ANNEXURE - 26

(Department of Geography)

Minutes of Meeting

The following Agenda items were discussed and approved in the meeting.

1. Approved the minutes of last meeting held on 13.2.20024.
2. Approved the scheme of B.A honour's Geography of Eight Semester (NEP 2020).
3. Discussed and approved the syllabus of (B.A honours Geography) first four Semesters Annexure I.
4. It was unanimously approved that the "discipline of Geography" as minor subject in the faculty of Physical Science may be included in the list of minor subjects which was missing. Syllabus of minor course (MIC) Geography is same as the B.A Geography 4 year Multidisciplinary course. The syllabus is attached as Annexure II.

The request with proof also attached Annexure III

Malik

The following Committee Members were present

1. Dr. Kokila Malik, Chairperson, Department of Geography, BPSMV Khanpur- Kalan.
2. Prof. Rajeshwari, Department of Geography, K.U. Kurukshetra (outside expert). 6/6/2024.
3. Dr. Naresh Kumar Associate Professor GCW, Sonipat 6-6-24
5. Mr. Sandeep Dahiya Assistant Professor GCW, Murthal 6/6/24
6. Dr. Sharmila Badhwar,Assistant Professor GCW, Sonipat 6/6/2024
7. Mr. Jitender Malik, Assistant Professor GCW, Madlauda 6-6-2024
8. Dr. Ajay Dahiya Assistant Professor GCW, Murthal.

Submitted for necessary action, please.

Malik 6/6/2024.

Chairperson,
Dr. Kokila Malik
(Associate Professor)
Deptt. of Geography.

BHAGAT PHOOL SINGH MAHILAYA VISHWAVIDYALYA
KHANPUR-KALAN

SCHEME AND SYLLABUS OF EXAMINATION FOR

UG Programme with Single Major : Scheme-C of Geography

Duration 4 Years (8 Semesters) w.e.f. Academic Session 2024-25

2024-25

DEPARTMENT OF GEOGRAPHY

274

DEPARTMENT OF GEOGRAPHY
SCHEME AND SYLLABUS OF EXAMINATION FOR
UG Programme with Single Major : Scheme-C of Geography
Duration 4 Years (8 Semesters)w.e.f. Academic Session 2024-25

Semester – I

Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
Core Courses									
GEO-23/MCC - 101	Introduction to Geography of India	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/MCC - 102	Resource Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
Minor/Vocational Courses									
GEO-23/ M-101	Physical Geography of India	4	3 : 0 : 1 : 5	20	10	50	20	40	100
Multidisciplinary Courses									
GEO-23/MDC - 101	Geography in Everyday Life	3	2 : 0 : 1 : 4	15	05	35	20	30	75
Ability Enhancement Courses									
AEC- 01		2	2 : 0 : 0 :2	15	-	35	-	20	50
Skill Enhancement Courses									
SEC- 01	Basics of IT Tools	3	2 : 0 : 1 : 4	15	05	35	20	30	75
Value Added Courses									
VAC-01 VAC-01	Human Values and Ethics (50%) / Environmental Studies (50%)	2	2 : 0 : 0 : 2	15	-	35	-	20	50
Total		**22**							**550**

Semester – II

Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
Core Courses									
GEO-23/MCC – 203	Fundamentals of Physical Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/DSEC – 201	Skills in Cartography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
Minor/Vocational Courses									
GEO-23/ M 202	Human Geography of India	4	3 : 0 : 1 : 5	20	10	50	20	40	100
Multidisciplinary Courses									
GEO-23/MDC - 202	Geography of the Environment	3	2 : 0 : 1 : 4	15	05	35	20	30	75
Ability Enhancement Courses									
AEC- 02		2	2 : 0 : 0 : 2	15	-	35	-	20	50
Skill Enhancement Courses									
GEO-23/SEC- 202	Computer Aided Cartography	3	2 : 0 : 1 :4	15	05	35	20	30	75
Value Added Courses									
VAC-02 VAC-02	Environmental Studies (50%) / Human Values and Ethics (50%)	2	2 : 0 : 0 : 2	15	-	35	-	20	50
Total		**22**							**550**

Internship Courses

Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
INT 201	Internship of 4-6 weeks duration after 2nd semester	4	0 : 0 : 4	--	30	--	70	40	100

Exit Option

Under Graduate Certificate in Geography (**with 48 Credits**)

6-6-24 6/6/24 6/6/2024 6/6/2024

Semester – III

Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
Core Courses									
GEO-23/MCC – 304	Fundamentals of Human Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/MCC – 305	Population Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
Minor/Vocational Courses									
GEO-23/ M 303	Geography of Haryana	4	3 : 0 : 1 : 5	20	10	50	20	40	100
Multidisciplinary Courses									
GEO-23/MDC - 303	Weather Forecasting	3	2 : 0 : 1 : 4	15	05	35	20	30	75
Ability Enhancement Courses									
AEC- 03		2	2 : 0 : 0 :2	15	-	35	-	20	50
Skill Enhancement Courses									
GEO-23/SEC- 303	Exploration of Geographical Landscapes	3	2 : 0 : 1 :4	15	05	35	20	30	75
Value Added Courses									
GEO-23/VAC-303	Sustainable Development Goals	2	2 : 0 : 0 :2	15	-	35	-	20	50
Total		**22**							**550**

Semester – IV

Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
Core Courses									
GEO-23/MCC – 406	Basics of Economic Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/MCC – 407	History and Philosophy of Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/MCC – 408	Urban Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/DSE – 401	Geography of Tourism or Geography of Health	4 4	3 : 0 : 1 : 5 3 : 0 : 1 : 5	20 20	10 10	50 50	20 20	40 40	100 100
Minor/Vocational Courses									
GEO-23/ M 404(V)	Fundamentals of Aerial Photography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
Multidisciplinary Courses									
--	--	--	--	--	--	--	--	--	--
Ability Enhancement Courses									
AEC- 04		2	2 : 0 : 0 :2	15	-	35	-	20	50
Skill Enhancement Courses									
--	--	--	--	--	--	--	--	--	--
Value Added Courses									
GEO-23/VAC-404	Understanding Climate Change	2	2 : 0 : 0 : 2	15	-	35	-	20	50
Total		**24**							**600**

Internship Courses

Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
INT 402	Internship of 4-6 weeks duration after 4th semester (If not done after 2nd semester)	4	0:0:4	--	30	--	70	40	100

Exit Option

Under Graduate Diploma in Geography (**with 94 Credits**)

Semester – V

Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
Core Courses									
GEO-23/MCC – 509	Statistical Methods in Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/MCC – 510	Geography of Water Resources	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/DSE – 502	Transport Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
	or								
	Cultural Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/DSE – 503	Geography and Disaster Management	4	3 : 0 : 1 : 5	20	10	50	20	40	100
	or								
	Biogeography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
Minor/Vocational Courses									
GEO-23/M 505(V)	Fundamentals of GIS	4	3 : 0 : 1 : 5	20	10	50	20	40	100
Multidisciplinary Courses									
--	--	--	--	--	--	--	--	--	--
Ability Enhancement Courses									
--	--	--	--	--	--	--	--	--	--
Skill Enhancement Courses									
INT201/INT402	Internship done after 2nd or 4th semester	4	--	--	30	--	70	40	100
Value Added Courses									
--	--	--	--	--	--	--	--	--	--
Total		**24**							**600**

Semester – VI

Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
Core Courses									
GEO-23/MCC – 611	Basics of Remote Sensing	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/MCC – 612	Regional Development and Planning	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/DSE – 604	Agricultural Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
	or								
	Social Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
GEO-23/DSE – 605	Soil Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
	or								
	Political Geography	4	3 : 0 : 1 : 5	20	10	50	20	40	100
Minor/Vocational Courses									
GEO-23/M 606(V)	Making of Maps	4	3 : 0 : 1 : 5	20	10	50	20	40	100
Multidisciplinary Courses									
--	--	--	--	--	--	--	--	--	--
Ability Enhancement Courses									
--	--	--	--	--	--	--	--	--	--
Skill Enhancement Courses									
GEO-23/SEC- 604	Field Survey based Report (Socio-Economic)	2	1 : 0 : 1 : 3	10	05	20	15	20	50
Value Added Courses									
--	--	--	--	--	--	--	--	--	--
Total		**22**							**550**

Exit Option
Bachelor with Major in (Geography) and Minor in () **(with 136 Credits)**

Semester – VII									
Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
Major/Core Courses in Honours									
GEO-23/CC – H701	Geography and Climate	4	4 : 0 : 0 : 4	20	10	50	20	40	100
GEO-23/CC – H702	Landforms: Origin, Structure and Process	4	4 : 0 : 0 : 4	20	10	50	20	40	100
GEO-23/CC – H703	Statistical Methods in Geography	4	4 : 0 : 0 : 4	20	10	50	20	40	100
Discipline Specific Elective Courses in Honours									
GEO-23/DSE – H701	Geography of Asia or Geography of Africa	4 4	4 : 0 : 0 : 4 4 : 0 : 0 : 4	20 20	10 10	50 50	20 20	40 40	100 100
Practicum Courses									
GEO-23/PC – H701	Morphometric Analysis	4	0 : 0 : 4 : 8	20	10	50	20	40	100
Minor Courses in Honours									
GEO-23/CC-HM701	Geography of Settlements	4	4 : 0 : 0 : 4	20	10	50	20	40	100
	Total	**24**							**600**

