Kurukshetra University Kurukshetra
Scheme of Examination for Undergraduate programmes
Subject: Geography
According to Curriculum Framework for Undergraduate Programmes as per NEP 2020
(Multiple Entry-Exit, Internships and Choice Based Credit System)
To be Implemented w.e.f. Academic Session 2023-24 in Kurukshetra University and Its Affiliated Colleges

Sem.	Course Type	Course Code	Nomenclature of paper	Credits	Contact hours	Internal marks	End term Marks	Total Marks	Duration of exam (Hrs.) T + P
Sem 1	CC-1 MCC-1	B23-GEO-101	Physical Geography (Theory)	3	3	20	50	70	3
			Physical Geography (Practical)	1	2	10	20	30	3
	MCC-2	B23-GEO-102	Fundamentals of Resource Geography (Theory)	3	3	20	50	70	3
			Fundamentals of Resource Geography (Practical)	1	2	10	20	30	3
	CC-M1	B23-GEO-103	General Geography of Haryana	2	2	15	35	50	3
	MDC-1	B23-GEO-104	Physical Geography of India (Theory)	2	2	15	35	50	3
			Physical Geography of India (Practical)	1	2	5	20	25	3
Sem 2	CC-2 MCC-3	B23-GEO-201	Human Geography (Theory)	3	3	20	50	70	3
			Human Geography (Practical)	1	2	10	20	30	3
	DSEC-1	B23-GEO-202	Cartographic Techniques in Geography (Theory)	3	3	20	50	70	3
			Cartographic Techniques in Geography (Practical)	1	2	10	20	30	3
	CC-M2	B23-GEO-203	General Geography of India	2	2	15	35	50	3
	MDC-2	B23-GEO-204	Human Geography of India (Theory)	2	2	15	35	50	3
			Human Geography of India (Practical)	1	2	5	20	25	3
Sem 3	CC-3 MCC-4 / CC-M3	B23-GEO-301	Geography of India (Theory)	3	3	20	50	70	3
			Geography of India (Practical)	1	2	10	20	30	3
	MCC-5	B23-GEO-302	History and Philosophy of Geography (Theory)	3	3	20	50	70	3
			History and Philosophy of Geography (Practical)	1	2	10	20	30	3
	MDC-3	B23-GEO-303	Resource Geography of India (Theory)	2	2	15	35	50	3
			Resource Geography of India (Practical)	1	2	5	20	25	3
	SEC-3	B23-SEC-325	Geographical Landscapes: Exploration beyond the classroom learning (Theory)	2	2	15	35	50	3
			Geographical Landscapes: Exploration beyond the classroom learning (Practical)	1	2	5	20	25	3
	CC-4 MCC-6	B23-GEO-401	Fundamentals of Economic Geography (Theory)	3	3	20	50	70	3
			Fundamentals of Economic	1	2	10	20	30	3

Sem 4			Geography (Practical)						
	MCC-7	B23-GEO-402	Introduction to Social Geography (Theory)	3	3	20	50	70	3
			Introduction to Social Geography (Practical)	1	2	10	20	30	3
	MCC-8	B23-GEO-403	Geography of Settlements (Theory)	3	3	20	50	70	3
			Geography of Settlements (Practical)	1	2	10	20	30	3
	DSE-1	B23-GEO-404	Fundamentals of Bio-Geography (Theory)	3	3	20	50	70	3
			Fundamentals of Bio-Geography (Practical)	1	2	10	20	30	3
		Or							
		B23-GEO-405	Geography of Tourism (Theory)	3	3	20	50	70	3
			Geography of Tourism (Practical)	1	2	10	20	30	3
	CC-M4 (V)	B23-VOC-226	Introduction to Geographical Information System (GIS) (Theory)	3	3	20	50	70	3
			Introduction to Geographical Information System (GIS) (Practical)	1	2	10	20	30	3
	VAC-4	B23-VAC-415	Disaster Management	2	2	15	35	50	3
Sem 5	CC-5 MCC-9	B23-GEO-501	Statistical Methods in Geography (Theory)	3	3	20	50	70	3
			Statistical Methods in Geography (Practical)	1	2	10	20	30	3
	MCC-10	B23-GEO-502	Regional Development and Planning (Theory)	3	3	20	50	70	3
			Regional Development and Planning (Practical)	1	2	10	20	30	3
	DSE-2	B23-GEO-503	Geography of Trade and Transport (Theory)	3	3	20	50	70	3
			Geography of Trade and Transport (Practical)	1	2	10	20	30	3
		Or							
		B23-GEO-504	Cultural Geography (Theory)	3	3	20	50	70	3
			Cultural Geography (Practical)	1	2	10	20	30	3
	DSE-3	B23-GEO-505	Geography of Disaster Management (Theory)	3	3	20	50	70	3
			Geography of Disaster Management (Practical)	1	2	10	20	30	3
		Or							
		B23-GEO-506	Geography of Water Resources (Theory)	3	3	20	50	70	3
			Geography of Water Resources (Practical)	1	2	10	20	30	3
Sem 6	CC-6 MCC-11 / CC-M6	B23-GEO-601	Fundamentals of Remote Sensing (Theory)	3	3	20	50	70	3
			Fundamentals of Remote Sensing (Practical)	1	2	10	20	30	3
	MCC-12	B23-GEO-602	Urban Geography (Theory)	3	3	20	50	70	3
			Urban Geography (Practical)	1	2	10	20	30	3
	DSE-4	B23-GEO-603	Political Geography Theory)	3	3	20	50	70	3
			Political Geography (Practical)	1	2	10	20	30	3
		Or							
		B23-GEO-	Agricultural Geography	3	3	20	50	70	3

