SYLLABUS

FOR

B.A./B.Sc.
(12+3 SYSTEM OF EDUCATION)
(SEMESTER–II)

Examinations: 2019-20

GURU NANAK DEV UNIVERSITY
AMRITSAR

B.A./B.Sc. (Semester System) *(12+3 System of Education) (Semester–II) (Session 2019-20)*

INDEX OF SEMESTER–II

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Arts & Social Sciences)

SEMESTER–II

POLITICAL SCIENCE

MODERN POLITICAL THEORY

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

1. Political System**:** Meaning, Characteristics and Functions.
2. Political Culture**:** Meaning, Characteristics and Types.
3. Political Socialisation**:** Meaning, Characteristics and Agencies.

SECTION–B

1. Rights and Duties**:** Meaning, Types and Relationship between the Two.
2. Universal Declaration of Human Rights.
3. Environmental Protection**:** Issue and Efforts.

SECTION–C

1. Liberty: Meaning, Types and its Safeguards.
2. Equality: Meaning, Types and Relationship between Liberty and Equality.
3. Justice: Meaning and its various Dimensions.

SECTION–D

1. Democracy**:** Meaning, Characteristics and Types.
2. Theories of Democracy**:** Liberal, Marxian and Elitist Theory.

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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. Ashirvatham, *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.   John–Hoffman and Paul Graham, *Introduction to Political Theory,* New Delhi, Pearsons, 2006.

11.   Andrew Heywood, *An Introduction to Political Theory,* New Delhi, Palgrave Publications.

12.   Aeon J. Skoble and Tibor R. Machan, *Political Philosophy,* 1st Edition, New Delhi, Pearson 2007.

13.   Catriona Mckinnon, *Issues in Political Theory*, Oxford, 2009

14.   R. Bhargava, *Political Theory : An Introduction* , Pearson, 2012

15.   N.D Arora, *Introduction to Political Theory*, Har Anand, 2012

16.   R.C Vermani, *Understanding Political Theory: Concepts and Issues*, Gitanjali, 2011

17.   Anthony H. Birch, *The Concepts and Theories of Modern Democracy*, Routlege, 2013

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SEMESTER–II

HISTORY

HISTORY OF INDIA (C. 1000–A.D.1707)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
1. **The Conquests of the Ghaznavis and Ghauris:** Invasions of Mahmud Ghaznavi; their effects, Battles of Muhammad Ghauri, Causes of the success of the Turks.

2. **Establishment of the Sultanate of Delhi:** Political and military development under Qutabuddin Aibak, Iltutmish and his successors; Consolidation of the Sultanate under Balban and the Mongol invasions.

SECTION–B
3. **The Khiljis:** Emergence of the Khiljis under Jalaluddin and Alauddin Khilji; Alauddin's conquests, the Mongol invasions; Treatment of the nobility; Land revenue reforms; Economic reforms. **The Tughlaqs:** Muhammad–bin–Tughlaq; His experiments; Causes of disaffection and revolts; Feroze Tughlaq; Administrative and economic policies and their effects; Taimur's Invasions.

4. **The Vijaynagar Kingdom:** Establishment and expansion; Polity, Economy and Administration; Art and Architecture.

SECTION–C
5. **Mughal–Afghan Struggle (1526–1556):** Advent of the Mughals under Babur; Battle of Panipat and its aftermath; Battle of Kanwaha, Battles of Humayun; expansion of the Afghan power under Sher Shah Suri, Administrative reforms; return of Humayun.

6. **Re–establishment and expansion of the Mughal Empire under Akbar:** Conquests, extent of empire, Religious policy, Rajput policy. **Expansion and Decline under Akbar's Successors** : Jahangir and Mewar; North–western campaigns; Extension of influence over the Deccan; Conquest of Ahmednagar by Shah Jahan; Rise of Aurangzeb to power.

SECTION–D

7. **The Mughal Government, Administration and Culture:** Position of the King: Central and local administration; Land revenue system; Mansabdari; Jagirdari; State policy towards agriculture, Trade and Commerce, Literature, Art and Architecture and Culture.

8. **The establishment of Maratha Power:** The rise of Shivaji, Maratha administration, Land revenue system; Chauth and Sardeshmukhi.

Suggested Reading

1. Chandra, Satish, *History of Medieval India,* Orient Black Swan, Hyderabad, 2007

2. Chandra, Satish , *Medieval India*, Vol. I & II, Har- Anand Publication Pvt. Ltd. New Delhi, 2010

3. Mehta, J.L. *Medieval Indian Society and Culture (Advanced Study in the History of Medieval India,* Vol. III), Sterling Publication, New Delhi, 2009

4. Rizivi, S.A.A., *The Wonder That Was India-II* (1200-1700), Picador India,

5. Mahajan, V.D., *Medieval India*, S. Chand and Publication, New Delhi, 2010

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SEMESTER–II
DEFENCE AND STRATEGIC STUDIES

INTERNATIONAL RELATIONS: DEFENCE ASPECTS
(THEORY)

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note: *Practicals are only meant for the regular students. For the private students the paper shall be of 100 marks. For private students, each question will be of 20 marks.*

SECTION–A
1. National Interest:
    i) Concept and definition.
    ii) Vital and non–vital elements
    iii) Instruments of National Interest.
2. The United Nations:
    i) Structure (Organs and specialised agencies)
    ii) Functions

SECTION–B
1. Balance of Power:
    i) Meaning and Concept
    ii) Historical Development of the system.
    iii) Functioning of the system.
2. Collective Security:
    i) Meaning & Concept.
    ii) Role of United Nation in maintaining collective security.

SECTION–C
1. Diplomacy:
    i) Definition.
    ii) Types and uses
2. Frontiers and Boundaries:
    i) Difference between Frontiers and Boundaries.
    ii) Types of Boundaries.
    iii) Importance of Boundaries.

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SECTION–D

1. Humanisation of War:
     i) Definition and Concept.
     ii) Geneva Conventions.
2. Means to Settle International Disputes:
     i) Pacific Means.
     ii) Coercive Means
3. Disarmament and Arms Control:
     i) Difference between Disarmament and Arms Control.
     ii) Types of Disarmament.
     iii) Efforts, Made outside the UN towards disarmament.

Books Recommended:-

1. Chandra, P. (2014)   :   International Politics 2nd edition

2. Curzon, Lord of Kedleston (1908)   :   Frontiers.

3. Encyclopedia Americana (Latest edition)

4. Encyclopedia Britannica (Latest edition)

5. Fenwick, Charles G. (1948)   :   International Law.

6. Ghai, U.R. (2010)   :   International Politics-Theory and Practice

7. Kapoor, S.K. (2016)   :   International Law & Human Rights 20th edn.

8. Morgenthau, Hans J. (2006)   :   Politics among Nations 7th edition

9. Naik, J.A. (2000)   :   A Text Book of International Relations.

10. Palmer, N.D. &
    Perkins, H.C. (2001)   :   International Politics 3ed paperback edition

11. Patel, Satyavrata R. (1964)   :   A Text Book of International Law.

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SEMESTER–II

DEFENCE AND STRATEGIC STUDIES
(PRACTICAL)

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

Time: 1 Hour   **Marks: 10**

1. **Directions**
2. **North**
    a. Types of North and finding out True North
    b. The Pole Star Method
    c. The equal altitude method
    d. Watch method & Compass method.
3. **Scale**
    a. Definition,
    b. Methods of representing Scale.
    c. Inter–conversion of scale into Representative Fraction, construction of simple scale line and the comparative scale lines.

B.   TOPICS FOR DISCUSSION/PRESENTATION: **Marks: 05**
    a. The role of UN in peace keeping.
    b. Collective Security System
    c. Humanization of War

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

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SEMESTER–II

JOURNALISM AND MASS COMMUNICATION (VOCATIONAL)
(THEORY)

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
-Development of Radio, TV, Cinema and Cable in India over the years

SECTION–B
-Organs of I & B Ministry: FTII, NFAI, DAVP, Field Publicity, Song and Drama Division, Directorate of film festivals, NFDC, RNI, Film Division
- Basics of different formats for Radio and TV

SECTION–C
-Fundamentals of Hardware of electronic media (Studios, Microphones, Recording and editing equipments)
- Audio-Visual media and its characteristics

SECTION–D
-Print Media, its characteristics (News concept, elements, types, Basics of News reporting, Sources of News, Hard and soft news, specialized reporting, Problems in reporting)

Books Recommended:-

1. Professional Journalism M.V. Kamath Vikas
2. The Journalist's Handbook M.V. Kamath Vikas
3. Here is the News Rangaswamy Sterling Parthasarthy Sterling
   Basic News Writing

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SEMESTER–II

JOURNALISM AND MASS COMMUNICATION (VOCATIONAL)
(PRACTICAL)

Marks: 20

Reporting the College Events.

Visit to Newspapers Offices

Rewriting the news (at least 10)

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SEMESTER–II
MASS COMMUNICATION & VIDEO PRODUCTION (VOCATIONAL)
AUDIO VISUAL MEDIA
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
-History and Development of Radio, TV, Cinema and Cable in India over the years

SECTION–B
-Organs of I & B Ministry: FTII, NFAI, DAVP, Field Publicity, Song and Drama Division, Directorate of film festivals, NFDC, RNI, Film Division
- Basics of different formats for Radio and TV: Talk, Interview, News, Discussion, Voxpox, Live shows, Feature, Documentary, Drama, Serial, Phone in programs, Commercials

SECTION–C
-Print Media: characteristics, concept of news
-Elements of news
-Types of news; steps in writing news
-Sources of news
-Basics of news reporting
SECTION–D
-Audio-visual media and its characteristics
-Online Journalism

Books Recommended:-

Title	Author	Publisher
Outline of Reporting	M.K. Joseph	Anmol Publications, 1997
Radio & TV Journalism	Jan R. Hakemulder	Anmol Publications, New Delhi,
Radio & TV Journalism	K.M. Srivastava	Sterling Publications
Annual Report		I & B Ministry

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SEMESTER–II

MASS COMMUNICATION & VIDEO PRODUCTION (VOCATIONAL)
AUDIO VISUAL MEDIA
(PRACTICAL)

Marks: 20

Visit to AIR, DD and other media organizations, News Writing, Introduction to basic mechanics

of production techniques, script writing for Radio & TV programmes. Computer Practicals

NOTE:- Practical to be conducted by the external examiner.

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SEMESTER–II

PUBLIC ADMINISTRATION

INDIAN ADMINISTRATION

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Main Features of Indian Administration: Nature of Indian Federalism, Union–State Relations. Legislative, Administrative and Financial.

SECTION–B

Central Administration: President, Prime Minister, PMO, Council of Ministers. Central Secretariat; Organisation and Functions, Cabinet Secretariat.
Parliament: Lok Sabha, Rajya Sabha, Speaker.
Judicial System: Supreme Court and High Court.

SECTION–C
State Administration: Governor, Chief Minister, Council of Ministers, Chief Secretary, State Legislature. State Planning Board.
Divisional and District Administration: Features, Functions and Role of Divisional Commissioner and Deputy Commissioner.

SECTION–D
Issues in Indian Administration: Relationship between permanent and political executive, Generalist versus specialist, Good Governance initiatives.

Suggested Readings:-
1. Arora Ramesh K. and Goyal R., Indian Public Administration, Vishwa Prakashan, New Delhi, 2002.
2. Avasthi and Avasthi, Indian Administration, Lakhsmi Narain, Agra, 2000.
3. Bhagwan Vishnoo and Bhushan Vidya, Indian Administration, S. Chand & Company, New Delhi, 2000.
4. Fadia B.L. Fadia Kuldeep, Indian Administration, Sahitya Bhawan Publishers, New Delhi, 2005.
5. Hoshiar Singh, Indian Administration, Kitab Mahal, Allahabad, 2000.
6. Jain R.B. Contemporary Issues in Indian Administration, Vishal Publications, New Delhi, 1976.
7. Maheshwari S.R., Indian Administration, Orient Longman, New Delhi, 2000.
8. Maheshwari S.R., State Government in India, McMillan, New Delhi, 1979.
9. Sachdeva Pardeep, Bharti Prashasan, Publication Bureau, Panjabi University, Patiala, 2002.
10. D.D.Basu, Introduction to the Indian Constitution.

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SEMESTER–II
SOCIOLOGY

FUNDAMENTALS OF SOCIOLOGY–II

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
a) **Social Structure:** Meaning, Characteristics, Elements- Norms and Values, Status and Roles.
b) **Culture:** Meaning, Elements and Cultural lag.

SECTION–B
a) **Social Stratification:** Meaning and Forms.
b) **Social Mobility:** Meaning, Types and Causes.

SECTION–C
a) **Social Control:** Meaning and Significance.
b) **Agencies of Social Control- Formal:** Law. **Informal:** Folkways and Mores.

SECTION–D
a) **Social Disorganization:** Meaning and Forms: Corruption, Crime and Terrorism.

Recommended Readings:-

1.   Ahuja, Ram. 1993, *Indian Social System*. Jaipur: Rawat Publications.
2.   Abraham, M. Francis. 2006, *Contemporary Sociology*. New Delhi: Oxford University.
3.   Bottomore, T.B.S. 1972, *Sociology*. Punjabi Translation by Parkash Singh Jammu, Publication Bureau, Punjabi University, Patiala.
4.   Giddens, Anthony. 2006, *Sociology*. Cambridge: Polity Press.
5.   Gisbert, Pascual. 1969, *Fundamentals of Sociology*. Bombay: Orient Longmans.
6.   Haralambos, Michael and Robin Heald. 2013, *Sociology: Themes and Perspectives*. New Delhi: Oxford University Press.
7.   Jayaram, N. 1988, *Introductory Sociology*. Madras: Macmillan.
8.   Johnson, H.M. 1995, Sociology: *A Systematic Introduction*. New Delhi: Allied Publishers.
9.   Kapila, S. 1989, *A Text Book of Sociology*, Part–I & II. Jalandhar: New Academic House.
10.   Kapila, S. 2001, *Fundamentals of Sociology*, Vol. I. Panchkula, Kapila Publishers.
11.   Macionis, John.J and Ken Plumer. 2014, *Sociology: A Global Introduction*. London: Pearson.
12.   McGee, Reece et al. 1977, *Sociology–An Introduction*. Hindale: Reinehart and Winston.
13.   Oommen, T.K and C.N Venugopal. 2010, *Sociology*. Lucknow: Eastern Book Company.

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SEMESTER–II

WOMEN EMPOWERMENT

WOMEN INEQUALITY: SOCIAL, POLITICAL AND ECONOMIC ASPECTS

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Women Inequality: Social Aspects
1. **Women Inequality and Violence:** Discriminations, Sexual Harassment, Child Marriage, Dowry, Abortion, Traffiking, Rape and Acid throwing.
2. **Social Issues Related to Women and Practice of Inequality:** Health, Female Foeticide, Female Infanticide.

SECTION–B

Women Inequality: Economic Aspects
1. **Women and Economy:** Poverty and inclusive growth.
2. **Women in Formal Sector:** Information Technology and Industry.
3. **Women in Informal Sector:** Domestic workers and unpaid labour.

SECTION–C

Women Inequality: Political Aspects
1. Political Movement in Pre Independence and Post Independence period and Women Participation
2. Women Rights and Judiciary in India.

SECTION–D

Women Inequality and Women Movements in India
1. **Women's Movements and Struggle for Women's Rights:** Role of state, women groups and economy.
2. Women Activism, Protests and Civil Society.

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SEMESTER–II

Drug Abuse: Problem, Management and Prevention

DRUG ABUSE: MANAGEMENT AND PREVENTION

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Prevention of Drug abuse:
Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.

SECTION–B
School: Counselling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students.

SECTION–C
Controlling Drug Abuse:
Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs, Publicity and media, Campaigns against drug abuse, Educational and awareness program

SECTION–D
Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

References:-

1.   Ahuja, Ram (2003), *Social Problems in India*, Rawat Publication, Jaipur.

2.   Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.

3.   Inciardi, J.A. 1981. *The Drug Crime Connection.* Beverly Hills: Sage Publications.

4.   Kapoor. T. (1985) *Drug epidemic among Indian Youth*, New Delhi: Mittal Pub.

5.   Kessel, Neil and Henry Walton. 1982, *Alcohalism. Harmond Worth:* Penguin Books.

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6. Modi, Ishwar and Modi, Shalini (1997) *Drugs: Addiction and Prevention*, Jaipur: Rawat Publication.

7. National Household Survey of Alcohol and Drug abuse. (2003) New Delhi, Clinical Epidemiological Unit, All India Institute of Medical Sciences, 2004.

8. Ross Coomber and Others. 2013, *Key Concept in Drugs and Society.* New Delhi: Sage Publications.

9. Sain, Bhim 1991, *Drug Addiction Alcoholism,* Smoking obscenity New Delhi: Mittal Publications.

10. Sandhu, Ranvinder Singh, 2009, *Drug Addiction in Punjab*: A Sociological Study. Amritsar: Guru Nanak Dev University.

11. Singh, Chandra Paul 2000. *Alcohol and Dependence among Industrial Workers*: Delhi: Shipra.

12. Sussman, S and Ames, S.L. (2008). *Drug Abuse: Concepts, Prevention and Cessation,* Cambridge University Press.

13. Verma, P.S. 2017, *"Punjab's Drug Problem: Contours and Characterstics",* Economic and Political Weekly, Vol. LII, No. 3, P.P. 40-43.

14. World Drug Report 2016, United Nations office of Drug and Crime.

15. World Drug Report 2017, United Nations office of Drug and Crime.

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SEMESTER–II

PSYCHOLOGY

BASIC PSYCHOLOGICAL PROCESSES–II
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Neuron (Structure and Functions), Synapse and Types of Synapse, Resting and Action Potentials, Nervous System (Central, Peripheral and Autonomic), Glands (Endocrine and Exocrine)

SECTION–B
Motivation: Concept and Nature of Motivation, Types of Motivation, Needs, Drives and Incentives, Conflicts and Frustration (Concept, Nature and Types}
Emotions: Concept and Nature of Emotions, Types of Emotions, Theories of Emotions (James Lange, Cannon Bard and Lindzy), Physiological Correlates of Emotions

SECTION–C
Personality: Concept of Personality, Characteristics of Personality, Theories of Personality (Adler, Jung, Allport, Eysenck and Cattell), Techniques of Assessment (Psychometric and Projective)

SECTION–D
Measures of Variability: Meaning and Characteristics of Variability, Range, Quartile Deviation, Average Deviation and Standard Deviation with Merits and Demerits

References:

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. Aron (2007). *Statistics for Psychology*. Pearson Education, New Delhi.

7. Coon, D.L., &Mitterer, J.O. (2007). *Introduction to Psychology; Gateways to Mind and Behaviour*. Thomson Wadrwoth.

8. Solso, R.L. (2007). *Cognitive Psychology*. Pearson Education, New Delhi.

9. Hall, S.S. &Lindzey (1969). *Theories of Personality*. Wiley Eastern Ltd. New Delhi.

10. Pinel, J.P.J. (2007). *Biopsychology*. Pearson Education, New Delhi.

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SEMESTER–II
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. Effect of Knowledge of Results on Performance.
2. Level of Aspiration.
3. Projective Techniques–Completion Test.
4. Personality Inventory
5. Zeigarnick-effect
6. Measurement of Emotions

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SEMESTER–II

GEOGRAPHY

PHYSICAL GEOGRAPHY – II: CLIMATOLOGY & OCEANOGRAPHY
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note: Stencil/outline maps and coloured pencils are allowed

Objective:
The objective of this paper is to acquaint the students with the elements and attributes of climatology and oceanography as climate plays a very vital role in human life and oceans are storehouses of resources.

SECTION–A

Definition of Climatology: Climate and Weather.
Climate: Elements and controls.
Physical structure of the atmosphere and attributes of different layers, Physical and Chemical composition of the atmosphere: Dust particles, vapour particles, active gases, inert gases.
Insolation and Temperature: Horizontal distribution of insolation, factors affecting temperature of a place, vertical and horizontal and annual, seasonal and diurnal distribution of temperature.

SECTION–B

Atmospheric Pressure and Winds Distribution: Atmospheric disturbances (Tropical cyclones, temperate cyclones and anticyclones).
Atmospheric Moisture: Forms of condensation – Cloud, dew, fog and frost. Precipitation forms and types. World patterns of precipitation: Spatial and seasonal.
Climatic Classifications and their Bases: Elementary discussion of Koppen's classification of climates and climatic types.
Role of Climate in Human Life: Atmospheric pollution and global warming – general causes, consequences and measure of control.

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SECTION–C

Oceanography: Definition, topography of the ocean basins; continental shelf, continental slope, deep sea plain and oceanic deep.
Features: Trench, trough, oceanic ridge, guyots, seamount. Factors controlling the world patterns of distribution of temperature and salinity in the ocean waters.

SECTION–D
Movements of Oceanic Waters: Waves and currents. Surface currents of the oceans. Marine Flora, Fauna and Deposits, Corals. Ocean as storehouse of resources for the future.

Recommended Books:-

1. Bhutani, Smita: *Our Atmosphere*, Edited by R.C. Chandna, Kalyani Publishers, Ludhiana, Delhi, **2002**.
2. Critchfield, H.J.: *General Climatology*, Prentice Hall of India, Private Ltd., New Delhi, **1983**.
3. Gross, Grant, M.: *Oceanography: A View of the Earth*, Prentice Hall, New Jersey, **1995**.
4. Lal, D.S.: *Climatology*, **Sharda Pustak Bhawan, Allahabad, 2011**.
5. Mathew, J.R.: *Climatology*, McGraw Hill, New Latest Edition.
6. Monkhouse, F.J.: *The Principles of Physical Geography*, University of London Press, London Latest Edition, **1975**.
7. Pattersen, S.: *Introduction to Meterorology*, McGraw Hill Book Co., London, Latest Edition.
8. Stringer, E.T.: *Foundations of Climatology*. Subject Publications, Delhi, 1982.
9. Trewartha, G.T.: *An Introduction to Climate*, McGraw Hill Book Co., New Delhi, International Student Edition, 1980.
10. Khan, N.: *An Introduction to Physical Geography*. Concept New Delhi, **2002**.
11. King, C.A.M.: *Beaches and Coasts*, E. Arnold, London, 1959.
12. King, C.A.M.: *Oceanography*, E. Arnold, London, Latest Edition.
13. Sharma, R.C. & M. Vatel: *Oceanography for Geographers*, Chetyna, Allahabad 1970.
14. Shepar, F.P. : *Submarine Geology*, Harper & Sons, New York, 1948.
15. Sverdrup, H.U. et.al. : *The Oceans*. Prentice Hall, New Jersey, U.S.A. 1959.
16. Singh, Savinder: *Physical Geography*, **Pravalika Publications, Allahabad, 2015**.

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SEMESTER–II
GEOGRAPHY

CARTOGRAPHY–II
(PRACTICAL)

Time: 3 Hours   **Total Marks: 30**
                                       Written Paper of 3 Hours: 15 Marks
                                                Practical Record (File): 08 Marks
                                                                 Viva: 07 Marks

Objectives:
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. Knowledge of directions and bearings is essential and an introduction to weather maps is also required.

SECTION - A

Direction and Bearings: Plotting of a course, true north, magnetic north, finding true north with the pole star, a watch and a rod; bearing and its conversion.
Enlargement and Reduction: Graphic methods–square and triangle; instrumental methods–Pantographic, Xeroxing photographic.

SECTION - B

Weather Maps:
General Introduction to the study of weather maps, the scheme of weather symbols including Beaufort's scale employed in Indian daily weather maps; weather in India: summer season (period of summer monsoon), winter season, forecasting of weather through the study of weather maps and recent advances in weather forecasting.

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 one. (Total 12 marks)
3. Simple calculators are allowed.
4. 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.
5. In case the candidate has applied for the improvement, he/she should be required to make a fresh practical note book.
6. 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, 2016.
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, 1991.

Further Readings:-

1. Mishra, R.P. & Ramesh, A.: *Fundamental of Cartography*, Concept Publishing Co., New Delhi, 1989.
2. Monkhouse, F.J. and 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.

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SEMESTER–II

Punjab History & Culture (C. 320 to 1000 B. C)
(Special Paper in lieu of Punjabi compulsory)
(For those students who are not domicile of Punjab)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
1. Alexander's Invasion and its Impact
2. Punjab under Chandragupta Maurya and Ashoka.