Semester – VIII									
Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
Major/Core Courses in Honours									
GEO-23/CC – H804	Fundamentals of Remote Sensing and GIS	4	4 : 0 : 0 : 4	20	10	50	20	40	100
GEO-23/CC – H805	Research Methodology in Geography	4	4 : 0 : 0 : 4	20	10	50	20	40	100
GEO-23/CC – H806	Population Geography	4	4 : 0 : 0 : 4	20	10	50	20	40	100
Discipline Specific Elective Courses in Honours									
GEO-23/DSE – H802	Geography of Europe or Geography of North America	4 4	4 : 0 : 0 : 4 4 : 0 : 0 : 4	20 20	10 10	50 50	20 20	40 40	100 100
Practicum Courses									
GEO-23/PC – H802	Socio-Economic Field Survey	4	0 : 0 : 4 : 8	20	10	50	20	40	100
Minor Courses in Honours									
GEO-23/CC-HM802	Hazard Management-Man Made	4	4 : 0 : 0 : 4	20	10	50	20	40	100
	Total	**24**							**600**

Exit Option
Bachelor (Honours) in Geography as Major Subject **(with 184/180 Credits)**

OR

Semester – VII									
Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
Major/Core Courses in Honours									
GEO-23/CC – H701	Geography and Climate	4	4 : 0 : 0 : 4	20	10	50	20	40	100
GEO-23/CC – H702	Landforms: Origin, Structure and Process	4	4 : 0 : 0 : 4	20	10	50	20	40	100
GEO-23/CC – H703	Statistical Methods in Geography	4	4 : 0 : 0 : 4	20	10	50	20	40	100
Discipline Specific Elective Courses in Honours									
GEO-23/DSE – H701	Geography of Asia or Geography of Africa	4 4	4 : 0 : 0 : 4 4 : 0 : 0 : 4	20	10	50	20	40	100
Practicum Courses									
GEO-23/PC – H701	Morphometric Techniques	4	0 : 0 : 4 : 8	20	10	50	20	40	100
Minor Courses in Honours									
GEO-23/CC-HM701	Geography Of Settlements	4	4 : 0 : 0 : 4	20	10	50	20	40	100
	Total	**24**							**600**

Semester – VIII									
Course Code	Course Title	Credit	L : T : P: CH	Internal Marks		External Marks		Total Marks	
				Th	Pr	Th	Pr	Min	Max
Major/Core Courses in Honours									
GEO-23/CC – H804	Fundamentals of Remote Sensing and GIS	4	4 : 0 : 0 : 4	20	10	50	20	40	100
GEO-23/CC – H805	Research Methodology in Geography	4	4 : 0 : 0 : 4	20	10	50	20	40	100
Discipline Specific Elective Courses in Honours									
-	--	--	--	--	--	--	--	--	--
Practicum Courses									
GEO-23/PC – H802	Project/ Dissertation	12	--	--	90	--	210	120	300
MinorCourses in Honours									
GEO-23/CC-HM802	Hazard Management-Man Made	4	4 : 0 : 0 : 4	20	10	50	20	40	100
	Total	**24**							**600**

Exit Option
Bachelor (Honours with Research) in Geography as Major Subject **(with 184/180 Credits)**

6/6/24 6/6/24 6/6/2024 6/6/24 6/6/24

BPSMV Khanpur Kalan Sonipat
Syllabus for Under Graduate Programmes as per NEP- 2020
(Multiple Entry – Exit, Internships and Choice Based Credit System) w.e.f.2024-25

MCC-A1			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	I		
Name of the Course	Introduction to Geography of India		
Course Code	GEO-23/MCC - 101		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MCC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	NA		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. provide knowledge about the physiography of our nation. 2. understand the agriculture and irrigation system. 3. understand the basic demographic structure and literacy. 4. provide awareness about the resources and industries of our nation. 5* acquire knowledge of socio-economic and demographic data		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	03	02	05
Max. Marks: 100 **Internal Assessment Marks: 20 + 10 = 30** **End-Term Exam Marks: 50 + 20 = 70**		**Time:3 hours**	

PartB- Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising five sub-parts spread over the entire syllabus (two marks for each sub-part), to be answered in 15-20 words. There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Geological history and regions of India. 2. Physiographic divisions of India.	12
II	3. Drainage System and Soils of India. 4. Climate and Natural Vegetation of India.	11
III	5. Population: distribution, density and growth. 6. Population composition: sex ratio, rural and urban, literacy, work force, language and religion.	11
IV	7. Resources: Production and distribution of iron ore, coal, petroleum, hydro power, solar and thermal power 8. Industries: iron and steel, sugar and cotton textile; transport and communication	11
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 10 exercises on the below mentioned themes: - 1. Representation of climatic data (temperature and rainfall): line, bar, combined line and bar and compound bar diagram(4 exercise) 2. Population distribution and density map of India (Choropleth and dot method- 2 exercise) 3. Age and sex structure : pyramid diagram (1exercise) 4. Rainfall deviation diagram (1exercise)	30

Suggested Evaluation Methods

Internal Assessment:	End-Term Examination:
➢ **Theory** • Class Participation: **05 marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 marks** • Mid-Term Exam: **10 marks**	**50 Marks**
➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.:**10 Marks** • Mid-Term Exam: **NIL**	**20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Deshpande C. D. (1992) India: A Regional Interpretation, ICSSR, New Delhi.
2. Hussain M. (1992) Geography of India, Tata McGraw Hill Education
3. Johnson, B. L. C., ed. (2001) Geographical Dictionary of India. Vision Books, New Delhi.
4. Mamoria C. B. (1980) Economic and Commercial Geography of India, Shiva Lal Agarwala.
5. Mandal R. B. (ed.), (1990) Patterns of Regional Geography – An International Perspective. Vol. 3 – Indian Perspective.
6. Sdyasuk Galina and P Sengupta (1967) Economic Regionalisation of India, Census of India
7. Sharma, T. C. (2003) India - Economic and Commercial Geography. Vikas Publ., New Delhi. 6. Singh R. L. (1971) India: A Regional Geography, National Geographical Society of India.
8. Singh, Jagdish (2003) India - A Comprehensive & Systematic Geography, GyanodayaPrakashan, Gorakhpur.
9. Pathak, C. R. (2003) Spatial Structure and Processes of Development in India. Regional Science Assoc., Kolkata.
10. Sharma, T.C. (2013) Economic Geography of India. Rawat Publication, Jaipur
11. Spate O. H. K. and Learmonth A. T. A. (1967) India and Pakistan: A General and Regional Geography, Methuen.
12. Tirtha, Ranjit (2002) Geography of India, RawatPubls., Jaipur & New Delhi.
13. Tiwari, R.C. (2007) Geography of India. PrayagPustakBhawan, Allahabad

*Applicable for courses having practical components.

6/6/24 6/6/24 6/6/24 6/6/2024

MCC-A2			
Session: 2024-25			
Part A–Introduction			
Subject	Geography		
Semester	I		
Name of the Course	Resource Geography		
Course Code	GEO-23/MCC-102		
Course Type: (CC/MCC/MDC/CCM/DSEC/VOC/ DSE/PC/AEC/VAC)	MCC		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (ifany)	NA		
CourseLearningOutcomes (CLOs):	After completing this course, the learner will be able to: 1. acquaint with nature, techniques and field of resource geography. 2. enhance knowledge about classification and development process of natural resources. 3. provide knowledge on location, conservation and management methods of resources for sustainable development. 4. provide knowledge about concepts, policies, problems and models of natural resource utilization. 5* attain skills in mapping and monitoring of land, water, forest and mineral resources.		
Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5
Max. Marks: 100 **Internal Assessment Marks: 20+10 = 30** **End Term Exam Marks: 50+20 = 70**		**Time: 03 Hours**	

Part B- Contents of the Course

Instructions for Paper- Setter

Question 1 is compulsory comprising of five sub parts spread over entire syllabus (two marks for each sub part), to be answered in 15-20 words. There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Nature, scope, techniques and importance of resource geography. 2. Concepts of resource: exploitation, accumulation, poverty and resource degradation.	11
II	3. Classification of resources: renewable and non-renewable, biotic and abiotic resources. 4. Relationship between natural resources and development process. Role of technology in natural resource development.	11
III	5. Distribution, utilization, problems and management of land and water resources. 6. Distribution, utilization, problems and management of forest and mineral resources.	12
IV	7. Models of natural resources process: Zimmermann's primitive and Kirk's decision models. 8. Sustainable resource development; Policies and challenges of natural resource management.	11
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempttwo exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 8 exercises on the below mentioned themes: - 1. Preparation of land use/land cover map of an area :pie diagram (2 exercise). 2. Introduction of topographical sheets, indexing and conventional symbols(2 exercise) 3. Mapping of forest cover from topographical sheets (1exercise) 4. Mapping of water bodies of an area from topographical sheet (1 exercise). 5. Decadal changes in country-wise production of coal and iron	30

