Sr. No.	Programme	Name of Course	Course ID
1	BHHA NEP : Bachelor of Science in Hospitality & Hotel Administration (Syllabus received is of 2nd sem but the course is in 3rd sem)	Finance Basic	240/HHA/MD301
2	B.A. Geography	General Geography of World	240/GEO/MD301
3	B.A. Philosophy	Applied Philosophy	240/PHILM/MD301
4	B.A. History	Introduction to History and Culture in Haryana	240/HIS/MD301
5	B.A. English (Single Major and Multidisciplinary)	Communication in Professional Life	240/ENG/MD301
6	B.Sc. Physics (Single Major)	Our Universe	240/PHY/MD301
7	B.Com)	Basic Business Laws for Entrepreneurs	240/COM/MD301
8	B Sc Life Science (Zoology)	Basics of Public Health and Water-borne diseases	240/ZOOL/MD301
9	B.A./B.Sc. (Mathematics)(Single Major)	Statistical tools for data analysis	240/MAT/MD301
10	Bachelor of Science (Multidisciplinary) in Computer Science	Programming with Python	240/CS/MD301
11	B.A. Sociology (Multidisciplinary)	Contemporary Social Problems in India	240/SOCM/MD301
12	B.A Major in Economics	Fundamental of Economics	240/ECO/MD301
13	B.A. Psychology	Health & Wellbeing	240/PSY/MD301
14	B.A. Programme (Public Administration)	Financial Administration	240/PAM/MD301
15	B.Sc. Animation & Multimedia	Introduction to 2D Animation	240/ANI/MD301
16	Bachelor of Arts (Journalism and Mass Commuinication)	Film Appreciation	240/JMC/MD301
17	B.Sc. With major in Biotechnology	Power of immune system	240/BIOT/MD301
18	B Sc Life Science (Botany)	Ornamental Plants	240/BOT/MD301
19	BBA	ENTREPRENEURSHIP AND START UPS	240/BBA/MD301

20	BAICA : Bachelor of Arts (International Culinary Arts) and BAICA(ABFD) NEP : Bachelor of Arts in International Culinary Arts specialization in Advanced Bakery & Food Production	Self-development Report	240/ICA/MD301
21	BAICA : Bachelor of Arts (International Culinary Arts)	Food Anthropology	240/ICA/MD302
22	B.A. with major in Political Science	Politics of Globalization	240/PS/MD301
23	Bachelor of Computer Applications	Probability and Statistics	240/BCA/MD301
24	MBA Integrated (3rd semester)	Human Resource Management	242/MBAI/MD301
25	M.A. (Integrated) Journalism & Mass Communication	Communication and Culture	242/JMC/MD301
26	MCA-INTEGRATED	Probability and Statistics	242/MCAI/MD301
27	M.com Integrated 3rd Sem	Personal Financial Planning	242/COMI/MD301
28	B.Sc. Chemistry (Single Major)	Introductory Chemistry-III	240/CHE/MD301
29	B.A. (Multidisciplinary) Physical Education	Nutrition in Physical Education & Sports	240/PE/MD301
30	B.A. Multidisciplinary (Music (I))	Basics of Indian Classical Music	240/MI/MD301
31	Bachelor of Science in Home Science	Basics of Art and Design	240/HS/MD301
32	BTTM	Adventure Tourism	240/BTM/MD301
33	UG Hindi single major	हिंदी भाषा और रोजगार	240/HIN/MD302
34	B.A. Multidisciplinary (Music (V))	Basics of Indian Music	240/MV/MD301

240/HHA/MD301

SEMESTER II

240/HHA/MD301

Financial Basic

HMDC305

L	T	P	Credits	TI	TE	PI	PE	Time Allowed
2	1	-	3	25	50	-	-	__ Hours

Type of Course: Core Course

Core Course (CC)	Minor Course (MIC) including Vocational Courses (VOC)	Multidisciplinary Course (MDC)	Ability Enhancement Course (AEC)	Skill Enhancement Courses (SEC)	Value Addition Courses (VAC)	Internship
		√				

Introduction to the Course:

In an era of fast-moving and competitive businesses, it is crucial to possess a holistic understanding of the finance basics and financial building blocks of a successful organization. Through this course, the Learners will gain a well-rounded knowledge of key accounting & financial concepts that will help them apply an analytic mind set to understanding and driving organizational decisions and success. The course will enable Learners to learn how to examine the company's performance on a yearly basis, as well as against their peers. The students will be able to analyze the company's performance in terms of profitability, liquidity, activity, and solvency. The students then will be able to communicate their findings.

Course Outcome: - After completing the course students will be able to:

CO1. Understand the basics of accounts and have an understanding of accounting cycle.

CO2. Explain the purpose, underlying concepts, and format of the balance sheet, income statement, and statement of cash flows, and the importance of accounting quality.

CO3. Obtain an overview of useful tools for analysing a firm's profitability, growth, and risk, including financial ratios, common-size financial statements, and percentage change financial statements, as well as how to use this information to forecast the future business activities of a firm and the value of a firm.

Detailed Syllabus:

Unit-I

Meaning and scope of accounting, nature of financial accounting principles, basis of accounting; accounting process-from recording business transaction to preparation of trial balance, Depreciation

Unit-II

Financial reporting and conceptual framework for financial statements, Understanding financial statements, Balance sheet and Income statements, Cash flow statements, Additional disclosures and notes to accounts in financial statements.

Unit-III

Financial Analysis, Uses and Significance, Ratio Analysis, Comparative and Common size analysis, Trend Analysis

Note: All the topics mentioned above will cover theoretical concepts and simple numerical questions.

Text Book

- Sivasankaran, N. (2021), *Financial Analysis For Beginners*, New Delhi, Taxmann
- Grewal, T.S., Introduction to Accounting, S. Chand and Co., New Delhi.

Other Recommended Texts

- Lal, Jawahar, Corporate Financial Reporting: Theory & Practice, Taxmann Applied Services, New Delhi.
- Raiyani, J. R. and Lodha, G., International Financial Reporting Standard (IFRS) and Indian Accounting Practices, New Century Publications.
- Singh, N. T. and Agarwal, P., Corporate Financial Reporting in India, Raj Publishing, Jaipur.
- Hennie, V. G., International Financial Reporting Standards: A practical guide, Washington: World Bank.
- Alexander, D., Britton, A. and A. Jorissen, Global Financial Reporting and Analysis, Cengage Learning, Indian edition.

Final Assessment (FA)

Theory Internal **(TI)**	25 Marks
Theory External **(TE)**	50 Marks
Final Assessment (FA) = (TI+TE)	75 Marks

The Internal Assessment **(IA)** will have the following components:

S.No.	Internal Assessment Components (TI)	Marks/Weightage
1	Assessment 1: Mid Term Exam	10
2	Assessment 2: Presentation	10
3	Assessment 3: Assignment	10
Internal Assessment (IA)		**30**

External Assessment (EA)

The External Assessment **(EA)** will have the following components:

S. No.	External Assessments Components (EA)	Marks
1	End term theory exam **(ETTE)**	50
External Assessment (EA)		50

The question paper pattern for the end-term examination will be **50 Marks:**

Section A	Ten MCQ/ Fill in the Blanks/True or False/ Match the following type questions covering all units. This is a compulsory section.	**10*1mark=10 marks**
Section B	Five short note questions type covering all units. This is a compulsory section.	**5*2marks=10 marks**
Section C	Answer any one question from each Unit Choice of Q. 1 or 2 From Unit I Choice of Q. 3 or 4 from Unit II Choice of Q. 5 or 6 from Unit III	**3*10marks=30 marks**
Total Marks		**50 marks**

Mapping Matrix of Course

Table 1: CO-PO Matrix for the Course

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	0	2	2	2	2	2	2
CO2	2	2	2	3	3	3	2	2
CO3	2	2	0	3	2	2	2	2
Average	2	1.3	1.3	2.6	2.6	2.6	2	2

Course Outcomes	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO1	3	0	2	2	2	2	2	2
CO2	3	2	2	3	3	3	2	2
CO3	2	2	0	3	2	2	2	2
Average	2.6	1.3	1.3	2.6	2.6	2.6	2	2

240/GEO/MD301

Gurugram University Gurugram, Haryana (India)

Multidisciplinary Course from the department for pool of the Courses in the University

(These courses are to be offered to students of different discipline/Subject)

(As per NEP 2020 w.e.f session 2024-25) -Semester-3

GENERAL GEOGRAPHY OF WORLD (Theory Paper)

Paper Code: **MDC-3-Course Id:** 240/GEO/ MD 301

Credit: 03 (2+1+0) L+T+P Hrs/Week	Total Marks	75 Marks
Time: 3 Hours	End Semester Exam:	50 Marks
Note: (i) The Question one of paper is compulsory. It will encompass two parts: Part-A, of question one of paper will contain Map work of five marks (Five data points of one mark each). Candidates will be required to mark on all five data point neatly and cleanly on the provided Map. Part –B, of question one of paper will contain Multiple Choice Questions (MCQ)/Objective type/Terms of Five marks (one mark each). (ii) The question paper will have four units. Two questions will contain from each unit of the syllabus. Candidates are required to attempt one question from each unit. These questions will be of Ten marks each.	Internal Assessment: Attendance Assignment/Seminar /presentation/class presentation Session Examination	25 Marks 05 Marks 05 Marks 15 Marks

Learning/Course Objectives: To comprehend the fundamental idea of General Geography of world and related elements that contributes to human development in diverse environments. The fundamental ideas of the link between humans and their environment will be covered in the introductory General Geography of World course. To become acquainted with people and their surroundings in a physical setting. To learn more about ideas related to the General Geography and humans. To comprehend geographical occurrences and processes. To understand how humans behave in their General surroundings.

Learning/Course Outcomes: CO1: To gain knowledge of General Geography of World and related concern. CO-2: To understand various facets of General Geography, Man and environment inter-relation.CO-3: To recognize major awareness approach for General Geography ,environment and sustainable development.CO-4: To become acquainted with environmental issues to make geography interdisciplinary and trans-disciplinary.CO-5: To understand the man and environment concepts that are important for long-term development and growth

UNIT-I

Continents and oceans: their location, expansion and geographical characteristics.World's major physiographic units: mountain, plains and plateaus.

UNIT-II

World climates and major climatic regions.Major soil types and natural vegetations of the world.

UNIT-III

World Distribution of races and tribe.World major religions and languages.

UNIT-IV

World distribution of Population and growth.World economy: characteristics of developed and developing economies.

Recommended Readings:

- Hussain, Majid (2006) World Geography, Rawat Publishers, New Delhi.
- Mcdougal, Holt (2010) World Geography, HMH Publishing Co.
- Pounds and Taylor (1974) World Geography, South Western Publishing Co., Ohio.

240/PHILM/MD301

MDC-3 APPLIED PHILOSOPHY
Credits - 03

Maximum Marks: 75
Internal Assessment Marks: 25
Exam Marks - 50
Time: 3 Hours

Course learning outcomes(LOC):

After completing this course, the learner will be able to Know/understand

1. Basic concepts of Applied Philosophy
2. Basic Concept of Applied Ethics
3. Social Dimensions of Philosophy
4. Contemporary Debates

Instructions for Paper Setter

The question paper shall consist of seven questions in total.
Question No. 1 will be compulsory and shall comprise seven short answer type questions, each carrying 2 marks (7 x 2 = 14 marks). These questions should cover the entire syllabus broadly. Question No.2 to 7 will be long answer type questions. These questions should be designed in such a way that there are two questions (with internal choice) from each of Unit I, Unit II, and Unit III. Each question shall carry 12 marks.

Students will be required to attempt 4 questions in all, i.e. Question 1 (compulsory) and one question each from Unit I, II, and III.

Unit 1

Applied Ethics: Meaning, Nature and Relevance; Environmental Ethics

Unit 2

Social Dimensions of Philosophy: Corruption; Gender Equiality ; Female Foeticide

Unit 3

Contemporary Debates in Philosophy: Animal Rights, Euthenasia; Philosophical Counselling

References:

1. S C Panigrahi: Issues in Practical Ethics
2. A K Srivastava: Environmental Ethics
3. Peter Singer: Practical Ethics
4.Ashok Kumar Verma : Nitishastra ki Ruprekha

240|HIS|MD301

Introduction to History & Culture in Haryana	**Maximum Marks: 75** **(TE + TI + PE + PI = 50 + 25 + 0 + 0)**
Course Code: MDC- 3	**Time Allowed: 3 Hrs.**
Credits : 3	**Multidisciplinary Course**

Instruction for paper setter :

1. This paper shall contain seven questions all & students would require to attempt four questions.
2. Question no. 1 shall be compulsory, consisting seven short answer type questions, each question carrying 2 marks.(2*7 = 14 marks).
3. From question no. 2 to 7, students have to attempt 1 out of 2 options from each section. (12 marks each).

Course Code:

After completing this course, the students will be able to understand :

1. Learn the sources of History of Haryana; Extent of Harappan Civilization; Historicity of Mahabharata, Rise of Republics of *Yaudheyas,* and *Pushpabhutis*, and Rise of *Tomars* and *Chauhans* in Haryana.

2. Acquaint with the battles of Tarain & Panipat, grasp the politico-religious development of during medieval period and George Thomas during the 18th Century in Haryana.

3. Understand the major historical developments pertaining to the Uprising of 1857; Arya Samaj, *Parjamandal* Movement in Princely States, Unionist Party.

Course Content:

Unit- 1

1. Sources of History of Haryana

2. Harappan Civilisation

3. Historicity of Mahabharata

Unit-2

4. State in Haryana, Youdheyas & Agras.

5. Pushpabhutis

6. Tomars & Chauhan

Unit-3

7. Battles in Haryana: Tarain & Panipat

8. Politico- Religious Development, George Thomas, Revolt of 1857

9.Arya Samaj, Prata Mandal & Unionist Party

Recommended Books:

Buddha, Prakash	*Glimpses of Haryana*
----------	*Haryana Through the Ages*
Chhotu Ram	*Bechara Kisan* (Hindi tr. by K.C. Yadav)
Darling, Malcolm	*Punjab Peasantry in Prosperity and Debt*
Gopal, Madan	*Sir Chhotu Ram : A Political Biography*
Griffin, L.H.	*The Rajas of Punjab*
Gupta, H.R.	*The Marathas and Panipat*
Hussain, Azim	*Fazl-i-Hussain : A Political Biography*

240|ENG|MD30|

Semester 3

Course Code - MDC- 3

Communication in Professional Life

Max Marks: 75

Theory: 50

Internal Assessment: 25

Course objectives:-

CO	Description
CO-1	To understand the Fundamentals of Professional Communication:
CO-2	Learn to compose clear, structured, and purposeful professional documents, such as reports, emails, and proposals, tailored to different audiences and objectives.
CO-3	Develop active listening skills and the ability to provide and receive constructive feedback to facilitate effective and respectful professional interactions.

Course outcomes:-

CO	Description
CO-1	The students will be able to manage cross-cultural communication challenges.
CO-2	Students will be able to effectively use different communication channels and understand the appropriate contexts.
CO-3	Students will be able to approach and manage challenging conversations, such as conflicts or performance reviews, with professionalism and tact.

Unit I

Communication: Importance and its Purpose

Strategies for effective Communication

Essentials of good communication

Verbal and Non Verbal Communication

Unit II

Clauses

Sentences and its types

Unit III

Job Interviews

Business Letter

Meetings: Preparing Agendas, Summarising key ideas and Information

Unit IV

Notice Writing

Press Release

Business Reports

Suggested Readings:

Singhal, Suresh. *Effective Business Communication Skills for All,* Monika Prakashan, 2021.

Eastwood, John. *Oxford Guide to English Grammar.* Oxford University Press, 1994.

Hewings, Martin. *Advanced Grammar in Use.* Cambridge University Press, 1999.

