

Sr. No.	Programme	Name of Course	Course ID
1	M.Sc. Chemistry	Interdisciplinary chemistry	241/CHE/VA301
2	M.A. English	Ecology and Literature	241/ENG/VA301
3	Master of Public Health	Public Health Ethics and Laws	241/MPH/VA301
4	M.A. Geography	Green, Energy and Water Crediting Techniques: Geographical Perspectives	241/GEO/VA301
5	M.A Political Science	Environmental Issues	241/MPS/VA301
6	M.A. Public Policy, Administration and Governance	Tribal Knowledge System in India	241/PPAG/VA301
7	M.A. Sociology	Sociology of Food	241/SOC/VA301
8	M.Sc Botany	Mushroom cultivation technology	241/BOT/VA301
9	M.Sc Zoology	Human Genetic Syndromes	241/ZOO/VA301
10	M.A. (Journalism & Mass Communication)	Culture and Cinema	241/JMC/VA301
11	M.Sc. Environmental Science	Energy and Environment	241/EVS/VA301
12	MBA 2 Year (3rd Semester)	Positive thinking & Productivity	241/MBA/VA301
13	M.Sc. Neurosciences	Learning and Memory	241/NEU/VA301
14	M.A. History	Understanding Heritage and Culture	241/HIS/VA301
15	M.Com.	E-filing of returns	241/COM/VA301
16	M.A. Education	Physical Health and Mental Well being	241/MEDU/VA 301
18	MSc Physics	History of Physics	241/PHY/VA301
19	M.Sc. (Computer Science)	Cyber Security	241/CS/VA301
20	Master of Social Work	Gender and Development	241/MSW/VA 301
21	M.A. Economics	Indian Budgetary System	241/ECO/VA301
22	Msc Psychology	Research Ethics	241/MPSY/VA 301
23	M.A. Applied Economics	Personal Finance	241/AE/VA302
23	M.Sc. Mathematics	Vedic Mathematics	241/MAT/VA301
24	M.A. Applied Economics	Circular Economy	241/AE/VA301
24	MBA 2 Year (3rd Semester)	Business Ethics	241/MBA/VA302
25	M A Hindu Studies	Reading Hindu Classics	251/HS/VA301
26	M.A. Hindi	पर्यावरण और हिंदी साहित्य	241/HIN/VA301
27	MA Music	The Intersection of Music and Learning	241/MUS/VA301

Course Code VAC-02			Course Title Interdisciplinary chemistry				Course ID				
L	T	P	L	T	P	Total Credits	MARKS				
(Hrs)			Credits				TI	TE	PI	PE	Total
2			2			2	15	35	-	-	50
Examination Duration:			Theory: 2 Hrs				Practical: Nil				
Course Objectives			<ul style="list-style-type: none">• Understanding of various concepts Solid-state chemistry• Study of various ionic solid structures• Understanding of various concepts of X-ray crystallography• Knowledge of Electronic Structure of Solids• Understanding of Semiconductors, their types and properties• Study of Nomenclature of heterocyclic compounds• Synthetic methods and chemical properties of heterocyclic compounds of various ring sizes.								
Course Outcomes:			Students will be able to learn about: <ul style="list-style-type: none">• Concepts of Solid-state chemistry and the ionic structure of some important ionic structure• X-ray crystallography and important aspects• Electronic structure of Solids specially semiconductors and their properties.• Nomenclature, syntheses and chemical reactions of heterocyclic compounds of different ring sizes								
COURSE SYLLABUS											
<p>Note: 1. Question no. 1 is compulsory, which contains short answer type questions and to be set from the entire syllabus.</p> <p>2. Further, eight questions will be set, two from each of the sections A, B, C & D. The candidates are required to attempt four questions in all selecting at least one question from each section. All questions shall carry equal marks.</p> <p>3. The question paper must be set in consonance with course outcomes.</p>											
Unit No.		Contents								Contact Hrs	
I		Solid state-I Solid-state Chemistry: Introduction: unit cell its classifications, lattice, lattice planes, Weiss indices, miller indices, d spacing formulae, interfacial angle, some ionic solid structures; rock salt, zinc blende or sphalerite, fluorite, antiferite, rutile structure, anti-rutile, perovskite, cristobalite.								8	
II		Solid state-II Miller indices for plane, Bragg method of X-ray structural analysis of crystals, electronic structure of solids- band theory, band structure of metals, insulators and semiconductors. Intrinsic and extrinsic semiconductors, doping semiconductors, p-n junctions, superconductors, Optical and Magnetic properties.								7	
III		Heterocyclic compounds-I Systematic (Hantzsch-Widman) nomenclature for monocyclic and fused ring systems, General synthesis and reactions (including								8	

	mechanism) of the followings: Three-membered heterocycles: oxirane, azirane, oxazirane, diaziridines Four-membered heterocycles: Oxetane and azetidine	
IV	Heterocyclic compounds-II General synthesis and reactions (including mechanism) of the followings: Five-membered heterocycles: pyrazole, imidazole, oxazole, isooxazole, thiazole, isothiazole: Comparison of their basic character.	7
Suggested Books		
Theory:	SUGGESTED WEB SOURCES: <ul style="list-style-type: none">• Solid state chemistry: An introduction by L. E. Smart, E. A. Moore.• Solid State Chemistry and its Applications by Anthony R. West• Principles of the Solid State by H.V. Keer• Physical Chemistry by Peter Atkins and Julio de Paula (Oxford University Press, 2014).• Principles of Physical Chemistry by Puri, Sharma and Pathania (Vishal Publishing Co.).• A Textbook of Physical Chemistry by K. L. Kapoor (McGraw Hill Education)• Heterocyclic Chemistry, T.L. Gilchrist, Longman Scientific Technical.• Comprehensive Heterocyclic Chemistry, A.R. Katritzky and C.W. Rees, eds. Pergamon Press.• Heterocyclic Chemistry, Vol-I & II, R. R. Gupta, M. Kumar, V. Gupta.	
Assessment and Evaluation		
Theory	Internal Assessment: 15 Marks	<ul style="list-style-type: none">• Class Participation: 05 Marks• Seminar/Presentation/ Assignment: 05 Marks• Mid Term Exam: 05 Marks
	External Assessment: 35 Marks (02 Hours)	<ul style="list-style-type: none">• End Term Exam: 35 Marks

VAC- 2

Ecology and Literature

Course Objectives

CO	Description
CO-1	To raise awareness among students towards the urgent predicament of Environmental and Ecological crisis and the need for reducing our carbon footprint upon fast depleting ravaged ecological reserves.
CO-2	To develop a heightened ecological consciousness among students, leading to more responsible ecological behaviour.
CO-3	To view environmental concerns as raised through plays, stories and poems.

Course Outcomes

On completing the paper, **Ecology and Literature** the students shall be able to realize following programme outcomes:

CO	Description
CO-1	The course will highlight the urgency of environmental crisis, making students conscious and aware of the role each one of us plays.
CO-2	Students will be trained into environmental sensitivity and responsible Ecological behaviour.
CO-3	Students will be encouraged to respond to incidents of habitat destruction, deforestation, etc. and realize the need for our urgent intervention.

Date

VAC- 2**Unit I : Negotiating Environmental Issues Creatively**

- William Wordsworth: "In April Beneath The Second Thorn"
- Rabindranath Tagore: "The Waterfall"
- Gieve Patel: "On Killing a Tree"

Unit II : Eco-critical Literary representations

- Mary Oliver: "Sleeping in the Forest"
- A.K. Ramanujan: "A Flowering Tree"
- Mamang Dai: "Small Towns and the River "

Instructions to the Paper-Setter and students:

- All questions are compulsory.
- Question no. 1 will be short-answer type question covering Unit I and II. The students are required to attempt any 3 out of 5. ($3 \times 5 = 15$ marks)
- Question no. 2 will be an essay type question covering Unit I with internal choice. (10 marks)
- Question no. 3 will be an essay type question covering Unit II with internal choice. (10 marks)

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Basics of QGIS and ArcGIS

Telemedicine: definition, applications, and challenges

E-health and remote care: case studies and implementation models

Unit IV: Data Privacy, Security & Ethics in Public Health IT

Principles of health data confidentiality and integrity

Ethical issues in data sharing and digital surveillance

Legal frameworks: IT Act, HIPAA (overview), and Indian privacy laws

Cybersecurity risks in health information systems

Data governance in public health

Suggested Readings:

WHO. eHealth Tools and Services: Needs of Member States

Shortliffe EH, Cimino JJ. Biomedical Informatics

National Digital Health Blueprint (NDHB), Government of India

K. Park, Textbook of Preventive & Social Medicine (Chapter on Health Information)

Ramesh Bhatia, Health Informatics and IT in Public Health

241/MPH/VA 301

7. Public Health Ethics and Laws

Course Objectives:

To develop an understanding of ethical principles and frameworks in public health practice and research.

To familiarize students with legal provisions and institutional mechanisms related to public health in India.

To examine real-world public health dilemmas through ethical reasoning.

To understand the role of rights, duties, and justice in public health laws and policies.