SECTION–B
3. The Kushans and their Contribution to the Punjab.
4. The Panjab under the Gupta Empire.

SECTION–C
5. The Punjab under the Vardhana Emperors
6. Socio-cultural History of Punjab from 7th to 1000 A.D.

SECTION–D
7. Development of languages and Education with Special reference to Taxila
8. Development of Art & Architecture

Suggested Readings

1. L. M Joshi (ed), *History and Culture of the Punjab*, Art-I, Punjabi University, Patiala, 1989 (3rd edition)
2. L.M. Joshi and Fauja Singh (ed.), *History of Punjab*, Vol.I, Punjabi University, Patiala, 1977.
3. Budha Parkash, *Glimpses of Ancient Punjab*, Patiala, 1983.
4. B.N. Sharma: *Life in Northern India*, Delhi. 1966.

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SEMESTER–II

ECONOMICS

MACROECONOMICS

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION-A
Distinction between Micro and Macro Economics; Determination of Income and Employment : Classical and Keynesian models; Say's Law of Market and aggregate demand and aggregate supply.
Consumption functions; average (short-run and long run) and marginal propensity to consume; static and dynamic multipliers.

SECTION-B
Investment: Meaning, Demand schedules and factors affecting investment decision. Marginal Efficiency of Capital. Accelerator, multiplier-accelerator interaction.
Trade cycles-meaning, characteristics and phases. Samuelson and Hicks Models of trade cycles.

SECTION-C
Money: Its functions and role. Money and Capital Markets (Introductory). Quantity Theory of Money. Fisher's and Cambridge's equations. Liquidity preference theory.
Banking: Definitions of banks. Credit creation and credit control.

SECTION-D
Inflation: Concept, Causes and cures. Inflation-unemployment Trade-off (only Phillips' contribution).
Macroeconomic Policies: Fiscal policy – meaning, objectives and instruments. Monetary policy – meaning, objectives and instruments.

Recommended Texts:

1. Shapiro, E. Macroeconomic Analysis, Harcourt, Brach and World, New York, 1978.
2. Dernaburg, T.F. and MC Dougall D.M., Macroeconomics : the Measurement, Analysis and Control of Aggregate Economic Activity, McGraw-Hill, Kogakusha, Tokyo, 1972.
3. Gupta, S.B. Monetary Economics : Institutions, Theory and Policy, S. Chand, New Delhi, 2000.

SEMESTER–II

QUANTITATIVE TECHNIQUES-II

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Statistics: Definition, Scope in Economics, Significance, Limitations. Tabulation, Classification and Graphical representation of data (Pie Chart, Bar Diagram, Histogram, Frequency Polygon, Ogive Curve, etc.).

SECTION–B
Concepts and Measures of Central Tendency: Mean, Median and Mode; Concepts and Measures of Relative Dispersion.

SECTION–C
Correlation Analysis: Introduction, Importance, Karl-Pearson's Coefficient of Correlation, Spearman's Rank Correlation Coefficient, Simple Regression Analysis; Difference between Correlation and Regression, Lines of Regression, Properties of Correlation and Regression Cofficients (Stress on numerical examples).

SECTION–D
Index Numbers: Concept of Index Number, Purpose Construction & Problems, Laspeyre, Paasche and Fisher's Formulae, Tests of Consistency.
Analysis of Time Series: Definition, Components of Time Series, Measurement of Trend by different methods; stress on examples.

Books Recommended:-
1. Gupta, S.P.: Statistical Methods (1981).
2. Croxton, Cowden & Klein: Applied General Statistics (1973).
3. Ya-lun-chou: Statistical Analysis (1975)
4. Kapur and Sexena: Mathematical Statistics (1970)
5. Murry, R. Speigal: Theory and Problems of Statistics (1972).

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SEMESTER–II

INDUSTRIAL ECONOMICS

INDUSTRIAL ECONOMICS–II

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Industrial Relations: Concept, approach and organisation.
Theory of Industrial Relations: Dunlop's industrial relation system; Classical Marxist Theory; human relation theory; Pluralism and radical approach.

SECTION–B
Growth, pattern and structure of labour unions in India–achievements and failures.
Nature and Causes of industrial disputes–settlement and prevention mechanism; Role of tripartism.

SECTION–C
Collective Bargaining: Theories, types and role; current trends in collective bargaining.

SECTION–D
Labour legislation in India with reference to Trade Union Act, 1926; Industrial Disputes Act, 1947, and their contemporary relevance since labour market reforms.

Recommended Texts:-
1. Giri, V.V.: Industrial Relations, N.M. Tripathi Asia Publications, Bombay, 1972.
2. Memoria. C.B.: Dynamic of Industrial Relations in India, Himalaya Publishing House, Bombay, 1983.
3. Myers, C.A.: Industrial Relations in India, Asia Publishing House, Bombay, 1970.
4. Ramaswamy, E.A. and U. Ramaswamy: Industrial Relations in India, Macmillan, Delhi, 1978.
5. Punekar, SD.: Labour Welfare, Trade Unionism and Industrial Relations, Himalaya Publishers, Bombay, 1978.
6. Rees, A: Economics of Work and Play.

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SEMESTER–II

AGRICULTURAL ECONOMICS & MARKETING

AGRICULTURAL MARKETING - I

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Marketing: Definition, scope, product, production, selling and marketing concepts, marketing efficiency, farmers and marketing.

SECTION–B
Consumer–market and buying behaviour, trends in population and income distribution variations in food consumption, market segmentation, market integration, market consideration.

SECTION–C
Agricultural Production in India: Farm size, land utilization and cropping pattern, characteristics of producer and production.
Variations in production–seasonal, annual and geographic Marketed and marketable surplus.

SECTION–D
Agricultural Marketing in India, structure, type and defects, marketing function, processing and standardisation, grading, transportation, distribution and storage, marketing agencies.

Suggested Readings:-

1. Cundiff, Still & Goveni, Fundamentals of Modern Marketing.

2. Memoria, C.B., Agricultural Problems of India.

3. Bansil, P.C., Agricultural Problems of India.

4. Rudder Dutt and Sundram, Indian Economy.

5. Indian Council of Agricultural Research, Handbook of Agriculture.

6. S.S. Acharya Marketing of Farm Products.

7. Fundamentals of Agri. Economics, Sadhu & Singh, Himalyan Publishers House, 1996.

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SEMESTER–II

RURAL DEVELOPMENT–II

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Rural Development; Concept and Objectives; Rural Development since Independence; community Development Programme (C.D.P.), National Extension Service (N.E.S.), High Yielding Varieties Programme (H.Y.V.P.), Intensive Agricultural District Programme (I.A.D.P.).

SECTION–B
Small Farmers Development Agencies (S.F.D.A), and Marginal Farmers and Agricultural Labour Agencies (M.F.A.L.A.). Integrated Rural Development Programme (I.R.D.P.), Training of Rural Youth for Self Employment (TRYSEM), National Rural Employment Programme (N.R.E.P.), National Rural Employment Guarantee Act (NREGA).

SECTION–C
Organisation Set up: Ministry of Rural and Agriculture Development at the Central Level Planning and Planning Machinery, Deptt. of Agriculture and Rural Development at the State level.

SECTION–D
Panchayti Raj : Rural Development, District Administration and Rural Development. Planning at local level, Role of Block Development Officers in rural development.

Books Suggested:-
1. Sharma, S.K.: Rural Development Approach Perspective and Strategy, Abhinav Publications, New Delhi.
2. Mehta, S.R.: Rural Development Policies and Programmes.
3. Jain, S.C.: CommUNITy Development and Panchayati Raj in India, NIRD Publications, Hyderabad.
4. Raw, S.K.: Rural Development in India, Some Factors in India, NIRD Publications, Hyderabad.
5. Puri, K.K. and: Local Government in India, Bharat G.S. Brown Pakistan, Jalandhar.

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SEMESTER–II
OFFICE MANAGEMENT AND SECRETARIAL PRACTICES (VOCATIONAL)
COMPUTER APPLICATIONS – II

Time: 3 hours   **Marks: 100**
Theory: 60
Practical: 40

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Advanced Word Processing: Tables: Creating a new table, entering text in a table, adding and inserting rows/columns to a table, deleting rows/column from a table, resizing rows and columns, merging cells, adding borders and shading, deleting a table. Mail Merge: creating a document with mail-merge, creating database for addresses, generating multiple letters for mail merge.

SECTION–B
Spreadsheet: What is a Spreadsheet? Need and uses of Spreadsheets, advantages and limitations of using Spreadsheets, software used for working with Spreadsheets. Why MS- Excel and which version? Keywords: cell, row, column, label, value, cell address, workbook, worksheet, cell range. Starting Excel: Excel interface, creating a workbook, saving a workbook, editing a workbook, inserting/deleting worksheets, entering data in a cell, selecting cells, moving data from selected cells, rearranging worksheets, imports to spreadsheets, resizing rows/columns. Working with Excel: Creating simple charts: Pie, Line, Bar-chart, using chart wizard.

SECTION–C
Power Point Presentation: Meaning of PowerPoint presentation, extension of PowerPoint document, Need and use of presentation in office administration, Software available in the market for presentations, Widely used software: PowerPoint by Microsoft and its advantages, PowerPoint interface: title bar, menu bar, toolbars, status bar, task pane., Components of a presentation: slides, outlines, speaker notes, handouts, Creating a simple presentation in PowerPoint, Add-ons to a presentation: images, videos, audio files
SECTION–D
Working with Slides in PowerPoint: Power Point formatting basics: Slide layouts, changing the background of the slides, applying design templates, changing the color schemes, font and formatting. Viewing a presentation: Normal view, Slide Sorter view, Notes page view, Slide Show view, Adding transition between slides, and adding animation in a slide, automatic slideshow. Working with Slides: Changing layout, duplicating a slide, hiding a slide, moving a slide, deleting a slide, inserting pictures into a slide, inserting word art into a slide, inserting auto shapes.

Note: The relevant short cut keys for MS Excel and MS Power Point to be discussed.

Suggested Readings:-

1) Absolute Beginner's Guide to Computer Basics, Michael Miller.
2) Microsoft Word 2010 Step by Step (Microsoft) by Curtis Frye.
3) Excel 2010 For Dummies, Greg Harvey.
4) Teach Yourself VISUALLY Excel 2010, Paul McFedries.
5) PowerPoint 2010 All-in-One For Dummies, Peter Weverka.
6) Microsoft Office PowerPoint 2010 Step by Step (Microsoft) by Joyce Cox and Joan Preppernau.

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SEMESTER–II
OFFICE MANAGEMENT AND SECRETARIAL PRACTICES (VOCATIONAL)
(PRACTICAL)

Marks: 40

Word Processing:
- How to Draw Tables
- How to Insert Text in Tables
- Merging Mails.

Spreadsheet:
- Working in Excel
- Creating a Workbook
- Inserting Values in Cells
- Performing Basic Functions

Power Point Presentation:
- Creating a Power Point Presentation
- Add-ons like Images, Videos & Audio Files
- Adding transition, animations etc.
- Designing Automatic Slideshow

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SEMESTER–II

TRAVEL & TOURISM

INDIAN HERITAGE AND TOURIST RESOURCES

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Geography and Tourism
> Physical features of Indian subcontinent.
> Climatic conditions of India.

Natural Resources and Tourism
> Wildlife Sanctuaries: Jim Corbett Tiger Reserve,
> Bharatpur Bird Sanctuary
> National Parks and Natural Reserves of India: Valley of Flowers, Kanha, Kaziranga, Ranthambhore.

SECTION–B

Architectural Heritage
> Overviews of Ancient, medieval and modern forms of architecture.

Important Monuments
> Stupa at Sanchi, Brihadeshwara Temple (Tanjore),
> Red Fort (Delhi), Taj Mahal (Agra), Lutyen's Delhi,
> Lotus Temple (Delhi).

SECTION–C

Performing Arts
> Schools of painting.
> Classical dances and dance styles
> Folk dances.
> Schools of music.
> Musical instruments.

Handicrafts and Handlooms
> Types of Handicrafts and Handlooms in India.
> Major Fairs for Promotion of Handicrafs and
> Handlooms–Dilli Haar, Central Cottage Industries
> Emporium, Fab India.

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SECTION–D

Fairs and Festivals

      Traditional: Kumbha, Pushkar, Chhatha, Pongal, Holi,
Onam, Durga Puja, Ramalila, Diwali, Dashahara (Kullu),
Rathyatra, Id–ul–Fitr. Muharram, Christmas.
Modern: Carnival (Goa), Ganga Mahotsava, Taj
Mahotsava, Khajuraho Mahotsava and Desert Festival.

Hill Stations and Coastal Tourism

      Major Hill Stations: Shimla, Darjelling, Ooty, Gangtok,
Gulmarg, Ladhak, Kodikannal
Coasts and Beaches: Beaches of Andaman &
Nicobar Islands, Marina Beach (Chennai), Konark
Beach (Orissa), Juhu Beach (Mumbai).

Suggested Readings:-

4.   Harle, J.C., *The Art and Architecture of the Indian Subcontinent,* Penguin Books, 1990.
5.   Brown, Perey, *Indian Architecture (Buddhist and Hindu) and (Islamic Period)*, Bombay, 1942 and Calcutta, 1942 respectively.
6.   Basham, A.L., *The Wonder that was India,* Rupa and Co., Delhi, 1988.
7.   Westlake, Graeme, D., *An Introduction to the Hill Stations of India,* Harper Colins Publishers, India, 1993.
8.   Mishra, Lavkush, *Cultural Tourism in India,* Mohit Publications, New Delhi, 1999.
9.   Day, C.R., *The Music and Musical Instruments of Southern India and the Deccan,* Delhi, Reprint, 1990.
10. Rele, Kanak, *Indian Classical Dances and the Seven Classical Dance Styles,* A Video Film; Handbook of Indian Classical Dance Terminology, Bombay, 1992.

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SEMESTER–II

TOURISM AND HOTEL MANAGEMENT (VOCATIONAL)

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Growth and development of tourism in India

SECTION–B

Definition, nature and characteristics of tourism, Types and components of tourism

SECTION–C

Impacts of Tourism- Socio–cultural impacts, Economic impacts, Environmental impacts

SECTION–D

Tourism as an industry**;** India a destination for all; Case study of ITDC.

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

Training: One Month

During the summer vacation one month training is a must.

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SEMESTER–II

TOURISM AND TRAVEL MANAGEMENT
(VOCATIONAL)

TOURISM PRODUCT OF INDIA

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Tourist Resources: Definition and differentiation, typology of tourism resources
Cultural Resources: Historical Museums of India, Fairs and festivals of India, Customs and Costumes of India.
SECTION–B
Socio Cultural Resources: Historical Monuments of ancient, medieval and modern period, Archaeological sites of India, Art galleries of India, Libraries of India, Religious centres and Shrines of all religions
SECTION–C
Social Cultural Resources: Performing arts of India-Dances, Music, Handicrafts, Yoga and Meditation
SECTION–D
Natural Tourist Resource: Hill stations of India with special reference to Shimla, Manali, Nainital, Ooty.
Beach Tourism with special reference to Mumbai, Goa and Kerala
Island Tourism with special reference to Andaman and Nicobar Islands
Desert Tourism

Books Recommended:-
1. Percy Brown Indian Architecture–Hindu and Budhist period.
2. Harla, J. C. The Art and Architecture of Indian sub continent.
3. Bhartiya Vidya Bhawan Imperial UNITy.
4. Acharya Ram Tourism & Cultural Heritage of India Rousa Publications (Jaipur, 1986).
5. Basham Al. L.The Wonder that was India: Rupa and Co., Delhi, 1988.
6. The Gazettee of India; History and Culture, Vol. 2, Publication Division Ministry of Information & Broadcasting, Government of India, 1988.
7. Hussain, A.A, The National Culture of India, National Book Trust, New Delhi, 1987.
8. Mukerji, R.K.The Culture and Art of India: George Allen Unwin Ltd.; London, 1959.
9. The Treasure of Indian Museums Marg Publications, Bombay.

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SEMESTER–II

TAX PROCEDURE & PRACTICES

INCOME TAX LAW–II

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Computation of Total Income and Tax Liability of Individuals; Assessment of Agriculture Income. Rates of Tax. Advance Tax

SECTION–B
Computation of Total Income and Tax Liability of HUF; (Hindu undivided Family)
Computation of Total Income and Tax Liability of Firms.

SECTION–C
Computation of total income and tax liability of corporative society.
 Assessment of Companies: - Meaning; Types situations in which company may be treated as widely held company; determination of Residential status; Computation of Total Income.

SECTION–D
Provisions of MAT;
How to determine book profit u/s 115 Dividend Tax
Tax Deducted at Source

Suggested Readings:-
1. Datey, V.S., "*Indirect Tax Law & Practice*", 2008, Taxmann Publications Pvt. Ltd. New Delhi
2. Mehrota, H.C., "*Indirect Taxes Law and Practice*", 2009, Sahitya Bhawan Publications, Agra
3. Ahuja, G. and Gupta,R., "*Systamatic Approach to Income Tax*", 2011, Bharat Law House Pvt. Ltd., New Delhi
4. Singhania, V.K. and Singhania, M., "*Students' Guide to Income Tax*", 2013, Taxmann Publication Pvt. Ltd, New Delhi.
5. Ahuja, G. and Gupta, R., "*Simplified Approach to Corporate Tax Planning and Management*", 2012, Bharat Law House Pvt. Ltd., New Delhi.

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(Faculty of Economics & Business)

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

Periods per Week

	L	T	Ext.
	3	3	

IInd Semester: Advertising–I

On–the–Job Training' of 4 Weeks

1. A consolidated report on the job training shall be prepared by every student and, must be submitted in the college concerned. The consolidated report will be evaluated by the external examiner and shall be given in the grades as follows :
    O – Outstanding
    A – Very Good
    B _ Good
    C _ Average
    D _ Unsatisfactory

In case the training report as rated as unsatisfactory, the candidate shall have to submitted it again incorporating the changes suggested by the examiner, within one month from the date of intimation to the candidate by the concerned college.

Advertising Sales Promotion and Sales Management
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.

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SEMESTER–II

ADVERTISING SALES PROMOTION AND SALES MANAGEMENT (VOCATIONAL)

ADVERTISING–I

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Importance of advertising in modern marketing. Role of advertising in the national economy.

SECTION–B

Types of advertising: Commercial and noncommercial advertising; primary demand and selective demand advertising; classified and display advertising; comparative advertising' cooperative advertising.

SECTION–C

Setting of advertising objectives, Setting of advertising budget, Factors affecting the, advertising expenditure in a company.

SECTION–D

Advertising message, Preparing and effective advertising copy; elements of a print copy; headlines, illustration, bodycopy, slogan, logo seal of approval role of colon, elements of a broadcast copy, copy for direct mail.

Suggested Readings:-

1. Batra, Rajeev, John G. Myers & David A. Aaker, Advertising Management, 5th ed., PHI, 2006.
2. Rampal, M.K. and S.L. Gupta, Cases & Simulations in Marketing Management, Galgotia Publishing Co., 2000.
3. Belch, George E and Michael A. Batch. Advertising & Promotion, McGraw Hill 2003.

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SEMESTER–II

COMMERCE

BOOK KEEPING AND ACCOUNTANCY

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

50% numerical problem should be asked.
The candidates are allowed to use simple (Non–Scientific) calculators.

SECTION–A
Generally accepted accounting principles, concepts, Convention, theory and practice of Double Entry system of book keeping.

SECTION–B
Subsidiary Books and ledger, Trial Balance, Bank reconciliation statement, Errors and their Rectifications.

SECTION–C
Preparation of trading profit and loss Account and Balance sheet of sole trader and partnership, Treatment of capital and Revenue expenditure.
Preparation of receipts and payments account and income and expenditure accounts.
Bills of exchange.
SECTION–D
Elementary knowledge of consignment and joint venture, Indian System of book keeping (Mahajani lekha vidhi).

Books Recommended:-
1. Bhattacharyya, "Financial Accounting for Business", Prentice Hall of India, 2007.
2. Grewal T.S. "Double Entry Book Keeping", Sultan Chand, 2007.
3. Tulsian P.C. "Financial Accounting", Pearson Education, 2007.
4. Maheshwari S.N. "Financial Accounting", Vikas Publications, 2007.
5. Horngren, "Introduction to Financial Accounting", Pearson Education, 2007.
6. Naryanaswamy, "Financial Accounting: A Management Perspective." Prentice Hall of India, 2007.

Note:-
1. The candidates will visit major (trading/ manufacturing/ services) Organisation with view to be acquainted with the different systems of book keeping.
2. The college will organise atleast five lectures by experts/ professional. Accountants on final Accounts/maintenance of different books of accounting.

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SEMESTER–II
MATHEMATICS
PAPER–I: CALCULUS AND DIFFERENTIAL EQUATIONS

Time: 3 Hours **Marks: 50**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Asymptotes, Tests for concavity and convexity, Points of inflexion, Multiple Points, Curvature, Tracing of Curves (Cartesian and Parametric coordinates only).

SECTION–B
Integration of hyperbolic functions. Reduction formulae. Definite integrals. Fundamental theorem of integral calculus. Quadrature, rectification.

SECTION–C
Exact differential equations. First order and higher degree equations solvable for x,y,p. Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories.
SECTION–D
Linear differential equations with constant and variable coefficients. Variation of Parameters method, reduction method, series solutions of differential equations. Power series method, Bessel and Legendre equations (only series solution).

Books Recommended:-

1. D.A. Murray: Introductory Course in Differential Equations. Orient Longman (India), 1967.
2. G.F. Simmons: Differential Equations, Tata McGraw Hill, 1972.
3. E.A. Codington: An Introduction to Ordinary Differential Equations, Prentice Hall of India, 1961.
4. Gorakh Prasad: Integral Calculus, Pothishala Pvt. Ltd., Allahabad.
5. Erwin Kreyszig: Advanced Engineering Mathematics, John Wiley and Sons, 1999. 52

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SEMESTER–II

MATHEMATICS

PAPER–II: CALCULUS

Time: 3 Hours **Marks: 50**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Limit and Continuity of functions of two variables, Partial differentiation, Change of variables, Partial derivatives and differentiability of real–valued functions of two variables, Schwartz's and Young's Theorem, Statements of Inverse and implicit function theorems and applications.

SECTION–B
Euler's theorem on homogeneous functions, Taylor's theorem for functions of two variables, Jacobians, Envelopes. Evolutes, Maxima, Minima and saddle points of functions of two variables.

SECTION–C
Lagrange's undetermined multiplier method, Double and Triple Integrals, Change of variables., Applications to evaluation of areas, Volumes, Surfaces of solid of revolution, Change of order of integration in double integrals.

SECTION–D
Application to evaluation of area, volume, surface of solids of revolutions.

Books Recommended:-

1. Narayan, S. and P.K. Mittal: Integral Calculus. Sultan Chand & Sons.
2. Kreyszig, E.: Advanced Engineering Mathematics.
3. Narayan S. and P.K. Mittal: Differential Calculus, Sultan Chand & Sons.

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SEMESTER–II

STATISTICS

PAPER–I: STATISTICAL METHODS – II

Time: 3 Hours   **Marks: 35**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Bivariate data, scatter diagram, covariance, Karl–Pearson's correlation coefficient and its properties, calculation of correlation coefficient from grouped data, bounds of the correlation coefficient, interpretation of the value of the correlation coefficient.

SECTION–B
Spearman's rank correlation coefficient, The principle of least squares, fitting of straight line, polynomials, exponential, logarithmic curve.

SECTION–C
Regression lines, relation between correlation coefficient and regression coefficients.

SECTION–D
Independence and association of attributes, measures of association, contingency table.

Books Recommended:-
1. Goon, A.M. Gupta, M.K. and Dasgupta B., Fundamentals of Statistics, Vol. I, World Press, 2005.
2. Gupta, S.C. and Kapoor, V.K., Fundamentals of Mathematical Statistics, Sultan Chand and Company, 2007.

Books Suggested for Supplementary Reading:-

1. Goon, A.M. Gupta, M.K. and Dasgupta B., Basic Statistics, World Press, 2005.
2. Gupta, S.C., Statistical Methods, Himalayan Publishing House, 2003.
3. Nagar, A.L. and Das, R.K., Basic Statistics, Oxford University Press, 2005.