Sharma, R.C. and Mohan, Krishna. *Business Communication and Report Writing.* Tata McGraw-Hill Publishing Company Ltd. 2006

Scheme of exam

Question 1 will be from unit I(with internal choice) of 12 marks

Question 2 will be from unit II (with internal choice) of 12 marks

Question 3 will be from unit III (with internal choice) of 12 marks

Question 4 will be from unit IV(with internal choice) of 14 marks

5. Advanced level Physics Practical's, Michael Nelson and Jon M. Ogborn, 4th Edition, reprinted 1985, Heinemann Educational Publishers
6. Engineering Practical Physics, S. Panigrahi and B. Mallick, 1515, Cengage Learning.

240/PHY/MD301

Multidisciplinary Course

Course ID – 240/PHY/MD301

Our Universe

Marks (Theory): 50
Marks (Internal Assessment) : 25

Credits : 3 (45 lectures)
Time : 3 Hrs

Note: The paper setter is to set nine questions in all. Question no. 1 (compulsory based on the entire syllabus) will consist of five short answer type questions, each of two marks. The rest of the eight questions are to be set uniformly, with two questions from each unit selected. A student is required to attempt five questions, selecting one from each unit along with compulsory question no 1. The question paper shall contain 20% numerical problems in the relevant papers.

Course Objective: To ignite curiosity and develop a conceptual understanding of the physical universe	**Course Outcome:** Students will gain a conceptual understanding of the universe's origin, structure, and evolution through scientific discoveries and cosmic phenomena.

Unit I

The Universe and Human Curiosity: The night sky through history: myths, philosophy, and early astronomy, Geocentric vs. Heliocentric views, Timeline of scientific discoveries: from Galileo to Hubble, What is the universe? Size, scale, and structure, Light and telescopes: How we see the cosmos, The role of curiosity and imagination in scientific discovery.

Unit II

The Big Bang and Cosmic Evolution: Origin of the universe: The Big Bang theory (simplified), Cosmic inflation and expansion, Formation of matter, galaxies, stars, and planets, Large Scale structure of Universe, Dark matter and dark energy (conceptually), Life cycle of stars and formation of elements (conceptual only)

Unit III

Our Place in the Universe: The Solar System: planets, moons, and other bodies, Earth's uniqueness and habitability, Introduction to space exploration: past, present, and future, Possibility of life beyond Earth, Chandrayaan and Mars Mission of India.

Unit- IV

Time, Space, and the Quest for Meaning: What is space and time? Introduction to relativity (conceptual), Black holes and gravitational waves, The nature of reality: quantum strangeness (basic ideas), The future of the universe: expansion, heat death, or multiverse?, Philosophical and cultural reflections on our cosmic journey.

References:

1. A Brief History of Timen by Stephen Hawking, Transworld publishers
2. The First Three Minutes by Steven Weinberg, Basic books
3. The Universe: A Biography by John Gribbin, Penguin Books Ltd
4. Night Watch: A Practical Guide to Viewing the Universe by Terence Dickinson, Firefly Books Ltd

SEMESTER-IV
Minor Course

COURSE ID: 240/PHYP/ MI401

Physics-IV

Marks (External): 50
Marks (Internal Assessment): 25

Credits: 3 (45 lectures)
Time: 3 Hrs

Note: The paper setter is to set nine questions in all. Question no. 1 (compulsory based on the entire syllabus) will consist of five short answer type questions. The rest of the eight questions are to be set uniformly, with two questions from each unit selected. A student is required to attempt five questions, selecting one from each unit along with compulsory question no 1. The question paper shall contain 20% numerical problems in the relevant papers.

Course Objective: Course objectives are to introduce the renewable energy concepts, solar energy, wind energy and Geothermal energy	**Course Outcome:** Understand basic idea about renewable energy and its measurement. Learn importance of energy in our daily life and hence they feel the necessity of planned and managed energy consumption. Along with also learn different aspects and challenges about conventional energy sources.

Unit I

Fossil fuels and Alternate Sources of energy: Fossil fuels and nuclear energy, their limitation, need of renewable energy, non-conventional energy sources. An overview of developments in Offshore Wind Energy, Tidal Energy, Wave energy systems, Ocean Thermal Energy Conversion, solar energy, biomass, biochemical conversion, biogas generation, geothermal energy tidal energy, Hydroelectricity.

Unit II

240/COM/MD301 240/COM/MD301

Course Type: Multi-Disciplinary Course
(MDC)Offered by Department of Commerce
Semester: 3

Name of Subject: BASIC BUSINESS LAWS FOR ENTREPRENEURS	**Maximum Marks: 75 (TI + TE + PI + PE = 25 + 50 + - + -)**
Course ID : 240/COM/MD306	**Time Allowed: 2 Hrs.**
Credits : 3 (L–T–P = 2–1– -)	**Multi-Disciplinary Course**

Instructions for Paper Setter: The question paper shall be divided into two sections. Section 'A' shall comprise five short answer type questions from the syllabus carrying two marks each, which shall be compulsory. The answer to each question should not normally exceed 100 words. **Section 'B' shall comprise eight questions of 10 marks each (2 questions from each unit).** The students will be required to attempt four questions from section B by selecting one question from each unit. All questions will carry equal marks. All the questions must be mapped with Course Outcomes (COs) and specified in the question paper against each question. All questions will carry equal marks.

Course Outcomes: - After completing the syllabus, students will be able to:
CO1: Remember the basic aspects of contracts vis-a-vis agreements and subsequently enter into valid business propositions.
CO2: Understand the concepts of Indian Partnership Act, 1932, Negotiable Instruments & its types.
CO3: Apply skills to form and manage entrepreneurial ventures as LLP.
CO4: Analyse the difference between various Negotiable Instruments & Rights and obligations under the Sale of Goods Act.

Course Contents:

Unit I: The Indian Contract Act, 1872 Contract – meaning, characteristics and kinds; Essentials of a valid contract - offer and acceptance, consideration, contractual capacity, free consent, the legality of objects; Void agreements; Quasi–contracts.
Unit II: Indian Partnership Act, 1932: Concept, definition, features, rights and liabilities of partners, partnership deed. Negotiable Instrument Act, 1881: Definition, features, promissory note, bill of exchange and cheque, crossing of cheque, types of crossing, dishonour and discharge of negotiable instruments.
Unit III: The Limited Liability Partnership Act, 2008, Salient Features and Nature of LLP; Small LLP; Difference between LLP and Partnership, LLP and Company; LLP Agreement; Incorporation Document; Incorporation by Registration; Registered office of LLP and change therein; Change and Rectification of the name of LLP; Partners and Designated Partners: Partners and their Relations; Extent and limitation of liability of LLP and partners; Whistle Blowing; Conversion into LLP.
Unit IV: The Sale of Goods Act, 1930:Contract of sale; Meaning and the difference between a sale and agreement to sell; Conditions and Warranties; Transfer of ownership in goods including sale by non-owners; Performance of the Contract of Sale; Unpaid seller – meaning and rights of an unpaid seller against the goods.

Suggested Readings:

1. Arora, S. (2021) Business Laws. New Delhi. Taxmann.
2. Das, & Roy, (2018). Business Laws. Oxford University Press
3. Bhushan, B., Kapoor, N. D., Abbi, R., & Kapoor, R. (2020). Elements of Business

Laws. Sultan Chand

4. Dagar, I., & Agnihotri, A., (2020). Business Laws, Sage Textbook
5. Jagota, R. (2021). Business Laws. MKM Publishers ScholarTech Press.
6. Kuchhal, M. C., & Kuchhal, V. (2013). Business Laws. New Delhi. Vikas Publishing House.
7. Sharma, J. P., & Kanojia, S. (2015). Vyavsayik Sanniyam, Delhi University Hindi Cell.
8. The Indian Contract Act, 1872
9. The Sale of Goods Act,1930
10. The Limited Liability Partnership Act, 2008
11. Tulsian, P. C. (2022). Business and Corporate Laws. S.Chand, Delhi.
12. Singh, A. (2008). The Principles of Mercantile Law. Lucknow. Eastern Book Company.
13. Sulphey, M. M., & Basheer, Az-Har. (2014). Laws for Business, 5th ed. PHI Learning
14. Tulsian, P. C. (2000). Business Law. New Delhi. Tata McGraw Hill.

240/ZOOL/MD301

ZOOLOGY: SEMESTER-3

Course Type	Course Code	Name of theCourse	Credit	Contact Hours/ Week	Internal Assessmentmarks	End Term Marks	Max. Marks	Exam Duration
MDC-3 3 credits		BASICS OF PUBLIC HEALTH AND WATER BORNE DISEASES	2	2	15	35	50	2 hrs.
		Practical	1	2	5	20	25	2 hrs.

Level of the course: 100-199

Pre-requisite for the course (if any): NA

Course Learning Outcomes (CLO)

By studying this course, students will be able to

- know the sources of microbial water contamination and its impact on human know the sources of microbial water contamination and its impact on human health.
- understand the relationship between human behavior and water quality.
- learn remediation strategies for several types of microbial water quality contamination.
- be able to grasp the basic concepts of various water sources and transmission mechanisms of infectious agents from those sources to humans.
- examine the multiple water-borne pathogens, their modes of transport and transmission, their public health effects, and existing methods for disease prevention and remediation.

Instructions for Paper-Setter

1. Nine questions will be set in all. All questions will carry equal marks.
2. Question No. 1, which will be short answer type covering the entire syllabus, will be compulsory. The remaining eight questions will be set unit wise selecting two questions from each Unit I to IV. The candidate will be required to attempt question No. 1 and four more questions selecting one question from each unit.

UNIT	TOPICS	CONTACT HOURS
I	Introduction to Public Health, Definition, scope, concept, and importance of public health microbiology; Concept of health and disease; Common terms and definitions in water quality, aquatic resources of the world and sources of drinking water; Water, sanitation, and hygiene (WASH) – fact sheets, WHO guidelines and resolutions; common contaminants of drinking water and linkages to disease;	8
II	Water pollution (water quality properties, types of water pollution, point and non-point sources of water pollution); Types of contaminants influencing water quality; Water Treatment, Control of Water Borne Diseases. water-borne pathogens (types, sources, and transmission); microbial testing of Water; monitoring and surveillance of water quality.	8
III	Water-Borne Diseases: Source of infection, transmission, symptoms, prevention and treatment/mitigation Bacterial infections- Cholera, Typhoid fever, E. coli infection, Campylobacteriosis, Dysentery, Typhoid fever. Viral infections: Rotavirus, Hepatitis A and E, Poliomyelitis, Polyomavirus infection.	7
IV	Protozoal infections, Amoebiasis, Giardiasis. Parasitic worms: Fascioliasis, Hookworm infections; Vector-borne infections: Malaria, Dengue, Leishmaniasis, Japanese encephalitis, Lymphatic filariasis Detection Methods for water-borne pathogens	7
V Practical	1. To determine dissolved oxygen in water samples collected from different water bodies 2. To determine temperature, pH, and total dissolved solids (TDS) in water samples from different locations. 3. Isolation and identification of protozoa and other parasites from different water samples. 4. Study about WASH Institute (Water Sanitation and Hygiene Institute)/ Shri Ram Institute for Industrial Research. 5. Project report on water quality monitoring system in your city	30

Learning Resources
1. Aquatic Pollution: An Introductory Text, 3rd Edition, Edward A. Laws, ISBN 9780471348757. 2. Waterborne Disease, 1st edition (January 15, 1997), Paul Hunter, ISBN 0125515707. 3. Microbiology of Waterborne Diseases, Steven Percival, Rachel Chalmers, Martha Embrey, Paul Hunter, Jane Sellwood and Peter Wyn-Jones, ISBN 978012551570-2.

240/MATT/MD301

Session: 2025-26			
Part A – Introduction			
Subject	Mathematics		
Semester	III		
Name of the Course	Statistical tools for data analysis		
Course Code	MDC-3		
Course ID			
Course Type: (CC/MIC/ MDC/ /VOC/AEC/VA C/SEC)	MDC		
Course Learning Outcomes(CLOs)	After completing this course, the learner will be able to: 1. Get introduction to Statistics, data types, collection, classification, and presentation methods. 2. Have knowledge of Measures of Central Tendency and Dispersion: Mean, median, mode, quartiles, standard deviation. 3. Understand Linear Regression and Correlation: Principles of least squares, regression lines, correlation coefficient. 4. Know about types of sampling techniques and Testing of Hypothesis.		
	Theory	**Practical**	**Total**
Credits	2	1	3
Contact Hours	2	2	4

Internal Assessment Marks	15	5	20
End Term Assessment Marks	35	20	55
Examination Time	2 Hours	2 Hours	75

Part B - Course Content

Instructions for Paper- Setter Note: The examiner will set 9 questions asking two questions from each unit and one compulsory question by taking Course Learning Outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will contain 5 parts covering entire syllabus. The examinee will be required to attempt 5 questions, selecting one question from each unit and the compulsory question.

Unit	Topic	Contact Hours
I	Introduction of Statistics, Basic knowledge of various types of data, Collection, classification, and tabulation of data. Presentation of data: histograms, frequency polygon, frequency curve and ogives.	8
II	Measures of Central Tendency: Mean, median, mode , partition values. Measures of Dispersion: Absolute and relative measures of range, quartile deviation, mean deviation, standard deviation, coefficient of variation.	8
III	Correlation for Bivariate Data: Concept and types of correlation, Karl Pearson Cofficient of correlation and rank correlation coefficient. Linear Regression: Concept of regression, principle of least squares and fitting of straight line, properties of regression coefficients, standard error of estimate obtained from regression line, Angle between two lines of regression. Difference between correlation and regression.	7
IV	Sample population, characteristics of good sample. Types of sampling techniques, Sampling Errors, Testing of Hypothesis-Meaning, Type -I and Type-II Errors, Level of significance,	7

	Definition of Chi-Square statistic test, Definitions of t-test and F-test.	

Practical

The practical component of the course has one part of Problem Solving: Questions related to the practical problems based on the following topics will be worked out and record will be maintained in the Practical Notebook: 1. Problems based on sub divided and multiple bar chart. 2. Problems based on Histogram and frequency polygon for the given data. 3. Problems based on ogives. 4. Problems based on Mean, Median and Mode. 5. Problems based on the quartile deviation and mean deviation. standard deviation, variance and coefficient of variation. 6. Problems based on standard deviation, variance and coefficient of variation. 7. Problems related to mean deviation about mean and its coefficient of dispersion based on mean deviation for the data. 8. Problems to find Karl Pearson Cofficient of correlation. 9. Problems to find the rank correlation coefficient. 10. Problems related to find the equation of the lines of regression. 11. Problems based on regression coefficients and standard error of estimate. 12. Problems related to fitting a straight line using the principle of least square for the given data. 13. Problems related to sampling techniques and sampling errors. 14. Problems based on testing of Hypothesis. 15. Problems based on Chi-Square statistic test.	**30**

Suggested Evaluation Methods

Internal Assessment:	End Term Examination:
➢ **Theory 15** • Class Participation: 4 • Seminar/presentation/assignment/quiz/class test etc.: 4 • Mid-Term Exam: 7 ➢ **Practicum 5** • Seminar/Demonstration/Viva-voce/Lab records etc.: 5	➢ **Theory 35** • Written Examination ➢ **Practicum 20** • Lab record, viva-voce, write up and execution of the program

Part C-Learning Resources

Recommended Books:

1. A. M. Goon, M. K. Gupta & B. D. Gupta (1968), *Fundamentals of Statistics Vol-I*. Calcutta Statistical Association Bulletin
2. S. C. Gupta & V. K. Kapoor (2002), *Fundamentals of Mathematical Statistics*. Sultan Chand & Sons.
3. S. Bernstein & R. Bernstein (1999), *Elements of Statistics II*, Schaum's outline series.
4. I. Miller & M. Miller (2014). *John E. Freund's Mathematical Statistics with Applications (Vol. 6)*. Upper Saddle River, NJ: Prentice Hall.
5. S. M. Ross (2014). *Introduction to Probability Models (11th edition)*. Elsevier.
6. R. V. Hogg, J. W. McKean & A. T. Craig (2013), *Introduction to Mathematical Statistics (7th Edition)*. Pearson Education India.
7. S. David (2003). *Elementary Probability (2nd Edition)*. Cambridge University Press.
8. J. Pitman (1993). *Probability*. Springer-Verlag.