Unit I: Foundations of Public Health Ethics

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Introduction to ethics: definitions and scope

Principles of bioethics: autonomy, beneficence, non-maleficence, justice

Ethics in individual vs. population health

Ethical theories: consequentialism, deontology, virtue ethics

Frameworks for ethical decision-making in public health

Unit II: Ethical Issues in Public Health Practice

Ethics in disease prevention, vaccination, and screening programs

Ethical considerations in health promotion and behavior change

Privacy, confidentiality, and informed consent in public health

Equity and social justice in health interventions

Ethics of resource allocation during pandemics and emergencies

Unit III: Public Health Laws in India

Overview of the Indian legal system relevant to health

Epidemic Diseases Act, 1897 and Disaster Management Act, 2005

Food Safety and Standards Act (FSSA), 2006

Environment Protection Act, 1986

Medical Termination of Pregnancy (MTP) Act, 1971 & PCPNDT Act, 1994

Unit IV: Human Rights and Legal Accountability

Health as a human right under Indian Constitution and international law

Patients' rights and responsibilities

Legal aspects of occupational and environmental health

Institutional frameworks: judiciary, NHRC, regulatory bodies

Suggested Readings:

S. B. Home...

Anet

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Beauchamp TL, Childress JF. Principles of Biomedical Ethics

Kass NE. An Ethics Framework for Public Health, American Journal of Public Health

Indian Law Institute. Public Health Law Manual

World Health Organization. Public Health Ethics: Key Concepts and Issues

Ministry of Health & Family Welfare. Manual on Laws Related to Health

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241/GEO/VA301

Gurugram University, Gurugram, Haryana(India)
M.A. Geography (Semester-III) Syllabus (as per NEP 2020 w.e.f session 2024-25)

**GREEN, ENERGY AND WATER CREDITING TECHNIQUES:
GEOGRAPHICAL PERSPECTIVE**

Paper Code: **VAC-02 (Theory and Practical Paper)**

Course Id: **241/GEO/VA301**

Credit: 02 (1+0+2) L+T+P Hrs/Week	Total Marks	50
Time: 3 Hours Theory	End Semester Exam:	20 Marks
	Internal Assessment:	
	Attendance	5 Marks
Note: Theory Exam: as the instructions mentioned under	Practical Exam:	20 Marks
Practical Exam: as the instructions mentioned under	Internal Assessment:	
Practical Exam Time: 3 Hours	Attendance	5 Marks

Course Outcomes:

- CO-1:** It will create a better understanding and draw conclusions based on a green practices learning.
- CO-2:** Students will be able to understand the Water availability, issues and conservation for long-term Development and Growth.
- CO-3:** They will understand the impact assessment and mitigation of Energy resources on environment.
- CO-4:** The course focuses on enhancing the potential of students to visualize the Green, Water and Energy crediting and auditing reality through empirical field survey based study.

Theory

UNIT-I

Green, Water and Energy Crediting and Auditing: Concept, Relevance and Significance in Geographical Study. Emerging issues of Green, Water and Energy; Sustainability and Development.

Green crediting and auditing: Concept, Audit Preparation: Criterion for Green Audit: Green Practice; General Steps in Green Auditing; Recent Trends of Green Management laws and Awareness Program.

UNIT-II

Water Crediting and Auditing: Concept, Process, Criterion and Significance in Geography; Sources of Water; Water availability, Uses and Water Balance; Water Quality and Water pollution; Rain water Harvesting Practices: Ancient and Modern; Recent trends of Water Management laws and Awareness Program.

UNIT-III

Energy crediting and auditing: Concept, Process, Criterion and Significance in Geography; Energy: Sources; Renewable and Non-Renewable Energy Resources; Carbon Footprint; Recent Trends of Energy Management laws and Awareness Program.

Practical

UNIT-IV

Preparation of Auditing Survey Report: Green Audit/ Water Audit/ Energy Audit and survey Report writing (Any One).

Note:-

- The students shall visit content & research objectives based Field survey of the out campus study area/place, Industry, institution and collect data for the comprehensive Green/Water/Energy study under guidance and supervision of supervisor/teacher incharge, along with supporting accompanying staff Viz. Lab Attendant etc. There shall be a teacher in-charge on a group of 12 students. They shall be paid TA/ DA as per Govt. /university rules. Duration of the Green/Water/Energy based field survey study will not be exceeding 4 days in normal circumstances.
- The students are required to prepare a typed report on any topic and fields of syllabus on his /her interest area in consultation with the supervisor/teacher incharge (practical group wise). They shall collect the data by Observation, Interview and Questionnaire methods, Lab Testing, Secondary Sources etc.
- In audit survey report writing the components will be as follows: Introduction, Problem Statement, Aim and Objectives, Study Area with Key Map, Data Collection and Methodology, Results (with graphs, diagrams, maps & images) and Analysis, Conclusion and Suggestions, Annexure and References(Harvard style) etc.
- The students shall submit two typed, duly signed copies of Survey Report (should not exceed 8,000 words) in Article/Research Paper format in the department. Page Size A-4, 1.5 Spacing between lines, Font- Times New Roman, Font Size 12 main body typing.

Note: Theory Exam:

1. The Question no. 1 of the question paper is compulsory. It will contain five short answer type of questions having one mark each (Total 5 marks) covering entire theory units (i.e. Unit-1, 2 & 3).
2. The question paper will comprise two essay type questions from each theory Unit (Unit-1, 2 & 3) total six (06) question in all. Candidates are required to attempt total three (03) essay type questions by selecting one question from each theory unit, having five marks each.

Note: Practical Exam:

1. The question paper unit no.04 will comprise practical part only. Candidates (s) are required to prepare audit report on any of one topic i.e. Green Audit/ Water Audit/ Energy Audit. The audit Report will be of 15 marks. Candidates will be required to prepare Audit Report Precisely on the specified analysis of Green Practice (on any out campus area of their interest or any institution).
2. This Field work Survey report will be of total 15 marks.
3. Viva-Voce on this Field Survey report will be of Maximum 5 Marks

Books Recommended:

- Ahuja, Ram (2003). *Social Survey and Research* (Hindi). Jaipur: Rawat Publications.
- Allan, S., et. al. (2000). *Environmental Risks and the Media*. London: Routledge.
- *Green Audit/Energy Audit/Environment Audit report* (2021-22), Uttarakhand open University ,Behind Transport Nagar, University Road Haldwani, Nanital Uttarakhand
- *Green Audit Audit report* (2022-23), Miranda House, University of Delhi.
- *Green & Environmental Audit Report* (2020-21), Vidyasagar University, Midnapore, West Bengal.
- Gupta, S.P. (2021). *Statistical Methods*. New Delhi: Sultan Chand and Sons.
- Pathak, Hemant (2015). *A Hand Book of Environmental Audit*. Amazon Kindle Edition.
- Singh, M. Et. al. (2021). *Excel in Geography*. Durban: Tess Publishing.
- S., Langi, B., Gurav, M. (2019). *Green Audit in Academic Institutes*. International Journal of Multidisciplinary Educational Research, Vol. 8, Issue 6, pp. 97-107.
- Shrivastava,A.K. (2003). *Environment Auditing*. Delhi: APH Publishing Corporation.
- Stoddard, R. H. (1982). *Field Techniques and Research Methods in Geography*. Kendall/Hunt.
- Wolcott, H. (1995). *The Art of Fieldwork*. California: Alta Mira Press.



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Semester - III

VAC-02 Environmental Issues

Course ID -	VAC-02 Environmental Issues
Semester III	Maximum Marks: 50
Credits per week: 2	Theory Examination: 35
Time: 2 hours	Internal Assessment: 15

Course Objective-

By the end of this course, students will be able to critically analyze the causes and impacts of climate change and environmental degradation, including global warming, industrial pollution, and emerging pollutants. They will understand the evolution and significance of international climate agreements and the roles of institutions and civil society in shaping global environmental governance.

- **Five Questions will be set in all and students will be required to attempt 3 questions.**
- **Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).**
- **For the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each).**

Unit I Understanding Environment

- Climate Change
- Pollution: Soil, Water, Air, Microplastics and E-waste
- Global Warming
- Fossil Fuel and Renewal Energy

Unit II Global Climate Conferences and Environmental Agreements

- United Nations Conference on Environment and Development (UNCED, 1992) – Earth Summit
- Conference of the Parties (COP)
- **Key Global Agreements and Frameworks**
 - Kyoto Protocol and mechanisms (CDM, JI, Emissions Trading)
 - Paris Agreement: NDCs, climate finance, loss and damage

Suggested Readings:

1. IPCC. (2023). *Climate Change 2023: Synthesis Report*. Intergovernmental Panel on Climate Change. <https://www.ipcc.ch/report/ar6/syr/>
2. UNEP. (2022). *Emissions Gap Report 2022*. United Nations Environment Programme. <https://www.unep.org/resources/emissions-gap-report-2022>
3. United Nations. (1992). *Agenda 21: United Nations Conference on Environment and Development (UNCED)*. <https://sustainabledevelopment.un.org/outcomedocuments/agenda21>
4. UNFCCC. (1997). *Kyoto Protocol to the United Nations Framework Convention on Climate Change*. https://unfccc.int/kyoto_protocol
5. UNFCCC. (2015). *The Paris Agreement*. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
6. Roch, T., & Witter, S. (2019). "The Role of Civil Society and NGOs in Global Environmental Governance." *Global Environmental Politics*, 19(2), 22–45.

241 / PPAG / VA 301

Semester III
VAC-2: Tribal Knowledge System in India

Course ID:	Tribal Knowledge System in India
Semester III	Maximum Marks: 50
Credits per week: 2	Theory Examination: 35
Time: 2 hours	Internal Assessment: 15

Course Outcome:

Remembering: Define and recall key concepts related to tribal knowledge systems and indigenous societies.

Understanding: Explain the unique aspects and differences between tribal and mainstream knowledge systems.

Analyzing: Compare and contrast cultural and social practices of different tribal communities in India.

Evaluating: Assess and evaluate strategies and policies for preserving indigenous and tribal heritage.

Note for External Examiner:

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each).

UNIT- I

- a) Understanding Tribal Knowledge System
- b) Indigenous and Tribal societies

UNIT- II

- a) Cultural and social practices of the Tribals in India
- b) Preserving Indigenous and Tribal Heritage

Suggested Readings:

1. Berkes, F. (1999). *Sacred ecology: Traditional ecological knowledge and resource management*. Taylor & Francis.
2. Maffi, L. (Ed.). (2001). *On biocultural diversity: Linking language, knowledge, and the environment*. Smithsonian Institution Press.

3. Beteille, A. (1995). The idea of indigenous people. In M. A. Pareek (Ed.), *Understanding social reality: Socio-cultural perspectives* (pp. 23-41). Rawat Publications.
4. Das, V. (2001). *Everyday life in modern India*. Oxford University Press.
5. UNESCO. (2009). *Indigenous and local knowledge and sustainability*. UNESCO.
6. Mohapatra, R. K. (2015). *Tribal development and welfare: Policies and perspectives*. Springer.
7. Srivastava, R. (Ed.). (2008). *Tribal development in India: The contemporary debate*. Rawat Publications.
8. Agarwal, S. (2017). *Development, displacement and resettlement: Theoretical perspectives and policy implications*. Routledge.