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SEMESTER–II

STATISTICS

PAPER-II: PROBABILITY DISTRIBUTIONS

Time: 3 Hours **Marks: 35**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Discrete Distributions: Uniform distribution, Bernoulli distribution, Binomial distribution, Poisson distribution, Poisson distribution as limiting form of Binomial distribution, Fittings of Binomial and Poisson distributions,

SECTION–B
Geometric distribution, Pascal distribution and Hyper geometric distribution. Properties, expected value, variance and moment generating functions of these distributions.

SECTION–C
Continuous Distributions: Normal distribution, Fitting of normal distribution, Exponential distribution, Uniform distribution.

SECTION–D
Gamma distribution, Beta distribution. The properties of these distribution including their expected values, variances and moment generating functions

Books Recommended:-

1. Meyer, P.L. Introductory Probability and Statistical Applications, Addison—Wesley, (1970).
2. Hogg. R.V., Mcken, J.W. and Craig. A.T., Introduction to Mathematical Statistics, Pearson Education, 2007.

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. Miller, I, and Miller, M. Mathematical Statistics with Applications, Seventh Edition, Pearson Education, 2007.

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SEMESTER–II

STATISTICS

PAPER–III: - PRACTICAL BASED ON PAPER–I: STATISTICAL METHODS–II AND

PAPER–II: PROBABILITY DISTRIBUTIONS

Time: 2 Hours   **Marks: 30**

Teaching time for practical paper would be one hour per week.

List of practical exercises

1. Exercises on calculation of Karl Pearsons correlation coefficient
2. Exercises on calculation of Spearman's rank correlation coefficient
3. Exercises on fittings of regression lines, polynomials, exponential and logarithmic curves.
4. Exercises on fittings of Binomial, Poisson and Normal Distributions
5. Exercises on calculation of probabilities for Binomial, Poisson and Normal Distributions

Students are required to prepare a practical note book with at least 15 exercises based upon the above list. At the end of semester, there is a practical examination jointly conducted by two examiners (one is internal and other one is external). External examiner is appointed by the university and the internal examiner is appointed by the principal of the concerned college. This practical examination will cover a written test followed by a viva-voce to test the practical knowledge of students about the contents. The candidates are allowed to use Non–Programmable calculators. The distribution of marks is as under:

1. Practical Note book: 05
2. Viva – voce: 10
3. Exercises: 15

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SEMESTER–II

CHEMISTRY (INORGANIC CHEMISTRY–II)
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

I. p–Block Elements–I **10Hrs.**

Comparative study (including diagonal relationship) of groups 13–17 elements, compounds like hydrides, oxides, oxyacids and halides of groups 13–16, hydrides of boron–diborane and higher boranes, Borazine, borohydrides, fullerenes.

SECTION–B

II. s-Block Elements **10 hrs.**

Comparative studies, diagonal relationship, salient features of hydrides, salvation and complexation tendencies.
III. Acids and Bases

Arrhenius, Bronsted-Lowry, the Lux-Flood, solvent system and Lewis concepts of acids and bases.

SECTION–C

IV. p–Block Elements-II **10 Hrs.**
Carbides, fluorocarbons, silicates (structural principle), tetrasulphur tetranitride, basic properties of halogens, interhalogens and polyhalide**,** Silicones and phosphazenes as examples of inorganic polymers, nature of bonding in triphosphazenes.

SECTION–D

V. Chemistry of Transition Elements **15 Hrs.**
Characteristic properties of *d*–block elements. Properties of the elements of the first transition series, their simple compounds and complexes illustrating relative stability of their oxidation states, coordination number and geometry. General characteristics of elements of Second and Third Transition Series, comparative treatment with their *3*d analogues in respect of ionic radii, oxidation states, magnetic behaviour.

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Books Suggested:-

1. Cotton, F.A., Wilkinson, G., Gaus, P.L., Basic Inorganic Chemistry; 2nd edition, Pubs: John Wiley and Sons, 1995.

2. Lee, J.D., Concise Inorganic Chemistry; 4th edition, Pubs: Chapman & Hall Ltd., 1991.

3. Shriver, D.E., Atkins, P.W., Inorganic Chemistry; 4th edition, Pubs: Oxford University Press, 2006.

4. Douglas, B., Medaniel, D., Atenander, J., Concepts and Models of Inorganic Chemistry; 3rd edition, Pubs: John Wiley and Sons Inc., 1994,

5. Porterfeild, W.W., Wesky, A., Inorganic Chemistry; Pubs: Addison-Wesky Publishing Company, 1984.

6. Miessler, G.L., Tarr, D.A., Inorganic Chemistry; 3rd edition, Pubs: Pearson Education Inc., 2004,

7. Jolly, W.L., Modern Inorganic Chemistry; 2nd edition, Pubs: Tata McGraw-Hill Publishing Company Limited, 1991.

8. Purcell, K.F., Kotz, J.C., Inorganic Chemistry; Pubs: W.B.Saunders Company, 1977.

9. Puri, B.R., Sharma, L.R., Kalia, K.K., Principles of Inorganic Chemistry; 30th edition, Pubs: Milestones Publisher, 2006-07.

10. Inorganic Chemistry, W.W. Porterfield Addison-Wesley.

11. Inorganic Chemistry, A.G. Sharpe, ELBS.

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SEMESTER–II

CHEMISTRY (PHYSICAL CHEMISTRY–I)
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note: Log table and scientific calculators are allowed

SECTION–A
I.   Gaseous States   **11 Hrs.**

Postulates of kinetic theory of gases, deviation from ideal behaviour, van der Waal's equation of state.
Critical Phenomena: PV isotherms of real gases, continuity of states, the isotherms of van der Waal's equation, relationship between critical constants and van der Waals constants, the law of corresponding states, reduced equation of state.
Molecular Velocities: Root mean square, average and most probable velocities. Qualitative discussion of the Maxwell's distribution of molecular velocities, collision number, mean free path and collision diameter. Liquefaction of gases.

SECTION–B

II.   Liquid State   **11 Hrs.**
Intermolecular forces, structure of liquids (a qualitative description). Structural differences between solids, liquids and gases. Liquid crystals: Difference between liquids crystal, solid and liquid.Classification, structure of nematic and cholestric phases. Thermography and seven segment cell.

SECTION–C

III.   Colloidal State   **11 Hrs.**
Definition of colloids, classification of colloids. Solids in liquids (Sol): kinetic, optical and electrical properties, stability of colloids,protective action, Hardy Schulze law, gold number. Liquids in liquids (emulsions): Types of emulsions, preparation. Emulsifiers. general applications of colloids.

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SECTION–D

IV.   Solutions, Dilute Solutions and Colligative Properties   12 Hrs.

Ideal and non–ideal solutions, methods of expressing concentrations of solutions, activity and activity coefficient. Dilute solution, colligative properties, Raoult's law, relative lowering of vapour pressure, molecular weight determination. Osmosis, Law of osmotic pressure and its measurement, determination of molecular weight from osmotic pressure. Elevation of boiling point and depression of freezing point, Thermodynamic derivation of relation between molecular weight and elevation in boiling point and depression in freezing point. Experimental methods for determining various colligative properties. Abnormal molar mass, degree of dissociation and association of solutes.

Books Suggested:-

1.   Atkins, P., Paula, J.de, Atkins Physical Chemistry; 8th edition, Pubs: Oxford University Press, 2008.

2.   Puri, B.R., Sharma, L.R., Pathania, M.S., Principles of Physical Chemistry; 43rd edition, Pubs: Vishal Publishing Co., 2008.

3.   Barrow, G.M., Physical Chemistry; 6th edition, Pubs: McGraw Hill Inc, 1996.

4.   Rao, C.N.R., University General Chemistry; Pubs: Macmillan India, 1985.

5.   Berry, R.S., Rice, S.A., Ross, J., Physical Chemistry; 2nd edition, Pubs: Oxford University Press, 2000.

6.   Albert, R.A., Silbey, R.J., Physical Chemistry; 1st edition, Pubs: John Wiley & Sons Inc.,1992.

7.   Dogra, S.K., Dogra, S., Physical Chemistry Through Problems; Pubs:Wiley Eastern Limited, 1991.

8.   Levine, I.N., Physical Chemistry; 5th edition, Pubs: Tata McGraw Hill Publishing Co. Ltd., 2002.

9.   Moore, W. J., Basic Physical Chemistry; Pubs: Prentice Hall of India Pvt. Ltd, 1983.

10.   University General Chemistry, C.N.R. Rao, Macmillan.

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SEMESTER–II

CHEMISTRY
(PRACTICAL)

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

Crystalisation:
Concept of indication of crystalisation. Phthalic acid from hot water (using fluted filter paper &
stem less funnel)
Acetanilide from boiling water.
Naphthalene from Ethanol
Benzoic acid from water

Physical Chemistry
1. To determine the specific reaction rate of hydrolysis of ethyl acetate catalysed by Hydrogen
   ions at room temperature.
2. To study the effect of acid strength on hydrolysis of an ester.

Viscosity, Surface Tension (Pure Liquids)
3. To study the viscosity and surface tension of CCl glycerine solution in water.
4. To determine the solubility of benzoic acid at different temperatures and to determine   H of
   the dissolution process.
5. To determine the enthalpy of neutralisation of a weak acid/weak base versus strong
   base/strong acid and determine the enthalpy of ionisation of the weak acid/weak base.
6. To determine the enthalpy of dissolution of solid calcium chloride and calculate the lattice
   energy of calcium chloride from its enthalpy data using Born Haber cycle.

Practical Examination: **Marks**
1) Crystalisation   05
2) Physical Experiment   18
3) Viva–Voce   04
4) Note Book   03

Books Suggested:-
1. Experimental Organic Chemistry, Vol. I & II, P.R. Singh, D.S. Gupta and K.S. Bajpai, Tata
   McGraw Hill.
2. Laboratory Manual in Organic Chemistry, R.K. Bansal, Wiley Eastern.
3. Vogel's Textbook of Practical Organic Chemistry, B.S. Furniss, A.J. Hannaford, V. Rogers,
   P.W.G. Smith and A.R. Tatchell, ELBS.
4. Experiments in General Chemistry, C.N.R. Rao and U.C. Aggarwal, East-West Press.
5. Experiments in Physical Chemistry, R.C. Das and B. Behra, Tata McGraw Hill.
6. Advanced Practical Physical Chemistry, J.B. Yadav, Goel Publishing House.
7. Advanced Experimental Chemistry, Vol. I, Physical, J.N. Guru and R. Kapoor, S. Chand &
   Co.
8. Selected Experiments in Physical Chemistry, N.G. Mukherjee, J.N. Ghosh & Sons.
9. Experiments Physical Chemistry, J.C. Ghosh, Bharati Bhavan.

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SEMESTER–II

PHYSICS
PAPER–A: RELATIVITY AND ELECTROMAGNETISM
(THEORY)

Time: 3 Hours **Marks: 35**
Total Teaching Hrs: 45(3h/week)
Pass Marks: 35%

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Postulates of special theory of relatively. Lorentz transformations, observer and viewer in relativity. Relativity of simultaneity, Length, Time, velocities. Relativistic Dopper effect. Variation of mass with velocity, mass–energy equivalence, rest mass in an inelastic collision, relativistic momentum & energy, their transformation, concepts of Minkowski space, four vector formulation.
11 Lectures

SECTION–B
Invariance of charge, E in different frames of references. Fiels of a point charge moving with constant velocity, Lorentz's force, Definition of B. Biot Savart's Law and its application to long straight wire, circular current loop and solenoid. Ampere's Circuital law and its application. Divergence and curl of B. Hall effect, derivation of Hall co–efficient. Vector potential, current–density and its applications. Transformation equation of E and B from one frame to another.
11 Lectures

SECTION–C
Faraday's Law of EM induction, Displacement current, Mutual inductance and reciprocity theorem. Self inductance, L for solenoid, Coupling of Electrical circuits. Analysis of LCR series and parallel resonant circuits, Q–factor, Power consumed, power factor.
11 Lectures

SECTION–D
Maxwell's equations their derivation and characterizations, E.M. waves and wave equation in a medium having finite permeability and permitivity but with conductivity). Poynting vector, Impedance of a dielectric to EM waves. EM waves in a conducting medium and Skin depth. EM wave velocity in a conductor and anomalous dispersion. Response of a conducting medium to EM waves. Reflection and transmission of EM waves at a boundary of two dielectric media for normal and oblique incidence.
12 Lectures

Books Suggested:-
1. Introduction to Electrodynamics: D.J. Griffiths
2. Physics of Vibrations and Waves: H.J. Pain.
3. EM Waves and Radiating Systems: Edward C. Jordan and K.G. Balmain.
4. Fields and Waves Electromagnetic: David K. Cheng.

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SEMESTER–II

PHYSICS
PAPER–B: VIBRATION AND WAVES
(THEORY)

Time: 3 Hours **Marks: 35**
Total Teaching Hrs: 45(3h/week)
Pass Marks: 35%

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Simply harmonic motion, energy of a SHO. Compound pendulum. Torsional pendulum Electrical Oscillations Transverse Vibrations of a mass on string, superposition of two perpendicular SHM having periods in the ration 1:1 and 1:2.

11 Lectures
SECTION–B
Decay of free Vibrations due to damping. Differential equation of damped harmonic motion, types of motion, types of damping. Determination of damping co–efficient– Logarithmic decrement, relaxation time and Q–Factor. Electromagnetic damping (Electrical oscillator).

11 Lectures
SECTION–C
Differential equation for forced mechanical and electrical oscillators. Transient and steady state behaviour. Displacement and velocity variation with driving force frequency, variation of phase with frequency, resonance. Power supplied to an oscillator and its variation with frequency. Q–value and band width. Q–value as an amplification factor. Stiffness coupled oscillators, Normal co–ordinates and normal modes of vibration. Inductive coupling of electrical oscillators.

12 Lectures
SECTION–D
Types of waves, wave equation (transverse) and its solution characteristic impedance of a string. Impedance matching. Reflection and Transmission of waves at boundary. Reflection and transmission of energy. Reflected and transmitted energy coefficients. Standing waves on a string of fixed length. Energy of vibrating string. Wave and group velocity.
11 Lectures

Books Suggested:-
1. Fundamentals of Vibrations and Waves: S.P. Puri.
2. Physics of Vibrations and Waves: H.J. Pain

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SEMESTER–II

PHYSICS
(PRACTICAL)

Marks: 30

General Guidelines for Practical Examination:

I.   The distribution of marks is as follows :

    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 determine low resistance with Carey-Foster's Bridge.
2. To study the magnetic field produced by a current carrying solenoid using a search coil and calculate permeability of air.
3. To study the induced e.m.f. as a function of the velocity of the magnet.
4. Study of phase relationships using impedance triangler for LCR circuit and calculate impedance.
5. Resonance in a series LCR circuits for different R–value and calculate Q–value.
6. Resonance in a parallel LCR circuits for different R-value and calculate Q-value.
7. Capacitance by flashing and quenching of a neon lamp.
8. To compare capacitance of two capacitors by de–Sauty's bridge.
9. To determined L using Anderson Bridge.
10. To find the value of B_H the horizontal component of earth's magnetic field in the lab using a deflection & vibration magnetometer.
11. To study the variation of magnetic field with distance along the axis of coil carrying current by plotting a graph.

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SEMESTER–II

HOME SCIENCE
(THEORY)

FAMILY RESOURCE MANAGEMENT AND PHYSIOLOGY

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
1. **Meaning & Definition of Home Management.** Steps in management process
2. **Furniture:** Basic considerations while selection of furniture.
3. **Flower Arrangement:** Types, Essential equipment used in flower arrangement, Selection of material, Application of elements and principles of Art in Flower Arrangement

SECTION–B
4. **Resources:** Classification of resources, Human & Nonhuman, Factors affecting the use of resources.
5. **Money Management:** Types of income, Budget, its advantages and limitations.
    Planning of Budget
    Means of supplementing family income.
6. **Time:** Steps in making plans, tools in time management—peak loads, work curves, rest periods.
7. **Energy Management:**
    *   Introduction
    *   Fatigue—types causes and effects of fatigue
    *   Principles of work simplification

SECTION–C
8. **Circulatory System**
    Blood and its composition
    Coagulation of blood
    Structure and functions of heart.
9. **Digestive System:** Structure and functions of the alimentary canal.

SECTION–D
10. Reproduction system–male and female sex organs and their functions.
11. Structure & Functions of lungs, kidney & skin.

References Books:
Sr.no.	Book title	Author
1.	Management for Modern Home	Gross
2.	Family Resource Management & Health Science	Dr. Rajwinder K. Randhawa
3.	Home Management for Indian Families	Mann, Mohinder K.
4.	Textbook of Home Science	Neelam Garewal

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SEMESTER–II

HOME SCIENCE

FAMILY RESOURCE MANAGEMENT
(PRACTICAL)

Time: 3 Hrs.   **Marks: 40**

1. Cleaning of window pane, Refrigerator, Food Processor, Microwave, Gas Burner,

Cooking Range.

2. Flower Arrangements– Fresh & Dry Arrangement.

3. Table Manners, Table setting and Napkin Folding.

4. Craft workshop – Glass Painting, pot painting, utility article like bag, magazine holder

   pot holder etc.

5. To prepare any article using the above techniques.

Instructions for the Practical Examiner:

There will be 2 questions from the syllabus.

   a. Fresh flower arrangement-10 marks

   b. Preparation of utility/decorative article-15 marks

   c. Files and schemes -10 marks

   d. Viva -5 marks

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SEMESTER–II

COSMETOLOGY (VOCATIONAL)
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

OBJECTIVES
To create awareness about the colours & yoga
To impart knowledge of Nails and Visual Poise

SECTION–A

Nail
 • Structure of nail
 • Disorder and Disease of the nails

SECTION–B

Colours
• Basic knowledge of colours: Primary & Secondary.
• Colours, effects and selection acc. To season and occasion.
• Planning of wardrobe and acc. To figure, complexion, occupation and weather.

SECTION–C

Visual Poise
• Corrective stance, standing, walking, sitting.

SECTION–D

Yoga
 • What is Yoga?
 • Role of Yoga for a good health.

References Books:

1. The complete book of beauty by Sunnydale, halena
2. Standard Text book of Cosmetology by Miladi
3. Text book of Cosmetics by Vimla Devi M
4. Instant skin care, how to have health hassle free skin by Nortan Sally
5. Massage made easy by Mc Gilvery Carole

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SEMESTER–II

COSMETOLOGY (VOCATIONAL)
(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. Nails and Hand care:
a) Plain Manicure
b) Manicure Pedicure
c) Pedicure Spa
d) Artificial Spa
e) Waxing, Threading

2. Yoga Asanas:
a) Guide line for Yoga practice
b) Asanas:
    i) Virbhadrasana
    ii) Tar Asana
    iii) Dhanurasansa
    iv) Padmasana
    v) Bhujangasana

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SEMESTER–II

CLINICAL NUTRITION AND DIETETICS (VOCATIONAL)

PAPER–A: MEAL MANAGEMENT (THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

OBJECTIVE: To enable the students to acquire knowledge of the principles of planning diets for various age groups and socio-economic levels.

SECTION–A
1. Balanced diet: Concept of Balanced Diet, Food Groups, Exchange Lists, Definition and Objectives of RDA, RDA for different age groups. (ICMR)
2. Caloric consumption units in planning meals for a family.
3. Meal planning: Introduction and Principles of Meal planning.

SECTION–B
4. Physiological changes and nutritional requirement during pregnancy and lactation.
5. Growth & development and nutritional requirement during infancy breast feeding /vs. bottle feeding and weaning, immunization schedule.

SECTION–C
6. Growth & development, food habits and nutritional requirement of preschooler, school going and adolescent boy and girl.
7. Nutritional requirement for adult male & female (Sedentary, moderate & heavy worker).
8. Physiological changes during old age and meeting their nutritional requirement.

SECTION–D
9. Food Preservation: Definition, Importance & Principles, Causes of food Spoilage.
10. Household methods of preservation – Pickling Sun drying, Jams, Squash.

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SEMESTER–II

CLINICAL NUTRITION AND DIETETICS (VOCATIONAL)
References Books:

Sr. No.	Name of Book	Year	Author	Edition	Publisher
1	Food Science and Nutrition	2018	Sunetra Rodey	3rd	Oxford University Press
2	Food production Operations	2011	Parvinder Bali	2nd	Oxford University Press
3	Nutrition and Dietetics	2015	Shubhangini A. Joshi	4th	McGraw- Hill Education
4	Foods- Facts and Principles	2001	N. Shukantala Manay	2nd	New Age International, (P) Limited Publishers
5	Food Science	2014	B. Srilakshmi	6th	New Age International, (P) Limited Publishers
6	Nutrition Science	2017	B. Srilakshmi	-	New Age International, (P) Limited Publishers
7	Dietetics	2014	B. Srilakshmi	7th	New Age International, (P) Limited Publishers
8	Food Hygiene and Sanitation	2011	Sunetra Rodey	2nd	McGraw Hill Education
9	Clinical Nutrition and Dietetics	2002	F P Antia	4th	Oxford University Press
10	Food Science	2006	Sumati R. Mudambi	2nd	New Age International, (P) Limited Publishers
11	Fundamentals of Foods, Nutrition and Diet Therapy	2007	Sumati R. Mudambi and M. V. Rajagopal	5th	New Age International, (P) Limited Publishers
12	Advances in Diet Therapy : Practical Manual	2009	V. Vimla	1st	New Age International, (P) Limited Publishers
13	A Text book of Food Nutrition and Dietetics	2009	Raheena Begum	3rd	Sterling Publishers Pvt. Ltd
14	Exercise Physiology Fitness and Sports Nutrition	2016	B. Srilakshmi	1st	New Age International, (P) Limited Publishers

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SEMESTER–II

CLINICAL NUTRITION AND DIETETICS (VOCATIONAL)

PAPER–B: FOOD MICROBIOLOGY (THEORY)

Time-3 hrs **Marks: 40**
Pds-6 Pds/Week

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

OBJECTIVE
To help students to acquire knowledge about microorganism.
To develop an understanding of the role of microorganism in environment, industry and Maintenance of health.

COURSE CONTENT
SECTION–A
1. Introduction to microbiology and its relevance to everyday life. General Morphology of Microorganism general characteristics of bacteria, fungi, virus, protozoa, alges.
2. Control of microorganism growth curve, effects of environmental factors on growth of Microorganism - Ph. water activity, oxygen availability, temp and others.

SECTION–B
3. Microbiology of different foods- Spoilage and contamination sources types effect on the Following.
      a) Cereals and cereal products
      b) Sugar and Sugar products
      c) Vegetable and fruit
      d) Meat and Meat products
      e) Fish and other sea foods.
      f) Eggs and poultry
      g) Milk and Milk products
      h) Canned foods.

SECTION–C
4. Environmental microbiology- water, air, soil and sewage other agent of contamination humans, domestics animals, vermins, birds, hormones, antibiotics, chemical and metal contamination.
5. Relevance of Micro Biological standards for food safety.

SECTION–D
6. Microbial intoxications and infections sources of contamination of foods, toxin production and physiological organism- Symptoms and methods of control.
7. Beneficial effects of micro organism.