MDC-1: PROGRAMMING WITH PYTHON

240/CS/MD301

Course code	MDC-1			
Category	Multidisciplinary			
Course title	**Programming With Python**			
Scheme and Credits	L	T	P	Credits
	2	1	0	3
Theory Internal	25			
Theory External	50			
Total	75			
Duration of Exam	3 hrs			

Note: The examiner will set nine questions in total. Question one will have seven parts from all units and the marks of first question will be of 20% of total marks of Question Paper and the remaining eight questions to be set by taking two questions from each unit and the marks of each question from Question no. 2 to 9 will be 20% of total marks of Question paper. The students have to attempt five questions in total, the first being compulsory and selecting one from each unit.

COURSE OBJECTIVES: The aim of the course is to understand the core principles of the Python Language. This course will make student to design effective GUI applications.

UNIT – I

Introduction to Python: Python Interpreter, Python as calculator, Python shell, Indentation, identifier and keywords, literals, strings, Operators: Arithmetic, Relational, Logical, comparison, Bitwise, Assignment, Identity operator and Membership operator; Input output statement; Control statements: Branching, looping, Conditional statement, Exit function

UNIT – II

String manipulations: Subscript operator, indexing, slicing a string, other functions on strings, string module. Strings and number system: Format functions, converting strings to numbers & Vice Versa. List, Tuples, Sets, Dictionaries: Basic list operators, replacing, inserting, removing an element, searching, Sorting lists, dictionary literals, adding & removing keys, accessing & replacing values, traversing dictionaries

UNIT – III

Array in Python, Design with Functions: hiding redundancy, complexity, arguments & return values; Formal/Actual arguments, named arguments, program structure and design, Recursive functions, scope & Global statements, Importing modules, Math modules & Random modules.

UNIT – IV

Exception Handling: Exceptions, except clause, try and finally clause, user defined exceptions. File Handling: Manipulating files & directories, OS & SYS modules, Reading, Writing text & numbers from/to file. Graphics: Turtle module, drawing colors, shapes, digital images, image file formats.

Text Books:

[1] Python Programming using problem solving approach by Reema Thareja, Oxford University Press. [2] Learning Python by Mark Lutz

Reference Books:

[1] Introduction to Computation and Programming Using Python with application to understanding data by Guttag John V, PHI

[2] Introduction to Computer Science using Python by Charles Diorbach, Wiley.

[3] Programming Python by Mark Lutz

240|SOCM|MD301

-15-

Semester-3
Course code-MDC-3
Course Title- Contemporary Social Problems in India

Credit-3
Maximum Marks –75
Theory – 50
Internal Assessment – 25
Time – 3 hours

The students will be required to attempt four questions in all. Question No. I will be compulsory comprising of 4 short answer type questions of 2 marks each and will cover the entire syllabus 4X 2 = 8 marks. In addition to it, Question Nos. II to VII will consist of long answer(essay type) questions, two Questions from each Unit with internal choice carrying 14 marks each i.e. 3 X 14 = 42 marks thus making it the total weight age to 50 marks.Three questions to be attempted. One from each unit.

Course Outcomes:-

- This paper will make the students understand the social problems at ground level and make them look for viable solutions to these social issues.
- The students would learn about structural issues of the society.
- The students would learn about contemporary issues related to youth in society

Unit I

Socio-cultural Issues: Adverse Sex Ratio, Dowry, Divorce, Domestic Violence, Problem of aged persons.

Unit II

Structural Issues: Inequality of Caste , Class and Gender; problems of Minorities

Unit III

Issues of Youth: Unemployment, Drug Addiction, Juvenile Delinquency and addiction of social media.

References:

Ahuja, Ram (2003), Social Problems in India, Rawat Publications: Jaipur.

Julian Joseph (1989) Social Problems (6th edition) New Jersey: Prentice Hall.

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

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

Shankar Rao. C.N. (2007), Indian Society, Delhi: S. Chand and Company.

Srivastava C.P. (2001) Corruption: India's Enemy within, Delhi: MacMillan.

Sharma, R.K. (1998), Social Problems and Welfare, Atlantic Publishers: New Delhi.

Ahuja. Ram (2014), Social Problems in India, Rawat Publications, Jaipur.

Desai Neera & Mathayee Krishnaraj (1997), Women and Society in India, Ajanta Publication, Bombay.

Madan, G.R. (1991), India's Social Problems,: Allied Publishers, New Delhi.

Rajaura, Suresh Chander (2000), Samkaleen Bharat ke Samajik Samsayen, Rajasthan Hindi Granth Akadami,Jaipur

Sharma G.L (2015),Samjik Mudde, : Rawat Publication, Delhi

Thio Alex, Jim D. Taylor, Martin D. Schwartz (2017), Deviant Behaviour, Pearson . New York

240/ECO/MD 301

MDC-3

Part-A Introduction			
Subject	Economics		
Semester	III		
Name of Course	**Fundamentals of Economics**		
Course Code			
Course Type: (CC/MCC/MDC/ CCM/ DSEC/VOC/DSE/PC/AEC/ VAC	**MDC**		
Course Learning Outcomes (CLO)	After completing this course, the learner will be able to: 1. Understand the meaning, nature and scope of Economics and why is it studied. 2. Understand the nature of economic problem 3. Understand and apply the concepts of demand and supply in real-world economic situations. 4. Understand the concept of National Income and its flow in the economy 5. Understand and comprehend the Concept of budget in India		
Credit	Theory	Tutorial	Total
	02	01	03
Contact Hours	02	02	03
Max. Marks: 75 Internal Assessment Marks: 25 End Term Exam Marks: 50	Time: 2 Hours		

Part-B Contents of the Course

Instructions for Paper Setters

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2*7=14 marks).
3. For the remaining three questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Units	Topics
I	Definition, Nature and Scope of Economics, Micro and Macro Economics, Economic systems: Capitalism, Socialism and Mixed economic system. The economic Problem: Scarcity and Choice.
II	Concept of Demand, Law of Demand, Concept of supply, Law of supply. Market Equilibrium. National Income: Concept and measurement, Circular flow of Income: two, three and four sector Model.
III	Government Budget: Meaning, Components, Need & Objectives, Types of Budget-Balance Budget, Surplus Budget and Deficit Budget, Budget and Budgetary Deficits, Policy highlights of the current Union Budget

Part-C Learning Resources

Recommended Books/E-Resources/LMS

- Lekhi R.K. Macro Economics Part-I, 2016 Kalyani Publication.
- Shapiro E. (1996), Macroeconomics Analysis, Galgotia Publication, New Delhi.
- Ahuja, H.L. (2012), Ucchatar Arthik Siddhant, S. Chand & Company, New Delhi.
- Ahuja, H.L, (2012), Advanced Economic Theory, S. Chand & Company, New Delhi.
- Musgrave, R & Musgrave, P. B. Public Finance in theory and practice, McGraw-Hill International ltd.

- Koutsoyiannis ,A.(1979), *Modern Microeconomics*, (2nd Edition), Macmillan Press, London.
- Mankiw, N.G. (2012), *Principles of Microeconomics*, (6th Edition), South-Western Cengage Learning.
- Salvatore D. (2006), *Microeconomics-Theory and Applications*, Oxford University Press.
- Varian,H. (2003), Intermediate Microeconomics, East-West Press.

2h0/ECo/CCh01 **CCA10**

Part-A Introduction			
Subject	Economics		
Semester	4		
Name of the Course	**Indian Economy Problem and Prospects-II**		
Course Code			
Course Type: (CC/MCC/MDC/ CCM/ DSEC/VOC/DSE/PC/AEC/ VAC	CC		
Course Learning Outcomes (CLO)	After completing this course, the learner will be able to: 1. Understand the significance of agriculture in the Indian economy and identify key problems 2. Evaluate the structure and challenges of industrial development in India 3. Critically assess the role and performance of Public Sector Enterprises (PSEs) in India 4. Evaluate the Indian Tax structure 5. Differentiate between monetary and fiscal policies 6. Examine the rationale behind India's economic reforms		
Credits	Theory	Tutorial	Total
	03	1	04
Contact Hours	03	1	04
Max. Marks: 100 **Internal Assessment Marks: 30** **End Term Exam Marks: 70**	**Time: 3 Hrs**		

Part-B Contents of the Course

Instructions for Paper Setters

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2*7=14 marks).
3. For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each

Unit	Topics
I	Agriculture: Its importance in Indian Economy. Problem and solution regarding productivity. Green Revolution: features, effects and evaluation. Impact of Green Revolution on Indian Agriculture.

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Semester-3
MDC-3 Health and Wellbeing(Credits 03)

Maximum Marks: 75
Theory Examination: 35
Theory Internal Assessment: 15
Practical Examination: 20
Practical Internal Assessment: 05

Time:2Hrs.

Course Outcomes:

- Students will be able to understand historical development and major theories of Health Psychology.
- Students will be able to identify various sources of stress and will learn to deal with stress.
- Students will acquire knowledge of variety of health enhancing behaviours and will be able to know their application in illness management.
- Students will understand the spectrum of health and illness for better health management.

Note:

a) Candidates would be required to attempt four questions in all.
b) Question No. I would be compulsory. It shall be based on the entire syllabus and would contain 5 short answer type questions of one mark each.
c) There would be two questions (10 marks each) from each of the three units. Candidates would attempt one Question from each unit.

UNIT-I:
HealthPsychology:NatureandEmergenceofHealthPsychology.
ModelsofHealthPsychology:BiopsychosocialModel and Holistic model of Health

UNIT-II:
Health enhancing and Health Compromising behavior,
Eating Disorders: Obesity and its control, Bulimia and
Anorexia Nervosa- Clinical Picture and Etiology

UNIT-III:
Components of Wellbeing: Subjective Wellbeing and Psychological Wellbeing, Indian Perspective of Wellbeing
Resilience, Hope, Optimism and Mindfulness

Practical:
Do any one of the following:
Yoga or meditation
Movie Analysis (eating disorders)
Do any three of the following:

- Wellbeing Scale
- Stress Inventory
- Resilience Scale

- Optimism Scale
- Happiness Scale

References:-

Kaplan,R.M.,Sallis,Jr.,J.F.,andPatterson, T.L.(1993)**HealthandHumanBehaviour,** NewYork:McGrawHill.

Snyder,J.J.(1989)**HealthPsychologyandBehaviouralMedicine.** NewJersey:Prentice Hall.

Straub,R.O. (2007).**HealthPsychology –ABiopsychosocialApproach**.NewYork:Worth.

Taylor,S.E.(2006). **HealthPsychology**.NewDelhi.TataMcGraw Hill.

Friedman-Dimateo(1989).HealthPsychology.NewYork:PrenticeHall.

Sarafino,E.P.(2002).Healthpsychology:BioPsychosocialinteractions(4thEd.).NY:Wiley.

Schumidt L.R. Schwenkemgger, P. Weinment, J. and Maes, S. (1990). Theoretical andApplied Aspects of Health Psychology. London : Hardwood/Academic.

Snyder,C.R.,& Lopez, S.J.(2007).PositivePsychology:Thescientificandpractical explorations of human strengths. Thousand Oaks, CA: Sage,

Spaceman,S.andOskamp,S.(1988).TheSocialPsychologyofHealth.NewYork:Sage Publications.

Taylor,S.E.(2006).HealthPsychology(6thEd.).NewYork:TataMcGrawHill.

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UGA1: Multidisciplinary Course

Semester-III

MDC 3 Financial Administration

MDC 3 Financial Administration (Credits 03)	Maximum Marks: 75
Course ID-	Theory Examination: 50
Semester III	Theory Internal Assessment: 25
	Examination Time: 2 Hrs.

Course Outcome: After the successful Completion of this course, the learners will be able to;

CO 1: Gain knowledge about the budgetary system in India

CO 2: Understand financial markets and their influence on organizational financial strategies

CO 3: Develop ability to evaluate investment opportunities and make informed decisions

Note:

1. **Seven Questions will be set in all and students will be required to attempt 4 questions.**
2. **Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).**
3. **For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).**

Unit I

- Financial administration: Meaning, Scope and Significance
- Budget: Meaning and Principles
- Budgetary Process: Preparation, Enactment and Execution

Unit II

- Finance Commission: Composition, Functions and Role
- Finance Ministry: Organisation and Functioning
- Comptroller and Auditor General of India

Unit III

- Centre – State Financial Relations
- Parliamentary Control over Public Finance in India
- Auditing System in India

Suggested Readings:

1. Laxmikanth,M ., (2012). Public Administration,New Delhi, Tata McGraw-Hill Publishing Company Ltd.
2. Financial Administration and Management by Michael J.Worth.
3. Laxmikanth, M., 2012 Indian Polity.

Multidisciplinary Course from the department for pool of the Courses in the University

(These courses are to be offered to students of different discipline/Subject)

Semester 3

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
MDC-3	Introduction to 2D Animation	240/ANI/MD301	2	0	2	2	0	1	3	15	35	05	20	75

240/ANI/MD301

Name of Subject: Introduction to 2D Animation	Maximum Theory marks: 50 (15+ 35)
Course ID: 240/ANI/MD301	Maximum Practical Marks: 25 (05+20)

This question paper shall be divided in two sections. Examiner is requested to set section A as compulsory question containing 11 marks and from the entire syllabus (can be either objective or subjective). Section B will be in choice from two of the questions from each unit; these questions will be of 8 marks each. The students will be required to attempt one question from each unit.

Objectives: To introduce students to the foundational principles and techniques of 2D animation, enabling them to create engaging animations using industry-standard tools and methods.

Course Outcomes:

By the end of this course, students will be able to:

- Understand the basic principles and history of 2D animation.
- Use industry-standard software for 2D animation.
- Create character designs, storyboards, and animated sequences.

COURSE CONTENTS:

Unit 1: Foundations of 2D Animation
1.1 Overview of 2D animation and its historical context 1.2 Principles of animation: squash and stretch, anticipation, staging, straight ahead and pose-to-pose, follow-through, and overlapping action 1.3 Introduction to animation software (e.g., Adobe Animate, Toon Boom Harmony) 1.4 Basic drawing and sketching techniques for animation
Unit 2: Character Design and Storyboarding
2.1 Designing characters for animation: proportions, expressions, and movement 2.2 Creating model sheets and turnaround views 2.3 Storyboarding: visual storytelling, shot composition, and sequence planning 2.4 Developing an animation script and storyboard
Unit 3: Animation Techniques and Final Project
3.1 Techniques for creating smooth motion 3.2 Keyframes, inbetweens, and timing 3.3 Working with layers and backgrounds 3.4 Adding audio with animation

Suggested Readings:

- **"The Animator's Survival Kit" by Richard Williams**
- **"The Illusion of Life: Disney Animation" by Frank Thomas and Ollie Johnston**
- **"Cartoon Animation" by Preston Blair**

240/JMC/MD301

Paper - 240/JMC/MDC301
Paper 17

NameofSubject: **Film Appreciation**	MaximumTheorymarks:75(50+25)(Credit-3)
SubjectCode:**240/JMC/MD301**	

This Question paper shall be divided into Two sections. Examiner is requested to set Question A as Compulsory question containing 14 marks and from the entire syllabus (Can be either objective or subjective). Section B will be in choice from two of the questions from each unit; these questions will be of 12 marks each. The students are required to attempt one question from each unit.

Course objectives :

1. To Introduce basic of Cinema studies.

2. To inculcate knowledge of relation of Society and Films.

3. To acquaint students with Famous Films and Directors.

Unit1:	
1.1	Fim as a Medium of Expression
1.2	Film Genres
1.3	Film Certification
1.4	Impact of Films on Society
Unit2:	
2.1	Awara : Raj Kapoor
2.2	Mother India :Mahmoob Khan
2.3	Mughal-E-Azam :K.Asif
2.4	Purab Aur Paschim : Manoj Kumar
Unit3:	
3.1	Sholey : Ramesh Shippy
3.2	Karma : Subhash Ghai
3.3	Maine Pyar Kiya : Suraj Badjataya
3.4	Dilwale Dulhaniya le Jaenge : Aaditya Chopra

CourseOutcomes

i. Studentswouldbeableto introducethemselveswith basics of Films Studies.

ii. Studentswouldbeableto developtheknowledgeof relation of Society and Films.

iii. Students will be able to know about Famous Films of Indian Cinema.

