਵਿਹਾਰਕ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਅੰਕਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਇਕ-ਇਕ ਜਾਂ ਦੋ-ਦੋ ਅੰਕਾਂ ਦੇ ਛੋਟੇ ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ।
4. ਨਿੱਤ ਵਰਤੋਂ ਦੀ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ ਨਾਲ ਸਬੰਧਿਤ ਇਕ-ਇਕ ਅੰਕ ਦੇ ਪੰਜ (ਆਬਜੈਕਟਿਵ) ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
5. ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਭਾਸ਼ਾ ਸਰਲ ਅਤੇ ਸਪਸ਼ਟ ਰੱਖੀ ਜਾਵੇ।

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Faculty of Physical Education)

SEMESTER–I
PHYSICAL EDUCATION

(THEORY)

Time: 3 Hours **Max. Marks: 100**

Theory Marks: 60

Practical Marks: 40

Instructions for the Paper Setters:

Section A: The candidates are required to attempt all the six questions carrying two marks each. **6x2=12 Marks**.

Section B: The candidates are required to attempt seven out of twelve questions carrying four marks each. **7x4=28 Marks.**

Section C: The candidates are required to attempt two out of four questions carrying ten marks each. **10x2=20 Marks.**

PART–A

1. Definition of the terms: Education, Physical Education, Physical Training and Coaching.
2. Aims and Objectives of Physical Education.
3. Relationship of Education and Physical Education.
4. Biological Principles:
   (a) Growth and Development
   (b) Age and sex differences
   (c) Effects of heredity and environment on growth and development.
   (d) Chronological age, physiological age, Anatomical age and Mental age.
   (e) Body types.

PART–B

1. **Development of Physical Education and Sports in India.**
   (a) Pre–Independence
   (b) Post– Independence
   (c) Sports Schemes in India
      (i) N.S.N.I.S.
      (ii) Sports Authority of India.
      (iii) Punjab Sports Department.
      (iv) Punjab State Sports Council.
2. **Olympic Games:**
   (a) Ancient Olympics.
   (b) Modern Olympics.
3. **Commonwealth Games**
4. **Asian Games**

B.A./B.Sc. (Semester System) (12+3 System of Education)
(Faculty of Physical Education)

SEMESTER–I
PHYSICAL EDUCATION

(PRACTICAL)

Marks: 40

Division of Marks: Athletics (12) + Games (12) +Ground Markings (3+3), Practical Note Book (5), Viva–Voce (5)

- **Athletics Performance ——————** 100M, Shot–put for Boys
  100M, Shot–put for Girls

- **Games (Boys & Girls) —— Fundamentals, Rules, Performance**
  Volleyball
  Cricket

Suggested Readings:

1. Barrow, H.M. Man and His Movements: Principles of Physical education, Lea and Febiger, 1973, Latest Edition.
2. Reverse, R.S., Foundations of Physical Education Houghton Mifflin Co. Boston, 1978, Latest Edition.
3. Bucher, C.S. Foundations of Physical Education 5th Edition, 1968, at Louis C.V. Mosby. C.
4. Eraz Ahmad Khan, History of Physical Education – Scientific Book Co., Patna–4, Latest Ed.
5. Singh Kanwaljeet and Singh Inderjeet: Sports Sociology, Friends Publication, New Delhi, 2000.
6. Tadan D.K. et al,: Scientific basis of Physical Education and Sports, Friends Publication, New Delhi, 2001.
7. Singh Ajmer and Gill Jagtar: Essentials of Physical Education and Olympic Movement, Kalyani Publishers, Ludhiana, 2004.
8. Kang G.S. and Deol N.S.: An Introduction to Health and Physical Education 21st Century, Patiala, 2008.

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Faculty of Languages)

SEMESTER–I

fgUnh i=dkfjrk
iij & I
i=dkfjrk % lkekU; ifjp; vkj il dkuu

le;% 2½ ?k.V | i.kkd% 40

क) यह प्रश्न पत्र तीन भागों में बँटा हुआ है। पहले भाग में से दस प्रश्न पूछे जाएंगे। इस भाग के सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न 1 (एक) अंक का होगा। कुल अंक 10 हैं।

ख) इस भाग में से 8 प्रश्ने पूछे जांएगे जिनमें से 4 प्रश्नों का उत्तर देना होगा। इन प्रश्नों का उत्तर दो पृष्ठों तक की सीमा का होगा। प्रत्येक प्रश्न के 4 अंक है। कुल अंक 16 हैं।

ग) इस भाग में से 4 प्रश्ने पूछे जाएंगे जिनमें से 2 प्रश्नों का उत्तर देना होगा। इन प्रश्नों का उत्तर 3–4 पृष्ठों तक सीमित होगा। प्रत्येक प्रश्न के 7 अंक हैं। कुल अंक 14 हैं।

fu/kkfjr ikB;Øe

d½ il 'kCnkoyh — 1×10=10 अंक

(हिन्दी पत्रकारिता : विकास और विविध आयाम–श्रीमती सुशीला जोशी : राजस्थान हिन्दी ग्रन्थ अकादमी, चतुर्थ संस्करण–2000)