(Suggested Evaluation Methods	
Internal Assessment: ➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **10 Marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **10 Marks** • Mid-Term Exam: **NIL**	**End Term Examination:** **50 Marks** **20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Barbier, EB (2005) Natural Resources and Economic Development, Cambridge University Press, Cambridge.
2. Bhatta, B (2011) Remote Sensing and GIS, Oxford University Press, New Delhi.
3. Borton, I and Kates, RW (1984) Readings in Resource Management and Conservation, University of Chicago Press, Chicago.
4. Bruce, M (1989) Geography and Resource Analysis, John Wiley and Son, New York.
5. Chiras, DD and Reganold, JP (2009) Natural Resource Conservation: Management for a Sustainable Future, Pearson, New Delhi.
6. Cutter SN, Renwich HL and Renwick W (1991) Exploitation, Conservation, Preservation: A Geographical Perspective on Natural Resources Use, John Wiley and Sons, New York.
7. Gadgil M and Guha R (2005) The Use and Abuse of Nature: Incorporating This Fissured Land: An Ecological History of India and Ecology and Equity, Oxford University Press, USA.
8. Gautam, A (2013) Geography of Resources: Exploitation, Conservation and Management. Sharda PustakBhawan, Allahabad.
9. Guha, JL and PR Chattroj (1994) Economic Geography-A Study of Resources, The World Press, Calcutta.
10. Holechek JLC, Richard A, Fisher JT and Valdez R (2003) Natural Resources: Ecology, Economics and Policy, Prentice Hall, New Jersey.
11. Jones G and Hollier G (1997) Resources, Society and Environmental Management, Paul Chapman, London.
12. Klee G (1991) Conservation of Natural Resources, Prentice Hall, Englewood.
13. Lillesand, TM, Kiefer, RW and Chipman, JW (2015) Remote Sensing and Image Interpretation, John Wiley and Sons, New York.
14. Martino, RL (1969) Resource Management. Mc Graw Hill Book Company, London.
15. Mather AS and Chapman K (1995) Environmental Resources, John Wiley and Sons, New York.
16. Mitchell B (1997) Resource and Environmental Management, Longman Harlow, England.
17. Negi, BS (2000) Geography of Resources, KedarNath and Ram Nath Publications, Meerut.
18. Owen, OS (1971) Natural Resource Conservation: An Ecological Approach, McMillion, New Delhi.

19. Owen S and Owen PL (1991) Environment, Resources and Conservation, Cambridge University Press, New York.
20. Raja, M (1989) Renewable Resources, Development, Concept Publication, New Delhi.
21. Rees J (1990) Natural Resources: Allocation, Economics and Policy, Routledge, London.
22. Roy, PK (2006) Resource Studies, New Central Book Agency, Calcutta.
23. Shetty, R (2009) An Analysis of World Resources with reference to India, Sarala Raj Ria Publishers, Mysore.
24. Zimmermann, EW (1951) World Resources and Industries, Harper and Brothers, New Delhi.

*Applicable for courses having practical component.

MCC-M1			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	I		
Name of the Course	Physical Geography of India		
Course Code	GEO-23/M-101		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	CC-M1		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. understand the geological and physiographic structure of India. 2. enrich skills about drainage system and various hydrological regimes. 3. understand the climate and its characteristics. 4. acquire knowledge about different types of flora and soils found in India. 5* attain skills in solving various practical problem associated with physical aspects of India.		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	03	02	05
Max. Marks:100 **Internal Assessment Marks: 20+10 =30** **End-Term Exam Marks: 50+20 = 70**		**Time:3 hours**	

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Part B- Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising of five sub parts spread over entire syllabus (two marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Geological history and regions of India. 2. Physiographic structure and divisions.	12
II	3. Drainage system of India. 4. Climatic zones of India (Koppen).	10
III	5. Natural vegetation: classification, distribution and inter-relationships 6. Biosphere reserves of India and policies.	13
IV	7. Soils: classification, distribution and inter-relationships. 8. Geological and Climatological disasters.	10
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks --- Practical Record: A project file consisting of 8 exercises on the below mentioned themes: - 1. Representation of Relief (1 exercises). 2. Interpolation of Point data: Isopleths, Isohytes, Isobars (2 exercises). 3. Profile of different landforms features(slopes, plateau, hills, valleys, waterfall, sea cliff, overhanging cliff (6 exercise).	30

Suggested Evaluation Methods

Internal Assessment:	End-Term Examination:
➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **10 Marks**	**50 Marks**
➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **10 Marks** • Mid-Term Exam: **NIL**	**20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Deshpande, C.D. (1992) India-A Regional Interpretation, Northern Book Depot, New Delhi.
2. Hussain Majid (2015) Geography of India, Mc Graw Hill Education.
3. Shafi, M. (2000) Geography of South Asia, McMillan and Company, Calcutta.
4. Singh, Gopal (2006) Geography of India, Atma Ram and Sons, New Delhi.
5. Singh, R.L. (1971) India: A Regional Geography, National Geographical Society, India, Varanasi.

*Applicable for courses having practical components.

MDC-1			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	I		
Name of the Course	Geography in Everyday Life		
Course Code	GEO-23/MDC-101		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MDC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (ifany)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. understand the geographical phenomena observed in its surroundings. 2. enrich skills about various elements that compose the surrounding environment. 3. understand the climate and its characteristics. 4* attain skills in solving various practical problem associated with geography.		
Credits	Theory	Practical	Total
	02	01	03
Contact Hours	02	02	04
Max. Marks:100 **Internal Assessment Marks: 15+05 =20** **End-Term Exam Marks: 35+20 = 55**		**Time:3 hours**	

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Part B-Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising of seven sub parts spread over entire syllabus (one marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Solar System: location, shape and uniqueness of earth. 2. Formation of Day/night, Seasons and Various movements of Earth.	7
II	3. Continents and Oceans on Earth. 4. Latitude, Longitude, Times zones and International dateline.	7
III	5. Atmosphere: structure and composition. 6. Elements of weather and climate.	8
IV	7. Types of Vegetation. 8. Climate change and human being.	8
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks --- Practical Record: A project file consisting of 11 exercises on the below mentioned themes: - 1. Solar System (1 exercises). 2. Solstices and Equinoxes (2 exercise) 3. Antipodal arrangement of land and water (1 exercise) 4. Drawing of latitudes and longitudes (2 exercise) 5. Time zones of World (1 exercise) 6. Calculation of time in eastern and western hemisphere (2 exercise) 7. International Date Line (advancement/reduction of day (2 exercise)	30

Suggested Evaluation Methods

Internal Assessment:	End-Term Examination:
➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **05 Marks**	**35 Marks**

➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **05 Marks** • Mid-Term Exam: **NIL**	**20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. NCERT (2017), The Earth: Our Habitat, National Council for Education, Research and Training, Sri Aurobindo Marg, New Delhi.
2. Ojha, S K (2022) World Geography, Baudhik Prkashan, Pryagraj, UP.
3. Husain Majid (2018) Indian and World Geography, McGraw Hill Education (India) Private Limited, Channai.

*Applicable for courses having practical components.

MCC-A2			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	II		
Name of the Course	Fundamentals of Physical Geography		
Course Code	GEO-23/MCC - 203		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MCC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	NA		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. Acquire the knowledge about basic concepts of geo-tectonics. 2. Understand about the agents and processes of change on the surface of earth. 3. Enrich knowledge about atmosphere and its climate. 4. Attain knowledge about ocean surface configuration and circulation in oceanic water. 5* Attain skills in solving practical problems associated with physical geography.		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	03	02	05
Max. Marks: 100 **Internal Assessment Marks: 20 + 10 = 30** **End-Term Exam Marks: 50 + 20 = 70**		**Time:3 hours**	

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Part B- Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising five sub-parts spread over the entire syllabus (two marks for each sub-part), to be answered in 15-20 words. There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Interior of the earth, geological time scale, rocks and their types. 2. Theory of isostacy, continental drift and plate tectonic.	12
II	3. Degradational processes: weathering, mass wasting and resultant landforms. 4. Landforms generated by following geomorphic agents: river, under-ground water, wind and glacier.	11
III	5. Weather and climate: Atmosphere-composition and structure. 6. Atmospheric temperature, pressure and moisture: measurement and distribution.	11
IV	7. Surface configuration of ocean floors: surface relief of the Pacific, Atlantic and Indian Ocean. 8. Circulation of oceanic waters: current of the Pacific, Atlantic and Indian Ocean.	11
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 7 exercises on the below mentioned themes: - 1. Introduction of weather maps and weather symbols (2 exercise). 2. Interpretation of a daily weather map of India: Pre-Monsoon, Monsoon and Post-Monsoon (2 exercise). 3. Isobaric systems of weather maps: cyclone, anticyclone, secondary depression, V- shaped depression, wedge, col (1exercise). 4. Preparation of climograph, hythergraph and hyetograph (3 exercise).	30

Suggested Evaluation Methods	
Internal Assessment: ➢ **Theory** • Class Participation: **05 marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 marks** • Mid-Term Exam: **10 marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.:**10 Marks** • Mid-Term Exam: **NIL**	**End-Term Examination:** **50 Marks** **20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Barry, RG and Chorley, RJ (1998) Atmosphere, Weather and Climate, Routledge, London.
2. Bunnett, RB (1987) Physical Geography in Diagrams, Pearson Education, New Delhi.
3. Critchfield, H (2002) General Climatology, Prentice-Hall of India, New Delhi.
4. Kale, V and Gupta, A (2001) Element of Geomorphology, Oxford University Press, Calcutta.
5. Khullar, DR (2014) Physical Geography, Kalyani Publishers, New Delhi.
6. Monkhouse, FJ (1960) Principles of Physical Geography. Hodder and Stoughton, London.
7. Singh, S (1998) Geomorphology, Prayag Publication, Allahabad.
8. Singh, S (2012) Physical Geography, Prayag Publication, Allahabad.
9. Thornbury, WD (1969) Principles of Geomorphology, John Wiley and Sons, New York.
10. Trewartha, GT (1981) An Introduction to Climate, Mc-Graw Hill, New York.