Reference books

- How to Read a film : James Monaco
- **भारतीयसिनेसिद्धांत: अनुपमओझा**

2. Ninhydrin test for detecting presence of protein in milk.
3. Identify and categorize the important biomolecules in your diet.
3. Construct a food pyramid for normal and obese person.
4. Prepare a healthy diet plan for growing child.
5. Construct a possible child blood group chart taking some examples.

Part C-Learning Resources

Suggested readings:

1. The text book on general biochemistry by Bhagat Y. S and his team.
2. Mark Lorch Biochemistry: A Very Short Introduction.
3. https://www.nhlbi.nih.gov/health/educational/wecan/healthy-weight-basics/balance.htm#:~:text=What%20is%20Energy%20Balance%3F,physical%20activity%20is%20ENERGY%20OUT.
4. Fundamentals Of Genetics and Molecular Biology, By Dr Vishnu Shankar Sinha

240/BIOT/MD301

Part A - Introduction	
Semester	**III**
Name of the Course ID: 240/BIOT/MD301	**Power of Immune System**

Course Learning Outcomes (CLO):

After completing this course, the learner will be able to:

9. Students will understand the fundamental principles of the immune system, including its components, functions, and how it responds to threats, as well as the mechanisms of immune-related diseases and potential treatments.
10. Students will be able to differentiate between the innate (non-specific) and adaptive (specific) immune systems, including their respective mechanisms and roles.
11. Learn practical skills on basic immunological test. Understand the principles of blood typing, antibody-antigen interactions, and the importance of blood group compatibility in transfusions. Also, they

learn about the different types of leukocytes and their roles in the immune response, and how to interpret a differential leukocyte count.			
Credits	**Theory**	**Practical**	**Total**
	2	1	3
Contact Hours	2	2	4
Max. Marks:75 (35TE + 15TI + 20PE + 5PI)	**Time: 2 H (Theory), 2h (Practical)**		

Part B- Contents of the Course

Instructions for Paper-Setter

Seven questions will be set in all. Question No.1 comprising objective/short answer type questions from the entire syllabus, will be compulsory. The remaining six questions will be set taking two questions from each section. The candidates will be required to attempt Q.No.1 & three others selecting one question from each section. Question 1 will be of 8 marks and remaining questions of 9 marks.

	CONTACT HOURS
Unit 1: Foundations of immunology: a) overview of immune system (definition; components; functions) b) Immune cells (white blood cells) and Lymphoid organs - Primary vs Secondary (location in body and their role) c) Types of Immune responses (innate vs adaptive immunity; passive vs active immunity)	**8**
Unit II: Antigen and Antibody a) Antigen (definition, examples, exogenous vs endogenous antigens and role) b) Antibodies (definition, general structure, functions, types, specificity) c) What happens when an antigen enters your body? Overview of antigen- antibody interactions and its importance d) Basic knowledge of blood group antigen, Rh factor and blood transfusion	**11**
Unit III: Clinical Immunology a) Immunodeficiency disorders (AIDS)	

b) Vaccines: Indian Immunization Schedule with brief description of all the vaccines. c) Principle and working of pregnancy test	**11**
List of Practical: 1. Determine ABO blood types. 2. Identify and count different types of white blood cells in a blood smear. 3. Demonstrate antigen-antibody interactions with agglutination reactions. 4. To identify and study the RBCs in a blood smear. 5. Demonstrate the working model of pregnancy test.	
Part C-Learning Resources Suggested readings: 1. Basic Immunology: Functions and Disorders of the Immune System [with Student Consult Online Access] Abul K. Abbas; Immunology Thomas J. Kindt 2. A textbook of immunology, Dr. P. Madhavee Latha, S. Chand publications. 3. Essential Immunology by Roitt, Wiley Blackwell publications.	

240/BOT/MD301

Part A			
Subject	Botany		
Semester	3rd		
Name of the Course	Ornamental Plants		
Course Code/ID			
Course Type: (CC/MCC/MDC/CC - M/DSEC/VOC/DSE/PC/AEC/VAC)	MDC-3		
Level of the course (As per Annexure-I)			
Pre-requisite for the course (if any)			
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to- After completing this course, the learner will be able to: 1. Students will acquire an understanding of the history of gardens in India and other countries. 2. Students will develop comprehensive knowledge about different groups of plants used as ornamentals. 3. Students will learn about flower and seed production. 4. Students will gain a deep understanding of vegetative propagation methods for ornamental plants. 5. Students will be able to learn various types of gardens & their significance, management, and methods of propagation of valuable plants.		
Credits	Theory	Practical	Total
	2	1	3
Contact Hours	2	2	4
Theory			
Max. Marks: 50 Internal Assessment Marks:15 End Term Exam Marks: 35	Time: 2 Hours		
Practical			
Max. Marks: 25 Internal Assessment Marks: 5 End Term Exam Marks: 20	Time: 2 Hours		
Part B- Contents of the Course			
Instructions for Paper-Setter Nine questions will be set in all. All questions will carry equal marks. Question No.1 will be short answer type covering the entire syllabus and will be compulsory. The remaining eight questions will be set unit wise selecting two questions from each unit. The candidate will be required to attempt question No. 1 and four more questions selecting one question from each unit.			

Unit	Topic	Contact Hours
I	History of gardens in India; terrace gardening; popular gardens of India; Types of gardens: Formal and Informal gardens; Styles of gardens: Mughal gardens, Persian gardens, Italian gardens, French gardens, English gardens, Japanese gardens.	7
II	Significance of Shrubs, trees, palms, ferns, cycads, cacti and succulents, climbers, creepers, indoor plants, water plants, bonsai plants asornamentals.	7
III	Flower and seed production; protected cultivation of ornamentals; present position and scope of floriculture in India.	8
IV	Vegetative propagation-principles and practices of clone selection; techniques of cutting, budding, grafting and layering; propagation by specialized stems and roots.	8
V*	1. Preparation of nursery beds – flat, raised and sunken beds • Identification and description of various plants grown in ornamental gardens. 2. Tools, implements and containers used in ornamental gardening. 3. Planning, designing and establishment of garden features viz. lawn, hedge and edge, rockery etc. 4. To study propagation by separation and division technique. • Preparation of land for lawn and planting. 5. To study propagation by cuttings, layering, grafting and budding 6. Flower arrangement practices. 7. Preparation of bouquets, garland.	30

Recommended Books/e-resources/LMS:

1. Singh, A.K. & Kumar A. 2023. Plant Propagation and Nursery management.
2. S.K. Kataria and sons. Arora, J.S. 2016. Introductory Ornamental Horticulture. Kalyani Publishers. 8th edition.
3. Sachdeva, P. & Tongbram, V. 2014. A Naturalist's guide to the trees & Shrubs of India. Prakash Books.
4. Jain, S.M. & Ochatt, S.J. 2009. Protocols for in vitro propagation of ornamental plants: 598 (Methods in Molecular Biology). Humana Press.
5. Sabina, GT and Peter KV. 2008. Ornamental Plants for Gardens. New India Publ. Agency. Reddy S, Janakiram B, Balaji T, Kulkarni S & Misra RL. 2007. Hightech Floriculture. Indian Society of Ornamental Horticulture, New Delhi.
6. Bhattacharjee SK. 2006. Advances in Ornamental Horticulture. Vols. I-VI. Pointer Publ. Krishnamurthy, K.V. 2004. An Advanced Text Book of Biodiversity - Principles and Practices. Oxford and IBH Publications Co. Pvt. Ltd. New Delhi
7. Prasad S & Kumar U. 2003. Commercial Floriculture. Agrobios
8. Lauria A & Victor HR. 2001. Floriculture – Fundamentals and Practices Agrobios.

240/BBA/MD301

Multi-Disciplinary Course (MDC) from the Department of Management for Pool of Courses for UG Programmes in the University

(These courses are to be offered to the students of different disciplines/subject)

SEMESTER 3

Name of Subject: Entrepreneurship & Start ups	**Maximum Theory Marks: 75 (TE+TI+PE+PI=50+25+0+0)**
Course Code: 243BBAMDC5	**Time Allowed: 3 Hrs**
Credits 3 (L-T-P =3-0-0)	**Core Course: MDC**

Instructions for Paper Setter: The question paper shall be divided into two sections. Section 'A' shall comprise five short answer type questions from the syllabus carrying two marks each, which shall be compulsory. The answer to each question should not normally exceed 100 words. Section 'B' shall comprise eight questions of ten marks each (2 questions from each unit). The students will be required to attempt five questions by selecting one question from each unit. All questions will carry equal marks.

Course Outcomes: - After completing the course, students will be able to:

1. To understand the meaning, importance, and types of entrepreneurships.
2. To develop essential skills for entrepreneurship, including leadership and marketing.
3. To identify and utilize various support institutions and funding sources.
4. To assess opportunities and create comprehensive business plans.

COURSE CONTENTS:

Unit 1: Introduction: Meaning and importance of Entrepreneurship, Evolution of the term entrepreneurship, Factors influencing entrepreneurship, characteristics of entrepreneurship, types of entrepreneurship, objectives of entrepreneurship development, Startups- Definition, Types	
Unit 2: Entrepreneurship Development Skills: Types of entrepreneurial skills - team work and leadership skill, analytical and problem solving skills, critical thinking skills, branding, marketing and networking skills. Role of entrepreneurship development programmes (EDP)	
Unit 3 Institutions supporting Entrepreneurs: Various Central and State Level Organizations which Help the Entrepreneurs, Banks and non banking financial organisations, Fund Collection for Entrepreneurship	
Unit 4: Entrepreneurial opportunity and enterprise planning: Sensing entrepreneurial opportunities, selecting the right opportunity, Site Selection, Feasibility Analysis. Preparation of Business model/Plan: Business plan - concept, format, components of business plan. Significance of Business Plan. Making of a Business plan	

SUGGESTED READINGS:

1. Kathleen R Allen, Launching New Ventures, An Entrepreneurial Approach, Cengage Learning.
2. Anjan Raichaudhuri, Managing New Ventures Concepts and Cases, Prentice Hall International.
3. S. R. Bhowmik & M. Bhowmik, Entrepreneurship, New Age International.
4. Steven Fisher, Ja-nae' Duane, The Startup Equation -A Visual Guidebook for Building Your Startup, Indian

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Edition, Mc Graw Hill Education India Pvt. Ltd.
5. Byrd Megginson, Small Business Management An Entrepreneur's Guidebook, 7th ed, McGrawHill
6. A Fayolle Entrepreneurship and new value creation, Cambridge, Cambridge University Press

240/IBA/MDC301

Self-development Report (Borrowed from School of Hospitality & Tourism Management))

Subject code - CMDC303
Self-development Report
Course ID-

L	T	P	Credits	TI	TE	PI	PE	Time Allowed
0	0	6	3	0	0	25	50	2 Hours

Type of Course: - Multidisciplinary Course

Core Course (CC)	Minor Course (MIC) including Vocational Courses (VOC)	Multidisciplinary Course (MDC)	Ability Enhancement Course (AEC)	Skill Enhancement Courses (SEC)	Value Addition Courses (VAC)	Internship
		√				

Introduction to the Course:
Supervised work experience can greatly enhance a student's ability to secure premium graduate positions in the industry and increase their earnings and promotion prospects. The module enables students to focus on their learning in the workplace and be more self-aware of their key competencies to promote effective self-development while enhancing practical knowledge in operational roles. Learners will be required to concentrate on specific organisational practices, assessing and reflecting on their personal development and learning. This will be documented through an internship report. Students will utilize concepts, theories, and models from the mandatory modules completed during the first, second, and third semesters of their program to analyse the assigned topics for the project.

Course Outcome: After completing the course learners will be able to:
CO1: Understand the competencies required for effective professional practice in different departments and evaluate their development against a competence framework.
CO2: Gain valuable work experience, evaluate organizational practices building on theory from the previous semesters of the program, and develop work-related skills.
CO3: Exhibit an understanding of the commercial/business environment and provide opportunities to evaluate experiences with international organizational practices.
CO4: Enhance their employability and employment prospects upon graduation.

Detailed Syllabus:

Unit I:
Personal Goals and Pre-Internship Self-Assessment - Introduction and personal learning objectives, SWOT Analysis (Strengths, Weaknesses, Opportunities, Threats), pre-internship self-assessment on professional and technical competencies, goal setting for the internship period (technical, behavioural, soft skills), expectations from the organization and self.

Unit II:
Workplace Behaviour and Professional Growth - Adapting to workplace culture and hierarchy, Communication with supervisors and colleagues, discipline, punctuality, and grooming standards, time and stress management, ethical behaviour and responsibility at the workplace.

Unit III:
Skill Enhancement and Knowledge Application - Development of technical and operational skills, Practical application of academic theories or models, Learning new techniques, tools, or systems, Problem-solving and decision-making instances, Initiative-taking and accountability.

Unit IV:
Reflective Analysis and Post-Internship Evaluation -Reflection on personal and professional transformation, re-evaluation using the same self-assessment tools, key takeaways from the internship, feedback from mentors and supervisors (if available), career direction and future development plans.

Assessment

Practical Internal	**25 Marks (Report or Presentation or Viva or Final Practical)**
Practical External	**50 Marks (Practical external will be assessed based on the feedback given by industry mentors to the student via a personal interview from a panel of members from interdepartmental schools.)**
Final Assessment	**75 Marks**

Mapping Matrix of Course
Table 1: CO-PO Matrix for the Course

COURSE OUTCOMES	PO1	PO2	PO3	PO4
CO1	3	3	3	3
CO2	3	3	3	3
CO3	3	3	3	3
CO4	3	3	3	3
Average	3	3	3	3

Table 2: CO-PSO Matrix for the Course

CO	PSO1	PSO2	PSO3	PSO4
CO1	3	3	3	3
CO2	3	3	3	3
CO3	3	3	3	3
CO4	3	3	3	3
Average	3	3	3	3

Syllabus for Multidisciplinary Course from the department for pool of the Courses in the University

(These courses are to be offered to students of different discipline/Subject)

240/ICA/MD302

Food Anthropology (Offered by the School)
CMDC303

L	T	P	Credits	TI	TE	PI	PE	Time Allowed
2	1	0	3	25	50	0	0	__Hours

Type of Course: - Multidisciplinary Course (MDC)

Core Course (CC)	Minor Course (MIC) including Vocational Courses (VOC)	Multidisciplinary Course (MDC)	Ability Enhancement Course (AEC)	Skill Enhancement Courses (SEC)	Value Addition Courses (VAC)	Internship
		√				

Introduction to the Course:
This module, "Anthropology of Food," explores the rich and complex relationship between people and what they eat across different societies, time periods, and cultural contexts. Students will be introduced to the anthropological study of food as a lens to understand human behaviour, traditions, rituals, and social systems. From examining everyday meals and festive feasts to exploring taboos, migration, and food politics, the module will unpack how food connects to broader themes like religion, gender, class, and globalisation.
By the end of this course, learners will be able to think critically about food not just as nourishment, but as a deeply meaningful aspect of human life. Through readings, case studies, and hands-on research, they will develop a deeper appreciation of the cultural diversity and significance of what we eat and why we eat it.

Course Outcome: - After completing the course, learners will be able to:
CO1. To understand food as a cultural, social, and political artefact
CO2. To explore the symbolic, historical, and economic roles of food across societies
CO3. To analyse the relationships between food, identity, power, and globalisation
CO4. To evaluate traditional and modern food systems with an anthropological lens

Detailed Syllabus:

Unit -I
Introduction to Anthropology & Cultural Anthropology, What is Food Anthropology, Food as a Cultural and Social Marker, Edibility, Taboos, and Food Classification,

Unit -II
Food, Identity, and Ritual: Food and Identity: Caste, Class, Gender, Ethnicity, Religious Food Practices and Restrictions, Food in Life-Cycle Rituals (Birth, Marriage, Death), Case Studies: Indian Thali, Kosher & Halal, Fasting Rituals.