Semester-III**VAC-2 Sociology of Food
Credit-2****Maximum Marks –50****Theory – 35****Internal Assessment – 15****Time – 2 hours**

The students will be required to attempt three questions in all. Question No. I will be compulsory comprising of 8 short answer type questions of 3 marks each and will cover the entire syllabus. The answer should be in 100-200 words. The students are required to attempt five short answer type questions out of 8, i.e., $5 \times 3 = 15$ marks. In addition to it, Question Nos. II to V will consist of long answer (essay type) questions, two Questions from each Unit with internal choice carrying 10 marks each i.e. $2 \times 10 = 20$ marks thus making it the total weightage to 35 marks. Two questions to be attempted. One from each unit.

Course Outcomes

- The students would have basic understanding of food and about classification of food.
- The students would learn about social structure of food.

Unit-1

Basics Understanding of Food- Defining food; cultural construction of food; Food as commodity; ethnic food, fast food, Organic and GMO food; vegetarian and non-vegetarian food

Unit-II

Food and Social Structure- Historicity of food; Age, gender, caste, class in relation to food; food and dietary practices in India

References:

- Achaya. K.T. (1994). Indian Food: A Historical Companion. Oxford University Press. Delhi. <https://doi.org/10.5281/zenodo.4067897>
- Khare, R. S.; Rao, M. S. A. (1986). Food, society, and culture: Aspects in South Asian food systems. Durham, N. C.: Carolina Academic Press. ISBN 978-0-89089-275-6.
- Murcott, A. (2019). Introducing the Sociology of Food and Eating. Bloomsbury Academic.
- B. Murcott. 2019. 'Introducing the sociology of food and eating'
- Nagla, Madhu (2020), **Sociology of Food**, Jaipur: Rawat Publication
- Nandy, Ashis. (2004). The Changing Popular Culture of Indian Food: Preliminary Notes. South Asia Research. 24. 9-19. 10.1177/0262728004042760.
- Poulain, Jean-Pierre, 2017, The Sociology of Food: eating and the place of food in society, Tr by Augusta Dorr, Bloomsbury, UK
- Rastogi, Sanjeev (Ed) 2014, Ayurvedic Science of Food and Nutrition, Springer, New York

Sehrawat, Monika (2022) Food Consumption Pattern Among Urban Middle Class, Varanasi: Bharti Prakashan

V. Sujata. 2018. Econometric and existential understanding of food. Analysing economic growth and nutritional status in South India,' Indian Journal of Human Development, Vol 11 (3)

V. Sujata. 2020. Counting food? The pitfalls of caloric conception of nutrition and alternative theories of food,' in Christoph Wulf and Axel Michaels (Eds.) Science and Scientification in South Asia and Europe, Routledge India

V.Sujata. 2015.'Is food natural or cultural? Food, Body and 'the social' in Indian medical traditions' in Jobin Kanjirakkat Gordon Mcquat and Sundar Sarukkai (Eds.) Science and the narratives of nature in the east and the west, Routledge, pp 113-136.



241/BOT/VA301

BOTANY: SEMESTER-III								
Course Code	Course ID	Course Title	Credit	Contact Hours/Week	Internal Assessment marks	End Term Marks	Max. Marks	Exam Duration
VAC-02 2 credits	241/BOT/VA301	Mushroom Cultivation Technology	2	2	15	35	50	2 hrs.
Course Learning Outcomes (CLO) 1. To impart knowledge about mushroom farming to the students. 2. To be knowledgeable of the preparations for culture. 3. To comprehend technology used in mushroom growing								
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 – history - scope of edible mushroom cultivation - Types of edible mushrooms available in India – Agaricus bisporus, Pleurotus citrinopileatus and Volvariella volvacea						8	
II	Pure culture – preparation of medium (PDA and Oatmeal agar medium) sterilization – preparation of test tube slants to store mother culture – culturing of Pleurotus mycelium on petriplates, preparation of mother spawn in saline bottle and polypropylene bag and their multiplication.						8	
III	Cultivation technology: Infrastructure: Substrates (locally available) Polythene bag, vessels, Inoculation hook, inoculation loop, low-cost stove, sieves, culture rack, mushroom unit (Thatched house) water sprayer, tray, small polythene bag, Mushroom bed preparation - paddy straw, sugarcane trash, #maize straw, banana leaves.						7	
IV	Storage and nutrition: Short – term storage (Refrigeration – up to 24 hours) Long term Storage (Canning, pickles, papas), drying, storage in salt solutions. Nutrition – Proteins – amino acids, mineral elements nutrition – *Carbohydrates, Crude fibre content – Vitamins. Diseases of mushroom.						7	
Learning Resources 1. Nita Bahl (1984 – 1988). Hand book of Mushrooms, II Edition, I & II. Oxford and IBH Publishing Co. Pvt. Ltd, New Delhi 2. Swaminathan, M. (1990). Food and Nutrition. Bappco, The Bangalore Printing and Publishing Co. Ltd., No.88, Mysore Road, Bangalore – 560018. 3. Tewari and Pankaj K. (1988). Mushroom cultivation, Mittal Publications, Delhi. 4. T. Lynch (2018). Mushroom cultivation: An illustrated guide to growing your own mushrooms at home. Quarry Books, III Ed.								

S. B. Sharma

241/200/VA301

ZOOLOGY: SEMESTER-III

Course Code	Course ID	Course Title	Credit	Contact Hours/Week	Internal Assessment marks	End Term Marks	Max. Marks	Exam Duration
VAC-02 2 credit	241/ZOO/VA30	Human Genetic Syndromes	2	2	15	35	50	3 hrs.

Course Learning Outcomes (CLO)

1. Students will gain knowledge about genetic syndromes
2. It will generate initiative among students for their clinical management
3. Students will know about genetic counseling
4. Expand the knowledge of researchers to explore ethical consideration in genetic testing

Instructions for Paper-Setter

1. Five 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 four questions will be set unitwise selecting two questions from each Unit. The candidate will be required to attempt question No. 1 and two more questions selecting one question from each unit.

UNIT	TOPICS	CONTACT HOURS
I	Overview of Genetic Syndromes: Definition and classification of genetic disorders. Chromosomal and Single-Gene Disorders: Examples like Down syndrome, Turner syndrome, Klinefelter syndrome, Patau Syndrome, cystic fibrosis, and their inheritance patterns. Multifactorial and Mitochondrial Disorders: Impact of genetic and environmental factors, and examples like spina bifida.	15
II	Diagnostic Techniques: Methods such as karyotyping and genetic testing. Management and Ethical Issues: Clinical management, genetic counseling, and ethical considerations in genetic testing and family planning.	15

Learning Resources

1. "Genetics in Medicine" by James S. Thompson and Margaret W. Thompson
2. "Medical Genetics" by William S. McDermott and Nancy A. N. Jones
3. "Genetic Syndromes and Genetic Counseling" by Margaret R. L. K. D. Shrimpton and Dorothy R. R. Little
4. "The Genetics of Human Disease" edited by Edward W. C. B. Robert and Robert D. L. R. G. McGowan

S. B. Home

241/JMC/VA301

**MA(JMC)
SEMESTER -3**

Name of Subject: Culture and Cinema	Maximum Theory Marks: 50 (15+ 35)
Subject Code: VAC-02 241/JMC/VA-302	

Instructions for Paper Setter: This question paper shall be divided in two sections. Examiner is requested to set section A as compulsory question containing 13 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 11 marks each. The students will be required to attempt one question from each unit.

Objective: To explore the interrelationship between culture and cinema, examining how films reflect and influence societal values, norms, and identities. To analyse key theoretical frameworks in film studies and cultural studies, applying them to cinematic analysis.

Course Outcomes:

Students will be able to:

1. Gain a deep understanding of the relationship between culture and cinema.
2. Critically evaluate representations of culture, identity, and diversity in films.

COURSE CONTENTS:

Unit 1: Cultural Contexts in Cinema
1.1 Introduction to Culture and Cinema Studies
1.2 Theoretical Approaches in Film and Cultural Studies
1.3 Cultural Representation in Cinema
1.4 Cinema and The Nation
Unit 2: Analyzing Cinematic Texts
2.1 Genre Studies: Exploring Film Genres and Their Cultural Significance
2.2 Case Studies of Influential Films in Cultural Discourse
2.3 Global Perspectives: Cross-cultural Analysis of Cinema
2.4 Contemporary Issues in Cinema and Cultural Studies

Suggested Readings:

1. RURAL CULTURE IN HINDI CINEMA: A Sociological Study by Shivam Singh
2. Filmen Aur Sanskriti: The Intersection of Cinema and Culture in India (Hindi Edition) by Dheeraj Sharma
3. The Evolution of Song and Dance in Hindi Cinema by Ajay Gehlawat and Rajinder Dudrah

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241/EVS/VA301

M.Sc. Environmental Sciences

Scheme and Syllabus (w.e.f. -----)

M.Sc. ENVIRONMENTAL SCIENCE – SEMESTER- III

SUBJECT NAME: ENERGY RESOURCES

Course code: VAC-2

Course ID: 241/EVS/VA302

NO. OF CREDITS: 2

L T P

2 0 0

TE : 50

Total : 50

Course outcomes:

CO.1 Awareness among students about non-conventional sources of energy technologies and provide adequate inputs on a variety of issues.

CO.2 Knowledge about all renewable energy sources like solar thermal power, power from wind, biomass power and fuel cell and relevant technologies.

CO.3 Ability to plan and perform a short scientific study and present the results in writing and orally.

UNIT I: Solar Energy

Sun as Source of Energy, Availability of Solar Energy, Nature of Solar Energy, Solar Energy & Environment. Various Methods of using solar energy - Photothermal, Photovoltaic, Photosynthesis, Present & Future Scope of Solar energy.

Unit II: Biomass

Origin of Biomass, Resources: Classification and characteristics; Techniques for biomass assessment; Biomass estimation, Thermochemical conversion processes: Direct combustion, incineration, pyrolysis, gasification and liquefaction.

UNIT III: Wind Energy

Wind machine types, classification, parameters, Wind Power estimation techniques, Principles of Aerodynamics of wind turbine blade, various aspects of wind turbine design. Horizontal Axis Wind Turbine (HAWT), Vertical Axis Wind Turbine (VAWT) aerodynamics.

UNIT IV: Fuel Cell

Thermodynamics of fuel cells; free energy change and cell potentials; effects of temperature and pressure on cell potential; energy conversion efficiency; factors affecting conversion efficiency; polarization losses; important types of fuel cells, Principle of working, construction, electrode types; electrolytes for fuel cells; applications.