References:-
1. Frazier, W.C., Food Microbiology. 4th Ed, 2006. McGraw Hill, New York.
2. Blackburn, Food Spoilage Microorganism, 3rd edition, 2006, Wood Heal, New

SEMESTER–II

CLINICAL NUTRITION AND DIETETICS (VOCATIONAL)

References Books:

Sr. No.	Name of Book	Year	Author	Edition	Publisher
1	Food Science and Nutrition	2018	Sunetra Rodey	3rd	Oxford University Press
2	Food production Operations	2011	Parvinder Bali	2nd	Oxford University Press
3	Nutrition and Dietetics	2015	Shubhangini A. Joshi	4th	McGraw- Hill Education
4	Foods- Facts and Principles	2001	N. Shukantala Manay	2nd	New Age International, (P) Limited Publishers
5	Food Science	2014	B. Srilakshmi	6th	New Age International, (P) Limited Publishers
6	Nutrition Science	2017	B. Srilakshmi	-	New Age International, (P) Limited Publishers
7	Dietetics	2014	B. Srilakshmi	7th	New Age International, (P) Limited Publishers
8	Food Hygiene and Sanitation	2011	Sunetra Rodey	2nd	McGraw Hill Education
9	Clinical Nutrition and Dietetics	2002	F P Antia	4th	Oxford University Press
10	Food Science	2006	Sumati R. Mudambi	2nd	New Age International, (P) Limited Publishers
11	Fundamentals of Foods, Nutrition and Diet Therapy	2007	Sumati R. Mudambi and M. V. Rajagopal	5th	New Age International, (P) Limited Publishers
12	Advances in Diet Therapy : Practical Manual	2009	V. Vimla	1st	New Age International, (P) Limited Publishers
13	A Text book of Food Nutrition and Dietetics	2009	Raheena Begum	3rd	Sterling Publishers Pvt. Ltd
14	Exercise Physiology Fitness and Sports Nutrition	2016	B. Srilakshmi	1st	New Age International, (P) Limited Publishers

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SEMESTER–II

CLINICAL NUTRITION AND DIETETICS (VOCATIONAL)

MEAL MANAGEMENT (PRACTICAL)

Time-3 hrs **Marks: 20**
Pds- 6 Pds/Week

Note: Paper will be set on the spot by the Examiner Instructions for the Paper Setters:
1. One dish of any cooking method. (5 Marks)
2. Preservation (5 marks)
3. Recipe file. (5 Marks)
4. Viva (5 Marks)
Practical:

Planning, preparation and calculation(using exchange list, detail calculation of protein, energy &
one essential mineral or vitamin needed for that group) of diets for:
    (a) Infancy-weaning food.
    (b) Pre-school.
    (c) School going child.
    (d) Adolescent girl and boy
    (e) Adult male female (sedentary moderate and heavy worker)
    (f) Pregnant and lactating Women
    (g) Old Age
Preparation of dishes by following methods:
    a) Baking- e.g. Cakes & Biscuits, Continental dishes etc.
    b) Grilling- e.g. Pizza and variation of sandwiches, grilled and tandoori snacks etc.
    c) Sprouting & Salads.
    d) Microwave cooking
    e) Preservation: jams, pickles, squashes, chutneys, etc Daily and occasional cleaning of
kitchen equipments, utensils counters, floor and cupboards.

References:
1. Guthrie, Helen, Andrews, Introductory Nutrition 6th ed. 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.
4. Willson, EVAD Principles of Nutrition 4th ed, New York, John Willey & Sons, 1979.

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SEMESTER– II
FASHION DESIGNING AND GARMENT CONSTRUCTION
(VOCATIONAL)
FASHION DESIGNING - II
(THEORY)

Time: 3 Hrs.   **Max Marks: 100**
Period: 3/Week   **Theory Marks: 40**
                                                                        Practical Marks: 60

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
1. (a) Concept of Fashion forecasting- Awareness factor, Measurements and Indicators.
   (b) Sources of Inspiration.

SECTION–B

2. Size and structure of Fashion Market
3. Concept of Fashion Merchandising and Visual Merchandising.

SECTION–C

4. Promotion of Fashion.
   (a) Advertising.
   (b) Publicity.
   (c) Fashion show.

SECTION–D

5. Concept of Fashion Distribution
   (a) Departmental store
   (b) Speciality store
   (c) Chain store
   (d) Mill showroom
   (e) Factory Outlets
   (f) Catalogue Retail
   (g) Discount store
   (h) Designer retail store
   (f) Franchise retail store
   (j) Boutique

References Books:

Sr.no.	Book title	Author
1.	Merchandise Buying and Management	Donnellan, John
2.	Fashion and Advertising	Keaney, Maydalene
3.	Fashion Forecasting	Mcklvery, K.
4.	Fashion Advertising	Keaney, Madalene

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SEMESTER–II

FASHION DESIGNING AND GARMENT CONSTRUCTION (VOCATIONAL)
SCALE DRAWING AND GARMENT CONSTRUCTION
(PRACTICAL)

Time: 5 Hrs.   **Marks: 60**
Periods/week: 2x6

Instructions for the Paper Setters:
1. Construction of any one garment from Section A.   **Marks: 25**
2. One question from Part B.   **Marks: 25**
3. File Work.   **Marks: 10**

SECTION–A

1. Make a Sample of 10 embroidery stitches: Stem, Chain, Cross, Satin, Herringbone, Lazy–daisy, Bullion, French Knots, Fly stitch, Feather stitch.
2. Design, Draft and construct the following:
   a) Romper/Sun Suit
   b) Designer Frock (3–6 yrs)
   c) Sleeves – puff, cap, petal, magyar, kimono.
   d) Collars – Peter pan , cape, sailor's, baby

SECTION–B

3. Using any of the following details drape the fashion figures, preparing 10 sheets in all using Textured backgrounds.
   (i)   Bias/Drapes
   (ii)   Yokes + Waistlines
   (iii)   Bows + Pockets
   (iv)   Drawstrings + Fasteners + Zips
   (v)   Trimming (Tucks, Piping, Embroidery, Tassels, Rouleau, Smocking, Shirring, Appliqué, Patch work).
   (vi)   Tops
   (vii) Accessories–Bags, Footwear, Jewellery.

4. a) Value Chart, Intensity chart
    b) Basic Design Motifs– Geometrical, Traditional, Abstract.

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SEMESTER–II

EARLY CHILDHOOD CARE AND EDUCATION (VOCATIONAL)
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
1. Physical Development: Definition, Principles of Physical Development, Physical Growth Cycles
2. Factors affecting Physical Growth Cycles.

SECTION–B
3. Motor Development: Definition. Motor Skills (hand and leg skills),
4. Factors affecting Motor skills, Importance of Motor Skills.

SECTION–C
5. Language Development: Importance of Speech, Factors affecting Language Development.
6. Emotional Development: Definition: Emotional Development during Infancy & Childhood, Temper Tantrums, Factors affecting Emotional Development.

SECTION–D
7. Social Development: Definition, Social Development during Infancy & Childhood, Role of Family & School in socialization of child.
8. Play: Meaning & Importance of Play, Selection of suitable toys & Play Material for the child.

(PRACTICAL)

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

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 Content:

1. Conduct a Height/ Weight Survey on a sample of 25 School going children assessing their physical development.
2. Conduct a Case Study on a School going Child assessing his Motor Development, Social Development, Emotional Development and Language Development.
3. Prepare an Educational Toy suitable for a pre–school/ school going child.
4. Prepare a toy using house–hold material.
5. Exhibit appropriate safety measures for the child using posters or leaflets

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SEMESTER–II

FOOD SCIENCE AND QUALITY CONTROL (VOCATIONAL)
FSQC (3): FOOD PLANT HYGIENE & SANITATION (Theory)

Time: 3 Hours   **Max. Marks: 75**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Importance of personal hygiene of food handler-habits, clothes, illness, education of handler in handling and service. Cleaning agents and disinfectants.

SECTION–B
Cleaning methods – sterilization, disinfection, heat & chemicals, chemical tests for sanitizer strength.

SECTION–C
Food sanitation-Principles & methods, control, inspection.
Sanitation in fruits & vegetables industry, cereals industry, dairy industry, meat, egg & poultry units.

SECTION–D
Control of infestation, rodent control, vector control, Use of pesticides. Hygiene of water used for processing. Planning & implementation of training programmes for health personnel. Waste disposal and treatment.

Recommended Books: -

1. Principles of Food Sanitation by Marriott, 5th ed., 2006, CBS Publisher, New Delhi.
2. Hobbs, B. C. and R. J. Gilbert Food Poisoning and Food Hygiene, 4th Edition The English Language Book Society and Edward Arnold.
3. Longree K. (1967) Quantity Food Sanitation, Inter Science Publishers, New York.
4. Kawata K. (1963) Environmental Sanitation in India, Lucknow Publisher, New York.
5. Principles of Food Sanitation – II Edition, AVI Book, Van Noistrand Reinhold, New York.

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FSQC (4): FOOD PLANT HYGIENE & SANITATION (PRACTICAL)

Max. Marks: 25

Instructions for the Paper Setters: Question Paper will be set with the mutual consent of Internal and External Examiners at the spot.

List of Practical
1. Sterilization of equipments used in the laboratory by using heat and chemicals.
2. Determination of B.O.D
3. Determination of C.O.D
4. Determination of sanitary status of plant equipment.
5. Chlorination of water.
6. To study the bacteriology of water.
7. Chemical analysis of water.

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SEMESTER–II
FINE ARTS
PAPER–A: FINE ARTS (DRAWING & PAINTING)
(THEORY)

Max. Marks 100
Time: 3 Hrs. **Theory Marks: 50**
Practical Marks: 25+25

Work Load:
Theory   -   3 periods per week.
Practical   -   9 periods per week.
Total   -   12 periods per week.

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Mauryan Art:
What do you mean by Mauryan Pillars?
Lion Capital of Sarnath
Bull Capital from Rampurva
Yakshi from Didarganj
Yaksha from Parkham

SECTION–B
Stupa, Chaityas and Viharas
Karle and Bhaja Caves
Bharhut Sculptures:
 Dream of Queen Maya
 Cholakoka Devata

SECTION–C
Sanchi Stupa
 Amaravati

SECTION–D
Kushana Period:
 Mathura Art
(i) Portraits–Kanishka and Vima Kadaphises
(ii) Seated Buddha from Katra
(iii) Head of Buddha
(iv) Gandhara Art
(v) Standing Bodhisattava

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SEMESTER–II
FINE ARTS
PAPER–B: STILL LIFE STUDY
(PRACTICAL)

Time: 5 Hrs **Marks: 25**

Work Load:
Theory   -   3 periods per week.
Practical   -   9 periods per week.
Total   -   12 periods per week.

Study different type of still objects. Emphasis should be given to Proportion, Volume, Texture and light and shade.

Number of Objects: Three excluding drapery.
Medium: Any Medium
Size: ½ Imperial

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SEMESTER–II
FINE ARTS

PAPER–C: POSTER / BOOK COVER
(PRACTICAL)

Time: 5 Hrs   **Marks: 25**

Work Load:
Theory   -   3 periods per week.
Practical   -   9 periods per week.
Total   -   12 periods per week.

Prepare creative posters on social awareness and advertisement, study of letter writing in number of colors.
At least 5 works. (3 posters & 2 book covers) will be prepared.

Medium: - Poster Colors
Size: - ½ Imperial

Book Cover Design

Block lettering, Roman Lettering and free hand brush lettering.

To design book cover with illustration title, author's name etc. in any number of colures.

Medium: - Poster Colors.
Size: - ½ Imperial

Candidates will submit:–

5   Sheets of each paper.

 Sketch book containing 50 sketches.

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SEMESTER-II

GEMOLOGY AND JEWELLERY DESIGN (VOCATIONAL)
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
1. Basic Introduction of Gem Stones with examples:
     (i) Organic Gems
     (ii) Inorganic Gems
2. Formation of Gem Stones with examples:
     (i) Igneous Rocks
     (ii) Sedimentary Rocks
     (iii)Metamorphic Rocks
SECTION–B
1. Introduction to Jewellery:
     (i) Fine Jewellery
     (ii) Costume design Jewellery

SECTION–C
Introduction to Metals, Physical Properties:
   (i) Precious Metals: GOLD, PLATINUM, SILVER
   (ii) Semi-precious Metals: COPPER, IRON

SECTION–D
1. Nature of Gem Stones.
     (i) Characteristics of natural gems
     (ii) Synthetic gem stones
     (iii)Association of navgrah and gemstones (Gem therapy)
     (iv)Identification of gem stones by their color and inclusions

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SEMESTER–II

GEMOLOGY AND JEWELLERY DESIGN (VOCATIONAL)
INNOVATIVE JEWELLERY 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.

Exercises on:

i) Learning basic techniques of jewellery making like jump–ring, threading of beads, etc.

ii) Different techniques and methods of creating jewellery and accessories like wearable belts, hair accessories using innovative materials like paper, plastic, jute, threads, wires, beads, macramé, etc.

Each student has to submit 20 such pieces of jewellery and accessories at the end of second semester.

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SEMESTER–II

STILL PHOTOGRAPHY & AUDIO PRODUCTION (VOCATIONAL)
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Press Evaluation: Evaluation of Press and its role in different Socio–Economic and Political Systems.
Press Laws in India: History of press Laws in India, Press Registration Act, Copyright and Defamation, Contempt of Court.

SECTION–B
Forms of communication: Traditional forms of Communication.
           (i) News reporting and editing.
           (ii) Newspaper Layout, News Analysis.
           (iii)Desktop publishing techniques and word Processor.

SECTION–C
Radio as a medium: Introduction to Radio as a medium of Mass Communication and its Characteristics, Radio Development in India.
T.V. as a medium: Introduction of T.V. as a medium of Mass Communication and its Characteristics, Development of T.V. in India.

SECTION–D
Lens Aberration: Lens aberration, lens equation, correction of aberrations, ray diagram.
Comparison of human eye with the camera.
Processing of light sensitive chemical, latent image, development, fixing.

Suggested Readings:-

Sr. No.	Book Name	Author
1.	Hand Book of Journalism & Mass Communication	Mr. Vir Bala Aggarwal
2.	Dark Room Basics… And Beyond	Roger Hicks & Frances Schultz
3.	Basic Photography	John Hedgecoe

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SEMESTER–II

STILL PHOTOGRAPHY & AUDIO PRODUCTION (VOCATIONAL)
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.
4. Extra weightage will be given for creative and professional approach.

Instructions for the 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. Operations.
2. Exposure, tables of lighting, T.C.R.S.C.R. films format: large, medium miniature disc etc.
3. Photograph.
4. Processing B/W film.
5. Contact print.
6. Enlargements B/W.
7. Photo feature.
8. Maintenance of camera.

Suggested Readings:

Sr. No.	Book Name	Author
1.	Hand Book of Journalism & Mass Communication	Mr. Vir Bala Aggarwal
2.	Dark Room Basics… And Beyond	Roger Hicks & Frances Schultz

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SEMESTER–II

APPLIED ARTS

ART APPRECIATION AND ADVERTISING
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four
Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are
required to attempt five questions, selecting at least one question from each Section. The fifth
question may be attempted from any Section.

SECTION–A
Colour Wheel: Introduction of colour wheel and its elements - Primary, Secondary, and Tertiary
etc.
Colours of Colour Wheel: All colours of colour wheel and symbolic value of every colour.

SECTION–B
Types of Colour Scheme: Monochromatic, Complementary, Analogus, Achromatic and
Polychromatic colour scheme with examples.

SECTION–C
Methods and material: Basic Tools used by Applied Artist according to the projects and
importance of tools.
Need of Applied Artist: List the points which describe the need of applied artists in today's
world and its scope.

SECTION–D
Meaning of Applied Arts: Defination of Applied Art with detailed introduction and its
characteristics.
Difference between Applied and Fine Arts: Give difference between both the style of arts
including its methods, techniques and etc. with appropriate examples.

Suggested Readings:-

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

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SEMESTER–II
APPLIED ARTS

ILLUSTRATION (SKETCHING) / FASHION FIGURES
(PRACTICAL)

Time: 6 Hours   **Marks: 50**
Size: ¼ imperial
Medium: Pencil, Charcoal, Pen & Ink, Water Colors and Poster Colors

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.
3. Extra weightage will be given for creative and professional approach.

Instructions for the Students:
1. Attendance in departmental seminars and extension lectures and college tours shall be obligatory for all students.

Course Contents:
Object drawing, Nature Study, Birds and Animals, Story Based Illustrations, Portraits and Fashion Figures.

Suggested Readings:-

Sr. No.	Book Name	Author
1.	Human Figures	Papin Press Publisher
2.	Illustration Now 3	ED Jullis Wiedeall

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SEMESTER–II

SCULPTURE
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Canons of Indian Art (Shadanga),
Bhangas in Indian Sculptures

SECTION–B

Artists (only with reference to one sculpture),
D.P. Chaudhary: The Triumph of Labour
Ramkinker Baij: Santal Family

SECTION–C

Chintamani Kar: Skating the stag
Prodosh Das Gupta: Volume in three masses
Sankho Chaudhary: Standing Figure:

SECTION–D

Dhanraj Bhagat: Flute Player
Balbir Singh Katt: Sun 85

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SEMESTER–II

SCULPTURE
(PRACTICAL)

Time: 6 Hours   **Marks: 50**

1.   Relief in Plaster and Terracotta (Total Work: 2)

2.   Head Study (Cast in Plaster, Total work 1)

3.   Figure Composition in Paper Clay or M–Seal (Total work 2)

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SEMESTER–II

MUSIC (VOCAL)

(THEORY)

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

Teaching 3 periods per week

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
1. Historical Development of Indian Music in Vedic Period
2. Definition and explanation of the following Musical Terms: Raga, Thata, Vadi, Samvadi, Meend.

SECTION–B
3. Salient features of Time Theory in Indian Music.
4. Contribution and Life Sketches of the following musicians: Pt.Vishnu Narayan Bhathkhande, V.D. Puluskar.

SECTION–C
5. Description and notation of the following Ragas: Kalyan, Asavari, Kafi.
6. Description and notation of the following Taals: Kehrva, Ektal

SECTION–D
7. Contribution of Bhai Mardana towards Music.
8. Definition and explanation of the following terms in the context of Gurmat Sangeet: Ashtpadi, Ank, Kirtaniya, Pada.

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SEMESTER–II

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: Kalyan, Asavari, Kafi.
2. One Vilambit Khayal in any of the Ragas prescribed in the course with simple Alaps and Tanas.
3. Elementary Knowledge of the following non–detailed Ragas: Jaunpuri, Bhimplasi, Shudh Kalyan.
4. One Shabad from prescribed Ragas.
5. Ability to play five alankars on the Harmonium based on the Thatas of prescribed Ragas in the course.
6. Ability to recite Kehrva and Ektal showing Khali Tali with hand motion in Ekgun, Dhugan Layakaries.
7. Recitation of Suhag.
8. Ability to play thekas of Keharva & Dadra on Tabla.

Books Recommended:-

1. Rag Parichya Part – I, II, and III by Shri Harish Chnder Srivastava.

2. Sangeet Shastra Darpan Part – II (Punjabi) published by PunjabiUniversity, 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 PunjabiUniversity, Patiala.

8. Sikh Dharam Ate Bhakti Sangeet, Dr. Jitender Kaur.

9. Gurmat Sangeet (Vishesh Ank) Amrit Kirtan Trust, 422, 15/A, Chandigarh.

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SEMESTER–II

MUSIC (INSTRUMENTAL)
(THEORY)

Theory: 3 Hrs.   **Total Marks: 100**
Theory: 3 periods per week   **Theory Marks: 50**
                                                                        Practical Marks: 50

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
1. History of Indian music during Vedic Period.
2. Definition and explaination of the following musical terms:–Bols of mizraab, Maseetkhani Gat, Razakhani Gat, Vadi, Samvadi, Purvang and Uttrang.

SECTION–B
3. Classification of Indian Musical Instruments.
4. Life–sketch and contribution of the following musicians: Vidushi Annapurna Devi, Ustad Vilayat Khan.
5. Explain Alap, Jod and Jhalla.

SECTION–C
6. Description of all and Notation of any of the following Ragas: Bhairav, Kafi and Bageshwari.
7. Brief knowledge and notation of the following Talas: Kehrva and Rupak.

SECTION–D
8. Contribution of Bhai Mardana towards music.
9. Detailed knowledge of the instruments used in Gurmat Sangeet: Rabab, Dilruba and Saranda.

Books Recommended:-
1. Raag Parichay (Part 1,2) by H.C.Shrivastava.
2. Sangeet Shastra Darpan (Part–1,2) by Shanti Gowardhan.
3. Sangeet Visharad, Sangeet Karyalaya Hathras.
4. Hamare Sangeet Ratan, Luxmi Narayan Garg, Sangeet Karayalaya, Hathras
5. Punjab Ki Sangeet Prampara by Geeta Paintal.
6. Sangeet Subodh by Dr. Davinder Kaur
7. Gurmat Sangeet (Vishesh Ank) Amrit kirtan Trust, Chandigarh.
8. Gurmat Sangeet, Prabandh ate Pasaar, Dr. Gurnam Singh.
9. Sitar Vadan Di Prampara, Publication Bureau :- Punjabi University Patiala.

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SEMESTER–II
MUSIC (INSTRUMENTAL)

(PRACTICAL)

Time: 20 minutes   **Marks: 50**
Practical: 20 Min. for each student

Practical: 9 periods per week

1. Ability to play Ten Alankars of Bhairav Thaat on your Instrument.

2. (i) One Razakhani Gat in each of the following ragas with toras and jhalla:–

   Bhairav, Kafi & Bageshwari

   (ii) Play only gat in other two ragas.

3. One Maseetkhani Gat in any of Ragas prescribed in the course.

4. Ability to recite Kehrva and Rupak Taal by hand in Ekgun and Dugun Layakaries.

5. Ability to play One Dhun based on Folk music of Punjab on any instrument other than Sitar.

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SEMESTER–II

INDIAN CLASSICAL DANCE
(THEORY)

Time: 3 Hrs.   **Max. Marks: 100**
Teaching 3 periods per week   **Theory Marks: 50**
Practical Marks: 50

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

1. Origin & Development of Bharat Natyam Dance.
2. Essential characteristics of Manipuri Dance.
3. Definition of the following terms: Kavit, Chakardar Paran, Bhaav, Kasak, Masak, Vandana, Gat, Laya.

SECTION–B

4. Knowledge of:
   i)   Four neck movements
   ii) Eight eye glances.
   iii) Seven eye–brow movements.
   iv) Nine head movements.
5. Study of Asmyukta Mudras based on Abhinaya Darpan and detailed description of any fifteen with its uses.

SECTION–C

6. Write an Essay on:
   i)   Importance of Tal and Lehra in Kathak Dance.
   ii) Advantages of Dance in Physical fitness.
7. Writing notation of Jhaptal with its:
   (a) Tatkar with its Thaah, Dugan, Tigun and Chaugun Layakaries
   (b) Thaat   –   1
   (c) Tehai   –   1
   (d) Amad   –   1
   (e) Tora   –   1
   (f) Paran   –   1
   (g) Chakardar Paran   –   1

SECTION–D

8. Historical background of the Folk Dances of Rajasthan.
9. Importance of Vocal & Instrumental Music with Dance.
10. Description of following talas with the notation of their Thekas in Thaah, Dugun, Tigun and Chaugun Layakaries.
    a. Jhaptal
    b. Ektal
    c. Dadra

Books Recommended:-

1. Kathak Nritya Ka Prichey, Subashni Kapoor, Radha Publications, New Delhi, 1997.

2. Kathak Soundaryatmak Shashtriya Nritya, Shikha Kharey, Knishka Publishers, New Delhi, 2006.

3. Atihasik Pripeksh Mein Kathak Nritya, Maya Taak, Knishka Publishers, New Delhi, 2005.

4. Nibandh Sangeet, Laxmi Narayan Garg, Sangeet Karyalaya, Hathras, 2004.

5. Kathak Nritya Shiksha Part-1, Dr. Puru Dadhich, Bindu Prakashan, Ujjain (MP).

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SEMESTER–II

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   –   1
(c) Tehai   –   1
(d) Amad   –   1
(e) Salami   –   1
(f) Tora   –   2
(g) Paran   –   1
(h) Chakardar Paran   –   1
(i) Kavit   –   1

2. Jhaptal:
(a) Tatkar with its Thaah, Dugun, Tigun and Chaugun Layakaries.
(b) Thaat   –   1
(c) Tehai   –   1
(d) Amad   –   1
(e) Tora   –   1
(f) Paran   –   1
(g) Chakardar Paran   –   1

3. Padhant of whole material by hand in all taals mentioned above.
4. Recognition of the compositions such as Tehai, Layakaries etc. composed by the Examiner.
5. Practice of (Hand movements with Tal).
6. (i) Two Gat Nikas in Taal.
   (ii) One Bhajan
7. Ability to demonstrate Panjabi or Rajasthani Folk Dance
8. Ability to play Nagma on Harmonium in Teentaal & Jhaptaal.
9. Ability to play theka of Dadra Taal on table.

Books Recommended:-
1. Kathak Nritya Ka Prichey Subhashni Kapoor Radha Publications, New Delhi, 1997.
2. Kathak Sundaryatmak Shikhakharey Shashtriya Nritya Krishka Publishers, New Delhi, 2005.
4. Atihasik Pripeksh Mein Maya Tak Kathak Naritya Knishka Publishers, New Delhi, 2006.
5. Nibandh Sangeeet Laxmi Naryan Garg Sangeet Karyalya, Hathras, 2004.