Unit -III
History, Migration, and Globalization: Food Routes: Columbian Exchange, Spice Trade, Colonialism, Migration,

Diaspora, and Hybrid Cuisines, the Rise of Global Food Brands and Fast Food. Case Studies: Indian-Chinese Food, American Fast Food Abroad

Unit -IV

Food Systems, Sustainability, and Politics: Traditional vs Industrial Food Systems, Food and Power: Who Grows, Who Eats, Food Security, Hunger, and Malnutrition, Sustainability, Slow Food, Organic Movements, Case Studies: GMOs, Street Food Economies, Farm-to-Table Movements

Assessment

Final Assessment (FA)

Theory Internal (TI)	**25 marks**
Theory External (TE)	**50 marks**
Final Assessment (FA) = (TI+TE)	**75 marks**

Theory Internal (TI): The (TI) will be done through in-class tests/coursework/presentations/journals or assignments.

Theory External (TE): The (TE) will be done through the end-term theory examination.

The question paper pattern for the end-term examination will be 50 Marks and will follow the following pattern

Section A	Five Short answer type questions covering all units. All compulsory.	**5*2=10 marks**
Section B	Answer any one question from each Unit Choice of Q. 2&3 From Unit I Choice of Q. 4&5 from Unit II Choice of Q. 6&7 from Unit III Choice of Q. 8&9 from Unit IV	**4*10=40 marks**
Total Marks		**50 marks**

Mapping Matrix of Course:

Table 1: CO-PO Matrix for the Course

COURSE OUTCOMES	PO1	PO2	PO3	PO4
CO1	3	3	3	3
CO2	3	3	3	3
CO3	3	3	3	3
CO4	3	3	3	3

240|PS|MD301

Multidisciplinary Course
UnderGraduate Programme(Political Science)
Semester III
MDC 3 Politics of Globalization

MDC 3 Politics of Globalization (Credits 03)	**Maximum Marks: 75**
Course ID:	**Theory Examination: 50**
Semester III	**Theory Internal Assessment: 25**
	Examination Time: 2hrs

Course Outcome: After completing this course, the learner will be able to;

- Understand the basics of economics, politics, and culture in globalization.
- Learn how technology, trade, and communication drive globalization.
- Explore economic inequality between the Global North and South and learn about Dependency Theory.
- Understand Neo-liberalism, its criticisms, and the future of globalization in a multi-polar world.

Note:

4. **Seven Questions will be set in all and students will be required to attempt 4 questions.**
5. **Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).**
6. **For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).**

Unit I

- **Globalization:** Meaning, Definition & Dimensions- Economic, Social & Political.

Unit II

- Economic Inequality: Global North V/s Global South
- NIEO

Unit III

- Challenges & Critique of Globalization.

Suggested Readings:

1. **Arora, R.K., & Goyal, R. (2003).** *Indian Public Administration: Institutions and Issues* (2nd ed.). New Delhi: Wishwa Prakashan.

2. **Basu, Rumki. (2019).** *Public Administration: Concepts and Theories* (20th ed.). New Delhi: Sterling Publishers.

3. **Bhagwati, J. (2020).** *In Defense of Globalization: With a New Afterword.* New York: Oxford University Press.

4. **Chakrabarty, D. (2021).** *The Globalization of the Modern World: A Critical Overview.* New Delhi: Oxford University Press.

5. **Dunn, William N. (2018).** *Public Policy Analysis: An Introduction* (6th ed.). New York: Routledge.

3. **Bhagwati, J. (2020).** *In Defense of Globalization: With a New Afterword*. New York: Oxford University Press.

4. **Chakrabarty, D. (2021).** *The Globalization of the Modern World: A Critical Overview*. New Delhi: Oxford University Press.

5. **Dunn, William N. (2018).** *Public Policy Analysis: An Introduction* (6th ed.). New York: Routledge.

6. **Frank, A. G. (2020).** *The Development of Underdevelopment: A Critique of the Dependency Paradigm*. New York: Monthly Review Press.

7. **Held, D., & McGrew, A. (2021).** *Globalization Theory: Approaches and Controversies* (2nd ed.)

8. **Hirst, P., & Thompson, G. (2020).** *Globalization in Question: The International Economy and the Possibilities of Governance* (4th ed.). Cambridge: Polity Press.

9. **Khan, M. A. (2021).** *Globalization and Inequality: Reassessing the North-South Divide*. New Delhi: Cambridge University Press.

10. **Krugman, P. (2020).** *Globalization and Its Critics: A New Economic Debate*. New York: W.W. Norton & Company.

11. **Maheshwari, S.R. (2000).** *Indian Administration*. New Delhi: Orient BlackSwan.

12. **Peters, B. Guy. (2020).** *The Politics of Bureaucracy: An Introduction to Comparative Public Administration* (7th ed.). New York: Routledge.

13. **Robinson, W. I. (2020).** *A Theory of Global Capitalism: Production, Class, and State in a Transnational World* (2nd ed.). Baltimore: Johns Hopkins University Press.

14. **Sachs, J. D. (2021).** *The End of Poverty: Economic Possibilities for Our Time* (Updated ed.). New York: Penguin Press.

15. **Singh, Satyajit & Sharma, Pradeep (Eds.). (2007).** *Decentralization: Institutions and Politics in Rural India*. New Delhi: Oxford University Press.

16. **Stiglitz, J. E. (2021).** *Globalization and Its Discontents Revisited: Anti-Globalization in the Era of Trump*. New York: W.W. Norton & Company.

17. **World Bank. (2004).** *World Development Report 2004: Making Services Work for Poor People*. Washington, D.C.: World Bank and Oxford University Press.

18. **Ziauddin, S. (2021).** *The Politics of Social Justice in India: From Ambedkar to Modi*. New Delhi: SAGE Publications.

240/BCA/MD301

Course code	MDC-3			
Category	Multidisciplinary Course			
Course title	**Probability and Statistics**			
Scheme and Credits	L	T	P	Credits
	3	0	0	3
Theory Internal	25			
Theory External	50			
Total	75			
Duration of Exam	3 hrs			

Note: The examiner will set nine questions in total. Question one will have seven parts from all units and the marks of first question will be of 20% of total marks of Question Paper and the remaining eight questions to be set by taking two questions from each attempt FIVE questions in all, selecting one question from every unit apart from the Question Number 1.

COURSE OUTCOMES:

CO1: Elucidate the basic principles of statistics

CO2: Apply the correlation and regression analysis to engineering problem

CO3: Apply the principles of probability to thermodynamic problems

CO4: Explain probability distribution and solve problems

Unit –I

Statistical Methods: Definition and scope of Statistics, concepts of statistical population and sample. Data: Quantitative and qualitative, attributes, variables, scales of measurement nominal, ordinal, interval and ratio.

Measures of Central Tendency: Mean, Median, Mode. Measures of Dispersion: range, quartile deviation, mean deviation, standard deviation, coefficient of variation, Moments, skewness and kurtosis.

Unit – II

Statistical Methods: correlation and regression –Karl Pearson's coefficient of correlation and rank correlation problems, regression analysis-lines of regression, problems.

Curve fitting: curve fitting by the method of least square-fitting the curves of the form

Unit –III

Probability: Introduction, random experiments, sample space, events and algebra of events. Definitions of Probability – classical, statistical, and axiomatic. Conditional Probability, laws of addition and multiplication, independent events, theorem of total probability, Bayes' theorem and its applications.

Unit –IV

Probability Distributions: Random variables (discrete and continuous), probability mass/density function, Binomial, Poisson, Exponential and normal distributions

Textbooks & References:

1. Gupta, S. C., & Kapoor, V. K. Fundamentals of Mathematical Statistics. Sultan Chand & Sons.
2. Hogg, R. V., Tanis, E. A., & Rao, J. M. Probability and Statistical Inference (7th ed.). Pearson Education, New Delhi.
3. Goon, A. M., Gupta, M. K., &Dasgupta, B. Fundamentals of Statistics, Vol. I & II. The World Press, Kolkata.
4. Ross, S. M. Introduction to Probability and Statistics for Engineers and Scientists. Academic Press.

242/MBAI/MD301

Name of Subject: **HUMAN RESOURCE MANAGEMENT**	Maximum Theory Marks: 75(50+ 25)
Course Code:	Time Allowed: 3 Hrs
Credits 3	Multidisciplinary Course

Instructions for Paper Setter: The question paper shall be divided into two sections. **Section 'A'** shall comprise five short answer type questions from the whole of the syllabus carrying two marks each, which shall be compulsory. The answer to each question should not exceed 100 words normally. **Section 'B' shall comprise 8 questions (2 questions from each unit). All the questions need to be mapped with Course Outcomes (COs) and need to be specified in the question paper against each question.** The students will be required to attempt four questions by selecting one question from each unit. All questions will carry equal marks.

Course Outcomes:-After completing the course students will be able to:

CO1: Recall the evolution of the HR function, contemporary perspectives of HRM, and the goals of HRM.

CO2: Understand the processes involved in recruitment, selection, placement, and other talent acquisition methods.

CO3: Apply performance management techniques to evaluate and enhance individual and organizational performance.

CO4: Evaluate the impact of compensation and benefits packages on employee motivation, satisfaction, and organizational performance, considering factors such as employee health and safety and labour relations.

COURSE CONTENTS:

Unit 1: Introduction – nature and scope of human resource management, HRM objectives and functions, HRM policies, HRM in globally competitive environment; strategic human resource management.	10 Lectures
Unit 2:Talent Acquisition –Man power planning, Job evaluation, job analysis and job design. Recruitment: Sources, Methods, constraints & challenges, selection: objectives and process, placement and induction.	10 Lectures
Unit 3: Developing human resources: Training: types, methods, training vs. development and evaluation of a training programme and training need assessment, career planning and development.	10 Lectures
Unit 4: Performance appraisal: methods, process and challenges of performance appraisal, performance appraisal vs. potential appraisal, Compensation: wages & salaries administration and factors influencing compensation levels, Employee Health & Safety Provisions	10 Lectures

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SUGGESTED READINGS:

1. Cascio, Wayne F, Managing Human Resources, Tata McGraw Hill, New Delhi
2. Dessler, Gary and Biju Varkkey, Human Resource Management, Pearson Education, New Delhi
3. DeNisi, Angelo and Ricky W. Griggin, Human Resource Management, Biztantra – Houghton Migglin
4. Ivancevich, John, Human Resource Management, Tata Mc Graw Hill
5. Noe, Raymond, John Hollenbeck, Barry Gerhart and Patrick M Wright, Human Resource Management – Gaining Competitive Advantage, Tata Mc Graw Hill, New Delhi
6. Snell, Scott and George Bohlander, Human Resource Management, Cengage Learning

Instructions for Internal Examiner: The internal assessment should be spread evenly throughout the semester and must include at least 3 independent components including a mid-term exam. Below are the suggested components for 30 marks. A teacher has a choice to change these components as per the need except for the mid-term exam. All the questions of mid-term Exams need to be mapped with Course Outcomes (COs) and need to be specified in the question paper against each question.

S. No.	Course Assessment Components	Marks/Weightage (%)
1	Assessment 1 : Class Participation(**CP**) And Individual Assessment	10
2	Assessment 2: Mid-Term Exam (MTE)	10
3	Assessment 3: Case Analysis / Presentation **(CAP)**/ Group Project (**GP**) / Role Play / Live Projects/ Simulation / Worksheet Assessment	5
	Internal Assessment **(IA) (1+2+3)**	25 (33%)
	End-Term Examination (**EE**)	50 (67%)
	Total Marks (IA+EE)	**75**

Mapping Matrix of Course:

Table 1: CO-PO & CO-PSO Matrix for the Course: HUMAN RESOURCE MANAGEMENT

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	3	3	2	2	3	2	3	3	3	1
CO2	2	2	2	1	3	1	3	1	3	1
CO3	3	3	3	2	3	3	2	3	3	1
CO4	3	3	3	3	3	1	3	3	3	3
Average	2.75	2.75	2.5	2	3	1.75	2.75	2.5	3	1.5

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MA Integrated (JMC)
SEMESTER -3

Name of Subject: **Communication and Culture**		Maximum Theory marks: 75 (25+50)
Subject Code: MDC-03	Course ID: 242/JMC/MD-303	

This question paper shall be divided in two sections. Examiner is requested to set section A as compulsory question containing 14 marks and from the entire syllabus (can be either objective or subjective). Section B will be in choice from two of the questions from each unit; these questions will be of 12 marks each. The students will be required to attempt one question from each unit.

Objective: This course explores the practical aspects of communication and its influence on cultural processes, aiming to understand how different forms of communication impact and reflect cultural contexts. It analyzes how cultural backgrounds shape communication practices and media content while evaluating the role of communication in shaping cultural identity and promoting cultural exchange.

Course Outcomes:

1 Analyze how various forms of communication affect cultural interactions.
2 Understand and apply communication practices relevant to different cultural settings.
3 Examine the role of media in reflecting and shaping cultural identities.

COURSE CONTENTS:

Unit 1: Introduction to Communication
1.1 Definition and Scope of Communication 1.2 Communication Process and Channels 1.3 Key Elements of Effective Communication 1.4 Barriers to Communication and Solutions
Unit 2: Types and Forms of Communication
2.1 Verbal Communication 2.2 Non-verbal Communication 2.3 Written Communication 2.4 Digital and Online Communication
Unit 3: Basics of Culture
3.1 Definition and Concept of Culture 3.2 Cultural Norms and Values 3.3 Cultural Identity and Social Practices 3.4 The Impact of Globalization on Culture

Suggested Readings:

1 Culture's Consequences: Comparing Values, Behaviours, Institutions, and Organizations Across Nations. By Hofstede, Geert..
2 An Introduction to Intercultural Communication: Identities in a Global Community by Jandt, Fred E.
3 Communicating at Work: Principles and Practices for Business and the Professions by Adler, Nancy J., and Elmhorst, Rebecca B.
4 Hybridity, or the Cultural Logic of Globalization. By Kraidy, Marwan.

242/MCAI/MD301

Course code				
Category	MDC			
Course title	**Probability and Statistics**			
Scheme and Credits	L	T	P	Credits
	3	0	0	3
TI	25			
TE	50			
PI	--			
PE	--			
Duration of Exam	3 Hrs.			

NOTE: "The examiner will set nine questions in total. Question one will have seven parts from all units and the marks of first question will be of 20% of total marks of Question Paper and the remaining eight questions to be set by taking two questions from each unit and the marks of each question from Question no.2 to 9 will be of 20% of total marks of Question paper. The students have to attempt five questions in total, the first being compulsory and selecting one from each unit."

COURSE OUTCOMES

After successful completion of this course, students will be able to:

CO1. Understand and apply the basic principles of probability, including sample spaces, events, rules of probability, and conditional probability; solve problems using combinatorics and understand the concept of independence.

CO2. Analyze and compute the distribution, expectation, and variance of discrete and continuous random variables; apply the Central Limit Theorem and understand families of standard distributions.

CO3. Utilize computer-based simulations and Monte Carlo methods to model random variables and solve probabilistic problems.

CO4. Apply basic statistical techniques to summarize data; perform parameter estimation, construct confidence intervals, and conduct hypothesis testing, including Bayesian approaches.

Unit-I

Probability: Sample space, events, and probability, rules of Probability, equally likely outcomes. Combinatorics, Conditional Probability Independence.

Unit-II

Discrete Random Variables and their Distributions: Distribution of a random variable, Distribution of a random vector, Expectation and variance, Families of discrete distributions, Continuous Distributions: Probability density, Families of continuous distributions, Central Limit Theorem.

Unit-III

Computer Simulations and Monte Carlo Methods: Simulation of random variables, Solving problems by Monte Carlo methods.

Unit-IV

Introduction to Statistics: Population and sample, parameters and statistics, Simple descriptive statistics, Graphical statistics, Statistical Inference, Parameter estimation, Confidence intervals, Unknown standard deviation, Hypothesis testing Bayesian estimation and hypothesis testing.