Reference Books:

1. Biomass Renewable Energy - D.O.hall and R.P. Overreed (John Wiley and Sons, Newyork, 1987)
2. Biomass for energy in the developing countries - DO.Hall, G.W.barnard and P.A.Moss (Pergamon Press Ltd. 1982)

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3. Thermo chemical processing of Biomass, Bridgwater A V.
 4. Biomass as Fuel - L.P.White (Academic press 1981)
 5. Biomass Gasification Principles and Technology, Energy technology review No. 67, T.B. Read (Noyes Data Corp., 1981)
 6. Wind energy Conversion Systems - Freris L.L. (Prentice Hall 1990)
 7. Wind Turbine Technology: Fundamental concepts of wind turbine technology Spera D.A. (ASME Press, NY, 1994)
 8. Wind Energy Systems - G.L. Johnson (Prentice Hall, 1985)
 9. Wind Energy Explained - J.F.Manwell, J.G. McGowan and A.L. Rogers (John Wiley & Sons Ltd.)

Detailed Syllabus

Positive Thinking & Productivity

Value Added Course

Credits: 2

External Marks: 35 (TE)

Internal Marks: 15(TI)

Time Allowed: 2 Hrs

Course Outcome: After completing the course, students will be able:

CO 1: To enhance the power of mind and understanding the consciousness by knowing the thought process cycle.

CO 2: To know the supreme power to develop higher consciousness and become mindful.

CO3: To build harmony in all relationships with right thinking and by renouncing fault-finding nature.

CO4: To build positive understanding for resolution and make them learn Emerging powers of adjustment, tolerance, co-operation, judgement, desire to face emotional stability and well-being in life.

UNIT WISE DETAILS

UNIT 1

Innovative way of managing the real self & Thought Lab Content summary: Faculties of consciousness. Original virtues of being. Types of thought Mystery of thought process cycle Content summary: What is situation? Steps of thought process cycle. How to stop overthinking? SOS method.

UNIT 2

Values in Lifestyle Content summary: Values, different types of values, inculcating values in day-to-day life, developing virtues in life by understanding supreme consciousness Content summary: Name, form, abode, time of reincarnation. Relationship with God. Benefits after knowing.

Meditation- Appointment with self-Content , What is meditation? Types of meditation. Steps of meditation. Meditation commentary. Benefits in daily life.

UNIT 3

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Gurugram

241/MBA/VA301

Relationship and positive social behaviour Content summary: What is relationship? Ways of energy exchange. Strong fundamentals of good relationship. Project making. Innovative ways of conflict resolution Content summary: What is conflict? What are the different situations? Dealing with conflict. Steps of solving conflict resolution. Strategies for conflict resolution.

UNIT 4

Case studies. Spiritual perspective of conflict. Emotional stability and anger management Content summary: Define anger. Effects of anger: Anger buttons. Levels of anger. How to overcome anger? Anger thermometer. Developing Self-Management Content summary: What is Self-Management? Types of Management. Definition of Management by World's Status. How to create a Self-Management?

Suggested Readings

1. *The original Virtues of the Soul* – Published by Brahma Kumaris Ishwariya Vishwa Vidyalaya, Pandav Bhawan, Mount Abu, Rajasthan-307051
2. *Very Easy Rajyog* - Published by Brahma Kumaris, Om Shanti Media, Abu, Rajasthan
3. *Happiness Index* - Sister Shivani, Published by Brahma Kumaris, Shantivan, Rajasthan
4. *Happiness Unlimited* - Sister Shivani & Suresh Oberoi, Published by Amaryllis
5. *Thinking-positive, Powerful, Purposeful* - Dr. Prem Masand, Published by Brahma Kumaris, Email: drpremmasand@gmail.com
6. *Positive change- Published by Youth Wing, RERF, Mt. Abu, Rajasthan*
7. *Positive change- Published by Youth Wing, RERF, Mt. Abu, Rajasthan*
8. *Practical Meditation-Spiritual Yoga for the Mind* – Sister Jayanti, Published by Health Communications
9. *Awaken your Inner Wisdom– Sister Jayanti, Published by John Hunt*
10. *Power of One Thought – Master your Mind, master your life* – Sister Shivani, Published by HarperCollins, India
11. *How to think- BK Pari- Published by GBK Publications*
12. *Power of Sub-conscious mind-Joseph Murphy, Published by Diamond Pocketbooks Pvt. Ltd*
13. *Secrets of mind power-Harry Lorayne, Published by Jaico Publishing House*
14. *Improve your memory-Power of third eye- BK Chander Shekhar, Published by Mahaveer*
15. *Just a Moment – Garfield King, Published by Brahma Kumaris*
16. *Conscious Living- BK Shagun Saini, Published by Shiv Baba Services Initiative*
17. *How to make life blissful- Published by Brahma Kumaris*
18. *Healing the self- BK Pari, Published by Brahma Kumaris*
19. *Human Values, Moral Values, and Spiritual Values- BK Jagdish, Published by Brahma Kumaris*
20. *Science and Spirituality-BK Jagdish, Published by Brahma Kumari*

Mapping Matrix of Course: Positive Thinking and Productivity

Table 1: CO-PO & CO-PSO Matrix for the Course: Positive Thinking and Productivity

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
CO1	3	2	1	2	2	3	1	2	2	2
CO2	3	3	1	2	3	3	1	2	3	2
CO3	1	2	2	3	2	2	2	2	3	2
CO4	2	2	2	2	2	2	2	3	2	2
Average	2.25	2.25	1.5	2.25	2.25	2.5	1.5	2.25	2.5	2

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(Semester III) VALUE ADDED COURSE: LEARNING AND MEMORY

Value Added Course (Lectures 28)	Maximum Theory Marks: 50
Time Allowed: 3 Hrs	External Marks: 35
Credits: 2	Internal Assessment: 15

Instructions for Paper Setter: The examiner will set nine questions in all with two questions from each section. Q. No. 1 consisting of very short answer type questions and covering the entire syllabus will be compulsory. Each question will be divided into parts and the distribution of marks will be indicated part-wise. The candidates will be required to attempt Q. No. 1 & four others, selecting one from each section.

Unit I: Introduction to Learning and Memory**Lectures: 7**

What is learning? What is memory? ; Types of learning: Associative (classical & operant conditioning) vs. Non-associative (habituation & sensitization) ; Types of memory: Short-term, long-term, and working memory

Unit II: How the Brain Stores Memory**Lectures: 7**

Key brain areas: Hippocampus, amygdala, and cortex; Role of neurons and synapses in memory; The difference between implicit (unconscious) and explicit (conscious) memory

Unit III: Factors Affecting Learning and Memory**Lectures: 7**

Sleep and its role in memory formation; Effect of stress and emotions on memory; Importance of repetition and practice in learning

Unit IV: Memory Improvement and Disorders**Lectures: 7**

Simple techniques to boost memory (mnemonics, visualization, chunking); Forgetting: Why do we forget things?; Common memory disorders: Amnesia, Alzheimer's, and dementia

Suggested Books:

1. Mark A. Gluck, Eduardo Mercado, Catherine E. Myers – Learning and Memory: From Brain to Behavior
2. Eric R. Kandel – In Search of Memory: The Emergence of a New Science of Mind
3. Matthew Walker – Why We Sleep: Unlocking the Power of Sleep and Dreams
4. Daniel L. Schacter – The Seven Sins of Memory: How the Mind Forgets and Remembers
5. Larry R. Squire, Eric R. Kandel – Memory: From Mind to Molecules

241/HIS/VA301

VAC- 02

UNDERSTANDING HERITAGE AND CULTURE

Credits:2

Maximum Marks :50
Theory Examination:35
Internal Assessment: 15
Examination Time:2 hrs

Learning Outcomes:

Upon completion of this course the student shall be able to:

CO1: Analyse the historical processes which result into the making of heritage.

CO2: Describe the significance of cultural diversity in the creation of heritage.

CO4: Illustrate how heritage can be a medium to generate revenue

CO5: Discern the nuances of heritage and will appreciate its importance.

Note: The students will be required to attempt five questions in all.

Question No.1 will be compulsory comprising of 7 short answer type question of 1 mark each and will cover the entire syllabus $7 \times 1 = 7$ marks. In addition to it Question Nos. II to XI will consist of long answer.(essay type) questions , four Questions from each Unit with internal choices carrying 7 marks each $4 \times 7 = 28$ marks thus making it the total weight age to 50 marks. Four long questions to be attempted. Two from each unit making it the total weight age to 50 marks. Four long questions to be attempted.

Unit I:

Understanding Heritage and Evolution of heritage legislation :

Defining heritage: Meaning of antiquity, archaeological site, tangible heritage, intangible heritage and art treasure.

Conventions and Acts -- National and International , Heritage-related government departments, museums, regulatory bodies ,Conservation initiatives

Unit II:

Challenges and Conservation

Challenges facing tangible and intangible heritage Development, antiquity smuggling, conflict (specific cases studies) conservation measures of Heritage Sites.

Visit to heritage sites , the relationship between cultural heritage, landscape and travel; recent trends.

ESSENTIAL READINGS

- Lowenthal, D. (2010). Possessed By The Past: The Heritage Crusade and The Spoils of History. Cambridge: Cambridge University Press.
- Lahiri, N. (2012). Marshalling the Past- Ancient India and its Modern Histories. Ranikhet: Permanent Black. (Chapter 4 and 5)
- Singh, U. (2016). The Idea of Ancient India: Essays on Religion, Politics and Archaeology. New Delhi: Sage. (Chapters 7, 8).
- Biswas, S.S. (1999). Protecting the Cultural Heritage (National Legislation and International Conventions). New Delhi: INTACH, • Layton, R.P. Stone and J. Thomas. (2001). Destruction and

Conservation of Cultural Property. London: Routledge.

- Biswas, S.S. (1999). Protecting the Cultural Heritage (National Legislation and International Conventions). New Delhi: INTACH.
- Lowenthal, D. (2010). Possessed By The Past: The Heritage Crusade and The Spoils of History. Cambridge: Cambridge University Press.
- Agrawal, O.P. (2006). Essentials of Conservation and Museology. Delhi: Motilal Banarsidas.
- Chainani, S. (2007). Heritage and Environment. Mumbai: Urban Design Research Institute.