		604	(Theory)						
			Agricultural Geography (Practical)	1	2	10	20	30	3
	DSE-5	B23-GEO-605	Elementary Soil Geography (Theory)	3	3	20	50	70	3
			Elementary Soil Geography (Practical)	1	2	10	20	30	3
		Or							
		B23-GEO-606	Introduction to Population Geography (Theory)	3	3	20	50	70	3
			Introduction to Population Geography (Practical)	1	2	10	20	30	3
	CC-M6 (V)	B23-VOC-320	Making of Maps (Theory)	3	3	20	50	70	3
			Making of Maps (Practical)	1	2	10	20	30	3
Sem 7	**CC-H1 / CC-HM1**	B23-GEO-701	Geography and Climates	4	4	30	70	100	3
	CC-H2	B23-GEO-702	Landforms: Origin, Structure and Processes	4	4	30	70	100	3
	CC-H3	B23-GEO-703	Geography and World Economies	4	4	30	70	100	3
	DSE-6	B23-GEO-704	Geography of Asia	4	4	30	70	100	3
		Or							
		B23-GEO-705	Population Dynamics and Policies	4	4	30	70	100	3
	PC-H1	B23-GEO-706	Advanced Cartography	4	8	30	70	100	6
Sem 8	**CC-H4 / CC-HM2**	B23-GEO-801	Geography and Hazard Management	4	4	30	70	100	3
	CC-H5	B23-GEO-802	Research Methodology in Geography	4	4	30	70	100	3
	CC-H6	B23-GEO-803	Geography of Agriculture and Food Security	4	4	30	70	100	3
	DSE-7	B23-GEO-804	Geography of Europe	4	4	30	70	100	3
		Or							
		B23-GEO-805	Geography and Watershed Management	4	4	30	70	100	3
	PC-H2	B23-GEO-806	Morphometric Analysis of Landforms	4	8	30	70	100	6
		Or							
	CC-H4/ CC-HM2	B23-GEO-801	Geography and Hazard Management	4	4	30	70	100	3
	CC-H5	B23-GEO-802	Research Methodology in Geography	4	4	30	70	100	3
	Project/Dissertation	B23-GEO-807	Project/Dissertation	12	-	-	-	-	-

Kurukshetra University Kurukshetra
Syllabus for Under Graduate Programmes as per NEP- 2020
(Multiple Entry – Exit, Internships and Choice Based Credit System)
w.e.f. 2023-24

<table>
<tr><td colspan="4">CC-I/MCC-I</td></tr>
<tr><td colspan="4">Session: 2023-24</td></tr>
<tr><td colspan="4">Part A - Introduction</td></tr>
<tr><td>Subject</td><td colspan="3">Geography</td></tr>
<tr><td>Semester</td><td colspan="3">I</td></tr>
<tr><td>Name of the Course</td><td colspan="3">Physical Geography</td></tr>
<tr><td>Course Code</td><td colspan="3">B23-GEO-101</td></tr>
<tr><td>Course Type: (CC/MCC/MDC/CCM/DSEC/VOC/ DSE/PC/AEC/VAC)</td><td colspan="3">CC/MCC</td></tr>
<tr><td>Level of the course (As per Annexure-I)</td><td colspan="3">100-199</td></tr>
<tr><td>Pre-requisite for the course (if any)</td><td colspan="3">N.A.</td></tr>
<tr><td>Course Learning Outcomes (CLOs):</td><td colspan="3">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.</td></tr>
<tr><td rowspan="2">Credits</td><td>Theory</td><td>Practical</td><td>Total</td></tr>
<tr><td>3</td><td>1</td><td>4</td></tr>
<tr><td>Contact Hours</td><td>3</td><td>3</td><td>5</td></tr>
<tr><td colspan="2">Max. Marks: 100
Internal Assessment Marks: 20+10 = 30
End Term Exam Marks: 50+20 = 70</td><td colspan="2">Time: 03 Hours</td></tr>
</table>