REFERNCE BOOKS

1. P. G. Hoel, S. C. Port and C. J. Stone, Introduction to Probability Theory, Universal Book Stall, 2003(Reprint).

2. S. Ross: A First Course in Probability, 6th Ed., Pearson Education India, 2002.

3. W. Feller, An Introduction to Probability Theory and its Applications, Vol. 1, 3rd Ed., Wiley, 1968.

242/COMI/MD 301

Name of Subject: **Personal Financial Planning**	Maximum Theory Marks: 75 (50+ 20)
Course Code:243MCMDC4	Time Allowed: 2hours
Credits 3	Multidisciplinary Course

Instructions for Paper Setter: The question paper shall be divided into two sections. **Section 'A'** shall comprise five short answer type questions from the whole of the syllabus carrying two marks each, which shall be compulsory. The answer to each question should not exceed 100 words normally. **Section 'B' shall comprise 8 questions (2 questions from each unit). All the questions need to be mapped with Course Outcomes (COs) and need to be specified in the question paper against each question.** The students will be required to attempt four questions by selecting one question from each unit. All questions will carry equal marks.

Course Outcomes: - After completing the course students will be able to:

CO1: Describe the process and objectives of investment planning and risk measurement for various asset classes.

CO2: Apply the concept of time value of money to calculate personal financial goals.

CO3: Analyze different personal tax planning strategies to optimize tax benefits.

CO4: Evaluate the effectiveness of various insurance schemes in mitigating personal financial risks.

COURSE CONTENTS:

Unit 1:Introduction to Financial Planning- Financial goals, Time value of money, steps in financial planning, personal finance/loans, education loan, car loan & home loan schemes. Introduction to savings, benefits of savings, management of spending & financial discipline, Net banking and UPI, digital wallets, security and precautions against Ponzi schemes and online frauds such as phishing, credit card cloning, skimming.	10 Lectures
Unit 2:Investment planning-Process and objectives of investment, Concept and measurement of return & risk for various assets class, Measurement of portfolio risk and return, Diversification & Portfolio formation. Gold Bond; Real estate; Investment in Greenfield and brownfield Projects; Investment in fixed income instruments- financial derivatives & Commodity market in India. Mutual fund schemes including SIP; International investment avenues.	10 Lectures

Unit 3:Personal Tax Planning Tax Structure in India for personal taxation, Scope of Personal tax planning, Exemptions and deductions available to individuals under different heads of income and gross total income. Comparison of benefits - Special provision u/s 115BAC vis-à-vis General provisions of the Income-tax Act, 1961, tax avoidance versus tax evasion	10 Lectures
Unit 4:Insurance Planning Need for Protection planning. Risk of mortality, health, disability and property. Importance of Insurance: life and non-life insurance schemes. Deductions available under the Income-tax Act for premium paid for different policies.	10 Lectures

SUGGESTED READINGS:

1. Indian Institute of Banking & Finance. (2017). Introduction to Financial Planning. New Delhi: Taxmann Publication.
2. Pandit, A. (2014). The Only Financial Planning Book that You Will Ever Need. Mumbai: Network 18 Publications Ltd.
3. Sinha, M. (2008). Financial Planning: A Ready Reckoner. New York: McGraw Hill Education.
4. Halan, M. (2018). Let's Talk Money: You've Worked Hard for It, Now Make It Work for You. New York: HarperCollins Publishers.
5. Tripathi, V. (2017). Fundamentals of Investment. New Delhi: Taxmann Publication

Instructions for Internal Examiner: The internal assessment should be spread evenly throughout the semester and must include at least 3 independent components including a mid-term exam. Below are the suggested components for 30 marks. A teacher has a choice to change these components as per the need except for the mid-term exam. All the questions of mid-term Exams need to be mapped with Course Outcomes (COs) and need to be specified in the question paper against each question.

S. No.	Course Assessment Components	Marks/Weightage (%)
1	Assessment 1: Class Participation(**CP**) And Individual Assessment	10
2	Assessment 2: Mid-Term Exam (MTE)	10
3	Assessment 3: Case Analysis / Presentation (**CAP**)/ Group Project (**GP**) / Role Play / Live Projects/ Simulation / Worksheet Assessment	5

	Internal Assessment **(IA) (1+2+3)**	25 (30%)
	End-Term Examination (**EE**)	50 (70%)
Total Marks (IA+EE)		**75**

Mapping Matrix of Course: 243MCMDC4

Table 1: CO-PO & CO-PSO Matrix for the Course243MCMDC4: Personal Financial Planning

Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	3	2	2	2	1	1	1	3	2
CO2	3	3	1	2	2	2	1	2	2
CO3	3	3	1	3	2	2	2	3	3
CO4	3	3	2	3	2	2	2	3	3
Average	3	2.75	1.5	2.5	1.75	1.75	1.5	2.75	2.5

UG chemistry 240/CHE/MD39

Course Title	**Introductory Chemistry-III**
Semester	**Semester-III**
Course Code	**MDC-3**
Course ID	
Total Credits	**03 (Lecture: 02, Tutorial: 0, Practical: 01)**
Total Marks	**75**
Marks Distribution	**Theory External: 35** **Theory Internal: 15** **Practical External: 20** **Practical Internal: 05**

COURSE CURRICULUM DELIVERY WEEKLY DISTRIBUTION:

Total Hours per Week: 4	
Lectures (L) Hours per Week: 2	**Practicals (P) Hours per Week: 2**

COURSE OBJECTIVES:

- Understand the chemical processes involved in soap and detergent production.
- Learn about acids, bases, and the importance of pH in biological and industrial processes.
- Explore the types and significance of chemical reactions in everyday life.
- Investigate the basic concepts and applications of nanotechnology.
- Enhance practical laboratory skills through hands-on experiments.

COURSE OUTCOMES:

- Students will understand the chemical processes involved in soap and detergent production and their environmental implications.
- Learn about the importance of acids, bases, and pH in various biological and industrial processes.
- Recognize the importance of chemical safety and handling, particularly in household and laboratory settings.
- Explore the impact of nanotechnology on modern science and its potential to revolutionize various fields.

DETAILED CONTENT OF COURSE:

Theory Syllabus: Total Contact Hours: 30

Unit	Topics	Contact Hours
I	**Soaps and Detergents:** Introduction, General Structure, Saponification, classification, cleansing action of soap, manufacturing process, additives,	8

	fillers, flavours, bleaching agents and enzymes used in commercial detergents, environmental hazards.	
II	**Acids, Bases, and pH:** Definition and examples, pH scale and its importance in daily life (e.g., acid rain, digestion), acidity of common beverages and household products, pH in gardening and soil health. **Solutions and Solubility:** Types of solutions and their everyday examples (e.g., saltwater, sugar solution), factors affecting solubility, dissolving medicines and vitamins, solubility of gases in liquids (e.g., carbonated drinks)	**8**
III	**Chemical Reactions:** Types of chemical reactions (synthesis, decomposition, combustion, etc.), balancing simple chemical equations, everyday examples of chemical reactions (e.g., cooking, rusting, combustion of fuels), safety precautions during chemical handling.	**7**
IV	**Nanotechnology:** Basic concepts and applications in various fields (medicine, electronics), use in everyday products (sunscreens, cosmetics, textiles), environmental impact and safety concerns, future potential and innovations, role in improving food quality and shelf life, use in water purification.	**7**
V	**Practicals** 1. To prepare soap from a fat or oil through the process of saponification. 2. To investigate the cleansing action of soap in hard and soft water 3. Determine the pH of common household substances (e.g., vinegar, baking soda solution, lemon juice, milk, soap solution) to understand their acidic or alkaline nature using pH paper/pH meter. 4. To study the neutralization reaction between an acid and a base through titration and determine the concentration of an acid solution. 5. To study decomposition reaction in sugar/calcium carbonate 6. Formation of Iron nanoparticle (Magnetite)	**30**

COURSE EVALUATION METHODS

Theory Exams:

Total Marks: 50 (External: 35 + Internal: 15)

Internal Assessment: 15 Marks	• Class Participation: NIL • Seminar/Presentation/ Assignment: 05 Marks • Mid Term Exam: 10 Marks
External Assessment: 35 Marks (02 Hours)	• End Term Exam: 35 Marks

Practical Exam:

Total Marks: 25 (External: 20 + Internal: 5)

Internal Assessment: 05 Marks	• Class Participation: NIL • Seminar/Lab record/Demonstration: 05 Marks
External Assessment: 20 Marks (03 Hours)	• End Term Practical Exam: 10 Marks • Lab record: 05 Marks • Viva Voce: 05 Marks

Instruction for End Term Theory Exam:

The Examiner is requested to set nine questions in total, selecting two questions from each section. Question-1 will be a compulsory question consisting short answer type questions covering all the units of the syllabus. All questions should carry equal marks. Log table and non-programmable calculator is allowed.

RECOMMENDED BOOKS

1. **Engineering Chemistry, Jain and Jain, Darpat Rai Publication, 17th Ed., 2015.**
2. **Industrial Chemistry, B.K. Sharma, Krishna Prakashan Publishers, 2012**
3. **Chemistry: The Central Science** by Theodore L. Brown, H. Eugene LeMay Jr., Bruce E. Bursten, Catherine J. Murphy, and Patrick M. Woodward (Pearson)
4. **Environmental Chemistry** by Colin Baird and Michael Cann (W. H. Freeman)
5. **Handbook of Detergents, Part F: Production** by Michael S. Showell (CRC Press)
6. **Laboratory Techniques in Organic Chemistry** by Jerry R. Mohrig, David Alberg, Gretchen Hofmeister, and Paul F. Schatz (W. H. Freeman)
7. **Experimental Organic Chemistry: A Miniscale and Microscale Approach** by John C. Gilbert and Stephen F. Martin (Cengage Learning)
8. **Introduction to Nanoscience and Nanotechnology** by Chris Binns (Wiley)
9. **Chemistry for Changing Times** by John W. Hill and Doris K. Kolb (Pearson)
10. Hand Sanitizer, Easy Guide to Make Anti-Bacterial and Anti-Viral Homemade Hand Sanitizers by H. Miller
11. Chemistry in Daily Life: Third Edition Paperback – 1 January 2012 by Singh K.

BA 3rd Sem
Nutrition in Physical Education & Sports

Multidisciplinary Course from the department for pool of the Courses in the University

(These courses are to be offered to students of different discipline/Subject)

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
MDC-3	Nutrition in Phy. Edu. & Sports		2		2	2		1	3	15	35	5	20	75

Learning Objectives:

Upon successful completion of this course, students will be able to:

- Understand the basic functions of essential nutrients in the body.
- Explain the energy systems and the role of macronutrients in fuelling physical activity.
- Identify the micronutrient needs of athletes and physically active individuals.
- Understand the importance of hydration for performance and health.
- Apply nutritional strategies for different types of sports and training.
- Evaluate the impact of nutrition on recovery and injury prevention.
- Understand the principles of weight management for athletes.

For Paper Setter: Set eight questions in all. Question one is small answer type questions from all units. Each question of Seven marks.

For Students: Attempt any Five questions. Question One is compulsory. All questions carry equal marks.

Unit 1: Fundamentals of Nutrition:

1.1 Introduction and importance to Nutrition for Physical Activity & Sports: - Defining the field and its importance for performance and health in sports.

1.2 Macronutrients: Carbohydrates: - Studying the different types of carbohydrates and their role as the primary fuel source for exercise.

1.3 Fats: - Exploring the various types of fats and their functions in energy provision, hormone production, and overall health for athletes.

1.4 Proteins: - Understanding the structure and function of proteins, their role in muscle repair, growth, and other physiological processes relevant to athletes.

Unit 2: Micronutrients, Hydration, and Energy Balance:

2.1 Vitamins and Minerals: - Learning about essential vitamins and minerals and their specific roles in supporting metabolic processes and overall health in physically active individuals.

2.2 Hydration for Optimal Performance: - Understanding the importance of fluid balance, the effects of dehydration, and strategies for proper hydration before, during, and after exercise.

2.3 Energy Balance and Body Composition: - Exploring the relationship between energy intake and expenditure, and the

Pardeep Kumar Beena Gupta

impact of nutrition on achieving and maintaining optimal body composition for sports.

2.4 Nutritional Assessment and Dietary Guidelines: - Learning basic methods of assessing dietary intake and understanding general nutritional recommendations for athletes and active individuals.

Unit 3: Sport Nutrition:

1.1 Fuelling Endurance Sports: - Examining nutritional strategies to optimize performance in endurance activities, including carbohydrate loading and fuelling during events.

1.2 Nutrition for Strength and Power Sports: - Understanding the dietary needs to support muscle growth, strength development, and recovery in resistance-based activities.

1.3 Nutrition for Team Sports and High-Intensity Activities: - Exploring nutritional considerations for sports with intermittent high-intensity efforts and the need for sustained energy and quick recovery.

1.4 Pre-Competition Meals and Recovery Nutrition: - Learning about optimal food and fluid intake before competition and strategies to replenish energy stores and facilitate muscle repair post-exercise.

Practical Work:

- Diet Chart: Create Balance Diet Chart for Sportsperson.
- Nutrition: Assessing Pre/During/Post game nutrition demands.

Suggestive Readings:

1. Williams, M.H., Rawson, E.S. & Branch, J.D. (2019), Nutrition for Health, Fitness & Sport (11th ed.). New York: McGraw-Hill Education.
2. Dunford, M. & Doyle, J.A. (2022), Nutrition for Sport and Exercise (4th ed.). Boston: Cengage Learning.
3. Manore, M.M., Thompson, J.L. & Valliant, M.W. (2017), Sport Nutrition for Health and Performance (3rd ed.). Champaign, IL: Human Kinetics.
4. Bean, A. (2022), The Complete Guide to Sports Nutrition (10th ed.). London: Bloomsbury Publishing.
5. Kansal, D.K. (2012), A Textbook of Applied Nutrition and Dietetics in Sports. New Delhi: Sports & Spiritual Science Publications.
6. Puri, K. & Goyal, R. (2016), Health and Sports Nutrition. New Delhi: Khel Sahitya Kendra.
7. Sharma, V.M. (2010), Nutrition in Exercise and Sport. New Delhi: Sports Publication.
8. Verma, S.K. (2014), Sports Nutrition and Health Education. New Delhi: Friends Publications.
9. Burke, L. & Deakin, V. (2020), Clinical Sports Nutrition (6th ed.). Sydney: McGraw-Hill Education Australia.

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02

240/MI/MD301

SEMESTER 3

Name of the Subject – Basics of Indian Classical Music - Instrumental (Theory and Practical)	Maximum theory marks: 50 (15+35) Time – 2 hours
240/MI/MD301	Maximum Practical Marks: 50 (15+35)

THEORY PAPER

The examiner is required to set 7 questions in total. This question paper shall be divided in two sections. The examiner is requested to set section A as a compulsory question containing 14 marks and from the entire syllabus (can be either objective or subjective). Section B will be in choice from two of the questions from each unit containing 7 marks each. The students will be required to attempt one question from each unit.

Course Objectives :

- To gain the knowledge of musical terms and elements
- To gain the knowledge of the prescribed raagas
- To gain the knowledge of the prescribed taalas
- To know about the contribution of Musicians of our country

COURSE OUTCOMES

After the successful learning the students will be able to

- Know and understand about the terms and elements of Music
- Understand and write the notations and description of the raags
- Understand and write the description and Layakaris of the taalas
- Know the contribution of the Musicians

UNIT 1:

1. Define to explain the following terms :-

   Naad, Shruti, Swar, Sangeet, Saptak, Thhat

2. 4 Varnas of Indian Music : Sthayi, Arohi, Avarohi, and Sanchari

UNIT 2:

1. Description of the following raagas: Khamaj and Bhairavi
2. [illegible] of the prescribed raags

UNIT 3:

1. Ability to write the following Talas with Thah and Dugun :-
   Ektaal, Rupak
2. Description of the prescribed taalas.

Practical Paper

COURSE OBJECTIVES

1. To gain the knowledge of the prescribed raagas.
2. To gain the ability of presenting taals on hands.

COURSE OUTCOMES

On successful completion of this course, the students will be able to:

1. Play with fluency and know about mentioned raags
2. Know the detailed study of the prescribed raagas
3. know the mentioned taals

Contents

1. Razakhani Gat in the prescribed raagas.
2. Presentation of the prescribed Taalas on hands along its Layakaris
3. Any light composition

SUGGESTED READINGS

1. Harish Chander Srivastava : *Raag Parichaya , Part I, II & III*
2. Madhur Sawaralipi Sangrah : Harish Chander Shrivastava Part- I,II.III,IV
3. Bhatkhande Sangeet Shastra- V. N. Bhatkhande
4. Sangeet Visharad- Basant
5. Kramik Pustak Mallika- Part II V. N. Bhatkhande
6. Raag Vigyan V. N. Patwardhan

1. Frazier William C and Westhoff, Dennis C. Food Microbiology, TMH, New Delhi, 2004
2. Jay, James M. Modern Food Microbiology, CBS Publication, New Delhi, 2000
3. Garbutt, John. Essentials of Food Microbiology, Arnold, London, 1997
4. Pelczar MJ, Chan E.C.S and Krieg, Noel R. Microbiology, 5th Ed., TMH, New Delhi, 1993
5. W. M. Foster (2020) Food Microbiology. CBS Publishers & Distributors Pvt Ltd.
6. Bibek Ray and Arun Bhunia. Fundamentals food microbiology, 5th Ed, CRC Press, 2014.
7. Roger Y. Stanier. General Microbiology, Macmillan,1987.