Acts, Charters and Conventions are available on the UNESCO and ASI websites (www.unesco.org; www.asi.nic.in)



Name of Subject: E-Filing of returns	Maximum Marks:50 (TE+TI+PE+PI= 35+15+0+0)
Course ID: 241/COM/VA301	Time Allowed: 2 hours
Credits: 2 (L-T-P=1-0-1)	Course Type: Value Added Course

Instructions for Paper Setter: The question paper shall be divided into two sections. Section 'A' shall comprise 7 short answer type questions from the syllabus carrying 1 mark each, which shall be compulsory. The answer to each question should not normally exceed 50 words. Section 'B' shall comprise 8 questions (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. All the questions must be mapped with Course Outcomes (COs) and specified in the question paper against each question.

Course Outcomes: After completion of the course, learners will be able to:

CO1: Understand the distinction between e-filing and regular filing of Income Tax returns and comprehend the process of e-filing.

CO2: Comprehend the fundamental terminologies of income tax and distinguish between various types of income tax return forms.

CO3: Apply the concept of advance payment of tax and tax deduction at source (TDS), and develop proficiency in e-filing of TDS returns.

CO4: Acquire knowledge about different types of GST returns and their filing procedures.

Course Content:

Unit 1: Conceptual Framework: e-filing meaning of e-filing; difference between e-filing and regular filing of returns; benefits and limitations of e-filing; e-filing process	10 Lectures
Unit 2: Income tax and e-filing of ITRs: Introduction to income tax – basic terminology; PAN card; due date of filing of income tax return. Instructions for filling out form ITR-1, ITR-2, ITR-3, ITR-4, ITR-4S, ITR-5, ITR-6. Introduction to Income Tax Portal; preparation of electronic return (practical workshops)	10 Lectures
Unit 3: TDS and e-Filing of TDS returns: Introduction to the concept of TDS; provisions relating to advance payment of tax; schedule for deposit of TDS; schedule for submission of TDS returns; Practical workshop on e-filing of TDS returns	10 Lectures
Unit 4: Filing of GST returns: GSTR-1, GSTR-2, GSTR-3, GSTR-4, GSTR-9, GSTR-3B	10 Lectures

Suggested Readings:

- Ahuja. Girish. and Gupta. Ravi. Systematic Approach to Income Tax. Bharat Law House, Delhi.
- Babbar, Sonal, Kaur, Rasleen and Khurana, Kritika. Goods and Service Tax (GST) and Customs Law. Scholar Tech Press.
- Bansal, K. M., GST & Customs Law, Taxmann Publication.
- Gupta, S.S., Vastu and Sevakar, Taxmann Publications, 2017

6. Singhanian V. K, GST & Customs Lax, Taxmann Publication.
7. Singhanian, Vinod K. and Singhanian Monica. Students' guide to Income Tax. University Edition. Taxmann Publications Pvt Ltd., New Delhi
8. Sisodia Pushpendra, GST Law, Bharat Law House

Mapping Matrix of Course: 241/COM/VA307

CO-PO & CO-PSO Matrix for the Course: E-Filing of returns

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
CO1	3	3	1	2	2	1	1	1	1	1
CO2	2	2	1	2	2	1	1	1	1	1
CO3	2	2	1	2	2	1	1	1	1	1
CO4	1	1	3	3	3	3	3	3	3	3
Average	2	2	1.5	2.25	2.25	1.5	1.5	1.5	1.5	1.5

M.A EDUCATION
SEMESTER 3

241/MEDU/VA301

PHYSICAL HEALTH AND MENTAL WELL BEING

Course Code: VAC-02

Course Title: PHYSICAL HEALTH AND MENTAL WELL BEING

Course Id: 241/MEDU/VA 301

Credits:2 (Hrs./Week: 2)

Maximum Marks: 50
Theory Examination: 35
Internal Assessment: 15
Time: 2hrs.

COURSE OUTCOMES:

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

1. Understand key concepts related to physical health, mental health, and mental well-being, and their interconnection.
2. Identify behavioural and lifestyle factors influencing physical fitness and emotional health.
3. Analyse the psychological dimensions of well-being including optimism, hope, and mindfulness.
4. Evaluate the relevance of traditional practices such as yoga in promoting mental health and inner balance.
5. Reflect on strategies to integrate well-being practices into personal life and educational contexts.

Instructions for Paper Setters (Theory Paper – 35 Marks)

1. A total of **Seven questions** shall be set in the question paper.
2. **Question No. 1** will be **compulsory** and shall consist of **5 short answer type questions**, each carrying **1 mark**, covering the **entire syllabus**. ($5 \times 1 = 5 \text{ marks}$)
3. The remaining **six questions** shall be divided into **three units**, with **two questions from each unit**.
4. Students will be required to **attempt one question from each unit**. ($3 \times 10 = 30 \text{ marks}$)

Unit I: Foundations of Physical and Mental Well-being

- 1.1 Core concepts of health, fitness, and ageing within contemporary lifestyles
- 1.2 Role of physical exercise, balanced nutrition, and rest in sustaining physical well-being
- 1.3 Overall health: The rising impact of stress, sedentary routines, and digital overload
- 1.4 Concept of mental well-being as a multidimensional construct encompassing emotional, cognitive, and social domains
- 1.5 Key psychological traits—optimism, hope, and mindfulness—as contributors to resilience and flourishing
- 1.6 Strategies for integration of physical and mental well-being in fostering sustained academic and professional effectiveness

Unit II: Mental Health and Yogic Practices

2.1 Concept of mental health: Underscores its preventive and promotive aspects, especially in educational contexts

2.2 Socio-psychological determinants influencing emotional health and interpersonal functioning

2.3 Introduction to yogic philosophy as a holistic framework for inner well-being and ethical living

2.4 The eight limbs of Ashtanga Yoga—Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana, and Samadhi—and their role in cultivating discipline, clarity, and emotional balance

2.5 Therapeutic and pedagogical potential of yoga and mindfulness in enhancing mental clarity, attention, and self-regulation

2.6 Reflection on integrating well-being practices into daily routines and educational spaces

Transaction Modes

- Simulation, Lecture method, Lecture-cum-demonstration, Practice session

Core Readings

- WHO. (2004). *Promoting Mental Health: Concepts, Emerging Evidence, Practice*. World Health Organization.
- Dalal, A. K., & Misra, G. (2011). *New Directions in Health Psychology*. Sage India.
- Deci, E. L., & Ryan, R. M. (2012). *Self-Determination Theory and Wellbeing*. Springer.
- Kumar, K. (2013). *Yoga Psychology: Concepts and Applications*. Routledge India.
- Choudhury, B. (2020). "Yoga and the Education of Attention: Mindfulness in Schools." *Contemporary Education Dialogue*, 17(1), 34–50.
- Misra, G. (Ed.). (2011). *Psychology in India: The State-of-the-Art Volume 4: Theoretical and Methodological Developments*. Pearson Education.

Advanced Readings

- Satcher, D. (2001). *The Surgeon General's Call to Action to Promote Healthy Lifestyles*. US Department of Health and Human Services.
- Seligman, M. E. P. (2011). *Flourish: A Visionary New Understanding of Happiness and Well-being*. Free Press.
- Iyengar, B. K. S. (2002). *The Illustrated Light on Yoga*. Harper Collins.
- Baer, R. A. (Ed.). (2015). *Mindfulness-Based Treatment Approaches: Clinician's Guide to Evidence Base and Applications*. Academic Press.

Suggested Practical Activities and Assignments

1. **Daily Well-being Journal:** Maintain a 10-day well-being log recording diet, sleep, exercise, emotional state, and screen time, followed by a self-analysis.
2. **Yoga Practice Reflection:** Participate in a 5-day guided yoga session and submit a reflective report on changes in mental and physical state.
3. **Design a Health Poster:** Create an informative poster on "Holistic Health and Mindfulness" targeted at adolescents.
4. **Group Activity:** Conduct a role-play or skit demonstrating unhealthy vs. healthy coping strategies for stress.



5. **Campus Survey:** Conduct a brief peer survey on lifestyle habits (nutrition, sleep, screen time) and suggest well-being improvements.
6. **Case Study Review:** Analyze a documented case of a mental health intervention in an educational setting and present findings.
7. **Mindfulness Workshop Planning:** Design and present a plan for a school-based workshop on mindfulness and emotional regulation for teenagers.

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241/CS/VA301

CYBER SECURITY

Semester	3			
Course code	VAC-02			
Category	Value Added Course			
Course title	Cyber Security			
Course ID	241/CS/VA301			
Scheme and Credits	L	T	P	Credits
	2	0	0	2
Theory Internal	15 marks			
Theory External	35 marks			
Total	50 Marks			
Duration of Exam	3 hours			

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:

At the end of this course, students will demonstrate the ability to

CO1: Recognize key terms of cyber domain and identify cyber threats

CO2: Understand cyber law concepts, intellectual property rights and digital rights management.

CO3: Diagnose and examine basic security loopholes, anomalous behaviour in Internet.

CO4: Understand principles of Web Security, secure and protect personal data on the Internet.

CO5: Security issues in Blockchain.

UNIT - I

Overview of Cyber Security: Cyber security increasing threat landscape, Cyber security terminologies- Cyberspace, attack, attack vector, attack surface, threat, risk, vulnerability, exploit, exploitation, hacker, Non-state actors, Cyber terrorism, Protection of end user machine, Critical IT and National Critical Infrastructure, Cyberwarfare, Case Studies.

UNIT - II

Cybercrimes: Cybercrimes targeting Computer systems and Mobiles- data diddling attacks,

P

spyware, logic bombs, DoS, DDoS, APTs, virus, Trojans, ransomware, data breach., Online scams and frauds- email scams, Phishing, Vishing, Smishing, Online job fraud, Online sextortion, Debit/credit card fraud, Online payment fraud, Cyberbullying, website defacement, Cyber-squatting, Pharming, Cyber espionage, Crypto-jacking, Darknet- illegal trades, drug trafficking, human trafficking., Social Media Scams & Frauds- impersonation, identity theft, job scams, misinformation, fake news cybercrime against persons-cyber grooming, child pornography, cyber stalking., Social Engineering attacks, Cyber Police stations, Crime reporting procedure, Case studies.