*Applicable for courses having practical components.

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DSEC-A1			
Session: 2024-25			
Part A–Introduction			
Subject	Geography		
Semester	II		
Name of the Course	Skills in Cartography		
Course Code	GEO-23/DSEC-201		
Course Type: (CC/MCC/MDC/CCM/DSEC/VOC/ DSE/PC/AEC/VAC)	DSEC		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (ifany)	NA		
CourseLearningOutcomes (CLOs):	After the completion of course, the students will have ability to: 1. understand and differentiate types of map scales. 2. become aware about the applications of map scales. 3. gains the basic understanding of map making and will be able to prepare different kinds of thematic maps. 4. apprehend the knowledge about surveying and survey tools. 5* acquire skills to make use of scales and making thematic maps and diagrams		
Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5
Max. Marks: 100 **Internal Assessment Marks: 20+10 = 30** **End Term Exam Marks: 50+20 = 70**		**Time: 03 Hours**	

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Part B- Contents of the Course		
Instructions for Paper- Setter		
Question 1 is compulsory comprising of five sub parts spread over entire syllabus (two marks for each sub part), to be answered in 15-20 words. There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.		
Unit	**Topics**	**Contact Hours**
I	1. Nature and scope of cartography, historical and recent development. 2. Drawing instruments: properties and characteristics; drawing techniques.	11
II	3. Scale: types, significance and applications. 4. Maps: classification, characteristics, significance and limitations.	11
III	5. Basic concepts of surveying and survey equipment's, coordinate system and map: magnetic and true north, polar and rectangular. 6. Techniques of map enlargement and reduction; map producing agencies in India (GSI, SOI, FSI, NATMO, NBBSLUP, NRSC, AISSLUP and IMD).	12
IV	7. Methods and representation of climatic data. 8. Methods and representation of socio-economic data.	11
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 8 exercises on the below mentioned themes: - 1. Graphical representation of scales (2 exercises) 2. Construction of thematic maps (3 exercises) 3. Representation of data by one, two and three-dimensional diagrams (3 exercises)	30
Suggested Evaluation Methods		

Internal Assessment:	End Term Examination:
➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **10 Marks**	**50 Marks**
➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **10 Marks** • Mid-Term Exam: **NIL**	**20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Dent, B.D. (1999) Cartography: Thematic Map Design, (Vol. 1), McGraw Hill.
2. Gupta, K.K. and Tyagi, V.C (1992) Working with Maps, Survey of India, DST, New Delhi.
3. Monkhouse, F.J and Wilkinson, H.R (1971) Maps and Diagrams. Methuen and Co. Ltd., London
4. Ramamurthy, K (1982) Map Interpretation, Rex Printers, Madras.
5. Robinson A (1953) Elements of Cartography, John Wiley.
6. Siddhartha, K (2006) Geography through maps, Kisalaya Publications Pvt. Ltd, Delhi
7. Singh, G (2005) Map work and practical geography. Vikas Publishing House Pvt. Ltd., New Delhi
8. Singh, L.R and Singh, R (1973) Map work and practical geography, Central Book Allahabad
9. Singh, R.L (2005) Elements of Practical Geography. Kalyani Publishers, New Delhi. India.

*Applicable for courses having practical component.

MCC-M2			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	II		
Name of the Course	Human Geography of India		
Course Code	GEO-23/M-202		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MCC-M2		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. Understand the demographic characteristics of India. 2. Enrich knowledge about population composition of India. 3. Understand the Resource enrichment of India. 4. Acquire knowledge about Industrial landscape of India. 5* attain skills in solving various practical problem associated with socio-economic aspects of India.		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	03	02	05
Max. Marks:100 **Internal Assessment Marks: 20+10 =30** **End-Term Exam Marks: 50+20 = 70**		**Time:3 hours**	

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Part B- Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising of five sub parts spread over entire syllabus (two marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Population of India: Growth and its measures. 2. Population of India: Distribution of Density	12
II	3. Population composition: Sex ratio, literacy rate, work force. 4. Ethnic composition of India: Language and religion.	10
III	5. Energy resources of India: Production and distribution of Coal, Petroleum, hydropower and solar power. 6. Industrial Resources of India: Iron-ore, Cotton and Sugarcane.	13
IV	7. Industrial development of India: Iron and steel, sugar and textile. 8. Transportation in India: Road, Railways, Waterways.	10
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 8 exercises on the below mentioned themes: - 1. Age and sex pyramid of Indian population (1 exercise). 2. State wise distribution and composition of working population in India (2 exercises). 3. Map the scheduled tribe population distribution in India (1 exercises). 4. Distribution of scheduled caste population (1 exercise). 5. Composition of the major religions in India (1 exercise). 6. Distribution of literacy –rural - urban and male-female (2 exercises).	30

Suggested Evaluation Methods

Internal Assessment:	End-Term Examination:
➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **10 Marks**	**50 Marks**
➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **10 Marks** • Mid-Term Exam: **NIL**	**20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Agarwal, A et al (1999) The Citizen's Fifth Citizen's Report, Centre for Science & Environment, New Delhi.
2. Alexander, John. W. (1988) Economic Geography, Prentice Hall of India Ltd., New Delhi.
3. Bergwan, Edward E (1985) Human Geography: Culture Connections and Landscape, Prentice-Hall, New Jersey.
4. Carr, M. Patterns (1987) Process and Change in Human Geography, McMillan Education, London.
5. Carter, H. (1972) The study of Urban Geography, Edward Arnold, London.
6. Chandna, R.C. (2016) A Geography of Population: Concepts, Determinants and Patterns, Kalyani Publishers, New Delhi.
7. DeBlij, H. J. (1996) Human Geography, Culture, Society and Space, John Wiley, New York.
8. Fellman, J.L. (1997) Human Geography-Landscapes of Human Activities, Brown and Benchman Pub., USA.
9. Hassan, I. ( ) Population Geography: A Systematic Exposition, Routledge, London.
10. Hussain, M. ( ) Geography of India,
11. Hussain, M. (2018) Human Geography, Rawat, Publication, Jaipur.
12. Khullar, D. R. ( ) India A comprehensive Geography, Kalayani Publisher.
13. McBride, P.J. (1996) Human Geography; Systems Patterns and Change, Nelson, UK and Canada.
14. Michael, C. (1996) New Patterns: Process and Change in Human Geography, Nelson, U.k..
15. Qazi, S.A. (2010) Population Geography, APH publishers.
16. Ramachandra, R. (1992) Urbanization and Urban System in India, Oxford, London.
17. Sharma, Y.K. (2017) Human Geography, Narain publishers.
18. Singh, N. (2015) A Text Book of Human Geography, Rajesh Publishing.

*Applicable for courses having practical components.

MDC-2			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	II		
Name of the Course	Geography of the Environment		
Course Code	GEO-23/MDC-202		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MDC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (ifany)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. understand the geographical environment observed in its surroundings. 2. enrich skills about various elements that compose the surrounding environment. 3. understand the climate and its characteristics. 4* attain skills in solving various practical problem associated with geography.		
Credits	Theory	Practical	Total
	02	01	03
Contact Hours	02	02	04
Max. Marks:75 **Internal Assessment Marks: 15+05 =20** **End-Term Exam Marks: 35+20 = 55**		**Time:3 hours**	

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Part B-Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising of seven sub parts spread over entire syllabus (one marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Nature and Scope of Environmental Geography. 2. Determinants of Environment.	7
II	3. Concept of Ecology and ecosystem. 4. Trophic structure and energy flow.	7
III	5. Environmental pollution: Meaning causes and impacts of Air, Water and Land pollution.	8
IV	6. Mitigating efforts of Environmental degradation: Stockholm conference, earth summit and Kyoto protocol.	8
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks --- Practical Record: A project file consisting of 8 exercises on the below mentioned themes: - 1. Make inventory of natural vegetation of neighborhood environment (1-2 exercise). 2. Make inventory of wild animals of neighborhood environment (1-2 exercise) 3. Classification and mapping of area under forest in Haryana (1 exercise) 4. Trend in cattle population of Haryana (1 exercise) 5. Mapping National Parks and sanctuaries of India (2 exercise)	30

Suggested Evaluation Methods

Internal Assessment:	End-Term Examination:
➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **05 Marks**	**35 Marks**
➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **05 Marks** • Mid-Term Exam: **NIL**	**20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Chandna R. C., (2002) Environmental Geography, Kalyani, Ludhiana.
2. Cox, C.D. and Moore, P.D. (1993) Biogeography: An Ecological and Evolutionary Approach, Blackwell.
3. MOEF (2006) National Environmental Policy-2006, Ministry of Environment and Forests, Government of India.
4. Odum, E. P. et al. (2005) Fundamentals of Ecology, Ceneage Learning India.
5. Singh S. (1997) Environmental Geography, PrayagPustakBhawan. Allahabad.
6. UNEP (2007) Global Environment Outlook: GEO4: Environment for Development,
7. United Nations Environment Programme.