240/HS/MD301

240/HS/MD301

Semester	**III**
Name of the Course MDC-3	**Basics of Art and Design**
Course ID	**240/HS/MD301**

Course Learning Outcomes (CLO):

To develop skills, abilities and knowledge that enable artistic production and creative skills.
To develop and apply concepts of art and décor to create aesthetically pleasing interior.

Credits	**Theory**	**Tutorial**	**Total**
	2	1	3
Contact Hours	2	1	3

Max. Marks: 75 — **Time: 3hrs (Theory), 1hrs (Tutorial)**
Internal Assessment Marks: 25 (25 TI)
End Term Exam Marks: 50 (50 TE)

Part B- Contents of the course

Instructions for Paper-Setter:

Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.

UNIT I	**CONTACT HOURS**
Art and Design : Introduction. Phases of design process. Types of Design(Structural & decorative) designs and its characteristics . Motifs : Natural, Geometrical, Stylized and abstract. **Elements of Art** : Elements of content: space, line, shape, form,	**8**

texture, light & colour **Principles of Design**:• Proportion & scale • Balance • Rhythm • Emphasis • Harmony and Evaluation	
UNIT II Windows & window treatment Interior Decoration : objectives Window terminology – Types of windows and window treatments. Importance, need and purpose of curtains/ Draperies Types and styles of Curtains Selecting a hanging system for curtains – rods, poles, rings and finials Curtain headings – Valances, cornices, swags and cascades	**8**
UNIT III Flower arrangement: Materials used, principles involved Types & Care of flower management. Precautions to be taken while arranging flowers	7
UNIT IV Accessories – Uses, Classification, Design, Selection & Arrangement Decoration in the selection/development of accessories and their placement.	7
Part C-Learning Resources 1) Babu, Bangalore Niranjan. Principles and Applications of Vastu Shastra. Lotus Press, 2020. 2) Mann, M.K. (2004). Home Management for Indian Families, Kalyani Publisher Ludhiana 3) Nickell, P. and Dorsey, J.M. (1970). Management of Family Living. Wiley Eastern, New Delhi 4) Saweera Ralhan, Resource (Home) Management, S.Dinesh & Co. 5) Subhash, V. Vastu Shastra Explained. 2020. 6)Premavathy, Seetharam. &Pannu, Parveen (2005). Interior Design and Decoration. CBS Publishers & Distributers, New Delhi. 7) Vargeese, M.N. Ogale, N.N. and Srinivasan, K. (1992). Home Management, Wiley Eastern, New Delhi.	

2ho/HS/CCHO/

Semester	**IV**
Name of the Course CC-ID 10	**FAMILY DYANAMICS & COUNSELLING**

240/BTM/MD301

Multidisciplinary Course for UG from the Department for Pool of the Courses in the University

(These courses are to be offered to students of different discipline/Subject)

Semester 3

Course ID	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Cre dits				TE	TI	PI	PE	Total
	Adventure Tourism		2	1	-	2	1	-	3	50	25	-	-	75

Syllabus

Name of Subject: **Adventure Tourism**	Maximum Theory Marks: 75 (TE+TI+PE+PI=50+25+0+0)
Course ID:	Time Allowed: 3 Hours
Credits 3 (L-T-P = 2+1+0)	**Multi-Disciplinary Courses**

Instructions for paper setter: Examiner is requested to set **one compulsory and eight other questions, two from each unit.** The compulsory question should be of 10 marks and should cover entire syllabus. Student should attempt four other questions i.e. one from each unit.

Course Outcomes: - After completing the course, students will be able:

CO1: To understand the concept and scope of land-based adventure tourism, including all activities along with their historical significance and basic safety standards.

CO2: To identify the Indian Mountaineering Foundation's roles, rules governing mountain expeditions, and procedures for permit cancellation, emphasizing regulatory compliance and safety protocols.

CO3: To recognize the concept, equipment, and safety standards for air-based adventure sports, highlighting popular destinations and seasonal considerations in India.

CO4: To describe the concept, gear requirements, and safety protocols for water-based adventure activities focusing on domestic locations, seasonal factors, and essential safety measures. 0

COURSE CONTENTS:

Unit 1:
Concept, Definition, Scope and Nature of Land Based Adventure Tourism. Adventure tourism resources in India. Indian Mountaineering Foundation (IMF): Functions, Rules for mountain expeditions, cancellation of permits and bookings.

Unit 2:
Soft/hard Trekking, Mountaineering and Skiing: Concept, history, tools & equipment's, popular domestic destinations, seasons and basic minimum safety standards for land-based adventure tourism related activities.
Unit 3:
Ballooning, Paragliding/ Hand gliding and Bungee Jumping: Concept, history, tools & equipment's, popular domestic destinations, seasons and basic minimum safety standards for air-based adventure tourism related activities.
Unit 4:
White Water Rafting, Kayaking/ Canoeing and Scuba Diving: Concept, history, tools & equipment's, popular domestic destinations, seasons and basic minimum safety standards for water-based adventure tourism related activities.

Practical: To supplement above theoretical inputs.

Suggested Readings:

- India -A Travel Survival Kit by Geoff Crowther & Others. Lonely Planet Publication.
- India -A Travellers Companion by Pran Nath Seth.
- Tourism Products of India -Dr. I.C. Gupta & Dr. Sushama Kasbekar.
  Tourism in India -V.K. Gupta, Gian Publishing House, Delhi.

Hill Stations of India -Gillan Wright, Penguin Books, New Delhi.

MAPPING MATRIX OF COURSE:

Table: CO's - PO's, and CO's - PSO's Matrix for the Course: Adventure Tourism

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	2	3	1	1	2	2	1	2	2
CO2	3	2	2	2	3	2	2	3	2
CO3	3	3	3	3	3	2	2	3	3
CO4	3	2	2	2	3	2	2	3	3
Average	2.75	2.0	2.25	2.0	2.75	2.00	1.75	2.75	2.50

240/HIN/MD302

सेमेस्टर- 3

MDC-3 हिंदी भाषा और रोजगार

अधिकतम अंक:**75**

लिखित परीक्षा:**50**

आंतरिक निर्धारण:25

पाठ्यक्रम उद्देश्य:

1 स्नातक स्तर के छात्रों को रोजगार की समझ और उससे से संबंधित अनेक पहलुओं से अवगत कराया जाएगा।

2 हिंदी भाषा और रोजगार के अनेकों आयाम की समझ विकसित होगी।

पाठ्यक्रम परिणाम:

1. रोजगार संबंधी क्षेत्रो के लिए तैयार करना।
2. विद्यार्थियों को उनके करियर की दिशा मे मार्ग दर्शन मिलना।

इकाई 1-

1. अनुवाद और अनुवाद के क्षेत्र में करियर
2. पत्रकारिता और जनसंचार
3. शिक्षण और शिक्षा क्षेत्र में रोजगार
4. सरकारी सेवाओं में हिंदी का उपयोग
5. हिंदी में स्वतंत्र लेखन और प्रकाशन

इकाई 2: हिंदी में लेखन कौशल

1. रचनात्मक लेखन
2. तकनीकी लेखन
3. पत्रकारिता लेखन
4. व्यावसायिक लेखन

इकाई 3: डिजिटल युग में हिंदी

1. हिंदी और सोशल मीडिया
2. हिंदी ब्लॉगिंग और कंटेंट क्रिएशन
3. हिंदी में ई-कॉमर्स और डिजिटल मार्केटिंग
4. हिंदी भाषा में ऐप और वेबसाइट डवलपमेंट
5. . हिंदी में व्यावसायिक संचार और प्रबंधन

निर्देश:

1.पाठ्यक्रम मे निर्धारित प्रत्येक खंड में से कम से कम एक दीर्घ प्रश्न अवश्य पूछा जायेगा। पूछे गए कुल प्रश्नों की अधिकतम संख्या 6 होगी। परीक्षार्थी को प्रत्येक खंड मे से कम से कम एक प्रश्न अर्थात कुल तीन प्रश्न करने होंगे। प्रत्येक प्रश्न के लिए 10 अंक निर्धारित है। पूरा प्रश्न 30 अंको का होगा।

2.पूरे पाठ्यक्रम में से कोई 6 लघूत्तरी प्रश्न पूछे जाएंगे। जिनमे से परीक्षार्थी को 200 शब्दों मे किन्ही 3 प्रश्नों का उत्तर देना होगा। प्रत्येक प्रश्न 5 अंक का होगा । पूरा प्रश्न 15 अंको का होगा।

3.पूरे पाठ्यक्रम में से 5 वस्तुनिष्ठ अनिवार्य प्रश्न पूछे जाएंगे । प्रत्येक प्रश्न एक एक अंक का होगा।

UG chemistry 240/CHE/MD39

Course Title	**Introductory Chemistry-III**
Semester	**Semester-III**
Course Code	**MDC-3**
Course ID	
Total Credits	**03 (Lecture: 02, Tutorial: 0, Practical: 01)**
Total Marks	**75**
Marks Distribution	**Theory External: 35** **Theory Internal: 15** **Practical External: 20** **Practical Internal: 05**

COURSE CURRICULUM DELIVERY WEEKLY DISTRIBUTION:

Total Hours per Week: 4	
Lectures (L) Hours per Week: 2	**Practicals (P) Hours per Week: 2**

COURSE OBJECTIVES:

- Understand the chemical processes involved in soap and detergent production.
- Learn about acids, bases, and the importance of pH in biological and industrial processes.
- Explore the types and significance of chemical reactions in everyday life.
- Investigate the basic concepts and applications of nanotechnology.
- Enhance practical laboratory skills through hands-on experiments.

COURSE OUTCOMES:

- Students will understand the chemical processes involved in soap and detergent production and their environmental implications.
- Learn about the importance of acids, bases, and pH in various biological and industrial processes.
- Recognize the importance of chemical safety and handling, particularly in household and laboratory settings.
- Explore the impact of nanotechnology on modern science and its potential to revolutionize various fields.

DETAILED CONTENT OF COURSE:

Theory Syllabus: Total Contact Hours: 30

Unit	Topics	Contact Hours
I	**Soaps and Detergents:** Introduction, General Structure, Saponification, classification, cleansing action of soap, manufacturing process, additives,	8

	fillers, flavours, bleaching agents and enzymes used in commercial detergents, environmental hazards.	
II	**Acids, Bases, and pH:** Definition and examples, pH scale and its importance in daily life (e.g., acid rain, digestion), acidity of common beverages and household products, pH in gardening and soil health. **Solutions and Solubility:** Types of solutions and their everyday examples (e.g., saltwater, sugar solution), factors affecting solubility, dissolving medicines and vitamins, solubility of gases in liquids (e.g., carbonated drinks)	**8**
III	**Chemical Reactions:** Types of chemical reactions (synthesis, decomposition, combustion, etc.), balancing simple chemical equations, everyday examples of chemical reactions (e.g., cooking, rusting, combustion of fuels), safety precautions during chemical handling.	**7**
IV	**Nanotechnology:** Basic concepts and applications in various fields (medicine, electronics), use in everyday products (sunscreens, cosmetics, textiles), environmental impact and safety concerns, future potential and innovations, role in improving food quality and shelf life, use in water purification.	**7**
V	**Practicals** 1. To prepare soap from a fat or oil through the process of saponification. 2. To investigate the cleansing action of soap in hard and soft water 3. Determine the pH of common household substances (e.g., vinegar, baking soda solution, lemon juice, milk, soap solution) to understand their acidic or alkaline nature using pH paper/pH meter. 4. To study the neutralization reaction between an acid and a base through titration and determine the concentration of an acid solution. 5. To study decomposition reaction in sugar/calcium carbonate 6. Formation of Iron nanoparticle (Magnetite)	**30**

COURSE EVALUATION METHODS

Theory Exams:

Total Marks: 50 (External: 35 + Internal: 15)

Internal Assessment: 15 Marks	• Class Participation: NIL • Seminar/Presentation/ Assignment: 05 Marks • Mid Term Exam: 10 Marks
External Assessment: 35 Marks (02 Hours)	• End Term Exam: 35 Marks

Practical Exam:

Total Marks: 25 (External: 20 + Internal: 5)

Internal Assessment: 05 Marks	• Class Participation: NIL • Seminar/Lab record/Demonstration: 05 Marks
External Assessment: 20 Marks (03 Hours)	• End Term Practical Exam: 10 Marks • Lab record: 05 Marks • Viva Voce: 05 Marks

Instruction for End Term Theory Exam:

The Examiner is requested to set nine questions in total, selecting two questions from each section. Question-1 will be a compulsory question consisting short answer type questions covering all the units of the syllabus. All questions should carry equal marks. Log table and non-programmable calculator is allowed.

RECOMMENDED BOOKS

1. **Engineering Chemistry, Jain and Jain, Darpat Rai Publication, 17th Ed., 2015.**
2. **Industrial Chemistry, B.K. Sharma, Krishna Prakashan Publishers, 2012**
3. **Chemistry: The Central Science** by Theodore L. Brown, H. Eugene LeMay Jr., Bruce E. Bursten, Catherine J. Murphy, and Patrick M. Woodward (Pearson)
4. **Environmental Chemistry** by Colin Baird and Michael Cann (W. H. Freeman)
5. **Handbook of Detergents, Part F: Production** by Michael S. Showell (CRC Press)
6. **Laboratory Techniques in Organic Chemistry** by Jerry R. Mohrig, David Alberg, Gretchen Hofmeister, and Paul F. Schatz (W. H. Freeman)
7. **Experimental Organic Chemistry: A Miniscale and Microscale Approach** by John C. Gilbert and Stephen F. Martin (Cengage Learning)
8. **Introduction to Nanoscience and Nanotechnology** by Chris Binns (Wiley)
9. **Chemistry for Changing Times** by John W. Hill and Doris K. Kolb (Pearson)
10. Hand Sanitizer, Easy Guide to Make Anti-Bacterial and Anti-Viral Homemade Hand Sanitizers by H. Miller
11. Chemistry in Daily Life: Third Edition Paperback – 1 January 2012 by Singh K.

BA 3rd Sem
Nutrition in Physical Education & Sports

Multidisciplinary Course from the department for pool of the Courses in the University

(These courses are to be offered to students of different discipline/Subject)

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
MDC-3	Nutrition in Phy. Edu. & Sports		2		2	2		1	3	15	35	5	20	75

Learning Objectives:

Upon successful completion of this course, students will be able to:

- Understand the basic functions of essential nutrients in the body.
- Explain the energy systems and the role of macronutrients in fuelling physical activity.
- Identify the micronutrient needs of athletes and physically active individuals.
- Understand the importance of hydration for performance and health.
- Apply nutritional strategies for different types of sports and training.
- Evaluate the impact of nutrition on recovery and injury prevention.
- Understand the principles of weight management for athletes.

For Paper Setter: Set eight questions in all. Question one is small answer type questions from all units. Each question of Seven marks.

For Students: Attempt any Five questions. Question One is compulsory. All questions carry equal marks.