UNIT - III

Cyber Law: Cybercrime and legal landscape around the world, IT Act, 2000 and its amendments. Limitations of IT Act, 2000. Cybercrime and punishments, Cyber Laws and Legal and ethical aspects related to: AI/ML, IoT, Blockchain, Darknet and Social media

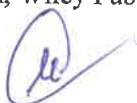
Data Privacy and Data Security: Defining data, meta-data, big data, non-personal data. Data protection, Data privacy and data security, Personal Data Protection Bill and its compliance, Data protection principles, Big data security issues and challenges, Data protection regulations of other countries- General Data Protection Regulations (GDPR), 2016 Personal Information Protection and Electronic Documents Act (PIPEDA), Social media- data privacy and security issues.

UNIT - IV

Cyber security Management, Compliance and Governance: Cyber security Plan- cyber security policy, cyber crises management plan., Business continuity, Risk assessment, Types of security controls and their goals, Cyber security audit and compliance, National cyber security policy and strategy.

BOOKS:

1. Cyber Security Understanding Cyber Crimes, Computer Forensics and Legal Perspectives by Sumit Belapure and Nina Godbole, Wiley India Pvt. Ltd.
2. Information Warfare and Security by Dorothy F. Denning, Addison Wesley.
3. Security in the Digital Age: Social Media Security Threats and Vulnerabilities by Henry A. Oliver, Create Space Independent Publishing Platform.
4. Data Privacy Principles and Practice by Natraj Venkataramanan and Ashwin Shriram, CRC Press.
5. Information Security Governance, Guidance for Information Security Managers by W. KragBrothy, 1st Edition, Wiley Publication.



241/PHY/VA301

Value Added Course

COURSE ID: 241/PHY/VA301

HISTORY OF PHYSICS

Marks (Theory): 35

Credits: 2

Marks (Internal Assessment): 15

Time: 2 Hours

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 consist of at least 4 parts covering entire syllabus. The question paper is expected to contain problems to the extent of 20% of total marks. The examinee will be required to attempt 5 questions; selecting one question from each unit and the compulsory.

Course Outcomes:

After successful completion of the course on History of Physics, a student will be able to:

- *Describe ancient cosmological ideas and explain the transformative impact of the Scientific Revolution, including the contributions of key figures such as Copernicus, Galileo, Kepler, Huygens, and Newton.*
- *Understand the major scientific advancements in mechanics, thermodynamics, and electrodynamics during the 18th and 19th centuries, and assess the contributions of scientists like Faraday, Maxwell, and Boltzmann.*
- *Explain the emergence of modern physics through developments in atomic and nuclear physics, and evaluate the scientific achievements and historical significance of Curie, Thomson, Rutherford, Einstein, Planck, Bohr, Hubble, Hoyle, Dirac, and Schrödinger.*
- *Discuss key ideas and technologies in contemporary physics including quantum field theory (QFT), lasers, cosmology, and particle physics, and reflect on the lives and impact of Feynman and Weinberg as well as the role of major research centers and future directions in physics.*

Unit-I

Ancient Indian, Greek, and Chinese concepts about the universe, Scientific Revolution, Contributions and the life of Copernicus, Galileo Galilei, Kepler, Huygens, and Isaac Newton.

Unit-II

18th and 19th century developments in Mechanics, Thermodynamics and Electrodynamics, Life and contributions of Michael Faraday, Maxwell, and Boltzmann.

Unit-III

Birth of Modern Physics, Developments in Nuclear and atomic physics, life and contribution of Marie Curie, Thomson, Rutherford, Albert Einstein, Max Planck, Neils Bohr, Hubble, Hoyle, Dirac and Schrodinger.

Unit-IV

Rajit

Contemporary Physics, Development of QFT, Laser, Developments in Cosmology, Astrophysics, Particle Physics, Quest for unification, life and contribution of Feynman and Weinberg, Major centres for Particle and Nuclear Physics, Future directions.

References/Books:

1. Science India, Scientific Magazines by Vijnana Bharati. For details visit: <https://scienceindiamag.in>.
2. Everyman's Science by ISCA. For details visit: <http://www.sciencecongress.nic.in>.
3. Evolution of Geographical Thought, Husain, M., 2012, Rawat Publications.
4. Knowledge Traditions and Practices of India (a text book) 2012, Kapil Kapoor, Michel Danino.
5. E-resources: <http://nptel.ac.in/courses/121106003>.
6. Probability and Statistical Inference, Mukhopadhyay, N., 2000. Marcel Dekker, Inc. New York.

Rampr

241/MScw/VA301

**Master of Social Work
Semester - III
Gender and Development**

VAC-02

Credits: 2 (Hrs./Week: 2)

Maximum Marks: 50

Theory Examination: 35

Internal Assessment: 15

Course Outcomes:

- Gain an understanding of key gender and development concepts and theories
- Evaluate the implications of gender inequalities on development outcomes at local, national, and global levels.

Unit-I

Gender: Conceptual Understanding

- Sex, Gender and Patriarchy
- Feminist Theories – Radical, Marxist, Socialist, Eco Feminism
- Women's Social, Economic and Political Status in India

Unit-II

Gender and Development: Concept and Approaches

- Approaches to Gender and Development WID, WAD and GID
- Indicators of Gender and Development

Unit-III

Gender Issues in the Development Practice

- Gender Inequality and Social Development
- Gender Barriers to Women's Economic Development
- Gender Barriers to Political Involvement

Unit-IV

Policies and Programme for Gender and Development

- Constitutional Safeguards, legislations, Policies and Programmes for Women
- Institutional Structure: Ministry of Women and Child Development, NCW and Role of Community-Based Organizations

Suggested Readings:

- Bhasin, Kamala, 2005, *Understanding Gender*, Women Unlimited.
- Baltiwalla, S. 2013, 'Engaging with Empowerment: An Intellectual and Experiential Journey' New Delhi: Women Unlimited.
- Bhauri Amit (2005), *Development with Dignity*, National Book Trust, India.
- John, Mary (2008) *Women's Studies in India: A Reader*, Penguin Books India.
- Agarwal, Bina.(2015) *Gender Challenges- Vol I, II, III* (2013), Oxford University Press
- Sen, A. (1999). *Development as Freedom*. Oxford University Press.
- Connell, R. W. (2012). *Gender in World Perspective* (2nd ed.). Polity Press.
- Desai, A., & Thakkar, U. (2001) *Women in Indian Society*, National Book Trust, India
- Geetha, V. (2002). *Theorizing Feminism*, Stree. ISBN: 8185604452
- Kabeer, N. (1994). *Reversed Realities: Gender Hierarchies in Development Thought*. Verso.
- Seth, Meera (2001) *Women and Development*, Sage Publications

Internet Sources:

- Ministry of Women and Child Development <https://wcd.nic.in/womendevelopment/national-policy-women-empowerment>
- UN Women <https://www.unwomen.org/en/un-women-strategic-plan-2022-2025/policies-and-institutions>

VAC	Indian Budgetary System
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Max. Marks: 50

Written Exam: 35 (2

Hours)

Credits: 2

Internal Assessment: 15

Note For the paper Setter

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. From the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each)

Course Learning Outcomes: After completing this course, the learner will be able to-

CLO 1: Understand the Financial Planning role of the Government in India

CLO 2: Analyze Budgetary Practices and Frameworks in India

CLO 3: Understand the Budget Lifecycle in India

CLO 4: Identify and describe the core components of the budget in India

UNIT-I

Budget: Concept, Constitutional provisions of Budget in India. Need, Objectives and functions of Government Budget, Brief description of Budget Documents and Components of Government Budget in India. Concepts of Balanced, Surplus and Deficit budget., Various types of deficits and impact of fiscal deficit

UNIT-II

Union budget and Interim Budget, Budget making process in India: Budgetary cycle, Stages of enactment of Budget, Others Grants, Actual, Revised and budget estimates, Policy highlights of the current Union Budget (brief outline), Analysis of impact of Current Union Budget mainly with reference to key sectors (In brief)

NOTE: The students to be guided towards understanding Union budget and its impact through student centric group discussions and debates. This activity may be included in the internal assessment process.

Reading List:

- Musgrave, R. A., & Musgrave, P. B. (1989). Public Finance in Theory and Practice (5th ed.). McGraw-Hill Education.
- Singh, S. K. (2014). Public Finance in Theory and Practice. S. Chand Publishing.
- Goel, S. L. (2002). Public Financial Administration. Deep & Deep Publications.
- Government of India, Ministry of Finance. (n.d.). Budget Documents (Annual). Retrieved from <https://www.indiabudget.gov.in>
- Government of India, Ministry of Finance. (n.d.). Economic Survey of India (Annual). Retrieved from <https://www.indiabudget.gov.in>
- Government of India. (2014). Report of the Thirteenth Finance Commission. Retrieved from <https://fincomindia.nic.in>
- Government of India. (2019). Report of the Fourteenth Finance Commission. Retrieved from <https://fincomindia.nic.in>
- Government of India. (2021). Report of the Fifteenth Finance Commission (2021-26). Retrieved from <https://fincomindia.nic.in>
- Jha, R. (2002). Modern Public Economics. Routledge.
- Bagchi, A. (2003). Fiscal Federalism in India. Oxford University Press.
- Bhatia, H. L. (2021). Public Finance (Latest ed.). Vikas Publishing House.
- Saxena, A. (2011). Gender budgeting in India. The Indian Journal of Public Administration
- <https://dea.gov.in/divisionbranch/brief-description-budget-documents>

241/MPSY/VA301

15

**M.Sc. Psychology/ M.A. Psychology
Semester 3**

RESEARCH ETHICS

VAC-2 Research Ethics (241/MPSY/VA 301)
Credits:2 (Hrs./Week: 2)

Maximum Marks: 50
Theory Examination: 35
Internal Assessment: 15 Max.
Time: 2 Hrs.

Note: The students will be required to attempt three questions in all. Question No. I will be compulsory comprising of 8 short answer type questions of 3 marks each and will cover the entire syllabus. The answer should be in 100-200 words. The students are required to attempt five short answer type questions out of 8, i.e., $5 \times 3 = 15$ marks. In addition to it, Question Nos. II to V will consist of long answer (essay type) questions, two Questions from each Unit with internal choice carrying 10 marks each i.e. $2 \times 10 = 20$ marks thus making it the total weight age to 35 marks. Two questions to be attempted. One from each unit.

Course Outcomes:-

- Students will demonstrate a comprehensive understanding of fundamentals of Research, Plagiarism, Falsification, and Fabrication.
- Students will adhere to ethical guidelines in psychological research, ensuring integrity and responsibility in conducting studies.
- Students will develop critical thinking skills to analyze the nature of moral judgements and the challenges faced due to emerging technologies.