Hindi Reading List

8. Singh, Savindra (2001) ParyavaranBhugol, PrayagPustakBhawan, Allahabad.
9. Singh, Shri Narayan (1993) VatavaranBhugol, Tara Book Agency.

*Applicable for courses having practical components.

SEC-2			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	II		
Name of the Course	Computer Aided Cartography		
Course Code	GEO-23/SEC-202		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	SEC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (ifany)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. Understand the nature, scope and development of cartography. 2. Enrich skills about various cartographic methods used in geographical applications. 3. Understand different types of map and their uses. 4* attain skills in solving various practical problem associated with geography.		
Credits	Theory	Practical	Total
	02	01	03
Contact Hours	02	02	04
Max. Marks:75 **Internal Assessment Marks: 15+05 =20** **End-Term Exam Marks: 35+20 = 55**		**Time:3 hours**	

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Part B-Contents of the Course		
Instructions for Paper-Setter Question 1 is compulsory comprising of seven sub parts spread over entire syllabus (one marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.		
Unit	**Topics**	**Contact Hours**
I	1. Nature and Scope of cartography 2. Recent advancement in cartography	11
II	3. Types and characteristics of statistical diagrams a. One dimensional diagram (bar and line) b. Two dimensional diagram (rectangular, square and circle) c. Three dimensional diagram (sphere, cube)	11
III	4. Types and characteristics of Maps a. Chorochromatic maps b. Choroschematic maps c. Choropleth maps d. Dot maps e. Isopleths maps	11
IV	5. Introduction to Computer Aided Cartography a. Introduction to Q-GIS b. Characteristics, Advantage and Disadvantages of Raster and Vector Data c. Characteristics and uses of Point, Line and Polygon d. Elements of Maps	12
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 11 exercises on the below mentioned themes: - 1. Introduction to MS Excel 2. One Dimensional Diagrams in MS Excel (2 Exercises) 3. Two Dimensional Diagrams in MS Excel (2 Exercise) 4. Scatter Plot in MS Excel (1 Exercise) 5. Making of Shape file in Q-GIS (3 exercise) 6. Digitization of Map in Q-GIS (1 exercise) 7. Composition of Map in Q-GIS (2 exercise)	30

Suggested Evaluation Methods	
Internal Assessment: ➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **05 Marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **05 Marks** • Mid-Term Exam: **NIL**	**End-Term Examination:** **35 Marks** **20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Sarkar, A. (2015 Textbook of Practical Geography, Orient Blackswan Pvt. Ltd., New Dlelhi.
2. Jensen, J. R. (2013) Remote Sensing of the Environment: An Earth Resource Perspective (2nd Edition), Pearson Education India.Singh,
3. Singh L. R. (2005) Elements of Practical Geography, Kalyani Publishers, New Delhi.
4. Misra, R. P. and Ramesh, A. (1999) Fundamentals of Cartography, Concept Publishing Company, New Delhi.
5. Tutorials by Department of Science and Technology. https://dst-iget.in/index.php/tutorialdetails/1/1

*Applicable for courses having practical components.

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BPSMV Khanpur Kalan Sonipat
Syllabus for Under Graduate Programmes as per NEP- 2020
(Multiple Entry – Exit, Internships and Choice Based Credit System) w.e.f. 2024-25

MCC-A4			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	III		
Name of the Course	Fundamentals of Human Geography		
Course Code	GEO-23/MCC - 304		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MCC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	NA		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. provide knowledge about the physiography of our nation. 2. understand the agriculture and irrigation system. 3. understand the basic demographic structure and literacy. 4. provide awareness about the resources and industries of our nation. 5* acquire knowledge of socio-economic and demographic data		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	03	02	05
Max. Marks: 100 **Internal Assessment Marks: 20 + 10 = 30** **End-Term Exam Marks: 50 + 20 = 70**		**Time:3 hours**	

Part B- Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising five sub-parts spread over the entire syllabus (two marks for each sub-part), to be answered in 15-20 words. There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Definition, nature and scope of human geography. 2. Development of human geography, approaches to study human geography, branches and relation with other social sciences.	12
II	3. Human race: Meaning, classification of races and their global diffusion and distribution. 4. Religion: Meaning, nature and classification. Evolution and global distribution of major religions in the world.	11
III	5. Organization of space: central place theory, agricultural location model and industrial location model. 6. Distribution, density and growth of population: Determinants and world pattern.	11
IV	7. World pattern of development: economy and polity 8. World pattern of migration: streams and determinants	11
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 10 exercises on the below mentioned themes: - 1. Composition of major religions and language of the world (2 exercises). 2. Methods of representing population distribution and density (2 exercises). 3. Flow diagram of migration streams of world population (2 exercises). 4. Spatial and temporal growth of world population (2 exercises). 5. Mapping Literacy of world for at least 2 periods (2 exercise)	30

Suggested Evaluation Methods	
Internal Assessment: ➢ **Theory** • Class Participation: **05 marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 marks** • Mid-Term Exam: **10 marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.:**10 Marks** • Mid-Term Exam: **NIL**	**End-Term Examination:** **50 Marks** **20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Agarwal, A et al (1999) The Citizen's Fifth Citizen's Report, Centre for Science & Environment, New Delhi.
2. Alexander, John. W. (1988) Economic Geography, Prentice Hall of India Ltd., New Delhi.
3. Bergwan, Edward E. (1985) Human Geography: Culture Connections and Landscape, Prentice-Hall, New Jersey.
4. Carr, M. Patterns (1987) Process and Change in Human Geography, McMillan Education, London.
5. Carter, H. (1972) The study of Urban Geography, Edward Arnold, London.
6. Chandna, R.C. (2016) A Geography of Population: Concepts, Determinants and Patterns, Kalyani Publishers, New Delhi.
7. DeBlij, H. J. (1996) Human Geography, Culture, Society and Space, John Wiley, New York.
8. Fellman, J.L. (1997) Human Geography-Landscapes of Human Activities, Brown and Benchman Pub., USA.
9. Hassan, I. ( ) Population Geography: A Systematic Exposition, Routledge, London.
10. Hussain, M. (2018) Human Geography, Rawat, Publication, Jaipur.
11. McBride, P.J. (1996): Human Geography; Systems Patterns and Change, Nelson, UK and Canada.
12. Michael, C. (1996) New Patterns: Process and Change in Human Geography, Nelson.
13. Qazi, S.A. (2010) Population Geography, APH publishers.
14. Ramachandra, R. (1992) Urbanization and Urban System in India, Oxford, London.
15. Sharma, Y.K. (2017). Human Geography, Narain publishers.
16. Singh, N. (2015) A Text Book of Human Geography, Rajesh Publishing.

*Applicable for courses having practical components.

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MCC-A5			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	III		
Name of the Course	Population Geography		
Course Code	GEO-23/MCC - 305		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MCC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	NA		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. provide knowledge about the population geography. 2. understand the various components of population data. 3. understand the basic demographic structure and composition. 4. provide awareness about the different aspects of population geography. 5* acquire knowledge of socio-economic and demographic data		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	03	02	05
Max. Marks: 100 **Internal Assessment Marks: 20 + 10 = 30** **End-Term Exam Marks: 50 + 20 = 70**		**Time:3 hours**	

Part B- Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising five sub-parts spread over the entire syllabus (two marks for each sub-part), to be answered in 15-20 words. There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Definition, nature and scope of Population geography. 2. Sources of population data, quality and reliability of data.	12
II	3. Concepts, determinants and world patterns of the following attributes of population: (i) Distribution and density (ii) Vital rates: birth and death rates (iii) Migration; Laws of migration (Ravnstein's, Lee's and Zelinsky) (iv) Growth	11
III	4. Composition of population; Determinants and World regional patterns of: (i) Age and Sex composition (ii) Rural-Urban composition (iii) Economic composition	11
IV	5. Population problems and Policies in developed and developing countries. 6. Population problems and Policies in India since independence.	11
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 10 exercises on the below mentioned themes: - 1. Age and sex pyramid of selected countries (3 exercises). 2. Mapping trends in world population growth (1 exercise) 3. Composition of the major religions and languages of world (2 exercises). 4. Mapping the economic development and growth of selected countries (4 exercises).	30

Suggested Evaluation Methods	
Internal Assessment: ➢ **Theory** • Class Participation: **05 marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 marks** • Mid-Term Exam: **10 marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.:**10 Marks** • Mid-Term Exam: **NIL**	**End-Term Examination:** **50 Marks** **20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Beaujeu, Garnier, J. (1966) Geography of Population, Longman, London.
2. Brooks, S. (1977): The World Population Today (Ethnodemographic Process), USSR Academy of Sciences, Moscow.
3. Cassen, Robert & Bates, Lisa M. (1994) : Population Policy : A New Consensus Overseas Development Council, Washington, D.C.
4. Chandna, R. C. (1997) : Jansankhya Bhugol, Kalyani Publishers, New Delhi.
5. Chandna, R. C. (1998) : Population, Publishers, New Delhi.
6. Chandna, R. C. (1998) : Environmental awareness, Publishers, New Delhi.
7. Chandna, R. C. (1998) : a Geography of Population : Concepts, Determinants and Patterns, Publishers, New Delhi.
8. Clarks, John, I. (1971) : Population Geography and the Developing Countries, Pergamon Press, New York.
9. Demko, G. J. and others (Eds.) (1971) : Population Geography, Reader, McGraw-Hill Books Co., New York
10. Jones, Huw, R. (1981) : A Population Geography, Harper and Row Publishers, London.
11. Petrov, V. (1985) : India: Spotlight of Population, Progress Publishers, Moscow.
12. Trewartha, G. T. (1972) : The Less Developed Realm-A Geography of its Population, John Wiley & Sons, Inc., New York.
13. Trewartha, G. T. (1978) : The More Developed Realm-A Geography of its Population Pergamon Press, New York.
14. Woods, R. (1979) : Population Analysis in Geography, Longman, London.