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SEMESTER–II

TABLA
(THEORY)

Total Marks: 100

Theory: 3 Hours   **Theory Marks: 50**
                                                                         Practical Marks: 50

Theory 3 periods per week.

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

- Definitions with full explanations of the following:
  Tukda, Vibhag, Mukhra, Mohra, Tipalli, Gat, Paran, Rela.
- Detailed knowledge and Notations of the following Taalas in Dugun, Tigun and Chaugun Laykaris:- Teentaal, Ektaal, Chartal

SECTION–B

- The Place of Tabla in Light Music.
- Comparative study of the following Taals :–
  Ektal and Chartal

SECTION–C

- Life & Contribution of the following Musicians in the field of Tabla vadan:–
  Pt. Samta Prasad, Ustad Alla Rakha Khan, Pt. Lakshman Singh Seen.
- Comparitive study of Delhi & Ajrara Gharanas of Tabla

SECTION–D

- Role of following Instruments in Rhythm:–
  Dholak, Mridang, Khol.
- Detailed Knowledge of Folk Instruments (Percussion) of Punjab.

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SEMESTER–II

TABLA

(PRACTICAL)

Time: 20 Minutes **Marks: 50**
Practical: 20 Minutes for each student

Practical: 9 periods per week.

1. Tals Prescribed: Teental, Ektal, Keharwa.

2. Teental – Peshkar, Two Qaidas with Four Paltas each, One Paran, One Gat, One Chakardar Tihaai.

3. Ektal – Two Qaidas with Four Paltas each, Two Tukra, Two Tihais.

4. Kehrwa : Laggis (three), Two Tiharris, Two Mukhra

5. Practice of playing the above Taals with Vocal and Instrumental performance.

6. Ability to play Nagma on Harmonium in Ektal.

7. Tuning of Tabla.

8. Ability to play any folk precusion instrument of Punjab.

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 Mani Mishra, Bhartiya Gayan Peeth Parkashan, 1973.

4. Hamare Sangeet Rattan: Sangeet Karyalaya Hathras, 1978.

5. Tal Martand: Sataya Narayan Vashishath, Sangeet Karyalaya Hathras, 1994.

6. Tal Parichay Part –I to IV, Harish Chandra Srivastav, Sangeet Karyalaya, Hathras.

7. Tal Prakash, Bhagwat Saran Sharma, Sangeet Karyalaya, Hathras.

8. Sangeet Mein Tal Vadon Ki Upyogita, Chitragupta, Radha Publication, New Delhi, 1992.

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SEMESTER–II

COMPUTER SCIENCE

PROGRAMMING USING C
(THEORY)

Time: 3 Hours
4 Hours/week

Max. Marks: 100
Theory Marks: 75
Practical Marks: 25

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note for the Candidates:
The students can use only Non–programmable & Non–storage type calculator.
Practical marks will include the appropriate weightage for proper maintenance of Lab record

SECTION–A
Data Representation, Introduction to Number Systems and Character Codes, Flow Charts, Problem Analysis, decision tables, pseudo codes and, algorithms.

SECTION–B
Programming Languages C:
Basics of C: Introduction to C, Applications and Advantages of C, Tokens, Types of Errors
Data Types: Basic & Derived Data Types, User Defined Data Types, Declaring and initializing variables.
Operators and Expressions: Types of operators (Unary, Binary, Ternary), Precedence and Associativity
Data I/O Functions: Types of I/O function, Formatted & Unformatted console I/O Functions

SECTION–C

Control Statements: Jumping, Branching and Looping–Entry controlled and exit controlled, Advantages/Disadvantages of loops, difference between for, while and do–while.
Arrays: Types of Arrays, One Dimensional and Two Dimensional Arrays.
Strings: Introduction to Strings and String functions, array of strings.

SECTION–D
Functions: User Defined & Library Function, Function (Prototype, Declaration, Definition), Methods of passing arguments, local and global functions, Recursion.
Storage Classes: Introduction to various storage classes, scope and lifetime of a variable, Storage class specifiers (auto, register, static, extern), advantages and disadvantages.
Structure and Union: Introduction to structure and union, pointers with structure.

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SEMESTER–II

COMPUTER SCIENCE

(PRACTICAL)

Marks: 25

Practical based on Programming in C
2 Hours/week

Books Suggested:-

   (i)   Programming with C Languages C. Schaum Series.
   (ii)   YashwantKanitkar – Let Us C
   (iii)   C Programming by Stephen G Kochan

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SEMESTER–II

INFORMATION TECHNOLOGY (VOCATIONAL)

INTERNET & DATA COMMUNICATION
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note for the Candidates:
The students can use only Non–programmable & Non–storage type calculator.
Practical marks will include the appropriate weightage for proper maintenance of Lab record

SECTION–A

Internet:
Internet Applications, Domain Name System, Electronic Mail the World Wide Web, Multimedia Audio, Video, Data corporate File transfer Protocol, Mail transfer Protocol, Telnet, HTTP.

SECTION–B

Introduction to HTML, HTML and the World Wide Web, HTML elements, basic structure of elements, creating HTML pages, viewing pages in different browsers, rules for nesting the HTML tags, color and fonts, formatting the body section, creating links, creating external links, creating internal links, adding graphics with image elements, image element attributes, using image as links.

SECTION–C

Computer Networks, Network Hardware, Network Categorization–LAN, MAN, WAN, OSI & TCP/IP Reference Models,

SECTION–D

Transmission Media, Wireless Transmission, Communication satellites.

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SEMESTER–II

INFORMATION TECHNOLOGY (VOCATIONAL)

(PRACTICAL)

On the basis ofInternet & Data Communication **Marks: 25**

Books Recommended:

1. D.H. Sanders, "Computers Today", McGraw Hill, 1998.
2. Complete Network by Andrew Tanenbaum, 4th Edition, Prentice Hall India.

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SEMESTER–II

COMPUTER MAINTENANCE (VOCATIONAL)

COMPUTER ORGANIZATION AND ASSEMBLING
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note for the Candidates:
The students can use only Non–programmable & Non–storage type calculator.
Practical marks will include the appropriate weightage for proper maintenance of Lab record

SECTION–A
Top Level View of Computer Function & Interconnection: Computer Component, Functions Interconnection Structure, Bus Interconnection.
Computer Arithmetic: ALU, Integer Representation, Integer Arithmetic, Floating Point Representation, Floating Point Arithmetic.

SECTION–B
Basics Computer Organization & Design: Instruction Codes, Computer Registers. Computer Instructions, Timing and Control, Instruction Cycle, Memory Reference Instruction.
Micro Programmed Control: Control Memory, Addressing Sequence, Micro Program Example, Design of Control UNIT.

SECTION–C
CPU: Stack Organization, Instruction Format, Addressing Modes, Data Transfer and Manipulation, RISC.
I/O Organization: Asynchronous Data Transfer, Modes of Transfer, Priority Interrupt DMA, IOP.

SECTION–D
PC Assembling : Introduction of Motherboards, Power Supply, RAM, Drivers, Keyboard Monitor, Processors and assembling the Computer System.

References:-
1.   Computer Architecture: Morris Mano–Pearson Education, 3rd Edition, 1993
2.   PC Upgrade & Maintenance Guide: Mark Minasi–BPB Publishers, 15th Edition 2004.

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SEMESTER–II

COMPUTER MAINTENANCE (VOCATIONAL)

(PRACTICAL)

List of Practicals Based on Computer Organization and Assembling   **Marks: 25**

1.   To study the various I/O devices.
2.   To study the power supply system.
3.   To study the usage of various tools.
4.   To study the techniques of soldering and desoldering.
5.   Installation of operating systems and software.
6.   PC Assembling & Disassembling.

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SEMESTER–II

COMPUTER APPLICATIONS (VOCATIONAL)

PROGRAMMING USING C
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note for Candidate:
Attempt five questions in all by selecting one question from each section and the fifth question may be attempted from any sections.
The students can use only Non–programmable & Non–storage type calculator.
Practical marks will include the appropriate weightage for proper maintenance of Lab record

SECTION–A

Data Representation, Flow Charts, Problem Analysis, Decision tables, Pseudo codes and Algorithms.

Programming Using C:
Basics of C: Introduction to C, Applications and Advantages of C, Tokens, Types of Errors
Data Types: Basic & Derived Data Types, User Defined Data Types, Declaring and initializing variables.

SECTION–B

Operators and expressions: Types of operators (Unary, Binary, Ternary), Precedence and Associativity

Data I/O Functions: Types of I/O function, Formatted & Unformatted console I/O Functions

Control Statements: Jumping, Branching and Looping–Entry controlled and exit controlled, Advantages/Disadvantages of loops, difference between for, while and do–while.

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SECTION–C

Arrays: Types of Arrays, Advantages/Disadvantages of arrays. Insertion, Deletion, Searching and sorting operations on array
Strings: Introduction to Strings and String functions, array of strings.

Functions: User Defined & Library Function, Function (Prototype, Declaration, Definition), Methods of passing arguments, local and global functions, Recursion.

SECTION–D

Storage Classes: Introduction to various storage classes, scope and lifetime of a variable, Storage class specifiers (auto, register, static, extern), advantages and disadvantages.

Pointers: Introduction, Advantages/Uses of pointers, Limitations of pointers, Difference between void pointer and Null pointer, Pointer arithmetic, operators not allowed on pointers, Types of Pointer**,** PassingPointers to function, concept of pointer to pointer.

Structure and Union: Introduction to structure and union, pointers with structure.

References:-
1. Programming in C : Schaum Outlines series.
2. C Programming : Stephen G. Kochan.
3. Let Us C : YashwantKanitkar

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SEMESTER–II

COMPUTER APPLICATIONS (VOCATIONAL)

PROGRAMMING USING C

(PRACTICAL)

Marks: 25

2 Hours/week

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SEMESTER–II

INFORMATION TECHNOLOGY SPECILIZATION SOFTWARE DEVELOPMENT (VOCATIONAL)

PROGRAMMING (C++)
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note for the Candidates:
The students can use only Non–programmable & Non–storage type calculator.

SECTION–A

Object Oriented Programming
Objects & Classes, Constructor & Destructor.

SECTION–B

Operator Overloading.
a) Overloading Unary Operators.
b) Overloading Binary Operators.
c) Data Conversion.
d) Pitfalls Operator Overloading and Conversion.

SECTION–C

Inheritance
a) Derived Class and Base Class.
b) Derived Class Constructors.
c) Overriding Member Functions.
d) Inheritance in the English Distances Class, Class Hierarchies.
e) Public and Private Inheritance.
f) Level of Inheritance.

SECTION–D

Polymorphism
a) Problems with Single Inheritance.
b) Multiple Inheritance.

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SEMESTER–II

INFORMATION TECHNOLOGY SPECILIZATION SOFTWARE DEVELOPMENT (VOCATIONAL)

(PRACTICAL)

C++ Programming   **Marks: 25**

Operational Knowledge of   C++ Programming

Note: Oral and written test will be conducted by External examiner with the help of internal examiner

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SEMESTER–II

AUTOMOBILE MAINTENANCE (VOCATIONAL)
(THEORY)

Time: 3 Hours
Periods/week: 6   **Theory Marks: 60**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Automotive Engines, Engine fundamentals; Piston–Engine Operation, Engine Types Engine Constructions, Values and Values Trains Engine Measurements and performance.

SECTION–B
Automotive Engine Systems; Automotive Engine fuels; Automotive fuel exhaust system; Automotive carburetors; Carbureted–Fuel–System service; Diesel Fuel–Injection Systems.

SECTION–C
Operation and service; Engine lubrication System: Operation and service.

SECTION–D
Engine Cooling system; Cooling System Service.

(PRACTICAL)

LAB–II

Time: 3 Hours
Period/week: 6   **Marks: 40**

Practical:
1. Carburetor dismentling, cleaning and fault diagnosing.
2. Fuel Injection Pump timing with engine.
3. Injector O/H and Testing.
4. Water Pump cooling system and fault diagnosing.

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.

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SEMESTER–II

REFRIGERATION & AIR CONDITIONING (VOCATIONAL)
(THEORY)

Time: 3 Hours
Periods/week: 6   **Theory Marks: 60**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Air Refrigeration System: Introduction, Reuersed carnot cycle. Reuersed Brayton or Belt Coleman cycle & their C.O.P. Advantages & disadvantages of air.
Measuring Instruments: Fundamental & Concepts & Principles Ohm's Law measuring instruments as multimeter, Megger.

SECTION–B
Electrical Aspects of Refrigeration and Air Conditioning: Concepts of volt, current, power A.C. & D.C. Operations, code & electrical wiring for practice, Instruments for voltage, current & resistance measurements. Single phase motors: Starting, running & Winding current & voltage thermal relays, solenoid values.

SECTION–C
Electrical Wiring & Electrical Circuit of Following: Refrigeration, Air Conditioner & Water Cooler. Air Conditioning Cycle, Psychrometric Processes: Sensible cooling, heatix, dehumidification / humidification etc.Thermal comfort, standard conditions & ventilation Requirements.

SECTION–D
Types of air conditioning system Direct Expansion: chilled Water Window cycle, package air conditioning split units & conts of plants.
Components of Air Conditioning: Chillers, coils, blowers, ducts distributor & pumps.

(PRACTICAL: LAB–II)
Time: 3 Hours
Period/week: 6   **Marks: 40**

List of Experiments:

1. To make different types of joints with help of elbows. T's socket etc.
2. To study different types of comp. eg open & sealed type.
3. To study different types of condensers eg. Air cooled & Water cooled.
4. To study the various types of expansion devices. Capillary tube Exp. Values. Thermostatic Exp. value.
5. To study pressure & Temperature measuring instruments.

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.

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SEMESTER–II

RELIGIOUS STUDIES

(ਧਰਮ ਅਧਿਐਨ)

ਪ੍ਰਮੁੱਖ ਭਾਰਤੀ ਧਰਮ

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

ਸੈਕਸ਼ਨ-ਏ

ਵੈਦਿਕ ਧਰਮ
1. ਆਰੀਅਨ ਦੀ ਜਾਣਕਾਰੀ
2. ਆਰੀਆ ਧਰਮ: ਸੰਖੇਪ ਜਾਣਕਾਰੀ (ਵੇਦ, ਬਲੀ ਤੇ ਯੱਗ)
3. ਵੈਦਿਕ ਦੇਵਤੇ: ਬਹੁ-ਦੇਵਵਾਦ

ਸੈਕਸ਼ਨ-ਬੀ

ਹਿੰਦੂ ਧਰਮ
1. ਪ੍ਰਮੁੱਖ ਫ਼ਿਰਕੇ: ਵੈਸ਼ਨਵ, ਸ਼ੈਵ ਅਤੇ ਸ਼ਾਕਤ (ਜਾਣ-ਪਹਿਚਾਣ ਅਤੇ ਮੁੱਖ ਸਿਧਾਂਤ)
2. ਭਗਵਤ ਗੀਤਾ: ਜਾਣ-ਪਹਿਚਾਣ ਅਤੇ ਮੁੱਖ ਸਿਧਾਂਤ
3. ਮਹਾਂਭਾਰਤ ਤੇ ਰਾਮਾਇਣ: ਜਾਣ ਪਹਿਚਾਣ ਅਤੇ ਮੁੱਖ ਸਿਧਾਂਤ

ਸੈਕਸ਼ਨ-ਸੀ

ਜੈਨ ਧਰਮ
1. ਤੀਰਥੰਕਰ ਅਤੇ ਭਗਵਾਨ ਮਹਾਂਵੀਰ ਦਾ ਜੀਵਨ
2. ਮੁੱਖ ਸਿਧਾਂਤ: ਪੰਜ ਮਹਾਂਵਰਤ, ਕਰਮ ਅਤੇ ਮੁਕਤੀ
3. ਧਰਮ ਗ੍ਰੰਥ ਅਤੇ ਫ਼ਿਰਕੇ

ਸੈਕਸ਼ਨ-ਡੀ

ਬੁੱਧ ਧਰਮ
1. ਮਹਾਤਮਾ ਬੁੱਧ ਦਾ ਜੀਵਨ
2. ਮੁੱਖ ਸਿਧਾਂਤ: ਚਾਰ ਆਰੀਆ ਸੱਚ ਅਤੇ ਪ੍ਰਤੀਤਿਯਸਮੁਤਪਾਦ
3. ਧਰਮ ਗ੍ਰੰਥ ਅਤੇ ਫ਼ਿਰਕੇ

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ਸੁਝਾਈਆਂ ਪੁਸਤਕਾਂ ਦੀ ਸੂਚੀ:

English:

1. Bhalla, K.S., *Major Religions in India*, Star Publications, 2005.
2. Bhaskar, V.S., *Faith and Philosophy of Buddhism*, Kalpaz Publications, 2009.
3. *Buddhism*, Punjabi University, Patiala, 1969.
4. David, Neel, Alexander, *Buddhism–Its Doctrines and Its Methods*, B.I. Publications, Grate Britain, 1977.
5. Gopalan, S., *Outlines of Jainism*, Wiley Western Ltd., New Delhi, 1975.
6. Gupta, Das, S.N., *A History of Indian Philosophy*, Vol. I, Cambridge University, Press, New York, 1969.
7. Hiriyanna, H., *Outlines of Indian Philosophy,* George Allen & Cnwin Ltd., London, 1931.
8. Hume, R.E., *The Thirteen Principal Upanishads*, Oxford University Press, New York, 1975.
9. Nathmal, Tatia Muni & Mahandra Kumar, *Aspects of Jain Monasticism*: *Today and Tomorrow*, Jain Vishva Bharti, Printers and Publishers, New Delhi, 1981.
10. Richard, A.Gard (Ed.), *Buddhism*, Prentice Hall, International, London, 1961,
11. Slevenson, S., *The Heart of Jainism*, Munshi Ram Manohar Lal, New Delhi, 1979.

Punjabi:

1. ਅਮੋਲ, ਸ.ਸ, *ਧਰਮਾਂ ਦੀ ਮੁੱਢਲੀ ਜਾਣਕਾਰੀ*, ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 1999.
2. ਐਮ. ਹਿਰਿਆਨਾ, *ਭਾਰਤੀ ਦਰਸ਼ਨ ਦੀ ਰੂਪ-ਰੇਖਾ*, ਅਨੁ. ਪ੍ਰਭਕੀਰਤ ਸਿੰਘ, ਯੂਨੀਸਟਾਰ, ਚੰਡੀਗੜ੍ਹ, 2014.
3. ਗੁਪਤਾ, ਸ਼ਾਂਤੀ ਨਾਥ, *ਭਾਰਤੀ ਦਰਸ਼ਨ*, ਪੰਜਾਬ ਸਟੇਟ ਯੂਨੀਵਰਸਿਟੀ, ਚੰਡੀਗੜ੍ਹ, 1974.
4. ਨਿਰਾਕਾਰੀ, ਆਰ.ਡੀ., *ਭਾਰਤੀ ਦਰਸ਼ਨ*, ਪੰਜਾਬ ਸਟੇਟ ਯੂਨੀਵਰਸਿਟੀ, ਚੰਡੀਗੜ੍ਹ, 1994.
5. ਡਾ.ਹਰਪਾਲ ਸਿੰਘ ਪੰਨੂ, ਭਾਰਤ ਦੇ ਪੁਰਾਤਨ ਧਰਮ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ
6. ਡਾ.ਸਰਬਜਿੰਦਰ ਸਿੰਘ, *ਵਿਸ਼ਵ ਧਰਮ ਗ੍ਰੰਥ ਅਤੇ ਸੰਪਰਦਾਵਾਂ*, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ

Hindi:

1. ਸਿਨਹਾ, ਹਰੇਂਦ੍ ਪ੍ਰਸਾਦ, *ਭਾਰਤੀਯ ਦਰਸ਼ਨ ਕੀ ਰੂਪ ਰੇਖਾ*, ਮੋਤੀਲਾਲ ਬਨਾਰਸੀ ਦਾਸ, ਦਿੱਲੀ, 1963.
2. ਮਿਸ਼ਰ, ਉਮੇਸ਼ (ਡਾ.), *ਭਾਰਤੀਯ ਦਰਸ਼ਨ*, ਉੱਤਰ ਪ੍ਰਦੇਸ਼, ਹਿੰਦੀ ਸੰਸਥਾਨ, ਲਖਨਊ, 2003.
3. ਰਾਧਾ ਕ੍ਰਿਸ਼ਨਨ, *ਭਾਰਤੀਯ ਦਰਸ਼ਨ*, ਭਾਗ ਪਹਿਲਾ, ਰਾਜਪਾਲ ਐਂਡ ਸੰਨਜ਼, ਦਿੱਲੀ, 1973.

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SEMESTER–II
PHILOSOPHY
ETHICS: WESTERN AND INDIAN

Time: 3 Hours **Max. Marks: 100**
Lectures to be delivered: 6 per week
Pass Marks 35 %

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

1.   An Introduction to Ethics: Definition, Nature, Scope and Utility

2.   Relation of Ethics with Religion and Science

SECTION–B

1.   Plato: Virtues.
2.   Kant: Categorical Imperative, Good Will.
3.   Utilitarianism: Meaning, Definition, Views of Bentham and J.S.Mill.

SECTION–C

1.   Bhagavad Gita: Nishkama Karma.
2.   Guru Granth Sahib: Truth, Contentment and Hukam.

SECTION–D

1.   Buddhism: Four Noble Truths and Eight-Fold Path
2.   Yoga Philosophy: Ashtangyoga
3.   Jainism: Tri Ratna and Kaivalya.

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Recommended Readings:-

English Books:-

1.   Avtar Singh, *Ethics of the Sikhs,* Punjabi University, Patiala, 1970.
2.   Balbir Singh, *Principles of Ethics,* S. Nagin, Jalandhar, 1978.
3.   Duignan, Brian, *The History of Western Ethics*, Britannica Educational Pub., New York, 2011.
4.   Gupta, S.N. Das, *A History of Indian Philosophy,* Vol. II, George Allen and Unwin, London, 1971.
5.   Intyre, Alasdair C Mac, *A Short History of Ethics*, Routledge, 1998.
6.   Joshi, H.M, *Traditional and Contemporary Ethics; Western and Indian*, Bharatiya Vidya Prakashan, Delhi, 2000.
7.   Kaveeshwar G.W., *The Ethics of the Gita*, Motilal Banarsidass, Delhi, 1971.
8.   Mackenzie, J.S., *Mannual of Ethics,* Hinds, Noble & Eldridge, New York, 2005.
9.   Norman Richard, *The Moral Philosophers: An Introduction to Ethics*, Oxford University Press, Oxford, 1998.
10. Tiwari, Kedar Nath, *Classical Indian Ethical Thoughts*: *A Philosophical Study of Hindu*, *Jaina and Buddha Morals*, Motilal Banarsidass, Delhi, 1998.
11. Vasu, Srisa Chandra, *An Introduction to the Yoga Philosophy*, AMS Press, New York, 1974.
12. William Lillies, *Introduction to Ethics,* Methuen, London, 2001.

Punjabi Books:-

1. ਹਉਰਾ, ਕੁਲਦੀਪ ਸਿੰਘ, *ਸਿੱਖ ਨੈਤਿਕਤਾ ਦੀ ਰੂਪ ਰੇਖਾ*, ਸਿਮਰ ਸਾਹਿਤ ਸਦਨ, ਅੰਮ੍ਰਿਤਸਰ।
2. ਗੁਪਤਾ, ਸ਼ਾਂਤੀ ਨਾਥ, *ਭਾਰਤੀ ਦਰਸ਼ਨ*, ਪੰਜਾਬ ਸਟੇਟ ਯੂਨੀਵਰਸਿਟੀ, ਚੰਡੀਗੜ੍ਹ, 1994.
3. ਚੰਦ, ਰਣਧੀਰ ਸਿੰਘ, *ਯੋਗ ਦਰਸ਼ਨ*, ਪੰਜਾਬੀ ਰਾਈਟਰਜ਼ ਕੋਆਪਰੇਟਿਵ ਸੋਸਾਇਟੀ, ਲੁਧਿਆਣਾ।
4. ਨਿਰਾਕਾਰੀ, ਆਰ.ਡੀ., *ਭਾਰਤੀ ਦਰਸ਼ਨ*, ਪੰਜਾਬ ਸਟੇਟ ਯੂਨੀਵਰਸਿਟੀ, ਚੰਡੀਗੜ੍ਹ, 1994.
5. ਵਜ਼ੀਰ ਸਿੰਘ (ਡਾ.) ਸਿੱਖ ਦਰਸ਼ਨ ਧਾਰਾ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ
Hindi Books:-

1. ਵਰਮਾ, ਵੇਦ ਪ੍ਰਕਾਸ਼, *ਨੀਤੀ ਸ਼ਾਸਤਰ*, ਅਲਾਇਡ ਪਬਲਿਸ਼ਰਜ਼, ਦਿੱਲੀ, 1977.