Unit-I

Ethics: definition; importance of research ethics; objectives and ethical issues in research ethics. Ethical principles of research; nature of moral judgements: cognitive and affective; Ethical Challenges in Emerging Technologies.

Unit-II

Scientific conducts: Ethics concerning science and research; Intellectual honesty and Research Integrity.

Scientific misconduct: Falsification, Fabrication and Plagiarism.

Suggested readings:

1. Bird, A. (2006). *Philosophy of Sciences*. Routledge
2. MacIntyre, Alasdair (1967). *A Short History of Ethics*. London
3. P.Chandah. (2018). *Ethics in Competitive Research: Do not get Scooped; do not get plagiarized*.
4. National Academy of Sciences, National Academy of Engineering and Institute of Medicine (2009)., *National On being a Scientist: A guide to responsible conduct in Research: third edition*, National Academies Press
5. Resnik, D. B. (2011), *What is Ethics in research & why is it important*. National Institute of Environmental Health Sciences, 1-10 Retrieved from <http://www.niehs.nih.gov/research/resources/bioethics/whatisindex.efm>

M.Sc. MATHEMATICS 3rd SEMESTER**Vedic Mathematics**

VAC-02

Credits: 2(2L)

Max. Time: 2 hrs.

Course ID:

Maximum Marks: 50

External Examination: 35

Internal Assessment: 15

Note: There shall be nine questions in all. Question no. 1 shall be compulsory, consisting of seven short answer type questions covering the entire syllabus. Two questions will be asked from each unit. Students will have to attempt one question from each unit. Each question shall carry equal marks.

Course Learning Outcomes:

CLO1 Develop the understanding of objectives and features of Vedic maths.

CLO2 Understand and apply Ekanyunena Purvena, Nikhilam Navatahcarmam Dastah, and Cross Digit Sum for solving arithmetic and algebraic problems.

CLO3 Apply Vedic Sutras to find square and cube of arithmetic and algebraic problems.

CLO4 Learn about Square root, Cube root, and divisibility by using Vedic sutras.

CLO5 To learn about solution of simultaneous linear equations by using Vedic sutras.

Unit I

Introductions & History of Vedic Mathematics, Introduction to Father of Vedic Mathematics "Jagatguru Bharti Krishan Tirthji" Multiplications-using Sutras- Ekanyunena Purvena, Ekadhikena Purvena, Nikhilam Navatahcarmam Dastah, Vertically & Crosswise, Sum of Products, Difference of products, Sum and difference of Products in arithmetic and algebra. Cross digit sum to check the answers of addition, multiplication and subtraction.

Unit II

Square using Sutras- Ekadhikena Purvena, Nikhilam Navatahcarmam Dastah, Duplex in arithmetic and Algebra, Sum of squared numbers, difference of squared numbers, Sum and difference of squared Numbers, Cube using Sutras-Nikhilam and Anurupyena.

Unit III

Square root using Vilokanam and Duplex, Cube root upto 9 digits, divisibility by denominator ending digits 1, 3, 7 & 9, Division by Sutras-Paravartya, Ekadhikena, Nikhilam Navatahcarmam Dastah, Dhvajank having divisor upto 3 digits, Division of Algebraic Expressions having divisor linear and quadratic.

Unit IV

Solution of Simple equations, Solutions of simultaneous linear equations in two variables, factorization in arithmetic, factorization of quadratic and cubic expressions, Highest Common Factors in arithmetic and algebraic expressions.

Recommended Books:

1. A. Gupta, *The Power of Vedic Maths* (2nd Revised & Updated Edition), Jaico Publishing House, 2004.
2. V.E. Stevens, *Pebble Maths: A New and Successful Way to Teach Vedic Math to Beginner Learners of All Ages and Abilities*, Pebble Maths Publishing House.
3. R.K. Thakur, *The Essentials of Vedic Mathematics* (1st Edition), Rupa Publications, India, 2013.

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2411MBA/VA802

BUSINESS ETHICS

Credits: 2

External Marks: 35 (TE)

Internal Marks: 15 (TI)

Type of Course: Value Added Course

Course Objectives: The objectives of the business ethics course is to provide students with a foundation in ethical decision-making within the context of business operations.

Course Outcomes: After completing the course students would be able to:

CO1: Remember the nature, scope, objectives, and importance of business ethics, as well as the characteristics and factors influencing business ethics

CO2: Understand the importance of codes of conduct and gender issues in fostering an ethical work environment.

CO3: Apply ethical frameworks to analyze and address environmental challenges and resource depletion issues.

CO4: Evaluate the ethical implications and consequences of various business practices and decisions in a globalized and technologically advanced world, considering their impact on stakeholders and society

Detailed Syllabus

Unit 1:

Introduction – Nature, scope, objectives, need and importance of business ethics, characteristics of business ethics, factors influencing business ethics, arguments for and against business ethics, Indian Models of business ethics.

Unit 2:

Corporate culture and business ethics, reputation management, employment relationship, affirmative actions, code of conduct, gender issues, ethics audit.

Unit 3:

External Context – Dimensions of pollution and resource depletion, ethics of conserving depletable resources.

Unit 4:

Contemporary Issues – Ethical implications of technology, ethics in global economy, cross cultural and cross religious issues, ethical investment, insider trading, ethical dilemma regarding competitive intelligence

SUGGESTED READINGS:

1. Hartman, Laura P, Perspective in Business Ethics, Tata McGraw Hill, New Delhi
2. Chakraborty, S.K., Ethics in Management, Oxford University Press, New Delhi
3. Bajaj, P S and Raj Aggarwal, Business Ethics, Biztantra, New Delhi

Mapping Matrix of Course: 24MGVAC2

Table 1: CO-PO & CO-PSO Matrix for the Course 24MGVAC2: BUSINESS ETHICS

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	2	1	3	2	2	2	2	1	1
CO2	3	3	2	2	2	1	1	1	2	1	2
CO3	2	3	2	3	2	1	2	2	1	2	2
CO4	2	3	3	3	2	2	2	2	2	3	3
Average	2.5	2.75	2.25	2.25	2.25	1.5	1.75	1.75	1.75	1.75	2

Semester- III

241/AE/VA/301	Personal Finance	L	T	P	C
		2	0	0	2

Max. Marks: 50**Written Exam:35****Credits: 2****Internal Assessment: 15****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 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining three questions, students will attempt 1 out of 2 questions from each of the four units (10 marks each).

Course Objectives:

The competencies, which form the basis for this semester course, enable students to analyze their personal financial decisions, evaluate the costs and benefits of their decisions, recognize their rights and responsibilities as consumers, and apply the knowledge learned in school to financial situations encountered later in life.

Course Outcomes:

CO1: Recognize opportunities inherent with good personal financial planning.

CO 2: Demonstrate the use of economic information to make informed personal financial decisions.

CO 3: Compute interests charges based on various types of borrowing situations.

UNIT-I**Personal Finance****Teaching Hours: 12**

Meaning and importance. Financial planning: meaning, process and role of financial planner. Risk profiling: client data analysis, life cycle, wealth cycle. Asset allocation: Strategic, Tactical, Fixed and Flexible.

UNIT-II**Investment Management****Teaching Hours: 12**

Meaning and importance. Investment avenues: equity, debt, gold, real estate, mutual funds, exchange traded funds. Portfolio management: meaning, construction, evaluation and revision. Loan management: meaning, types, importance and assessment.

Suggested Readings

- Kapoor Jack R, Personal Finance, The McGraw-Hill companies.
- Huang. Stanley S C and Randall, Maury R., Investment Analysis and Management. Allyn and Bacon.
- Gaungully, Ashok, Insurance Management, New Age Publishers, New Delhi.
- Ahuja, G K & Gupta Ravi, Systematic Approach to Income Tax, Allahabad, Bharat Law House.
- Pandian, Security Analysis and Portfolio Management, Vikas Publishing House, New Delhi.



241/AE/VA301

241/AE/VA302	Circular Economy	L	T	P	C
		2	0	0	2

Maximum Marks:50

Written exam:35

Credits:2

Internal assessment:15

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 5 short answer type questions of 3 marks spread over the entire syllabus (3*5=15 marks).
3. For the remaining three questions, students will attempt 1 out of 2 questions from each of the four units (10 marks each).

Course Objectives: The course aims to create skilled manpower and entrepreneurship in the field of Circular Economy and to acquaint students about the needs of businesses related to circularity and to create zeal among students to pursue research and development (R&D), and Entrepreneurship in this domain. Creation of entrepreneurs who would promote knowledge in core competencies of environmental education is also aimed by this course.

Course Outcomes

CO1: Apply the concept of circular economy to environmental engineering problems

CO2: Understand the concept of circularity and conduct relevant research

CO3: Use the principles of circularity for application to sustainable development

Unit I

Introduction to Circular Economy

Teaching Hours:12

Linear Economy and Its Emergence, Economic and Ecological Disadvantages of Linear Economy, Replacing Linear Economy by Circular Economy, Development of Concept of Circular Economy, A Differential - Linear Vs Circular Economy

Unit II

Characteristics And Legal Framework

Teaching Hours:12

Material Recovery, Waste Reduction, Reducing Negative Externalities, Explaining Butterfly Diagram, Concept of Loop; Role of Governments and Networks, Sharing Best Practices, Universal Circular Economy Policy Goals, India and CE Strategy, ESG.

Suggested Readings:

- The Circular Economy A User's Guide, Walter R Stahel , Routledge; 1st Edition (24 June 2019)
- Circular Economy: (Re) Emerging Movement, Shalini Goyal Bhalla, Invincible Publisher
- The Circular Economy Handbook: Realizing The Circular Advantage, Peter Lacy, Jessica Long, Wesley Spindler, Palgrave Macmillan UK
- Waste to Wealth: The Circular Economy Advantage, Peter Lacy, Jakob Rutqvist, Palgrave Macmillan
- Towards Zero Waste: Circular Economy Boost, Waste to Resources María-Laura Franco-García, Jorge Carlos Carpio-Aguilar, Hans Bressers. Springer International Publishing 2019
- Strategic Management and the Circular Economy Marcello Tonelli, Nicolo Cristoni, Routledge 2018.
- Circular Economy: Global Perspective Sadhan Kumar Ghosh, Springer, 2020
- The Circular Economy: A User's Guide Stahel, Walter R. Routledge 2019
- An Introduction to Circular Economy Lerwen Liu, Seeram Ramakrishna, Springer Singapore 2021.