*Applicable for courses having practical components.

MCC-M3			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	III		
Name of the Course	Geography of Haryana		
Course Code	GEO-23/M-303		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MCC-M3		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. understand the geological and physiographic structure of Haryana. 2. enrich skills about drainage system and various hydrological regimes. 3. understand the climate and its characteristics. 4. acquire knowledge about different types of flora and soils found in India. 5* attain skills in solving various practical problem associated with physical aspects of India.		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	03	02	05
Max. Marks: 100 **Internal Assessment Marks: 20 + 10 = 30** **End-Term Exam Marks: 50 + 20 = 70**		**Time:3 hours**	

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Part B- Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising of seven sub parts spread over entire syllabus (one marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Physiography of Haryana. 2. Relief and climate of Haryana	11
II	3. Drainage and natural vegetation of Haryana. 4. Agriculture: cropping pattern and challenges.	11
III	5. Population: distribution, density and growth. 6. Population composition: structure and literacy.	11
IV	7. Major industries and industrial centres of Haryana. 8. Transportation development of Haryana.	12
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 6 exercises on the below mentioned themes: - 1. Composition of land use/land cover of Haryana (1 exercises). 2. Population distribution map of Haryana 2001 and 2011 (2 exercises). 3. Population density map of 2001 and 2011 (2 exercises). 4. Mapping of major industrial regions of Haryana (1 exercises).	30

Suggested Evaluation Methods

InternalAssessment:	**End Term Examination:**
➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **10 Marks**	**50 Marks**
➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **10 Marks** • Mid-Term Exam: **NIL**	**20 Marks**

Part C-Learning Resources

1. Census of India (1981) Regional Division in Haryana.
2. Census of India (2001) Administrative Atlas of Haryana.
3. Deshpande CD (1992) India: A Regional Interpretation, ICSSR and Northern Book Centre.
4. FICCI (2007) State of Infrastructure in Haryana.
5. Singh, Jasbir (1976) Agricultural Geography of Haryana, Vishal Publishers, Kurukshetra.
6. Singh, R.L. (1971) India-A Regional Geography, National Geographical Society, Varanasi
7. Spate OHK and ATA Learmonth (1971) India and Pakistan, Methuen, London.
8. Tirtha R and Gopal Krishna (1996) Emerging India, Rawat Publications, Jaipur.
9. Regional division of Haryana, census of India, Chandigarh

*Applicable for courses having practical components.

MDC-3			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	III		
Name of the Course	Weather Forecasting		
Course Code	GEO-23/MDC-303		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MDC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (ifany)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. Understand the weather phenomena. 2. Enrich skills about various elements that compose the surrounding environment. 3. Understand the climate and its characteristics. 4* attain skills in solving various practical problem associated with weather.		
Credits	Theory	Practical	Total
	02	01	03
Contact Hours	02	02	04
Max. Marks:75 **Internal Assessment Marks: 15+05 =20** **End-Term Exam Marks: 35+20 = 55**		**Time:3 hours**	

Part B-Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising of seven sub parts spread over entire syllabus (one marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Distinction of weather and climate. 2. Elements of weather and climate and their measurement.	7
II	3. The concept and Uses of Isohyets, Isobars, Isotherms, Isoneph, Isohume.	7
III	4. Concept of High and Low pressure system. 5. Introduction to Prevailing, Seasonal and Local winds.	8
IV	6. Introduction to Weather map of India. 7. Interpretation of Weather maps.	8
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks --- Practical Record: A project file consisting of 6 exercises on the below mentioned themes: - 1. Inventory of symbols of weather map (1 exercise). 2. General forecasting of weather; precipitation and cloudiness (2 exercise) 3. Interpretation of pressure phenomena (1 exercise) 4. Interpretation of wind direction and speed (2 exercise)	30

Suggested Evaluation Methods

Internal Assessment:	End-Term Examination:
➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **05 Marks**	**35 Marks**
➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **05 Marks** • Mid-Term Exam: **NIL**	**20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Barry, RG and Chorley, RJ (1998) Atmosphere, Weather and Climate, Routledge, London.
2. Bunnett, RB (1987) Physical Geography in Diagrams, Pearson Education, New Delhi.
3. Critchfield, H (2002) General Climatology, Prentice-Hall of India, New Delhi.
4. Singh, G (2005) Map work and practical geography. Vikas Publishing House Pvt. Ltd., New Delhi
5. Singh, L.R and Singh, R (1973) Map work and practical geography, Central Book Allahabad
6. Singh, R.L (2005) Elements of Practical Geography. Kalyani Publishers, New Delhi. India.

*Applicable for courses having practical components.

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SEC-3			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	III		
Name of the Course	Exploration of Geographical Landscapes		
Course Code	GEO-23/SEC-303		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	SEC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (ifany)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. understand the nature of physical and cultural landscapes 2. internalize the processes shaping natural and cultural landscapes 3. understand the transformation process of urban and rural landscapes. 4. foster an appreciation for the environment and the role of human interactions in shaping landscapes. 5* enhance students' observational, analytical, and critical thinking about their surrounding environment		
Credits	Theory	Practical	Total
	02	01	03
Contact Hours	02	02	04
Max. Marks:75 **Internal Assessment Marks: 15+05 =20** **End-Term Exam Marks: 35+20 = 55**		**Time:3 hours**	

Part B-Contents of the Course		
Instructions for Paper-Setter Question 1 is compulsory comprising of seven sub parts spread over entire syllabus (one marks for each sub part). There will be eight long questions; two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.		
Unit	**Topics**	**Contact Hours**
I	1. Landscapes: concept, definition. 2. The basis for classification of landscapes.	7
II	3. Major land surface features: continents and oceans and their characteristics.	7
III	4. Natural landscapes and their formation processes. 5. Cultural landscapes and their formation processes.	8
IV	6. Urban landscapes and their formation process. 7. Rural landscapes and their formation process.	8
V*	Instructions for external practical examiner: This is field based study and all the students have to prepare a project report individually. The external examiner shall be conducting viva-voce on the project report. Distribution of marks for evaluation; 1. Field based project report = 10 marks 2. Viva-Voce = 10 marks Practical Record: Project report of a landscape by individual students based on field survey focusing on 1. Type and characteristics of the landscape 2. Identification of factors transforming landscape	30
Suggested Evaluation Methods		
Internal Assessment: ➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **05 Marks**		**End-Term Examination:** **35 Marks**

➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **05 Marks** • Mid-Term Exam: **NIL**	**20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Alanen, A.R. and Melnick, R.Z. (2000) Preserving cultural landscape in America.
2. Hayden, D(1995)The power of place: Urban landscape as public history, The MIT press.
3. Hess, D. (2013)Physical Geography: A landscape appreciation, Pearson.
4. Hoss, T.A. (2016) Appreciating physical landscape: Three hundred years of geo-tourism.
5. Johnson, L.M. and Hunn, E.S. (2010) Landscape ethno ecology(concepts of biotic and physical space).
6. Terry, AG.(1989) The Physical landscape, McGraw-Hill, USA.
7. Sinha, A.(2020) Cultural landscape of India: Imagined, enacted and Reclaimed, University of Pittsburg press, USA.

*Applicable for courses having practical components.

VAC-3			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	III		
Name of the Course	Sustainable Development Goals		
Course Code	GEO-23/VAC-303		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	VAC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (ifany)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. understand the concept of sustainable development. 2. enrich skills about united nation development projects. 3. understand different types of sustainable development goals. 4* attain skills in solving various UNDP programs.		
Credits	Theory	Practical	Total
	02	00	02
Contact Hours	02	00	02
Max. Marks:50 **Internal Assessment Marks:15** **End-Term Exam Marks:35**		**Time:2 hours**	

Part B-Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising of seven sub parts spread over entire syllabus (one marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. The concept and dimensions of sustainable development 2. UN sustainable development summit, 2015	7
II	3. The characteristics and targets of SDG-1,2,3 4. The characteristics and targets of SDG-4,5,6	7
III	5. The characteristics and targets of SDG-7,8,9 6. The characteristics and targets of SDG-10,11,12	8
IV	7. The characteristics and targets of SDG-13,14,15 8. The characteristics and targets of SDG-16,17	8
V*	NA	

Suggested Evaluation Methods

Internal Assessment:	**End-Term Examination:**
➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **05 Marks**	**35 Marks**
➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **NIL** • Mid-Term Exam: **NIL**	**NIL**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. https://www.un.org/sustainabledevelopment/sdg-book-club-archive/
2. https://www.undp.org/sustainable-development-goals
3. https://sdgs.un.org/goals

*Applicable for courses having practical components.