[k½ i=dkfjrk % vFk] ifjHkk"kk vkj Lo:i

- पत्रकारिता : उद्देश्य और दायित्व
- पत्रकारिता : प्रशिक्षण
- पत्रकारिता : प्रशिक्षण की समस्याएँ
- पत्रकारिता और पत्रकार
- पत्रकार के गुण और दायित्व

x½ il dkuu

- मानहानि
- न्यायलय की अवमानना
- भारतीय सरकारी रहस्य अधिनियम (1923)
- औषधि और चमत्कारिक उपचार (आपत्तिजनक विज्ञापन) (1954)
- युवकों के लिए हानिप्रद प्रकाशन (1956)
- कृति–स्वाम्य अधिनियम तथा एकांतता का कानून (1957) (द कॉपी राइट अधिनियम, 1957)
- प्रेस और पुस्तक पंजीकरण नियम (1867)
- पुरस्कार प्रतियोगिता कानून (1955)
- प्रेस एवं संसदीय विशेषाधिकार
- श्रमजीवी पत्रकार कानून (1955)

vd foHkktu

- प्रथम खंड में भाग 'क' प्रेस शब्दावली से प्रश्न पूछे जाएंगे। — 1x10=10 अंक
- द्वितीय खंड में भाग 'ख' और 'ग' में से प्रश्न पूछे जाएंगे। — 4x4=16 अंक
- तृतीय खंड में भाग 'ग' में से प्रश्न पूछे जाएंगे। — 2x7=14 अंक

SEMESTER–I

fgUnh i=dkfjrk
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fgUnh i=dkfjrk % mn~Hko vkSj fodkl

le;% 2½ ?k.Vs iw.kkZad% 40

क) यह प्रश्न पत्र तीन भागों में बँटा हुआ है। पहले भाग में से दस प्रश्न पूछे जाएंगे। इस भाग के सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न 1 (एक) अंक का होगा। कुल अंक 10 हैं।

ख) इस भाग में से 8 प्रश्ने पूछे जांएगे जिनमें से 4 प्रश्नों का उत्तर देना होगा। इन प्रश्नों का उत्तर दो पृष्ठों तक की सीमा का होगा। प्रत्येक प्रश्न के 4 अंक है। कुल अंक 16 हैं।

ग) इस भाग में से 4 प्रश्ने पूछे जाएंगे जिनमें से 2 प्रश्नों का उत्तर देना होगा। इन प्रश्नों का उत्तर 3–4 पृष्ठों तक सीमित होगा। प्रत्येक प्रश्न के 7 अंक हैं। कुल अंक 14 हैं।

fu/kkZfjr ikB~;Øe

d½ fgUnh i=dkfjrk % fo"k; vkSj {ks=
- – हिन्दी पत्रकारिता : प्रकार
- – हिन्दी पत्रकारिता : चुनौतियाँ और समस्याएँ
- – चतुर्थ स्तम्भ के रूप में हिन्दी पत्रकारिता

[k½ fgUnh i=dkfjrk dk fodkl
- – हिन्दी पत्रकारिता : विविध चरण
- – भारतेन्दु युग की पत्रकारिता
- – द्विवेदी युग की पत्रकारिता
- – छायावाद युग की पत्रकारिता
- – आधुनिक युग की पत्रकारिता

x½ fgUnh Hkk"kk dh izpkj&izlkj esa fgUnh i=dkfjrk dk ;ksxnku
- – fgUnh i=dkfjrk % jkstxkj ds volj

vad foHkktu

– प्रथम खंड में भाग 'क' में से प्रश्न पूछे जाएंगे।	1x10=10 अंक
– द्वितीय खंड में भाग 'क' और 'ग' में से प्रश्न पूछे जाएंगे।	4x4=16 अंक
– तृतीय खंड में भाग 'ख' में से प्रश्न पूछे जाएंगे।	2x7=14 अंक

B.A./B.Sc. (Semester System) (12+3 System of Education)

(Faculty of Languages)

SEMESTER–I

fgUnh i=dkfjrk

iz;ksx

20 vad

– विद्यार्थियों को प्रति समस्तर 20 अंक की 'प्रयोग–पुस्तिका' तैयार करनी होगी।

– 'प्रयोग–पुस्तिका' का आकलन और मौखिक–परीक्षा गुरु नानक देव विश्वविद्यालय द्वारा निर्धारित परीक्षा–नियमों के अनुसार की जाएगी।

iz;ksx dk fo"k;

– विभिन्न भाषी समान समाचारों का संकलन।

– समाचारों का हिन्दी, पंजाबी, अंग्रेज़ी में अनुवाद।