Semester-III

Course Code		Credit	Structure			
			L	T	P	TOTAL CREDIT UNITS
	Hindu Classics	2	1	1	0	2

Course Description:

This course is designed to initiate students into the vast and layered world of Hindu classical literature by engaging with selected themes, terms, and traditions found in original Sanskrit texts and their translations. It focuses on philosophical, cultural, and linguistic challenges involved in reading classics like the Vedas, Upaniṣads, epics, Purāṇas, and Nāṭyaśāstra-based works. The course also explores sacred geography, temple traditions, dramaturgy, poetic forms, and historical figures that shaped Hindu literary consciousness. Through analytical reading and interpretation, students will gain deeper insights into Hindu thought and its continuity in cultural expressions and social memory.

Course Objectives:

- To enable students to critically engage with Hindu classical texts through the lens of translation, language, and cultural context.
- To introduce key philosophical and ethical terms that resist direct equivalence in modern languages.
- To explore the importance of temples, sacred sites, and pilgrimage traditions in shaping Hindu religious geography.
- To study the literary, poetic, and aesthetic structures in Hindu classics, including drama and prosody.
- To develop an understanding of how kings, saints, and poets are remembered in classical literature and how they embody dharma and ideal rulership.

Unit 1: Philosophical and Cultural Challenges in Reading Translations

- Conceptual and contextual differences between original Sanskrit texts and their translations



- Challenges in translating culturally-loaded terms: Religion, Sect, Philosophy, God, Lord, Mind, Intellect, Soul, Spirituality, Love, Disciple, Deity, Idol, Temple, Authenticity
- Interpretation complexities in key Sanskrit terms: Maya, Asura, Daitya, Rakshasa, Sharira (body), Jati (caste), Varna, Rashtra (nation), Shanti (peace), Nari (woman), Bharata (India), Chai (tea), Moksha, Nirvana, Prana (life force)
- Politics of translation and the process of cultural reinterpretation
- Case studies from classical and modern renderings

Unit 2: Sacred Geography and Temple Traditions in Hindu Classics

- Cultural and spiritual significance of temples in Hindu texts
- Study of key sacred sites: Kashi Vishwanath, Konark Sun Temple, Tirupati Balaji, Somnath, Jagannath Puri, Rameshwaram
- Shaktipeethas and their mythological-cosmological importance
- The tradition of Dwadasha Jyotirlingas and Char Dham Yatra
- Pilgrimage traditions in Purāṇas: Pat, Parikrama, and their symbolic meanings
- Sacred geography as reflected in epics and Purāṇic literature

Unit 3: Aesthetic, Literary, and Historical Dimensions of Hindu Classics

• Dramaturgy and Theatrical Tradition:

- Ten types of classical drama (Deshī Rūpakas): Nāṭaka, Prahasana, Vīthī, Dima, Anka, Samavakāra etc.
- Rasa theory: Nine Rasas, Bhava development, and Rasa realization
- Fourfold acting styles: Āṅgika, Vācika, Āhārya, Sāttvika
- Dramatic structure and character typology

• Classical Authors and Historical Memory:

- Study of major poets: Bhāsa, Kālidāsa, Aśvaghoṣa, Somadeva Suri, Hāla, Chand Bardai
- Historical personalities and dynasties as represented in classical texts: Lalitaditya Muktapida, Chakradhwaj Singh, Chola dynasty, Harihara and Bukka (Vijayanagar founders), Bappa Rawal, Harshavardhana, Bhoja, Martanda Varma, Rana Pratap, Shivaji
- Reflections on political ideals, kingship, and dharma in Hindu classics
- Manusmriti: Social Laws

Course Outcomes:

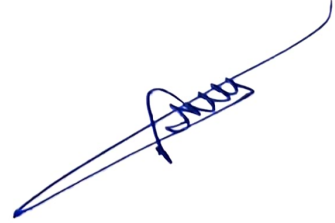
Upon successful completion of the course, students will be able to:

[Signature]

- Identify and explain key cultural and philosophical challenges in translating Hindu classical concepts.
- Analyze the symbolic, spiritual, and historical significance of major temples and sacred geographies as reflected in Hindu texts.
- Demonstrate knowledge of classical dramaturgy, rasa theory, and poetic meters used in Sanskrit literature.
- Interpret select excerpts from Hindu classics within their cultural, political, and performative contexts.
- Appreciate the contribution of major poets and dynasties to Hindu cultural memory and literary expression.

Instructions to External Examiner:

This question paper will be divided into two sections. Examiner is requested to set Section A as compulsory questions from the entire syllabus (it may be objective or subjective). Section B will have an option to choose from two questions from each unit. Students will have to answer one question from each unit.



एम.ए. हिंदी (तृतीय सेमेस्टर)
VAC-02 पर्यावरण और हिंदी साहित्य

पूर्णांक-35+15=50

पाठ्यक्रम के उद्देश्य :

1. विद्यार्थियों में पर्यावरण - बोध का प्रसार करना।
2. हिंदी साहित्य में पर्यावरण - चेतना के विषय में बताना।
3. पर्यावरण और जीवन के अन्योन्याश्रित संबंधों को समझना।

पाठ्यक्रम के परिणाम :

1. विद्यार्थी पर्यावरण के विभिन्न आयामों से परिचित होंगे।
2. हिंदी साहित्य में अभिव्यक्त पर्यावरण चेतना को जानेंगे।
3. पर्यावरण और जीव- जगत के अंतर्संबंधों को समझेंगे।

पाठ्यक्रम:

इकाई 1 : पर्यावरण-चिंतन : अवधारणा का विकास

प्रकृति, पर्यावरण एवं पारिस्थितिकी : अवधारणा, महत्त्व और विकास की अवधारणा
हिंदी कविता में प्रकृति- सतपुड़ा के घने जंगल- भवानीप्रसाद मिश्र

इकाई -2 : कथा साहित्य में प्रकृति और पर्यावरण

परती परिकथा (निर्धारित अंश) : फनीश्वर नाथ रेणु

- सूखे, कृषि संकट और ग्रामीण समाज के पर्यावरणीय संघर्षों की प्रस्तुति

बाबा बटेसर नाथ (निर्धारित अंश) : नागार्जुन

- आध्यात्मिकता और पर्यावरण की अंतर्क्रियाएँ

इकाई 3 : कथेतर में प्रकृति-चेतना

हल्दी-दूब और दधि-अक्षत" – विद्यानिवास मिश्र

परंपरा में पर्यावरणीय प्रतीकों की व्याख्या

"आज भी खरे हैं तालाब" (अंश) – अनुपम मिश्र

पारंपरिक जल संरक्षण प्रणालियाँ और ग्रामीण ज्ञान

निर्देश-

1. पाठ्यक्रम में निर्धारित प्रत्येक खंड में कम से कम एक दीर्घ प्रश्न अवश्य पूछा जाएगा। पूछे गए प्रश्नों की संख्या चार होगी, जिसमें से परीक्षार्थी को कुल दो प्रश्न करने होंगे। प्रत्येक प्रश्न के लिए 8 अंक निर्धारित हैं। पूरा प्रश्न कुल 16 अंकों का होगा।
2. पूरे पाठ्यक्रम में से कुल छः लघुतरी प्रश्न पूछे जाएंगे, जिनमें से परीक्षार्थी को 150 शब्दों में किन्हीं चार प्रश्नों का उत्तर देना होगा। प्रत्येक प्रश्न तीन अंक का होगा। पूरा प्रश्न 12 अंकों का होगा।
3. पूरे पाठ्यक्रम में से 7 वस्तुनिष्ठ अनिवार्य प्रश्न पूछे जाएंगे। प्रत्येक प्रश्न एक-एक अंक का होगा।

सहायक ग्रंथ :

1. राजस्थान की रजत बूँद- अनुपम मिश्र, गांधी शांति प्रतिष्ठान, नई दिल्ली
2. विकास और पर्यावरण- सुभाष शर्मा, प्रकाशन विभाग, सूचना प्रसारण मंत्रालय, नई दिल्ली।
3. जल, थल, मल- सोपान जोशी, रामकमल प्रकाशन, नई दिल्ली।

(Signature) Mukesh

4. लोग क्यों करते हैं प्रतिरोध- सुभाष शर्मा, प्रकाशन, विभाग, नई दिल्ली।
5. साफ माथे का समाज- अनुपम मिश्र, पेंग्विन इंडिया, नई दिल्ली।
6. विचार का कपड़ा- अनुपम मिश्र, राजकमल प्रकाशन, नई दिल्ली।
7. तालाब झारखंड हेमंत, नई किताब प्रकाशन, नई दिल्ली।

Rajal
Mukherjee

241/MUS/VA301

NAME OF THE SUBJECT - The Intersection of Music and Learning (THEORY PAPER)	MAXIMUM THEORY MARKS : 50 (15+35)
COURSE CODE – 241/MUS/VA301	Time – 2 hours

Instructions for External Examiner: The examiner is required to set 5 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 13 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 11 marks each. The students will be required to attempt one question from each unit.

LEARNING OBJECTIVES

- To know about various vocational aspects and interrelation of the mentioned subjects with music.
- To know about modern trends in music, importance Sanskrit treatises, film music and technology and music.

LEARNING OUTCOMES

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

- Explore more options in there career related to music
- Understand the impact of technology and genres of music.

UNIT 1

1. Vocational aspects of Music
2. Music and Mathematics
3. Electronic Media and Music
4. Music and Meditation

UNIT 2

1. Modern trends in music
2. Importance of Sanskrit Treatises in Music.
3. Diversity of Indian Music genres in Film Music
4. Music and Technology

SUGGESTED READINGS:

- Sharma, Jeetram - Adhunik vyvsayaik Hindustani shastriya Gayan Prampara v Lakshan, New Delhi, Sanjay Prakashan.
- Tiwari, Kiran – Sangeet evam Manovigyan, New Delhi, Kanishka Publications 2008
- Kazmi, Wahid - Cine Sangeet ka Itihas. New Delhi, Bharatiya Jnanpith Vani Publications.
- Dr. Vimal – Hindi Chitrapat Evam Sangeet Ka Itihas. New Delhi, Sanjay Publications, 2005.