MCC-A6			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Basics of Economic Geography		
Course Code	GEO-23/MCC - 406		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MCC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	NA		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. provides knowledge about the fundamental concepts of economic geography. 2. acquisition of knowledge about resources and their conservation. 3. enrichment of knowledge about distribution of crops, minerals and energy resources 4. acquaintance with global industries, transport, communication and trade 5* attain skills in solving practical problems associated with economic geography.		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	03	02	05
Max. Marks: 100 **Internal Assessment Marks: 20 + 10 = 30** **End-Term Exam Marks: 50 + 20 = 70**		**Time:3 hours**	

Part B- Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising five sub-parts spread over the entire syllabus (two marks for each sub-part), to be answered in 15-20 words. There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Nature and scope of economic geography and its relationship with economics. 2. Classification of economic activities and their impact on environment.	12
II	3. Natural resources: types, bases of classification. 4. Utilization and conservation of natural resources.	11
III	5. World distribution of food crops (rice and wheat), commercial crops (cotton and sugarcane) and plantation crops (tea and coffee). 6. World distribution and production of coal, petroleum and natural gas, iron ore and bauxite.	11
IV	7. World distribution and production of iron and steel industry, textile industry, sugar industry and automobile industry. 8. International trade and transport and major oceanic trade routes.	11
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 8 exercises on the below mentioned themes: - 1. Choropleth mapping of state-wise variation in GDP and PCI (2 exercises). 2. Computation of rail and road transport network accessibility index (2 exercises). 3. Time series analysis of world food, commercial and plantation crops production and trade using polygraph method (2 exercises). 4. Representation of coal and sugar production of major countries of the world using compound bar diagram (1 exercise).	30

	5. Representation of decadal production of major petroleum and iron and steel producing countries using multiple bar diagram (1 exercise).	

Suggested Evaluation Methods

Internal Assessment: ➢ **Theory** • Class Participation: **05 marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 marks** • Mid-Term Exam: **10 marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.:**10 Marks** • Mid-Term Exam: **NIL**	**End-Term Examination:** **50 Marks** **20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Gautam, A. 2010. Advanced Economic Geography. Sharda PustakBhawan, Allahabad.
2. Hartshorne, T. A. and Alexander, J. W. 2001. Economic Geography. Prentice Hall of India. New Delhi.
3. Hudson, R. 2005. Economic Geography. Sage Publication, New Delhi.
4. Jones, C. F. and Drakenwarld, G. G. Economic Geography. The Macmillan and Company. New York.
5. Knowled, R. and Wareing, J. 1992. Economic and Social Geography. Rupa and Company, Calcutta.
6. Knox, P. 2003. The Geography of World Economy. Arnold, London.
7. Saxena, H.M. 2013. Economic Geography. Rawat Publications, Jaipur.
8. Thomas, RS. 1962. The Geography of Economic Activities. McGraw Hill, New York.
9. Wheeler, J.O. and Muller, P.O. 1995. Economic Geography. John Wiley and Sons. New York.

*Applicable for courses having practical components.

MCC-7			
Session: 2024-25			
Part A - Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	History and Philosophy of Geography		
Course Code	GEO-23/MCC - 407		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MCC		
Level of the course (As per Annexure-I	200-299		
Pre-requisite for the course (if any)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. develop an understanding on nature and philosophy of geography 2. have geographical knowledge regarding ancient and medieval period 3. acquaint with philosophical development in subject 4. acquire knowledge of modern geographical thinking 5* develop skills of making 3D earth on 2D surface.		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	3	2	5
Max. Marks: 100 **Internal Assessment Marks: 20 + 10 = 30** **End-Term Exam Marks: 50 + 20 = 70**		**Time: 3 hours**	

Part B-Contents of the Course		
Question 1 is compulsory comprising five sub-parts spread over the entire syllabus (two marks for each sub-part).There will be eight questions, two from each unit. The candidate has to answer four more questions selecting at least one question from each unit. All questions carry equal marks.		
Unit	**Topics**	**Contact Hours**
I	1. Classification of empirical knowledge and place of geography in the realm of knowledge. 2. Nature of geography as a scientific discipline and its relationship with other sciences.	11
II	3. Contribution of Greeks, Romans and Arabs in geographic knowledge. 4. Modern Geography: contribution of Humboldt and Ritter.	12
III	5. Concepts – environmental determinism and possibilism, areal differentiation. 6. Dualism in Geography: Physcial vs Human, Systematic vs Regional	11
IV	7. Quantitative revolution and development of geography as spatial science. 8. Approaches in contemporary geography – behavioural, welfare and radical.	11
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 8 exercises on the below mentioned themes: - 1. Cylindrical: Equal area and Mercator (2 exercises). 2. Conical: one and two standards parallel, Bonne's and Polyconic (4 exercises). 3. Zenithal: equal area and gnomonic projections (2 exercises).	30
Suggested Evaluation Methods		

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Internal Assessment:	End Term Examination:
➢ **Theory** • Class Participation: **5** • Seminar/presentation/assignment/quiz/class test etc.: **5** • Mid-Term Exam: **10**	**50**
➢ **Practicum** • Class Participation: NIL • Seminar/Demonstration/Viva-voce/Lab records etc.:**10** • Mid-Term Exam: NIL	**20**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Dickinson, R. E (1969) The Makers of Modern Geography, London.
2. Dikshit, R.D (1997) Geographical Thought-A Contextual History of Ideas, Prentice Hall of India, New Delhi.
3. Hartshorne, R (1959) Perspectives on the Nature of Geography, Rand MacNelly, Chicago.
4. Harvey David (1989) Explanation in Geography, Edward Arnold, London.
5. Holt-Jonson (2011) Geography, History and Concepts: A Study's Guide, Sage Publications.
6. James P.E and Martin J Geoffrey (1972) All possible Worlds, John Wiley and Sons, New York.
7. Johnston, R.J (1983) Geography and Geographers, Edward Heinemann, London.
8. Peet, Richard (1998) Modern Geographical Thought, Oxford, Blackwell Publishers.

*Applicable for courses having practical components.

MCC-8			
Session: 2024-25			
Part A - Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Urban Geography		
Course Code	GEO-23/MCC - 408		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MCC		
Level of the course (As per Annexure-I	200-299		
Pre-requisite for the course (if any)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. develop an understanding on concept of urbanization 2. have geographical knowledge regarding urban development in world 3. acquaint with philosophical development in subject 4. acquire knowledge of urban related problems and policy. 5* develop skills of studying urban geography.		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	3	2	5
Max. Marks: 100 **Internal Assessment Marks: 20 + 10 = 30** **End-Term Exam Marks: 50 + 20 = 70**		**Time: 3 hours**	

Part B-Contents of the Course

Question 1 is compulsory comprising five sub-parts spread over the entire syllabus (two marks for each sub-part).There will be eight questions, two from each unit. The candidate has to answer four more questions selecting at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Nature and scope of Urban geography. 2. Approaches and historical development of Urban geography.	11
II	3. Origin and evolution of towns and factors of Urban growth. 4. Functional classification of cities: concept and scheme of classification (Harris, Nelson, Ashok Mitra).	12
III	5. Rural-Urban fringe: structural characteristics and its development. 6. Models of city structure: Concentric zone model of Burgess, Sector theory of Homer Hoyt and Multiple nuclei theory of Harris and Ulman.	11
IV	7. Contemporary urban issues and challenges: Slum and environmental pollution. 8. Urban development policies and programs in India.	11
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 7 exercises on the below mentioned themes: - 1. Plotting of Rank-Size hierarchy of Indian cities (2 exercises). 2. Trend of Urbanization in India 1901-2011 (1 exercise). 3. Present composition of different level towns in India (2 exercises). 4. Diagrammatic representation of composition of Rural-Urban population of Indian states (2 exercises)	30

Suggested Evaluation Methods

Internal Assessment:	End Term Examination:
➢ **Theory** • Class Participation: **5** • Seminar/presentation/assignment/quiz/class test etc.: **5** • Mid-Term Exam: **10**	50
➢ **Practicum** • Class Participation: NIL • Seminar/Demonstration/Viva-voce/Lab records etc.:**10** • Mid-Term Exam: NIL	20

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Mayer H.M. and Kohn, C.F. 2006. Readings in Urt. The University of Chicago Press, Chicago.
2. Berry, J.E. et al. (Eds.) 1970. Geography Perspective on Urban System, Prentice Hall, New Jersey.
3. Cater, Herald. 1972. The study of Urban Geography, Edward Arnold, London.
4. Johnson, J 1974. Suburban Growth, John Wiley and sons, London.
5. Kaplan, Wheeler and Holloway. 2007. Urban geography, John Wiley, USA
6. Clark, D. 1982. Urban Geography, Croom Halm, London and Cambridge.
7. Northern, R.M. 1979. Urban Geography, john Wiley, Toronto.
8. Michanel Pacione. 2004. Urban Geography: a global Perspective, Routledge, USA.
9. Ramachandra,R. 1997. Urbanization and Urban System in India, Oxford, London.
10. Raymond and Murphy. 1960. The American cities: An urban geography, McGraw hills, NewYork.
11. Sinha, S.P. 1984. Processes and Pattern of Urban Development in India: A.C. study of Haryana, The associated Publishers, Ambala Caltt.

*Applicable for courses having practical components.