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SEMESTER–II
ZOOLOGY

Paper	Maximum Marks			Hours of Teaching	
	Theory Marks	Practical Marks		Theory	Practical
			Credit Hrs.	per Week (60 min. each)	
ZOO-IIA (Ecology)	35	__		3 Hrs	__
ZOO-IIB (Biodiversity-II)	35	__		3 Hrs	__
PRACTICAL–II (RELATED TO ZOO-IIA and ZOO-IIB)	__	30		__	4½ Hrs

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SEMESTER–II
ZOOLOGY
ZOO–II A: ECOLOGY
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Ecology: Definition, Subdivisions and scope of ecology.
Ecosystem: Components, ecological energetics, food web, major ecosystems of the world.
Ecological factors: Temperature, light and soil as ecological factors.
SECTION–B
Nutrients: Biogeochemical cycles and concept of limiting factors.
Ecological Adaptations: Morphological, physiological and behavioural adaptations in animals in different habitats.

SECTION–C
Population: Characteristics and regulations of population. Inter and Intra Specific relationship: Competition, Predation, Parasitism, Commensalism and Mutualism.
Biotic community: Characteristics, ecological succession, ecological niche.

SECTION–D
Natural resources: Renewable and nonrenewable natural resources and their conservations.
Environmental Issues: Causes, impact and control of environmental pollution.

Suggested Readings:-
1. Anderwartha, H.G. and Birch, L. C. (1970), The distribution and abundance of animals, University of Chicago Press, Chicago London.
2. Beeby, A. (1992), Applying Ecology, Chapman and Hall Madras.
3. Begon, M., Harper J. L. and Townsend, C. R. (1995), Ecology – Individuals, populations and communities, Blackwell Science, Cambridge UK.
4. Brewer, R. (1994), The science of Ecology, Saunders College of Publishing, New York.
5. Chapman, J. L. and Resis, M. J. (1995), Ecology- Principles and applications, Cambridge University Press, Cambridge UK.
6. Kaeighs, S. C. (1974), Ecology with special references to animal and Man, Prentice Hall Inc.
7. Kormondy, E.J. (1975), Concept of Ecology, Englewood Cliffs, N.J. Prentice Hall Inc.
8. Kreb C.J. (1982), Ecology, Harper & Row, New York.
9. Putmann, R. J. and Wratten, S. D. (1984), Principles of Ecology, Crown Helm, London.

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SEMESTER–II
ZOOLOGY

ZOO–II B: BIODIVERSITY-II
(ARTHROPODA TO HEMICHORDATA)
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Arthropoda:	Type study- Prawn
	Type study- *Periplaneta americana* (Cockroach),
	Social organizations in insects (Honey bee and Termite)

SECTION–B

Mollusca:	Type study- *Pila globosa,* Torsion, Pearl formation

SECTION–C

Echinodermata:	Type study - *Asterias* (Star fish), Study of Echinoderm larvae

SECTION–D

Hemichordata:	Type study - *Balanoglossus* (External characters only). Affinities of Hemichordates with Non-Chordates and Chordates

Suggested Readings:-
1. Barnes, R.D. (1999), Invertebrate Zoology. W.B. Saunder, Philadelphia.
2. Dhami, P.S. & Dhami, J. K., Invertebrates, R. Chand & Co., New Delhi, 2001.
3. Barth, R. H. and Broshears, R. E (1982), The Invertebrate world. Holt Saunder, Japan.
4. Brusca, R. C. and Brusca, G. J. (2003), Invertebrates (2nd ed), Sinauer Associates, Inc. Publishers, Sunderland, Massachusetts.
5. Engemann, J. G. and Hegner, R. W. (1981), Invertebrate Zoology (3rd ed), Macmillan, New York.
6. Gardiner, M. S. (1972), The Biology of Invertebrates, McGraw Hill, New York.
7. Meglitsch, P. A. and Schran, F. R. (1991), Invertebrate Zoology (3rd ed), Oxford University Press, New York.
8. Pechenik, A. Jan. (2000), Biology of the invertebrates, (4th ed), McGraw Hill Book Co. Singapore.

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SEMESTER–II
ZOOLOGY
PRACTICAL–II (RELATED TO ZOO-II A and ZOO-II B)

Time: 3hrs. **Marks: 30**

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

1. **Classification up to orders with ecological notes and economic importance (if any) of the following animals** :
A. Arthropoda : *Peripatus, Palaemon* (prawn), *Lobster, Cancer* (crab), *Sacculina, Eupagurus* (hermit Crab), *Lepas, Balanus,* Cyclops, *Daphnia, Lepisma, Periplaneta* (cockroach), *Schistocerca* (locust), *Poecilocerus* (ak grasshopper), *Gryllus* (cricket), *Mantis* (praying mantis), *Cicada, Forficula* (earwig), Dragonfly, Termite queen, Bug, Moth, Beetles, Polistes, (wasp), *Apis* (honey bee), *Bombyx, Pediculus* (body louse) Millipede and Centipede, *Palamnaeus* (scorpion), *Aranea* (spider) and *Limulus* (king Crab).
B. Mollusca: *Anodonta, Mytilus, Ostrea, Cardium, Pholas, Solen* (razor fish), Pecten, *Haliotis, Patella, Aplysia, Doris, Limax, Loligo, Sepia, Octopus, Nautilus* shell (Complete and T.S.), *Chiton, Dentalium.*
C. Echinodermata: *Asterias, Echinus Ophiothrix, Antedon.*
D. Hemichordata: *Balanoglossus.*
2. **Study of the following permanent stained preparations**:
A. Trachea and mouth parts of Insects
B. Radula and osphradium of *Pila*
C. T.S. Star fish (Arm).
3. **Demonstration of** digestive and nervous systems of Periplaneta (cockroach) with the help of charts/models/videos.
4. **Ecology:**
A. Study of animal adaptations with the help of specimens, charts and models.
B. Study of abiotic and biotic components of an ecosystem.
C. Study of different types of nests of birds.
D. Study and preparation of Zoogeographical charts.

5. **Assignment**

Note:- Some changes can be made in the practicals depending on the availability of material.

Guideslines for conduct of practical Examination:-

1. Identifiy and classify the specimens upto order. Write a note on their habit, habitat, special features and economic importance.   6
2. Draw a well labelled sketch of the given system of the animal & explain it to the examiner.   4
3. Identify the slides/models and give two reasons for identification.   4
4. Identify the adaptive feature/nest.   4
5. Mark the distribution of animals of a realm on the map.   4
6. Assignment   3
7. Viva-voce & Practical file.   5

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SEMESTER–II

MICROBIOLOGY
BASIC FOOD MICROBIOLOGY
(THEORY)

Time: 3hrs **Max. Marks: 75**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four
Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are
required to attempt five questions, selecting at least one question from each Section. The fifth
question may be attempted from any Section.

SECTION–A
1. Food as a substrate for microorganisms, intrinsic and extrinsic factors affecting the growth of
   various microorganisms in foods. Microorganisms important in food microbiology–bacteria,
   yeasts and molds, sources of contamination in foods.

SECTION–B
2. Fermented foods, origin of fermentation as a method of preparing indigenous foods, bread,
   dosa idli, warri, temper miso.

SECTION–C
3. Principles of food preservation and spoilage, asepsis, anaerobic conditions, aseptic
   packaging, preservation methods, high temperature, low temperature, drying, chemical
   preservatives.

SECTION–D
4. Spoilage of various milk and milk products, cereal and cereal products, vegetable and fruits,
   meat and meat products, canned foods. Food poisoning and food infection. *Staphylococcal,
   Clostridium* and *Salmonella* intoxications.

Books Recommended:-
1. Frazier. W.C. and Westhoff, D.C. 1978, Food Microbiology, Tata McGraw Hill Publishing
   Co., Ltd., New Delhi.
2. Banwart, G.J., 1987, Basic Food Microbiology, CBS Publishers and Distributions, New
   Delhi.
3. Powar, C.B. and Dagniwala, H.F. 1992. General Microbiology Volume II. Himalaya
   Publishing House, New Delhi.

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SEMESTER–II

MICROBIOLOGY
(PRACTICAL)

Time: 4 Hours   **Marks: 25**

1.   To enumerate the total microbial cells in a suspension by serial dilution and pour plating.

2.   To enumerate the total bacteria in milk by direct microscopic count.

3.   To measure the size of microbial cells by ocular micrometer.

4.   To study the morphology of bacteria, yeasts and molds.

5.   To check the bacteriological quality of raw milk by methylene blue reduction test.

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SEMESTER–II

INDUSTRIAL MICROBIOLOGY (VOCATIONAL)
INTRODUCTION TO FOOD MICROBIOLOGY
(THEORY)

Time: 3hrs **Max. Marks: 75**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
1. Food as a substrate for microorganisms, intrinsic and extrinsic factors affecting the growth of various microorganisms in foods.

SECTION–B
2. Microorganisms important in food microbiology: bacteria, yeast and molds, sources of contamination in foods.
3. Fermented foods, fermentation as a method of preparing indigenous foods, bread, dosa idli, warri, soy sauce, miso.

SECTION–C
4. Principles of food preservation and spoilage, asepsis, anaerobic conditions, aseptic packaging, preservation methods, high temperature, low temperature, drying, irradiation and chemical preservatives.

SECTION–D
5. Spoilage of various milk and milk products, cereal and cereal products, vegetable and fruits, eggs, canned foods and meat and meat products.
6. Food polsoning and food infection. Staphylococal Chlostridrium and Salmonella intoxication.

Books Recommended:-

1. Jay, J.M. 1986, Modern Food Microbiology, 3rd edition, an Nostrand Reinhold.

2. Banwari, G.J., 1989, Basic Food Microbiology, CBS Publishers and Distributions, New Delhi.

3. Frazier, W.C. and Westhoff, D.C. 1995, Food Microbiology, Tata McGraw Hill Publishing Co., Ltd., New Delhi.

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SEMESTER–II

INDUSTRIAL MICROBIOLOGY (VOCATIONAL)
(PRACTICAL)

Time: 4 Hours   **Marks: 25**

1. To study the practical growth curve of bacteria

2. To enumerate the total microbial cells in a suspension by the serial dilution and pour plating.

3. To enumerate the total bacteria in milk by direct microscopic count.

4. To measure the size of microbial cell by ocular micrometer.

5. To study the morphology of bacteria, yeast and molds.

6. To check the bacteriological quality of raw milk of methlene blue the reduction test.

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SEMESTER–II

MICROBIAL & FOOD TECHNOLOGY
FUNDAMENTALS OF FOOD PROCESSING AND TECHNOLOGY
(THEORY)

Time: 3 Hrs. **Max. Marks: 75**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Cereal & Cereal Products: Structure and composition of wheat and rice, milling of wheat, shelling and polishing rice, Preparation of bread by straight dough, sponge dough & continuous methods.
Oil & Fats Technology: Rendering Pressing, Solvent extraction, refining & hydrogenation.

SECTION–B
Milk & Milk Products Technology: Standardized milk, Toned milk, Double toned milk Clarification, Pasteurization & Homogenization of milk. Manufacturing of procured cheese, cheddar cheese, Fermented milks (Cultured butter–milk, yogurt, Acidophilus milk, Kefir & Kumiss).

SECTION–C
Fruit & Vegetable Technology: Canning, Preparation of vinegar, Jam, Jellies & Pickles.
Egg, Meat & Fish Technology: Preservation mehods of egg, spray drying of egg. Tenderization and curing of meat, dressing of poultry, Rigor mortis of fish, preservation methods of fish.

SECTION–D
Spices & Flavour Technology: List of major & minor spices of India, Traditional & Cryo milling of spices. Preparation of oleoresins, essential oils, spice decoctions & encapsulated spices.
Food Packaging Technology: Types of containers, (Primary, Secondary & Tertiary) Form–fill–seal packaging, Aseptic packaging Food packaging materials & forms glass containers, laminates, metal cans & Retortable pouches.

Books:-
1. Lal G., Siddappa, G.S. & Tandon G.L. Preservation of fruits & vegetables. Publication & Information Division. I.C.A.R., New Delhi.
2. Desrosier N.W. & Desrosier J.N. The technology of food preservation, 4th edition, CBS Publishers & Distributors.
3. Sukumar De. Outlines of Dairy Technology. Oxford University Press.
4. Potter N.N. & Hotehkiss J.H. Food Science, 5th edition CBS Publishers & Distributors.
5. Manay N.S. & Shadaksharaswamy M. Foods Facts & Principles. New Age International Ltd., Publishers.
6. Kent, N.L. Technology of Cereal Processing.

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SEMESTER–II

MICROBIAL & FOOD TECHNOLOGY

(PRACTICAL)

Time: 4 Hours **Marks: 25**

1. To enumerate the total number of bacteria by direct microscopic count.
2. To measure the size of microbial cell by ocular micrometer.
3. To study the morphology of bacteria, yeast and molds.
4. To check the bacteriological quality of raw milk of methylene the reduction test.
5. To study the typical growth curve of Bacteria.

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SEMESTER–II

BOTANY
PAPER–II A: CELL BIOLOGY
(THEORY)

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
Structure and Function of Nucleus; Ultrastructure; nuclear membrane; nucleolus.

SECTION–B
Extra nuclear Genome: Presence and function of mitochondrial and plastid DNA; plasmids. structure and function of other organelles: Golgi bodies, ER, Peroxisomes, Vacuoles

SECTION–C
Chromosome Organization: Morphology; centromere and telomere; chromosome alterations; deletions, duplications, translocations, inversions; variations in chromosome number, Aneuploidy, polyploidy; sex chromosomes.

SECTION–D

The Cell Envelopes: Plasma membrane; bilayer lipid structure; functions; the cell wall.

Suggested Readings:-
1. Gupta, P.K. (2013). A Text–book of Cell and Molecular Biology (3rd edition). Rastogi Publications, Meerut, India
2. Johnson, A., Raff, L. and Walter, R. (2008). Molecular Biology of the Cell (5th Edition). Taylor and Francis Group, USA.
3. Karp, G. (2013). Cell and Molecular Biology: Concepts and Experiments (7th Edition). Wiley Publishers, USA.
4. Kleinsmith, L.J. and Kish, V.M. (1995). Principles of Cell and Molecular Biology (2nd edition). Harper Collins College Publishers, New York, USA.
5. Lodish, H., Berk, A., Kaiser, C. A., Krieger, M., Bretscher, A. and Ploegh, H. (2016). Molecular Cell Biology, W.H. Freeman & Co., New York, USA.
6. Snustad, D.P. and Simmons, M.J. (2010). Principles of Genetics (5th Edition). John Wiley and Sons Inc., U.S.A.

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SEMESTER–II

BOTANY
PAPER–II B: GENETICS
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
DNA the Genetic Material: DNA structure; replication; DNA–protein interaction; the nucleosome model; genetic code; satellite and repetitive DNA.

SECTION–B
Cell Division: Mitosis; meiosis. Genetic Inheritance: Mendelism; laws of segregation and independent assortment; linkage analysis; allelic and non–allelic interactions.

SECTION–C
Gene expression: Structure of gene; transfer of genetic information; transcription, translation, protein synthesis, tRNA; ribosomes; regulation ofgene expression in prokaryotes and eukaryotes; proteins, ID, 2D, and 3D structure.

SECTION–D
Genetic Variations: Mutations, spontaneous and induced; transposable genetic elements; DNA, damage and repair.

Suggested Readings:-
1. Brown, T.A. (2011). Genetics: A Molecular Approach (3rd Edition). BIOS Scientific Publishers, UK.
2. Fletcher, H., Hickey, I. and Winter, P. (2010). Instant Notes on Genetics (3rd edition) Taylor and Francis Group, USA.
3. Gardner, E.J., Simmons, M.J. and Snustad, D.P. (2012). Principles of Genetics (8th Edition). Wiley Sons, USA.
4. Gupta, P.K. (2016). Cell and Molecular Biology, Rastogi Publications, Meerut, India.
5. Kleinsmith, L.J. and Kish, V.M. (1995). Principles of Cell and Molecular Biology (2nd Edition). Harper Collins College Publishers, New York, USA.
6. Krebs, B. E., Goldstein, E.S. and Kilpatrick, S.T. (2011). Lewins Genes X. Jones and Bartlett Publishers, LLC, UK.
7. Lodish, H., Berk, A., Kaiser, C. A., Krieger, M., Bretscher, A. and ploegh, H. (2016). Molecular Cell Biology, W.H. Freeman & Co., New York, USA.
8. Singh, B.D. (2007). Molecular Genetics. Kalyani Publishers, India.
9. Snustad, D.P. and Simmons, M.J. (2010). Principles of Genetics (5th Edition). John Wiley and Sons Inc., U.S.A.

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SEMESTER–II

BOTANY PRACTICAL–II (BASED ON PAPERS–II A AND II B)

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

Suggested Laboratory Exercises

1. Teachers may select plants/material available in their locality/institutions.
2. To study cell structure from onion leaf peels; demonstration of staining and mounting methods.
3. Comparative study of cell structure in onion cells, Hydrilla and Spirogyra. Study of cyclosis in Tradescantia Staminal Cells.
4. Study of plastids to examine pigment distribution in plants (e.g. Cassia, Lycopersicon and Capsicum). 4. Examination of electron micrographs of eukaryotic cells with special reference to organelles.
5. Study of electron micrographs of viruses, bacteria, cyanobacteria and eukaryotic cells for comparative cellular organization.
6. Examination of various stages of mitosis and meiosis using appropriate plant material (e.g. onion root tips, onion flower buds).
7. Preparation of karyotypes from dividing root tip cells and pollen grains.
8. Cytological examination of special types of chromosomes: bar body, lampbrush and polytene chromosomes.
9. Working out the laws of inheritance using seed mixtures.
10. Working out the mode of inheritance of linked genes from test cross and/or F2 data.

Suggested Readings:-

1. Fukui, K. and Nakayama, S. 1996. Plant Chromosomes; Laboratory Methods, CRC Press, Boca Raton, Florida.
2. Gunning, B.E.S. and Steer, M.W. 1996. Plant Cell Biology; Structure and Function, Jones and Barllett Publishers, Boston, Massachusetts.
3. Harns, N. and Oparka, K.J. 1994. Plant Cell Biology, A Practical Approach. IRL Press, at Oxford University Press, Oxford, UK.
4. Sharma, A.K. and Sharma, A. 1999. Plant Chromosomes; Analysis. Manipulation and Engineering, Harwood Academic Publishers, Australia.
5. Plopper, G. (2016). Principles of Cell Biology. Jones and Barnett Learning, Boston, Massachusetts.

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SEMESTER–II

BIOINFORMATICS (VOCATIONAL)
BASIC MATHEMATICS, BIOSTATISTICS & DATABASE MANAGEMENT SYSTEMS
(THEORY)

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Matrices and Vectors: Matrix Algebra, -Addition, Subtraction, Multiplication, Transpose inverse and conjugate of a Matrix. Determinants (**upto third order)**, Vectors in space, Addition, Subtraction Dot, Cross and Scalar triple product.
Functions: Concept of functions, its domain and range, only graphs of some well known functions such as linear, exponential, sine and cos.
Coordinate Geometry: Equation of a line, circle.
Differentiation: Limits of functions, Complete Differentials (Simple examples), Partial differentials of functions with one variable.
Integration: Indefinite **(Simple examples)** and Introduction to Definite Integral.

Differential Equation: Ordinary Differential Equation of 1st order & 1st degree, Partial Differential equations.

SECTION–B

Elementary Statistics: The mean, median, mode, standard deviation, variance, covariance of data.
Probability: Basic concepts, sample space and events, use of counting method in probability, addition law, sample problems involving the estimation of probabilities, Conditional Probability and Independent Events, Bayes theorem.
Introduction to Correlation & Regression: Scatter diagram, Linear correlation, linear regression lines.
Probability Distributions: Bernoulli, Binomial, Poisson and Normal Distributions.

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SECTION–C

Introduction to DBMS: Data, Information, Knowledge, Database approach, Characteristics of Database approach, Database System Concept, Components of Database System, DBMS, Database languages, DBMS Architecture and data Independence.
Data Models: ER Model Concepts, Notation for ER Diagram, Relational Model Concepts, relational Model Constraints.
Normalization and is forms like 1NF, 2NF, 3NF, BCNF, 4NF and 5NF. Functional Dependencies.

SECTION–D

SQL: Introduction, DDL statements, DML statements, TCL statements, Queries in SQL: Nested Queries, Single row sub queries, multiple row sub queries, Multiple Column sub queries, views in SQL.
Introduction to PL/SQL: Basic Elements of PL/SQL, Procedures: Local and stored procedures, Functions: Local functions, Return statement and stored functions. Difference b/w procedures and functions.

Recommended Books:-
1. Elhance D.N. (1984). Fundamentals of Statistics. *Kitab Mahal, Allahabad.*
2. Mendenhall W. and Sincich T. (1995). Statistics for Engineering and Sciences (IVth Edition). *Prentice Hall.* And sciences (IVth Edition). Prentice Hall.
3. Gupta S.P. (2000). Statistical Methods. *Sultan Chand and Company, New Delhi.*
4. Kapoor V.K. and Gupta S.C. (2000). Fundamentals of Mathematical Statistics. *Sultan Chand and Company, New Delhi.*
5. J. Crawshaw and J Chamber (2002). Advanced Level Statistics, 4th Edition, *Melson Thornes.*
6. Spiegel M.R. (1974). Theory and Problems of Advanced Calculus. *Tata McGraw Hill Company Ltd., New Delhi.*
7. Edward Batschelet (1992) "Introduction to Mathematics for Life Sciences", 3rd Edition, *Springer-Verlag.*
8. Brown R. (1994). Theory and Problems of Differential Equations. *Tata McGraw Hill Company Ltd., New Delhi.*
9. Kapoor V.K. and Gupta S.C. (2000) Fundamentals of Mathematical Statistics. *Sultan Chand and Company, New Delhi*
10. Nell and D. Qualing (2002) Pure Mathematics (Advanced Level Mathematics) Vol. 1, 2 & 3, *Cambridge University Press.*
11. Fundamentals of Database Systems by Elmasari and Navathe, Prentice Hall (India), 2001.
12. Fundamentals of DBMS: Anurag Gupta, Nishan Singh Dhillon, Jagmohan Magho, Anshuman Sharma.
13. Data Mining Concepts and Techniques-Jiawei Han, Micheline Kamber, *Morgan Kaufmann Publisher, 2001.*

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SEMESTER–II

BIOINFORMATICS (VOCATIONAL)

PAPER-B: LAB IN DATABASE MANAGEMENT SYSTEMS
(PRACTICAL)

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

Exercise to understand RDBMS: Oracle, SQL etc.

   Usage of important Commands/instructions

    DDL statements

    DML statements

    TCL statements

    Queries in SQL

    Operators

    Functions

    Views

Basic elements of PL/SQL

    Procedures

    Functions

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SEMESTER–II

BIOTECHNOLOGY (VOCATIONAL)

GENETICS AND BIOCHEMISTRY
(THEORY)

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Mendelian laws of inheritance; gene interactions. Sex determination in plants and animals, sex-linkage, non-disjunction as a proof of chromosomal theory of inheritance. Linkage; mapping genes; Chromosomes: chemical composition; structural organization of chromatids, centromeres, telomeres, chromatin, nucleosome organisation; eu-and heterochromatin; special chromosomes (e.g., polytene and lampbrush chromosomes; banding patterns in human chromosomes.

SECTION–B

Structural and numerical aberration involving chromosomes; Hereditary defects- Kleinefelter, Turner, Cri-du-Chat and Down syndromes. Mutations-spontaneous and induced; chemical and physical mutagens; induced mutations in plants, animals and microbes for economic benefit of man. Conjugation, transduction, transformation, isolation of auxotrophs, replica plating techniques. Extrachromosomal inheritance, mitochondrial and chloroplast genetic systems. Population genetics: Hardy-Weinberg equilibrium, gene and genotypic frequencies.