Unit 1: Fundamentals of Nutrition:

1.1 Introduction and importance to Nutrition for Physical Activity & Sports: - Defining the field and its importance for performance and health in sports.

1.2 Macronutrients: Carbohydrates: - Studying the different types of carbohydrates and their role as the primary fuel source for exercise.

1.3 Fats: - Exploring the various types of fats and their functions in energy provision, hormone production, and overall health for athletes.

1.4 Proteins: - Understanding the structure and function of proteins, their role in muscle repair, growth, and other physiological processes relevant to athletes.

Unit 2: Micronutrients, Hydration, and Energy Balance:

2.1 Vitamins and Minerals: - Learning about essential vitamins and minerals and their specific roles in supporting metabolic processes and overall health in physically active individuals.

2.2 Hydration for Optimal Performance: - Understanding the importance of fluid balance, the effects of dehydration, and strategies for proper hydration before, during, and after exercise.

2.3 Energy Balance and Body Composition: - Exploring the relationship between energy intake and expenditure, and the

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impact of nutrition on achieving and maintaining optimal body composition for sports.

2.4 Nutritional Assessment and Dietary Guidelines: - Learning basic methods of assessing dietary intake and understanding general nutritional recommendations for athletes and active individuals.

Unit 3: Sport Nutrition:

1.1 Fuelling Endurance Sports: - Examining nutritional strategies to optimize performance in endurance activities, including carbohydrate loading and fuelling during events.

1.2 Nutrition for Strength and Power Sports: - Understanding the dietary needs to support muscle growth, strength development, and recovery in resistance-based activities.

1.3 Nutrition for Team Sports and High-Intensity Activities: - Exploring nutritional considerations for sports with intermittent high-intensity efforts and the need for sustained energy and quick recovery.

1.4 Pre-Competition Meals and Recovery Nutrition: - Learning about optimal food and fluid intake before competition and strategies to replenish energy stores and facilitate muscle repair post-exercise.

Practical Work:

- Diet Chart: Create Balance Diet Chart for Sportsperson.
- Nutrition: Assessing Pre/During/Post game nutrition demands.

Suggestive Readings:

1. Williams, M.H., Rawson, E.S. & Branch, J.D. (2019), Nutrition for Health, Fitness & Sport (11th ed.). New York: McGraw-Hill Education.
2. Dunford, M. & Doyle, J.A. (2022), Nutrition for Sport and Exercise (4th ed.). Boston: Cengage Learning.
3. Manore, M.M., Thompson, J.L. & Valliant, M.W. (2017), Sport Nutrition for Health and Performance (3rd ed.). Champaign, IL: Human Kinetics.
4. Bean, A. (2022), The Complete Guide to Sports Nutrition (10th ed.). London: Bloomsbury Publishing.
5. Kansal, D.K. (2012), A Textbook of Applied Nutrition and Dietetics in Sports. New Delhi: Sports & Spiritual Science Publications.
6. Puri, K. & Goyal, R. (2016), Health and Sports Nutrition. New Delhi: Khel Sahitya Kendra.
7. Sharma, V.M. (2010), Nutrition in Exercise and Sport. New Delhi: Sports Publication.
8. Verma, S.K. (2014), Sports Nutrition and Health Education. New Delhi: Friends Publications.
9. Burke, L. & Deakin, V. (2020), Clinical Sports Nutrition (6th ed.). Sydney: McGraw-Hill Education Australia.

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02

240/MI/MD301

SEMESTER 3

Name of the Subject – Basics of Indian Classical Music - Instrumental (Theory and Practical)	Maximum theory marks: 50 (15+35) Time – 2 hours
240/MI/MD301	Maximum Practical Marks: 50 (15+35)

THEORY PAPER

The examiner is required to set 7 questions in total. This question paper shall be divided in two sections. The examiner is requested to set section A as a compulsory question containing 14 marks and from the entire syllabus (can be either objective or subjective). Section B will be in choice from two of the questions from each unit containing 7 marks each. The students will be required to attempt one question from each unit.

Course Objectives :

- To gain the knowledge of musical terms and elements
- To gain the knowledge of the prescribed raagas
- To gain the knowledge of the prescribed taalas
- To know about the contribution of Musicians of our country

COURSE OUTCOMES

After the successful learning the students will be able to

- Know and understand about the terms and elements of Music
- Understand and write the notations and description of the raags
- Understand and write the description and Layakaris of the taalas
- Know the contribution of the Musicians

UNIT 1:

1. Define to explain the following terms :-

   Naad, Shruti, Swar, Sangeet, Saptak, Thhat

2. 4 Varnas of Indian Music : Sthayi, Arohi, Avarohi, and Sanchari

UNIT 2:

1. Description of the following raagas: Khamaj and Bhairavi
2. [illegible] of the prescribed raags

UNIT 3:

1. Ability to write the following Talas with Thah and Dugun :-
   Ektaal, Rupak
2. Description of the prescribed taalas.

Practical Paper

COURSE OBJECTIVES

1. To gain the knowledge of the prescribed raagas.
2. To gain the ability of presenting taals on hands.

COURSE OUTCOMES

On successful completion of this course, the students will be able to:

1. Play with fluency and know about mentioned raags
2. Know the detailed study of the prescribed raagas
3. know the mentioned taals

Contents

1. Razakhani Gat in the prescribed raagas.
2. Presentation of the prescribed Taalas on hands along its Layakaris
3. Any light composition

SUGGESTED READINGS

1. Harish Chander Srivastava : *Raag Parichaya , Part I, II & III*
2. Madhur Sawaralipi Sangrah : Harish Chander Shrivastava Part- I,II.III,IV
3. Bhatkhande Sangeet Shastra- V. N. Bhatkhande
4. Sangeet Visharad- Basant
5. Kramik Pustak Mallika- Part II V. N. Bhatkhande
6. Raag Vigyan V. N. Patwardhan

1. Frazier William C and Westhoff, Dennis C. Food Microbiology, TMH, New Delhi, 2004
2. Jay, James M. Modern Food Microbiology, CBS Publication, New Delhi, 2000
3. Garbutt, John. Essentials of Food Microbiology, Arnold, London, 1997
4. Pelczar MJ, Chan E.C.S and Krieg, Noel R. Microbiology, 5th Ed., TMH, New Delhi, 1993
5. W. M. Foster (2020) Food Microbiology. CBS Publishers & Distributors Pvt Ltd.
6. Bibek Ray and Arun Bhunia. Fundamentals food microbiology, 5th Ed, CRC Press, 2014.
7. Roger Y. Stanier. General Microbiology, Macmillan,1987.

240/HS/MD301

240/HS/MD301

Semester	**III**
Name of the Course MDC-3	**Basics of Art and Design**
Course ID	**240/HS/MD301**

Course Learning Outcomes (CLO):

To develop skills, abilities and knowledge that enable artistic production and creative skills.
To develop and apply concepts of art and décor to create aesthetically pleasing interior.

Credits	**Theory**	**Tutorial**	**Total**
	2	1	3
Contact Hours	2	1	3

Max. Marks: 75 — **Time: 3hrs (Theory), 1hrs (Tutorial)**
Internal Assessment Marks: 25 (25 TI)
End Term Exam Marks: 50 (50 TE)

Part B- Contents of the course

Instructions for Paper-Setter:

Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.

UNIT I	**CONTACT HOURS**
Art and Design : Introduction. Phases of design process. Types of Design(Structural & decorative) designs and its characteristics . Motifs : Natural, Geometrical, Stylized and abstract. **Elements of Art** : Elements of content: space, line, shape, form,	**8**

texture, light & colour **Principles of Design**:• Proportion & scale • Balance • Rhythm • Emphasis • Harmony and Evaluation	
UNIT II Windows & window treatment Interior Decoration : objectives Window terminology – Types of windows and window treatments. Importance, need and purpose of curtains/ Draperies Types and styles of Curtains Selecting a hanging system for curtains – rods, poles, rings and finials Curtain headings – Valances, cornices, swags and cascades	**8**
UNIT III Flower arrangement: Materials used, principles involved Types & Care of flower management. Precautions to be taken while arranging flowers	7
UNIT IV Accessories – Uses, Classification, Design, Selection & Arrangement Decoration in the selection/development of accessories and their placement.	7
Part C-Learning Resources 1) Babu, Bangalore Niranjan. Principles and Applications of Vastu Shastra. Lotus Press, 2020. 2) Mann, M.K. (2004). Home Management for Indian Families, Kalyani Publisher Ludhiana 3) Nickell, P. and Dorsey, J.M. (1970). Management of Family Living. Wiley Eastern, New Delhi 4) Saweera Ralhan, Resource (Home) Management, S.Dinesh & Co. 5) Subhash, V. Vastu Shastra Explained. 2020. 6)Premavathy, Seetharam. &Pannu, Parveen (2005). Interior Design and Decoration. CBS Publishers & Distributers, New Delhi. 7) Vargeese, M.N. Ogale, N.N. and Srinivasan, K. (1992). Home Management, Wiley Eastern, New Delhi.	

2ho/HS/CCHO/

Semester	**IV**
Name of the Course CC-ID 10	**FAMILY DYANAMICS & COUNSELLING**

240/BTM/MD301

Multidisciplinary Course for UG from the Department for Pool of the Courses in the University

(These courses are to be offered to students of different discipline/Subject)

Semester 3

Course ID	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Cre dits				TE	TI	PI	PE	Total
	Adventure Tourism		2	1	-	2	1	-	3	50	25	-	-	75

Syllabus

Name of Subject: **Adventure Tourism**	Maximum Theory Marks: 75 (TE+TI+PE+PI=50+25+0+0)
Course ID:	Time Allowed: 3 Hours
Credits 3 (L-T-P = 2+1+0)	**Multi-Disciplinary Courses**

Instructions for paper setter: Examiner is requested to set **one compulsory and eight other questions, two from each unit.** The compulsory question should be of 10 marks and should cover entire syllabus. Student should attempt four other questions i.e. one from each unit.

Course Outcomes: - After completing the course, students will be able:

CO1: To understand the concept and scope of land-based adventure tourism, including all activities along with their historical significance and basic safety standards.

CO2: To identify the Indian Mountaineering Foundation's roles, rules governing mountain expeditions, and procedures for permit cancellation, emphasizing regulatory compliance and safety protocols.

CO3: To recognize the concept, equipment, and safety standards for air-based adventure sports, highlighting popular destinations and seasonal considerations in India.

CO4: To describe the concept, gear requirements, and safety protocols for water-based adventure activities focusing on domestic locations, seasonal factors, and essential safety measures. 0

COURSE CONTENTS:

Unit 1:
Concept, Definition, Scope and Nature of Land Based Adventure Tourism. Adventure tourism resources in India. Indian Mountaineering Foundation (IMF): Functions, Rules for mountain expeditions, cancellation of permits and bookings.

Unit 2:
Soft/hard Trekking, Mountaineering and Skiing: Concept, history, tools & equipment's, popular domestic destinations, seasons and basic minimum safety standards for land-based adventure tourism related activities.
Unit 3:
Ballooning, Paragliding/ Hand gliding and Bungee Jumping: Concept, history, tools & equipment's, popular domestic destinations, seasons and basic minimum safety standards for air-based adventure tourism related activities.
Unit 4:
White Water Rafting, Kayaking/ Canoeing and Scuba Diving: Concept, history, tools & equipment's, popular domestic destinations, seasons and basic minimum safety standards for water-based adventure tourism related activities.

Practical: To supplement above theoretical inputs.

Suggested Readings:

- India -A Travel Survival Kit by Geoff Crowther & Others. Lonely Planet Publication.
- India -A Travellers Companion by Pran Nath Seth.
- Tourism Products of India -Dr. I.C. Gupta & Dr. Sushama Kasbekar.
  Tourism in India -V.K. Gupta, Gian Publishing House, Delhi.

Hill Stations of India -Gillan Wright, Penguin Books, New Delhi.

MAPPING MATRIX OF COURSE:

Table: CO's - PO's, and CO's - PSO's Matrix for the Course: Adventure Tourism

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	2	3	1	1	2	2	1	2	2
CO2	3	2	2	2	3	2	2	3	2
CO3	3	3	3	3	3	2	2	3	3
CO4	3	2	2	2	3	2	2	3	3
Average	2.75	2.0	2.25	2.0	2.75	2.00	1.75	2.75	2.50

240/HIN/MD302

सेमेस्टर- 3

MDC-3 हिंदी भाषा और रोजगार

अधिकतम अंक:**75**

लिखित परीक्षा:**50**

आंतरिक निर्धारण:25

पाठ्यक्रम उद्देश्य:

1 स्नातक स्तर के छात्रों को रोजगार की समझ और उससे से संबंधित अनेक पहलुओं से अवगत कराया जाएगा।

2 हिंदी भाषा और रोजगार के अनेकों आयाम की समझ विकसित होगी।

पाठ्यक्रम परिणाम:

1. रोजगार संबंधी क्षेत्रो के लिए तैयार करना।
2. विद्यार्थियों को उनके करियर की दिशा मे मार्ग दर्शन मिलना।

इकाई 1-

1. अनुवाद और अनुवाद के क्षेत्र में करियर
2. पत्रकारिता और जनसंचार
3. शिक्षण और शिक्षा क्षेत्र में रोजगार
4. सरकारी सेवाओं में हिंदी का उपयोग
5. हिंदी में स्वतंत्र लेखन और प्रकाशन

इकाई 2: हिंदी में लेखन कौशल

1. रचनात्मक लेखन
2. तकनीकी लेखन
3. पत्रकारिता लेखन
4. व्यावसायिक लेखन

इकाई 3: डिजिटल युग में हिंदी

1. हिंदी और सोशल मीडिया
2. हिंदी ब्लॉगिंग और कंटेंट क्रिएशन
3. हिंदी में ई-कॉमर्स और डिजिटल मार्केटिंग
4. हिंदी भाषा में ऐप और वेबसाइट डवलपमेंट
5. . हिंदी में व्यावसायिक संचार और प्रबंधन

निर्देश:

1.पाठ्यक्रम मे निर्धारित प्रत्येक खंड में से कम से कम एक दीर्घ प्रश्न अवश्य पूछा जायेगा। पूछे गए कुल प्रश्नों की अधिकतम संख्या 6 होगी। परीक्षार्थी को प्रत्येक खंड मे से कम से कम एक प्रश्न अर्थात कुल तीन प्रश्न करने होंगे। प्रत्येक प्रश्न के लिए 10 अंक निर्धारित है। पूरा प्रश्न 30 अंको का होगा।

2.पूरे पाठ्यक्रम में से कोई 6 लघूत्तरी प्रश्न पूछे जाएंगे। जिनमे से परीक्षार्थी को 200 शब्दों मे किन्ही 3 प्रश्नों का उत्तर देना होगा। प्रत्येक प्रश्न 5 अंक का होगा । पूरा प्रश्न 15 अंको का होगा।

3.पूरे पाठ्यक्रम में से 5 वस्तुनिष्ठ अनिवार्य प्रश्न पूछे जाएंगे । प्रत्येक प्रश्न एक एक अंक का होगा।

(2)

240/MV/MD301

SEMESTER 3

Name of the Subject – Basics of Indian Music (Theory and Practical)	Maximum theory marks: 50 (15+35) Time – 2 hours
240/MV/MD301	Maximum Practical Marks: 50 ~~(15+35)~~ (5 + 25)

THEORY PAPER

The examiner is required to set 7 questions in total. This question paper shall be divided in two sections. The examiner is requested to set section A as a compulsory question containing 14 marks and from the entire syllabus (can be either objective or subjective). Section B will be in choice from two of the questions from each unit containing 7 marks each. The students will be required to attempt one question from each unit.

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- To gain the knowledge of the prescribed taalas
- To know about the contribution of Musicians of our country

COURSE OUTCOMES

After the successful learning the students will be able to

- Know and understand about the terms and elements of Music
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UNIT 1:

1. Define to explain the following terms :-

   Nad, Shruti, Swar, Sangeet, Saptak, Thhat

2. Varnas of Indian Music : Sthayi, Arohi, Avarohi, and Sanchari

UNIT 2:

1. Description of the following raagas : Bhimpalasi and Bhairavi