DSE-A1(i)			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Geography of Tourism		
Course Code	GEO-23/DSE-401(i)		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	DSE-1(i)		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. familiarization with the fundamentals of tourism geography 2. understand the types of tourism and their trend 3. acquaintance with tourism infrastructure and its impact 4. provide awareness of the carrying capacity of tourism destinations 5* attain skills in solving practical problemsassociated with tourism.		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	03	02	05
Max. Marks: 100 **Internal Assessment Marks: 20 + 10 = 30** **End-Term Exam Marks: 50 + 20 = 70**		**Time:3 hours**	

Part B- Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising of seven sub parts spread over entire syllabus (one marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Tourists and tourism. Nature, scope, approaches and significance of tourism. 2. Travel and tourism through ages. Role of geography in tourism industry.	11
II	3. Types of tourism and its importance. Development of tourism in India and other major tourist countries. 4. Trends of international and domestic tourism. Tourism motivation and tourism demand.	11
III	5. Tourism infrastructure; transport, accommodation, hospitality and other facilities. 6. Positive and negative impact of tourism: economic, political, socio-cultural and environmental.	11
IV	7. Carrying capacity: a tool for sustainable development 8. Tourism planning and policies.	12
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks Practical Record: A project file consisting of 8 exercises on the below mentioned themes: - 1. State-wise distribution of tourists (Bar diagram). 2. Development of accommodations in India (comparative bar diagram). 3. Composition of tourists - states wise or of different tourist destinations (comparative bar). 4. Total, domestic, and foreign tourists (Compound bar diagram). 5. Tourism infrastructure (Trend graph). 6. Location and characteristics of highway tourism resorts of Haryana(dot method). 7. Tourist-population pressure (Bivariate method). 8. Explored and unexplored tourist destinations (Point method).	30

Suggested Evaluation Methods	
InternalAssessment: ➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **10 Marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **10 Marks** • Mid-Term Exam: **NIL**	**End Term Examination:** **50 Marks** **20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Bhatia, A. K., (1991) International Tourism: Fundamentals and Practices, Sterling Publishers, New Delhi.
2. Dhar, P.N. (2006) International Tourism: Emerging Challenges and Future Prospects. Kanishka, New Delhi.
3. Kaul R. N. ( ) Dynamics of Tourism: Sterline Publisher Ltd.
4. Shinde S.B. ( ) Geography of Tourism, PhadkePrakashan, Kolhapur.
5. Hall, M. and Stephen, P. (2006) Geography of Tourism and Recreation – Environment, Place and Space, Routledge, London.
6. Kamra, K. K. and Chand, M. (2007) Basics of Tourism: Theory, Operation and Practise, Kanishka Publishers, Pune.
7. Muluk, Musmade, Doke, More, (2021) Geography of Tourism-I, Nirali Publication, Pune.
8. Page, S. J. (2011) Tourism Management: An Introduction, Butterworth-Heinemann USA. Chapter 2.
9. Singh Jagbir (2014) "Eco-Tourism" Published by - I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India (www.ikbooks.com).
10. Seth P.N. (1985) Successful Tourism Management: Sterling Publisher Ltd., New Delhi.

*Applicable for courses having practical components.

DSE-A1(ii)			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Geography of Health		
Course Code	GEO-23/DSE-401(ii)		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	DSE-1(ii)		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. familiarization with the fundamentals of tourism geography 2. understand the types of tourism and their trend 3. acquaintance with tourism infrastructure and its impact 4. provide awareness of the carrying capacity of tourism destinations 5* attain skills in solving practical problems associated with tourism.		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	03	02	05
Max. Marks: 100 **Internal Assessment Marks: 20 + 10 = 30** **End-Term Exam Marks: 50 + 20 = 70**		**Time:3 hours**	

Part B- Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising of seven sub parts spread over entire syllabus (one marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Evolution of Medical geography. 2. Concept of Health and its determinants.	11
II	3. Indicators of Health, its measurement and data sources. 4. Global pattern of Health, Mortality and Morbidity.	11
III	5. Food security and health. 6. Demographic transition and Health transition models.	11
IV	7. Health care, infrastructure, provisions and policies in developed and developing countries. 8. Medical tourism: scope and prospect of India.	12
V*	Instructions for external practical examiner: This is literature/field/secondary data based study and all the students have to prepare a project report individually. The external examiner shall be conducting viva-voce on the project report. Distribution of marks for evaluation; 1. Field based project report = 10 marks 2. Viva-Voce = 10 marks Practical Record: Project report of literature/secondary data based study by individual students focusing on 1. The pattern of CBR and CDR since independence 2. The pattern and change in Maternal Mortality Rate and Infant Mortality Rate	30

Suggested Evaluation Methods

InternalAssessment: ➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **10 Marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **10 Marks** • Mid-Term Exam: **NIL**	**End Term Examination:** **50 Marks** **20 Marks**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. D.M. Smith, (1977), Human Geography: Welfare approach, Arnold Meinman.
2. Melinda Meade and R.J. Earichson (2008), Medical Geography, Guilford Press, New York.
3. Peter Hagett (2000) , The Geographical Structure of Epidemics, Oxford.
4. R.P. Misra (2006), Geography of Health, Concept Publishing.

*Applicable for courses having practical components.

MCC-M4(V)			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Fundamentals of Aerial Photography		
Course Code	GEO-23/M-404(V)		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MCC-M4(V)		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. understand the basics of aerial photography. 2. enrich skills about technique of remote sensing. 3. understand the various satellite systems of India. 4. acquire knowledge about interpretation of images. 5* attain skills in solving various practical problem associated with aerial photography and remote sensing.		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	03	02	05
Max. Marks: 100 **Internal Assessment Marks: 20+10 = 30** **End Term Exam Marks: 50+20 = 70**		**Time: 03 Hours**	

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Part B- Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising of seven sub parts spread over entire syllabus (one marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Aerial Photography: History, advantage, and limitations. 2. Types of Aerial photograph.	11
II	3. Geometry of Aerial photograph. 4. Interpretation of Aerial photographs.	11
III	5. Uses of UAV (Drone) in Agriculture and Settlement Analysis.	11
IV	6. Stages of Remote sensing. 7. Electromagnetic radiation and spectrum.	12
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. Distribution of marks for evaluation Exercise = 10 marks File record = 5 marks Viva-Voce = 5 marks --- Practical Record: A project file consisting of 6 exercises on the below mentioned themes: - 1. Identification and mapping of Principal and conjugate principal point (1 exercise). 2. Determination of Flight line (1 exercise) 3. Interpretation and mapping of landuse from Aerial photograph (2 exercise) 4. Interpretation and mapping of landuse from the satellite image (2 exercise)	30

Suggested Evaluation Methods

Internal Assessment: ➢ **Theory** • Class Participation: **05 marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 marks** • Mid-Term Exam: **10 marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.:**10 Marks** • Mid-Term Exam: **NIL**	**End-Term Examination:** **50 Marks** **20 Marks**

Part C-Learning Resources
Recommended Books/e-resources/LMS: 1. Bhatta, B. (2010) Remote Sensing and GIS, Oxford University Publications. 2. Chauniyal, D.D. (2010) Sudur Samvedan evam Bhogolik Suchana Pranali, Sharda PustakBhawan, Allahabad 3. Jha, M.M. and Singh, R.B. (2008) Land Use: Reflection on Spatial Informatics Agriculture and Development, New Delhi: Concept. 4. Singh, G (2005) Map work and practical geography. Vikas Publishing House Pvt. Ltd., New Delhi 5. Singh, L.R and Singh, R (1973) Map work and practical geography, Central Book Allahabad 6. Singh, R.L (2005) Elements of Practical Geography. Kalyani Publishers, New Delhi. India.

*Applicable for courses having practical components.

VAC-4			
Session: 2024-25			
Part A – Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Understanding Climate Change		
Course Code	GEO-23/VAC-404		
CourseType: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	VAC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (ifany)	N.A.		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. understand the nature, scope and development of climate. 2. enrich skills about various climatic features. 3. understand different types of map and their uses. 4* attain skills in solving various practical problem associated with geography.		
Credits	Theory	Practical	Total
	02	00	02
Contact Hours	02	00	02
Max. Marks:50 **Internal Assessment Marks:15** **End-Term Exam Marks:35**		**Time:2 hours**	

Part B-Contents of the Course

Instructions for Paper-Setter

Question 1 is compulsory comprising of seven sub parts spread over entire syllabus (one marks for each sub part). There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Understanding climate 2. Elements of climate	7
II	3. Basis of classification of climate 4. Various types of climate	7
III	5. The concept of climate change 6. Tools of reconstruction of past climate	8
IV	7. Evidences of climate change 8. Effects of climate change	8
V*	NA	

Suggested Evaluation Methods

Internal Assessment:	**End-Term Examination:**
➢ **Theory** • Class Participation: **05 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **05 Marks** • Mid-Term Exam: **05 Marks**	**35 Marks**
➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **NIL** • Mid-Term Exam: **NIL**	**NIL**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Barry, R G and Chorley, RJ (1998) Atmosphere, Weather and Climate, Routledge, London.
2. Khullar, D R (2014) Physical Geography, Kalyani Publishers, New Delhi.
3. Singh, S (2020) Jalvayu Vigyan, Pravalika Publications, Allahabad.

*Applicable for courses having practical components.

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