SECTION–C

Nature of biological material; Suitability of organic compounds for generation of structure, storage of energy and information; Hydrophilic and hydrophobic groups in biological molecules.

i)   Carbohydrates, pepetidoglycans, polysaccharides and membrane lipids.

ii)   The signal molecules: Hormones.

The repeating UNITs in nucleic acids and conformation of DNA (A, B & Z). Proteins, Helicity, bending, looping, pleats, salt bridges etc. and their determinants.

SECTION–D

The basis for intermolecular interaction e.g. enzyme-substrate. Protein and nonprotein enzymes. Kinetics of enzyme catalysed reactions (first order), Enzyme inhibition. Enzymes and their applications in industry. Enzymes in food processing, medicine, diagnostics and production of new compounds. Enzymes as research tools-ELISA methods, modifications of biological compounds with the help of enzymes.

Books Recommended:

1. De-Robertis, F.D.P. and De-Robertis Jr. E.M.F. (1991), Cell and Molecular Biology, Saunders, Philadelphia.

2. Maloy, S.R. Crown, J.E. and Freifelder, D. (1994), Microbial Genetics: 2nd Edition, Jones & Bartlett Publishers.

3. Hartl. D.L. (1994), Genetics: 3rd Edition, Jones & Bartlett Publishers.

4. Lodish, H., Baltimore, D., Berk, A., Zipursky, S.L., Matsudaria, P and Darnell, J. (1995), Molecular Cell Biology, 3rd Edition, Scientific American Books Inc.

5. Brooker, R.J. (1999), Genetics: Analysis and Principles, Jim Green.

6. Antherly A.G., Girton. J.R. (1999). The Science of Genetics. Harcourt College Publishers.

7. Freifelder, D. (2000), Microbial Genetics, Narosa Publishing House.

8. Geoffrey, M. (2000), The Cell: A Molecular approach, 2nd Edition, ASM Press.

9. Hartl, D.L., Jones E.W., (2001). Genetics: Analysis of Genes & Genomes, 5th Edition Jones & Bartlett Publishers.

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SEMESTER II

BIOTECHNOLOGY (VOCATIONAL)

(PRACTICAL)

Time: 3 Hours   **Marks: 25**

Credit Hours: 6

I-Biochemical Techniques:

Verification of Beer Lamberts for P-nitrophenol or cobalt chloride.

Determination of pKa value of p nitrophenol

Quantitative estimation of the following in biological samples

Sugar in given solutions and biological samples

Extractions and separation of lipids

The determination of acid value of a fat

Estimation of proteins

Estimation of DNA/RNA

II-GENETICS

Demonstration of Law of Segregation (use of coloured

beads, capsules etc.).

Demonstration of Law of Independent Assortment (use of coloured

beads, capsules etc.).

Numerical problems based on of Law of Segregation and Law of Independent Assortment.

Numerical problems based on Paternity Disputes (Blood groups)

Preparation of slide of Barr Body.

Preparation and study of mitosis slides from onion root tips by squash method.

Dermatographics : Palm print taking and finger tip patterns.

Study of inheritance of Human Phenotypic Traits (ability to taste PTC/Thiourea, rolling of

tongue etc.)

SEMESTER–II
EDUCATION

PHILOSOPHICAL FOUNDATIONS OF EDUCATION

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note: The paper setter may set each question in 2/4 parts to ensure maximum representation of the syllabus.

SECTION–A
1. Philosophy of Education- Definition, nature and scope
2. Difference between philosophy of education & educational philosophy

SECTION–B
1. Relationship between Philosophy & Education.
2. Impact of Philosophy on different aspects of Education.

SECTION–C
1. Idealism –its main features & contribution to Education
2. Naturalism – its main features & contribution to Education

SECTION–D
1. Pragmatism–its main features & contribution to Education
2. Meaning & importance of values; ways & means for inculcation of values.

Books Recommended:-

1. Bhatia and Narang   Philosophical & Sociological Foundation of Education Doaba House, New Delhi, 1992.
2. Bhatia and Narang   Theory & Principles of Education, Parkash Brothers, Ludhiana, 1986.
3. Dayakar, Reddy, D.   Value Oriented Education, Discover Publishers, New Delhi, 2006.
4. Sodhi, T.S   Philosophical and Sociological Foundations of Education, Bawa Publications, Patiala, 2007.
5. Taneja, V.R.   Foundation of Education, Chandigarh, Mahindra Capital, Punjab, 2006.
6. Taneja. V.R.   Socio-Philosophical Approach to Education, Delhi : Atlantic Publishers, 1983

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Education)

SEMESTER–II

HUMAN RIGHTS

OUR DUTIES IN RELATION TO SOCIETY

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note: The paper setter may set each question in 2/4 parts to ensure maximum representation of the syllabus.

SECTION–A
Identification of human duties in relation to society.

SECTION–B
Duties towards self; family; neighborhood; environment and society at large.

SECTION–C
Conflicts in duty performance at individual level, socio cultural level; causes of these conflicts.

SECTION–D
Suggestions for resolving conflicts and better duty performance at different levels-individual, organization work place, socio cultural level.

Recommended Books:-

1. Vijay and Kumar, Perspectives on Human Rights, Manak Publications, New Delhi.
2. Khare, Subhash Chandra, Human Rights and UNITed Nations Metropolitan Co. New Delhi.
3. Iyer, V.R. Krishna, Human Rights and the Law, Vapul law, Indore.
4. Sharma, N.R. Human Rights in the World, Pointer Publishers, New Delhi.
5. Naseema, C. Human Rights Education, Kanishka Publishers, New Delhi.
6. Dikshit, R.C., (1998), Human Rights and the Law, Universal and Indian, New Delhi: Deep and Deep.
7. Kashyap, Subhash C., (1978), Human Rights and Parliament, Delhi: Metropolitan. Kirpal, B.N. et al., (2004), Supreme but Not Infallible, New Delhi: OUP

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Agriculture & Forestry)

SEMESTER–II
DAIRY FARMING (VOCATIONAL)
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

Anatomy and Physiology
Anatomy & Physiology of udder. Milk synthesis and its secretion including let down of milk. Digestive and reproductive system of cattle

SECTION–B

Feeding Practices
Classification of feeding stuffs. Study of roughages and concentrates. Silage and hay making. General principles of feeding cattle & buffaloes.

SECTION–C

Management
1) General care of cattle, grooming, exercise, bathing, oestrus observation, care during pregnancy, parturition, milking, clean milk production, drying off.
2) Care of calves: Care and feeding of weaned calves, Identification marks (tattooing, branding and ear tagging) disbudding and castration etc.
3) Principles of grading up in cattles. Various systems of breeding i.e. inbreeding, out breeding and crossbreeding. Importance of Sire & Dam.
4) Artificial insemination, Merits and Demerits thereof.

SECTION–D

Diseases and their Control

Common infections and contagious diseases, their causes, symptoms and treatment. Vaccination schedule. Deworming and tick control.

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Agriculture & Forestry)

SEMESTER–II

DAIRY FARMING (VOCATIONAL)
(PRACTICAL)

Time: 3 Hours **Marks: 50**

1. Identification of various feed stuffs.

2. Identification and numbering of animals:

   a) Tattooing,   b) Notching,   c) Branding,   d) Eartagging

3. Disbudding: Caustic touch, Hot iron method, Eclectric dehorner.

4. Collection of semen, its evaluation and extension (Demonstration only)

5. Techniques of artificial insemination (Demonstration only).

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(Faculty of Languages)

SEMESTER–II

RSL121: **RUSSIAN**

PAPER–I (APPLIED GRAMMAR)

Time allowed: 3 Hrs. **M. M.: 40**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

1. Grammar (all topics covered in the text book)

SECTION–B

2. Comprehension (unseen text with questions)

SECTION–C

3. Questions based on the texts covered in the textbook.

SECTION–D

4. Informal letter on the given situation.

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

SEMESTER–II

RUSSIAN

PAPER–II (TRANSLATION & COMPOSITION)

Time allowed: 3 Hrs. **M. M.: 40**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

1. Translation from English into Russian (simple text not exceeding 150 words)

SECTION–B

2. Translation from Russian into English/Hindi/Punjabi (simple text not exceeding 250 words)

SECTION–C

3. Paragraph of not less than 150 words. (One out of three topics)
   Topics: My country, A Dream, Summer Vacations, My Birthday, The Indian Festivals.

SECTION–D

4. Dialogue writing.

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

SEMESTER–II

RUSSIAN

PAPER–III (ORAL)

Time allowed: 3 Hrs.   **M. M.: 20**

-	Reading of a text	**05**
-	Dictation	**05**
-	Conversation	**05**
-	Oral comprehension	**05**

Prescribed Textbook: Russian By Wagner & Ovsienko. (Lessons 13-25)

Supplementary Reading:
1. A.K. Maurya: ESSENTIAL RUSSIAN, University of Delhi, 2004.
2. S Khavronina: Russian in Exercise, 1978.
3. I. Pulkina: RUSSIAN A Practical Grammar with Exercise. Russky Yazik. Pub. H. Moscow.
4. Dictionaries: English - Russian dictionary. Russian - English Dictionary.

Note: Glossary of difficult words to be given for translation purpose in the question paper.

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(Faculty of Languages)

SEMESTER–II

FRL–121   **FRENCH**

PAPER–I (COMPREHENSION & COMPOSITION)

Time allowed: 3 Hrs.   **M.M.: 40**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

1. Questions of general comprehension related to the text.
   e.g.:- Qu'est- ce que vous ferez si vous allez en France ?

SECTION–B

2. Questions on comprehension of an unseen passage.

SECTION–C

3. Composition of a small paragraph on general topics pertaining to the text. e. g.: Ma maison, Mon professeur, Ma famille,Une ville touristique, Un pique-nique.

SECTION–D

4. Make a dialogue on any given situation.

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

SEMESTER–II

FRENCH

PAPER–II (TRANSLATION & GRAMMAR)

Time allowed: 3 Hrs.   **M.M.: 40**

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

1. Translation of a simple unseen passage or short sentences from English into French.

SECTION–B

2. Translation of a simple unseen passage or short sentences from French into English.

SECTION–C

3. Questions on applied grammar pertaining to the text-book.

SECTION–D

4. Questions on applied grammar pertaining to the text-book.

NOTE: **Glossary of difficult words may be given for translation purpose in the question paper.**

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(Faculty of Languages)

SEMESTER–II

FRENCH

PAPER–III (ORAL)

Time allowed: 3 Hrs.   **M.M.: 20**

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

Prescribed Textbook:
"CONNEXIONS-1" by Regine Merieux & Yves Loiseau, Published by Didier (7-12 UNITS)

Supplementary Reading:
Nouveau Sans Frontières 1 by Philippe Dominique & Jacky Girardet

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(Faculty of Languages)

SEMESTER–II

URDU

URL102: **Essay, Composition, Media and Information**

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Courses of Study

SECTION–A

Essay

SECTION–B

Letter/application

SECTION–C

Opposite words, Numbers, Genders and Idioms

SECTION–D

News paper, Journals, Radio and TV

Books Recommended:-
1. Guldasta-e-Mazamin-o-Insha Pardazi, Part-II by Dr. Aarif Mohammad Khan, Published by M/S Educational Book House, A.M.U. Market, Aligarh
2. Akhbar Ki Kahani by Ghulam Haider, Taraqqi Urdu Board, New Delhi
3. Rehbar-e-Akhbar Navisi by Syed Iqbal Qadri, Taraqqi Urdu Board, New Delhi
4. Urdu Sahafat Ki Tarikh by Nadir Ali Khan, National Council for Promotion of Urdu, R.K.Puram, New Delhi
5. Television Ki Sahafat by Shakil Hasan Shamsi, Educational Book House, AMU Market, Aligarh
6. Television Nashariyat by Anjum Usmani, Educational Book House, AMU Market, Aligarh

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

SEMESTER–II

PERSIAN

PRL102: **COMPOSITION AND GRAMMAR**

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four
Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are
required to attempt five questions, selecting at least one question from each Section. The fifth
question may be attempted from any Section.

Courses of Reading

Book Prescribed:
1. Farsi-o-Dastur, Zohra Khanlari, Edara Adabyat, Sadar Bazaar Delhi,110006,
   (Pages: 18, 32, 33, 43, 44, 52, 54, 63, 64, 75, 76, 91, 92, 101,102, 111,112,120 &121.)
2. Farsi-o-Dastur Tarjuma, Part-II, by Dr. Nargis Jahan, published by Idara Adabiyat, Sadar
   Bazaar, Delhi.

SECTION–A
Composition
Short Essay (Ten to twenty sentences in Persian)
Rafique Man , Darsgah-e-Man, Watan-e-Azizam, Sha'ir-e-Maroof, Kitabi ke Man Pasandam,
Fasalha-e-Hind, Amozgaram, Mashaghil, Khuda-e-bartar & Ahmiyat-o-Favaid-e-Riyazat-e-
Badani

SECTION–B
Translation of unseen passage or sentences in Urdu/English/Hindi/Punjabi

SECTION–C
Translation of simple Sentences into Persian

SECTION–D

Grammar: Definitions, kind and examples:
Nihad-o-Guzare, Fail–o-Zamane Fail (Mazi, Haal, Mustaqbal & Muzare) Shakhs (Avval, Dom
& Som), Shakhs (Mufarrad and Jama), Fa'il, Ism aur uski Iqsaam, Tadad, Zamir

11.	Bigger Type	मोटा टाइप
12.	Body	बॉडी, काय
13.	Booklet	ग्रन्थिका
14.	Box	चौखटा
15.	Bulletin	बुलेटिन
16.	Broadcast	प्रसारण
17.	Brochure	विवरणिका
18.	Canons of journalism	पत्रकारिता के नीति सिद्धांत
19.	Caption	शीर्षक
20.	Cartoons	व्यंग्य- चित्र
21.	Circulation	प्रसार – संख्या
22.	Classifieds	वर्गीकृत विज्ञापन
23.	Compositor	अक्षर – योजक
24.	Correspondent	संवाददाता
25.	Cub reporter	नौसिखिया पत्रकार
26.	Columnist	स्तम्भकार
27.	Communication	संचार
28.	Communication satellite	संचार-उपग्रह
29.	Copyright	प्रतिलिप्याधिकार
30.	Daily	दैनिक
31.	Defamation	मानहानि
32.	Development Journalism	विकास पत्रकारिता
33.	Editor	सम्पादक
34.	Editorial	सम्पादकीय
35.	Exclusive	विशिष्ट समाचार
36.	Feature	रूपलेख, फीचर
37.	Feedbook	प्रतिपुष्टि
38.	Flagline	चेतावनी
39.	Folio	पृष्ठ – संख्या
40.	Fortnightly	पाक्षिक
41.	Free lancer	स्वतंत्र पत्रकार

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42.	Ghost writer	छद्म लेखक
43.	Hoarding	प्रचार पटल
44.	Human Interest feature	मनोरोचक फीचर , मर्मस्पर्शी रूपलेख
45.	House Journal	संस्था- पत्र
46.	Interview	साक्षात्कार
47.	Innovation	नवाचार
48.	Jacket	पुस्तकावरण
49.	Layout	सज्जा, विन्यास, अभिन्यास
50.	Letter spacing	अक्षर अंतराल
51.	Live broadcast	सीधा प्रसारण
52.	Local News	स्थानीय समाचार
53.	Make up	पृष्ठ – सज्जा
54.	Mass communication	जन – संचार
55.	Monthly magazine	मासिक पत्रिका
56.	News analysis	समाचार विश्लेषण
57.	Out of print	अप्राप्य
58.	Periodical	नियतकालिक पत्रिका
59.	Pix	चित्र
60.	Playwright	नाटककार
61.	Press release	प्रेस-विज्ञप्ति
62.	Quarterly	त्रैमासिक
63.	Screenplay	पटकथा
64.	Sting operation	भंडाफोड़ पत्रकारिता
65.	Spot commercial	अंतराल विज्ञापन
66.	Sponsored programme	प्रायोजित कार्यक्रम
67.	Subscriber	ग्राहक
68.	Tabloid Newspaper	छोटा समाचार पत्र
69.	Wrong font	विजातीय टाइप
70.	Working journalist	श्रमजीवी पत्रकार

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
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SEMESTER-II
Functional Hindi (Vocational)
QaD'kuy fgUnh ¼okds'kuy½
iz'kkl fud vkSj 0;olkf;d i=kpkj vkSj fgUnh lkfgR; dk vkfndky

le; % 3 ?kaVs   iw.kkZad% 60

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

fu/kkZfjr ikB~;Øe%

l D'ku&,

व्यवसायिक शब्दावली (शब्दावली साथ सलंग्न है)

l D'ku&ch

प्रशासनिक पत्राचार, सामान्य पत्राचार, कार्यलयी पत्राचार और व्यवसायिक पत्राचार, सामान्य–पत्र और प्रशासनिक पत्रों में भेद, मूलरूप में पत्र लिखना (Original letter), पत्र का उत्तर देना (Reply to letter), पावती (Acknowledgement), स्मारक/स्मरण पत्र (Reminder), अर्द्ध–सरकारी पत्र (Semi Official letter), परिपत्र (Circular), आदेश (Order), पृष्ठांकन (Endorsement), अन्तर्विभागीय टिप्पणी (Inter-department notes), स्तरीय प्रारूप (Standard Draft), निविदा (Tenders), सूचनाएँ (Notes), रिक्त स्थानों के लिए विज्ञापन (Advertisement or vacancies), प्रस्ताव पत्र, भाव–दर सूची, बीजक/विधेयक, आदेश–पत्र, रसीद, भुगतान सूचना

l D'ku&l h

0;olkf;d i=kpkj
– व्यवसाय : पत्राचार
– व्यवसायिक पत्राचार : अवधारणा और प्रयोजन
– व्यवसायिक पत्र : 1) पूछताछ एवं निर्ख (दर) पत्र तथा सार्थ प्रस्ताव, 2) आदेश एवं माल प्राप्ति संबंधी पत्र, 3) बैंकिंग व्यवहार एवं बीमा व्यवहार सबंधी पत्र 4) विदेशी व्यापार : आयात एवं निर्यात सम्बन्धी पत्र, 5) नौकरी हेतु आवेदन और नियुक्ति सम्बन्धी पत्र।

l D'ku&Mh

fgUnh lkfgR; dk vkfndky
– नामकरण
– परिस्थितियाँ
– विशेषताएँ
– पृथ्वीराज रासो की प्रामाणिकता और अप्रामाणिकता

lgk;d iqLrda

1. हिन्दी साहित्य का इतिहास, गुरु नानक देव विश्वविद्यालय अमृतसर।
2. प्रयोजनमूलक व्यावहारिक हिन्दी, डॉ. ओम प्रकाश सिंहल, जगतराम प्रकाशन, दिल्ली।
3. प्रयोजनमूलक हिन्दी संरचना एवं अनुप्रयोग, डॉ. राम प्रकाश, डॉ. दिनेश गुप्त, राधाकृष्ण प्रकाशन, दिल्ली।

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

SEMESTER-II
Functional Hindi (Vocational)
Qd'kuy fgllnh ¼okds'kuy½
iz,kx vkSj ekSf[kdh

iwkkkId % 40

– विद्यार्थियों को प्रति समस्तर 40 अंक की प्रयोग पुस्तिका तैयार करनी होगी। जिसमें 20 अंक मौखिक परीक्षा के और 20 अंक प्रयोग–पुस्तिका के होंगे।

– प्रयोग–पुस्तिका का आकलन और मौखिक–परीक्षा गुरू नानक देव विश्वविद्यालय द्वारा निर्धारित परीक्षा–नियमों के अनुसार की जाएगी।

iz,kx ds fo"k;

• प्रशासनिक पत्रों के प्रारूप तैयार करने का अभ्यास।
• व्यावसायिक पत्रों के प्रारूप तैयार करने का अभ्यास।
• कार्यालयी पत्रों का प्रारूप तैयार करने का अभ्यास।
• सरकारी व अर्द्ध–सरकारी पत्रों में से किसी एक पत्र के नमूने का टंकण करना।

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Semester – II
Hindi Patrakarita (Vocational)
fgUnh i=dkfjrk ¼okds'kuy½
fgUnh i=dkfjrk vkSj tulapkj ek/;e

le;% 3 ?kaVs   iwkkZad% 60

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

fu/kkZfjr ikB~;Øe%
                                                                        lD'ku&,
fgUnh if=dkfjrk % tulapkj ds fofHkUu ek/;e
मल्टीमीडिया, (बहुमाध्यम) उपग्रह, पेजर, टेलीप्रिंटर टेलेक्स, टेलीफोन, वॉकी–टॉकी, सेल्युलर, वीडियोफोन, फैक्स, वीडियोटेक्स्ट, टेलीटेक्स्ट, एस.टी.डी., आई.एस.डी., इंटरकॉम, टेलीकान्फ्रेन्स।
                                                                        lD'ku&ch
lapkj % lkekU; ifjp;
        – संचार : अर्थ व परिभाषा
        – संचार : प्रक्रिया के प्रमुख तत्व
        – संचार की विशेषताएं
        – संचार के प्रकार और क्षेत्र
                                                                        lD'ku&l h
lapkj ek/;ek ds fy, ys[ku ds izdkj %
        – समाचार
        – परिचर्चा
        – भेंटवार्त्ता
        – लेख
        – समीक्षा
        – फीचर
        – संवाद
        – रिपोर्ताज
        – वृत्तचित्र
        – क्विज़ / प्रश्नोत्तरी
        – सृजनात्मक लेखन
                                                                        lD'ku&Mh
tulapkj % lkekU; ifjp;
        – जनसंचार – सामान्य परिचय, अर्थ व परिभाषा
        – जनसंचार – विशेषताएं
        – जनसंचार – प्रकार / माध्यम : सामान्य परिचय
        – समाचार
        – आकाशवाणी
        – दूरदर्शन और सिनेमा
lgk;d iqLrdsa
        हिन्दी पत्रिकारिता और जनसंचार माध्यम, डॉ जितिन्द्र वत्स, दिल्ली, निर्मल पब्लिकेशन्स।

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

Semester – II
Hindi Patrakarita (Vocational)
fgUnh i=dkfjrk ¼okds'kuy½
iz;ksx vkSj ekSf[kdh

iwkkad% 40

– विद्यार्थियों को प्रति समस्तर 40 अंक की प्रयोग पुस्तिका तैयार करनी होगी। जिसमें 20 अंक मौखिक परीक्षा के और 20 अंक प्रयोग–पुस्तिका के होंगे।

– प्रयोग–पुस्तिका का आकलन और मौखिक–परीक्षा गुरु नानक देव विश्वविद्यालय द्वारा निर्धारित परीक्षा–नियमों के अनुसार की जाएगी।

iz;ksx ds fo"k;

● महाविद्यालयों के विभिन्न कार्यक्रमों की रिपोर्ट तैयार करने का अभ्यास।
● आकाशवाणी / दूरदर्शन के कार्यक्रमों का आलेख तैयार करना।
● समाचार लिखते समय किन–किन आवश्यक बातों का ध्यान रखना चाहिए।
● संचार के विविध प्रकारों / रूपों की पावर–पाइंट प्रस्तुति।

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
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SEMESTER–II
SANSKRIT (ELECTIVE)
¼dkO;] 0;kdj.k ,oa vuqokn½

l e; &3 ?k.Vs   iw.kkZd&100

iz'u&i= dk ek/;e fgUnh gksxkAmŸkj llad'r@fgUnh@iatkch@vxszth esa gks ldrs gSA

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

नीतिशतकम् के 1 से 25 पद्यों की सप्रसंग व्याख्या।
विद्यामहत्त्व, धन का महत्त्व, मूर्ख पद्धति, विद्वत् पद्धति, कवि परिचय, सत्संगति,
सार से सम्बन्धित प्रश्न।

SECTION–B

नीतिशतकम् के 26 से 50 पद्यों की सप्रसंग व्याख्या।
नीतिशतकम् की 1 से 50 पद्यों में से प्रसिद्ध सूक्तियों की सप्रसंग व्याख्या।

SECTION–C

शब्द रूप– राम, हरि, फल, देव, पितृ, पुस्तक, साधु, लता, रमा, मातृ, नदी, गुरु तथा –
एक, द्वि, त्रि, चतुर्– शब्दों के पुल्लिंग में रूप।
कारकों का संस्कृत वाक्यों में प्रयोग –
अभितः, परितः, सर्वतः, अलम्, सह, सार्धम्, साकम्, समम्, समया, निकषा, अन्तरा, अन्तरेण,
धिक् नमः – इनका प्रयोग करके संस्कृत में वाक्य बनाना।

SECTION–D

कृदन्त प्रत्यय– भू, पठ्, हस्, लिख्, वद्, गम्, पत्, दृश्, स्मृ, पच्, दा, शक्, श्रू, कृ धातुओं के
साथ क्त, क्तवतु, क्त्वा, तुमुन्, तव्यत् तथा अनीयर् प्रत्ययों का योग।
हिन्दी से संस्कृत में अनुवाद।

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

lk'ui = fuekZk funझk

पाठ्यक्रम के A, B,C,D 4 सैक्शन हैं। अतः प्रश्न पत्र के भी A, B,C,D 4 सैक्शन बनायें जायेंगे तथा उन में 8 प्रश्न (पाठ्यक्रम के सैक्शन A से 2, B से 2, C से 2, D से 2) दिये जायेंगे।यदि आवश्यकता हो तो किसी भी प्रश्न के क,ख,ग,घ भाग बनाये जा सकते हैं, परन्तु सभी प्रश्नों के अंक समान हों।

SECTION–A

Question–I   नीतिशतकम् के 1–25 श्लोकों में से 4 पद्यों की प्रंसग सहित व्याख्या   = 20 अंक
Question–II   क. नीतिशतक के प्रश्नों के लिए निर्धारित बिन्दुओं में से एक प्रश्न   = 10 अंक
   ख. नीतिशतक के प्रश्नों के लिए निर्धारित बिन्दुओं में से एक प्रश्न   = 10 अंक

SECTION–B

Question–III   नीतिशतकम् के 26–50 श्लोकों में से 4 पद्यों की प्रंसग सहित व्याख्या   = 20 अंक
Question–IV   नीतिशतक निर्धारित में से 4 सूक्तियों की सप्रसंग व्याख्या   = 20 अंक

SECTION–C

Question–V   निर्धारित में से 4 शब्दों के रूप लिखवायें   = 20 अंक
Question–VI   क. निर्धारित अभितः परितः आदि 7 देकर इन के योग में विभक्ति पूछें   = 10 अंक
   ख. निर्धारित अभितः परितः आदि 5 देकर इन के प्रयोग से संस्कृत वाक्य बनवायें
   = 10 अंक

SECTION–D

Question–VII   निर्धारित धातुओं में से 10 के साथ निर्धारित में से प्रत्यय देकर
कृदन्त रूप लिखवायें।   = 20 अंक
Question–VIII   10 सरल हिन्दी वाक्यों का संस्कृत में अनुवाद   = 20 अंक

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(Faculty of Languages)

SEMESTER–II

FUNCTIONAL SANSKRIT (VOCATIONAL)

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

प्रश्न पत्र हिन्दी में होगा।

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A

इन बिन्दुओं से संबंधित विस्तृत अध्ययन:
         नित्यकर्म विविध विधान
         सामान्य देव पूजा विधि
         षोडशोपचारविधि

SECTION–B

इन बिन्दुओं से संबंधित विस्तृत अध्ययन :
         षोडश संस्कार
         वर्णाश्रम व्यवस्था

SECTION–C

इन बिन्दुओं से संबंधित विस्तृत अध्ययन :
         गर्भाधान संस्कार
         पुंसवन संस्कार
         विवाह संस्कार

SECTION–D

इन बिन्दुओं से संबंधित विस्तृत अध्ययन :
         विशिष्टदेवपूजाविधि
         पंचयज्ञकर्मविधि
         संस्कारों का उद्देश्य एवं प्रयोजन

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

lk'ui = fuekZk funZk

पाठ्यक्रम के A, B,C,D 4 सैक्शन हैं। अतः प्रश्न पत्र के भी A, B,C,D 4 सैक्शन बनायें जायेंगे तथा उन में 8 प्रश्न (पाठ्यक्रम के सैक्शन A से 2, B से 2, C से 2, D से 2) दिये जायेंगे।यदि आवश्यकता हो तो किसी भी प्रश्न के क,ख,ग,घ भाग बनाये जा सकते हैं, परन्तु सभी प्रश्नों के अंक समान हों।

SECTION–A
Question–I   प्रश्न   = 16 अंक
Question–II   प्रश्न   = 16 अंक

SECTION–B
Question–III   प्रश्न   = 16 अंक
Question–IV   प्रश्न   = 16 अंक

SECTION–C
Question–V   प्रश्न   = 16 अंक
Question–VI   प्रश्न   = 16 अंक

SECTION–D
Question–VII   प्रश्न   = 16 अंक
Question–VIII   प्रश्न   = 16 अंक

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

SEMESTER–II

ENGLISH (COMPULSORY)

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

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Texts Prescribed:
1. *Tales of Life* (Guru Nanak Dev University, Amritsar) Stories at Sr. No. 7, 9, 10, 11, 12
2. *Prose for Young Learners* (Guru Nanak Dev University, Amritsar) Essays at Sr. No. 7, 8, 9, 10, 11
3. *English Grammar in Use* (Fourth Edition) by Raymond Murphy, CUP (Units: 49-97)

The syllabus is divided in four sections as mentioned below.

SECTION–A

English Grammar in Use, 4th Edition by Raymond Murphy, CUP (Units: 49-81)

SECTION–B

Personal letter Writing and English Grammar in Use (Units: 82-97)

SECTION–C

Tales of Life (Guru Nanak Dev University, Amritsar) 7, 9, 10, 11, 12

SECTION–D

Prose for Young Learners (Fourth Edition) by Raymond Murphy, CUP 7, 8, 9, 10 and 11

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

SEMESTER–II

ENGLISH (ELECTIVE)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Books Prescribed:
1. *Untouchable* by Mulk Raj Anand.
2. *The School for Scandal* by Sheridan
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. *Untouchable* -- Complete Text
2. *The School for Scandal*—Complete Text
3. Literary Terms: Burlesque, Elegy, Hyperbole, Metaphor, Poetic Justice, Point of view, Dramatic Monologue, Tragicomedy
4. Transcription of Words: garage, data, menu, hello, cadet, exit, rebel (n), rebel (v), conduct(n), conduct (v), consume, idiot, depot, madam, handsome, petrol, perfect (adj.), perfect (v), vehicle, healthy, wealthy, police, sandwich, career, talent

The syllabus is divided in four sections as mentioned below:

SECTION–A
(a) Literary Terms: Burlesque, Elegy, Hyperbole, Metaphor, Poetic Justice, Point of view, Dramatic Monologue, Tragicomedy

(b) Transcription of Words: garage, data, menu, hello, cadet, exit, rebel (n), rebel (v), conduct(n), conduct (v), consume, idiot, depot, madam, handsome, petrol, perfect (adj.), perfect (v), vehicle, healthy, wealthy, police, sandwich, career, talent.

SECTION–B

Acts I,II,III of the play *The School for Scandal*
SECTION–C

Acts IV, V of the play *The School for Scandal*
SECTION–D
Complete text of the novel *Untouchable*

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SECTION–A

- Two questions would be set from **SECTION–A** of the syllabus. Five literary terms and ten words for transcription (five from the prescribed list and five disyllabic words would be set in each question. The students are required to attempt any one of them. (5x2=10+10x1=10)

SECTION–B

- Two questions will be set from **SECTION–B** of the syllabus. One essay type question based on the theme, plot, characterization and Reference to the context would be set with eight marks. The second part of the question would carry three short answer questions. Each question would carry four marks. The students would be required to attempt any one of the two sets of questions. (8+3x4=20)

SECTION–C

- Two questions will be set from **SECTION–C** of the syllabus. One essay type question based on the theme, plot, characterization and Reference to the context would be set with eight marks. The second part of the question would carry three short answer questions. Each question would carry four marks. The students would be required to attempt any one of the two sets of questions. (8+3x4=20)

SECTION–D

- Two questions will be set from **SECTION–D** of the syllabus. One essay type question based on the theme, plot, characterization and Reference to the context would be set with eight marks. The second part of the question would carry three short answer questions. Each question would carry four marks. The students would be required to attempt any one of the two sets of questions. (8+3x4=20)

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

SEMESTER–II

FUNCTIONAL ENGLISH (VOCATIONAL)

REMEDIAL GRAMMAR

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Books Prescribed:
1. *Collins Cobuild English Grammar: Work Book.*
2. *Grammar and Composition for Communication by S.M. Gupta & Alpana Gupta; Orient Blackswan 3. Remedial Grammar for Foreign Students, by F T. Wood; Macmillan*

Course Contents:

SECTION–A

Nouns: Singular & Plural; Articles: Definite/ Indefinite; Verbs: Intransitive/transitive verbs; regular/Irregular verbs; Auxiliary Verbs, Tenses and their uses, Pronouns, Gerunds and participle confusion

SECTION–B
Prepositions, Adjectives, Adverbs, Adjective–Adverb confusion, Difficulties with comparatives and superlatives, Errors of concord

SECTION–C
Types of Sentences: Declarative, Interrogative, Imperative; Negative & affirmative
Passive/Active Voice Direct–Indirect speech**,** Use of Question Tags, Use of Who–whom, much–many, still–yet, so that, so as, make and do etc.

SECTION–D
Use of individual words, Use of courtesy words for introduction, complaints, refusals, requests, greetings, Beyond Sentence: Connecting sentences Coordination and subordination Cohesion: Reference, ellipsis, substitution, repetition, Use of Conjunctions to develop texts

SEMESTER–II
Punjabi (Compulsory)
ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)

ਸਮਾਂ: 3 ਘੰਟੇ   ਕੁਲ ਅੰਕ: 50

ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਇਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

ਪਾਠ-ਕ੍ਰਮ ਅਤੇ ਪਾਠ-ਪੁਸਤਕਾਂ

ਸੈਕਸ਼ਨ - ਏ

ਦੋ ਰੰਗ (ਕਹਾਣੀ ਭਾਗ) (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ ਅਤੇ ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ), ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ।
(ਵਿਸ਼ਾ-ਵਸਤੂ/ਸਾਰ/ਲੇਖਕ ਦਾ ਜੀਵਨ ਤੇ ਰਚਨਾ)

ਸੈਕਸ਼ਨ - ਬੀ

ਸੰਸਾਰ ਦੀਆਂ ਪ੍ਰਸਿੱਧ ਹਸਤੀਆਂ (ਜੀਵਨੀ ਨੰ: 10 ਤੋਂ 18 ਤੱਕ)
(ਸੰਪਾ. ਪ੍ਰਿੰ. ਤੇਜਾ ਸਿੰਘ, ਹਰਨਾਮ ਸਿੰਘ ਸ਼ਾਮ),
ਪੰਜਾਬੀ ਸਾਹਿਤ ਪ੍ਰਕਾਸ਼ਨ, ਅੰਮ੍ਰਿਤਸਰ।
(ਵਿਸ਼ਾ/ਸਾਰ/ਨਾਇਕ ਬਿੰਬ)

ਸੈਕਸ਼ਨ - ਸੀ

(ੳ)   ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ-ਰਚਨਾ : ਪਰਿਭਾਸ਼ਾ, ਮੁਢਲੇ ਸੰਕਲਪ।
(ਅ)   ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ

ਸੈਕਸ਼ਨ - ਡੀ

(ੳ)   ਦਫ਼ਤਰੀ ਚਿੱਠੀ ਪੱਤਰ
(ਅ)   ਮੁਹਾਵਰੇ ਅਤੇ ਅਖਾਣ

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

SEMESTER–II

Punjabi (Elective)
ਪੰਜਾਬੀ (ਇਲੈਕਟਿਵ)

ਸਮਾਂ ਤਿੰਨ ਘੰਟੇ   ਕੁਲ ਅੰਕ : 100

ਅੰਕ-ਵੰਡ ਅਤੇ ਪੇਪਰ ਸੈਟਰ ਲਈ ਹਦਾਇਤਾਂ

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿਚ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਇਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

ਸੈਕਸ਼ਨ- ਏ

ਪੰਜਾਬੀ ਸਾਹਿਤ ਦਾ ਇਤਿਹਾਸ (1700 ਤੱਕ)
(ਸੰਪਾ. ਡਾ. ਧਰਮ ਸਿੰਘ, ਡਾ. ਹਿਰਦੇਜੀਤ ਭੋਗਲ)
(ੳ)   ਸਾਹਿਤਕ ਰੂਪਾਂ ਦਾ ਇਤਿਹਾਸ (ਨਿਕਾਸ ਤੇ ਵਿਕਾਸ)   20 ਅੰਕ
(ਅ)   ਪ੍ਰਵਿਰਤੀਆਂ

ਸੈਕਸ਼ਨ- ਬੀ

ਮੰਚ ਘਰ (ਸੰਪਾ. ਕੁਲਦੀਪ ਸਿੰਘ ਧੀਰ ਅਤੇ ਹਿਰਦੇਜੀਤ ਸਿੰਘ ਭੋਗਲ), ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ।
(ਵਿਸ਼ਾ- ਵਸਤੂ/ਸਾਰ/ਪਾਤਰ ਉਸਾਰੀ/ਕਲਾ ਪੱਖ)   20 ਅੰਕ

ਸੈਕਸ਼ਨ- ਸੀ

(ੳ)   ਦਫ਼ਤਰੀ ਅਤੇ ਘਰੇਲੂ ਚਿੱਠੀ ਪੱਤਰ
(ਅ)   ਵਿਸ਼ਰਾਮ ਚਿੰਨ੍ਹ : ਪਰਿਭਾਸ਼ਾ, ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ ਦੇ ਨਿਯਮ   20 ਅੰਕ

ਸੈਕਸ਼ਨ- ਡੀ

ਕੋਸ਼ਕਾਰੀ ਅਤੇ ਪੰਜਾਬੀ ਕੋਸ਼ਕਾਰੀ

(ਕੋਸ਼ਕਾਰੀ ਦੀ ਪਰਿਭਾਸ਼ਾ/ਵਰਗੀਕਰਣ/ਪੰਜਾਬੀ ਕੋਸ਼ਕਾਰੀ ਦਾ ਨਿਕਾਸ ਤੇ ਵਿਕਾਸ)

                                                                                                              20 ਅੰਕ

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(Faculty of Languages)

Mudhli Punjabi
SEMESTER–II
ਮੁੱਢਲੀ ਪੰਜਾਬੀ
(In lieu of Compulsory Punjabi)

ਸਮਾਂ: 3 ਘੰਟੇ   ਕੁਲ ਅੰਕ: 50

ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

1.   ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2.   ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਇਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ।
     ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3.   ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4.   ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ
     ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

ਪਾਠ-ਕ੍ਰਮ

ਸੈਕਸ਼ਨ-ਏ

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ : ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ
(ਨਾਂਵ, ਪੜਨਾਂਵ, ਕਿਰਿਆ, ਵਿਸ਼ੇਸ਼ਣ, ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ, ਸਬੰਧਕ, ਯੋਜਕ ਅਤੇ ਵਿਸਮਿਕ)

ਸੈਕਸ਼ਨ-ਬੀ

ਪੰਜਾਬੀ ਵਾਕ ਬਣਤਰ : ਮੁੱਢਲੀ ਜਾਣ-ਪਛਾਣ
(ੳ) ਸਾਧਾਰਨ ਵਾਕ, ਸੰਯੁਕਤ ਵਾਕ ਅਤੇ ਮਿਸ਼ਰਤ ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)
(ਅ) ਬਿਆਨੀਆ ਵਾਕ, ਪ੍ਰਸ਼ਨਵਾਚਕ ਵਾਕ ਅਤੇ ਹੁਕਮੀ ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)

ਸੈਕਸ਼ਨ-ਸੀ

ਪੈਰ੍ਹਾ ਰਚਨਾ
ਸੰਖੇਪ ਰਚਨਾ

ਸੈਕਸ਼ਨ-ਡੀ

ਚਿੱਠੀ ਪੱਤਰ (ਘਰੇਲੂ ਅਤੇ ਦਫ਼ਤਰੀ)
ਅਖਾਣ ਅਤੇ ਮੁਹਾਵਰੇ

B.A./B.Sc. (Semester System) (12+3 System of Education) *(Semester–II) (Session 2019-20)*
(Faculty of Languages)

SEMESTER–II

FUNCTIONAL PUNJABI (VOCATIONAL)
(ਪੰਜਾਬੀ ਪ੍ਰਕਾਰਜਾ) (ਫੱਕਸ਼ਨਲ)

ਕੁੱਲ ਅੰਕ : 100

ਪਰਚਾ ਏ : ਲਿਖਣ ਸ਼ੈਲੀਆਂ   ਅੰਕ: 50

ਪਰਚਾ ਬੀ : ਰਸਮਾ ਲਖਤਾ   ਅੰਕ: 50

(ਭਾਗ -ਓ)
ਥਿਊਰੀ

ਸਮਾ : ਦ ਘਟ   **ਪਰਚਾ ਏ- ਲਿਖਣ ਸ਼ੈਲੀਆਂ**   ਕੁੱਲ ਅੰਕ : 50

ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿਚ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਇਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ।ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

ਪਾਠ-ਕ੍ਰਮ

ਸੈਕਸ਼ਨ - ਏ

ਸਚਾਰ, ਜਨਸਚਾਰ ਅਤ ਪ੍ਰਸਾਰਨ

ਪ੍ਰਸਾਰਨ ਦੇ ਮੁੱਢਲੇ ਨਿਖਮ

ਸੈਕਸ਼ਨ - ਬੀ

ਸੰਚਾਰ ਦਾ ਮਾਧਿਅਮ ਰੇਡੀਓ ਅਤੇ ਪੰਜਾਬੀ

ਸੰਚਾਰ ਦਾ ਮਾਧਿਅਮ ਟੀ.ਵੀ. ਅਤੇ ਪੰਜਾਬੀ

ਸੈਕਸ਼ਨ- ਸੀ

ਪ੍ਰਸਾਰਨ, ਸਚਾਰ ਅਤ ਸਮਾਜ

ਭਾਰਤ ਵਿਚ ਟੀ.ਵੀ. ਨੈਟਵਰਕ

ਸੰਚਾਰ ਦੀ ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਪ੍ਰਕਾਰਜ

ਸੈਕਸ਼ਨ- ਡੀ

ਵਿਗਿਆਪਨ ਦੀ ਪਰਿਭਾਸ਼ਾ, ਉਦੇਸ਼ ਅਤੇ ਲਾਭ

ਸਮਾਚਾਰ : ਪਰਿਭਾਸ਼ਾ, ਤੱਤ ਅਤੇ ਵਿਧੀਆਂ

ਸਮਾਚਾਰ ਅਤ ਵਿਗਾਆਪਨ ਦ ਨਮੂਨ

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(Faculty of Languages)

SEMESTER–II

FUNCTIONAL PUNJABI (VOCATIONAL)
(ਪਜਾ'ਬਾ ਪ੍ਰਕਾ'ਰਜਾ) (ਫ਼ੰਕਸ਼ਨਲ)

(ਭਾਗ- ਅ)
ਪ੍ਰਕਟਾਕਲ

ਸਮਾ : 1 ਘੰਟਾ   ਪਰਚਾ ਬੀ - ਰਸਮੀ ਲਿਖਤਾ   ਕੁਲ ਅੰਕ: 50

ਪਾਠ-ਕ੍ਰਮ

ਸੈਕਸ਼ਨ-ਏ

ਖੇਤਰੀ ਕਾਰਜ

ਰਡਾਏ ਅਤ ਟਾ.ਵੀ. ਸਟਸ਼ਨ ਤ ਜਾ ਕ ਵਿਹਾਰਕ ਜਾਣਕਾਰੀ ਪ੍ਰਾਪਤ ਕਰਨਾ ਅਤ ਆਵਾਜ਼ ਦਾ ਸਿਖਲਾਇਆ ।

ਭਾਸ਼ਾ ਦੀ ਖੇਤਰੀ ਵਖਰੇਵੇਂ ਦੀ ਸਿਖਲਾਈ ।

ਸੈਕਸ਼ਨ-ਬੀ

ਵਿਹਾਰਕ ਜੀਵਨ ਵਿਚ ਪਜਾਬਾ ਭਾਸ਼ਾ ਦਾ ਵਰਤ ।

(ਬੈਂਕ, ਡਾਕਖਾਨੇ, ਰੇਲਵੇ ਸਟੇਸ਼ਨ, ਬੱਸ ਅੱਡਾ, ਹਵਾਈ ਅੱਡ ਤ ਪੁਛ ਗਿਛ ਕਰਨ, ਸਾਟ ਬੁਕ ਕਰਵਾਉਣਾ, ਹੋਟਲ, ਰੈਸਟੋਰੈਂਟ ਵਿਚ ਖਾਣੇ ਲਈ ਆਦੇਸ਼ ਕਰਨਾ, ਕਮਰਾ ਬੁੱਕ ਕਰਵਾਉਣਾ)

ਸੈਕਸ਼ਨ-ਸੀ

ਸਮਾਜਕ ਸਾਭਆਾਚਾਰਕ ਸਦਰਭਾ ਵਿਚ ਪਜਾਬਾ ਭਾਸ਼ਾ ਦਾ ਵਰਤ

(ਸ਼ੁੱਭ ਸੰਦੇਸ਼, ਸ਼ੋਕ ਸੰਦੇਸ਼, ਵਿਆਹ ਸਮਾਗਮਾਂ ਤੇ ਪ੍ਰਾਹੁਣਿਆਂ ਨੂੰ ਜੀ ਆਇਆ ਕਾਹਣਾ ਅਤ ਵਿਦਾ ਕਰਨਾ ਆਦਿ)

ਸੈਕਸ਼ਨ-ਡੀ

ਵਿਭਿੰਨ ਸਥਿਤੀਆਂ ਵਿਚ ਵਾਰਤਾਲਾਪ

ਜੁਬਾਨੀ ਬੋਲਣ ਦਾ ਅਭਿਆਸ

ਨਟ : ਪ੍ਰਕਟਾਕਲ ਵਿਚ ਵਿਦਿਆਰਥਾ ਦਾ ਪਜਾਬਾ ਉਚਾਰਨ ਦਾ ਸਮਰਥਾ ਦਾ ਮਾਖਕ ਪਰਗਾਖਆ ਲਇਆ ਜਾਵਗਾ ।

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(Faculty of Physical Education)

SEMESTER–II
PHYSICAL EDUCATION
(THEORY)

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

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION–A
1. Cell: Structure and Functions.
2. Skeletal System: Types of bones, names of the various bones of the body, Various types of Joints.
3. Muscular System: Various types of muscles, structure of skeletal muscles.

SECTION–B
4. Digestive System: It's organs and mechanism of digestion.
5. Nutrition: Elements of balanced diet, Functional Diet/Food
6. Doping in sports.

SECTION–C
7. Meaning and scope of Health Education. Hygiene problems of educational institutions and their remedial measures.
8. Personal hygiene; Care of eyes, teeth, ears, skin, hair and nails.
9. Air and water pollution and its remedial measures.

SECTION–D
10. First aid in case of snake bite, drowning, electric shock, burns, fracture, dislocation, sprain and strain.
11. Effects of Alcohol and smoking on health.
12. Communicable Diseases: Mode of transmission, prevention and control of tuberculosis, hepatitis (A & B), Rabies and HIV/AIDS.

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SEMESTER–II

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, Long Jump for Boys
                                                100M, Long Jump for Girls

  ➢ **Games (Boys & Girls)── Fundamentals, Rules, Performance**
                                      Handball
                                      Kho–Kho

Suggested Readings:-

1. John Raynor Anatomy and Physiology, New York, Harper & Row, 1983.

2. Rose and Wilson Foundations of Anatomy and Physiology, 1981, 5th ed.

3. Parror, J.W. anatomy and Physiology for Physical Education Teachers, Lend; Edward Arnold Healthful Living McGraw Hill, 1983.

4. Tadan D.K. et al,: Scientific basis of Physical Education and Sports, Friends Publication, New Delhi, 2001.

5. Singh Ajmer and Gill Jagtar: Essentials of Physical Education and Olympic Movement, Kalyani Publishers, Ludhiana, 2004.

6. Kang G.S.: Anatomy, Physiology and Health Education, Publication Bureau, Punjabi University, Patiala, 2000.

7. Kang G.S. and Deol N.S.: An Introduction to Health and Physical Education 21st Century, Patiala, 2008.

8. Dhillon G.K.: Health Education, Punjab Text Book