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. Interior of the earth, geological time scale, rocks and their types. 2. Theory of isostasy, continental drift and plate tectonic; earthquakes and volcanoes.	11
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.	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. Identification and collection of rock samples: granite, basalt, laterite, limestone, shale, sandstone, conglomerate, slate, phyllite, schist, gneiss, quartzite (1 exercise). 2. Extraction of physiographic information from Survey of India 1:50000 topographical maps of mountain, plateau	30

	and plain regions (2 exercises). 3. Measurement of weather elements using analogue instruments: temperature (maximum, minimum and mean) relative humidity, rainfall and preparation of climograph, hythergraph and hyetograph (3 exercises). 4. Interpretation of a daily weather map of India: Pre-Monsoon, Monsoon and Post-Monsoon (2 exercises).	
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 component.

MCC-2			
Session: 2023-24			
Part A – Introduction			
Subject	Geography		
Semester	I		
Name of the Course	Fundamentals of Resource Geography		
Course Code	B23-GEO-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 (if any)	NA		
Course Learning Outcomes (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 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. Preparation of land use/land cover map of an area from topographical sheets and aerial photographs (2 exercises). 2. Mapping of forest cover of an area from topographical sheets and aerial photographs (2 exercises). 3. Mapping of water bodies of an area from topographical sheets and aerial photographs (2 exercises). 4. Decadal changes in country-wise production of coal and iron ore with comparative decadal changes (2 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. 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 Pustak Bhawan, 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, Kedar Nath 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.

CC-M1			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	I		
Name of the Course	General Geography of Haryana		
Course Code	B23-GEO-103		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	CC-M		
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. acquaint with physiography and climate of state. 2. understand the agriculture and industrial status of the state. 3. familiarize with population distribution and literacy of the state. 4. gain knowledge of trade and transport of Haryana. 5*. NA		
Credits	Theory	Practical	Total
	02	00	02
Contact Hours	2	-	2
Max. Marks:50 **Internal Assessment Marks:15** **End-Term Exam Marks: 35**		**Time:3 hours**	
Part B- Contents of the Course			
Instructions for Paper-Setter			

Question 1 is compulsory comprising seven sub-parts spread over the entire syllabus (one mark for each sub-part), to be answered in 10-15 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. Physiography, relief and climate of Haryana. 2. Drainage, soils and natural vegetation.	7
II	3. Agriculture: cropping pattern and challenges. 4. Major industries and industrial centres of Haryana.	8
III	5. Population: distribution, density and growth. 6. Population composition: structure and literacy.	8
IV	7. Pattern of trade and transport. 8. Cultural regions of Haryana.	7
V*	NA	

Suggested Evaluation Methods

Internal Assessment: ➢ **Theory** • Class Participation**: 04 Marks** • Seminar/presentation/assignment/quiz/class test etc**.: 04 Marks** • Mid-Term Exam: **07 Marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **NIL** • Mid-Term Exam: **NIL**	**End-Term Examination:** **35 Marks** **NIL**

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-1			
Session: 2023-24			
Part A – Introduction			
Subject	Geography		
Semester	I		
Name of the Course	Physical Geography of India		
Course Code	B23-GEO-104		
Course Type: (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 (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
	2	1	3
Contact Hours	2	2	4
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		
Unit	**Topics**	**Contact Hours**
I	1. Geological history and regions of India. 2. Physiographic structure and divisions.	7
II	3. Drainage system and its evolution. 4. Hydrological regimes of Indian rivers.	7
III	5. Climate: distribution of temperature, pressure and rainfall; classification and affecting factors. 6. Monsoon: circulation, mechanism and theories.	8
IV	7. Natural vegetation: classification, distribution and inter-relationships 8. Soils: classification, distribution and inter-relationships.	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. Hydrological regimes of peninsular and Himalayan rivers (2 exercises). 2. Annual trend of temperature for more than three decades (maximum, minimum and mean) (2 exercises). 3. Comparative analysis of seasonal variability of rainfall from different climatic reasons of India (2 exercises). 4. Preparation of an inventory of flora and fauna in India (1 exercise). 5. Preparation of an inventory of major geological disasters in past one decade in India (1 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**	**End-Term Examination:** **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.

CC-2/MCC-3			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	II		
Name of the Course	Human Geography		
Course Code	B23-GEO-201		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	CC/MCC		
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. gain knowledge about the fundamentals of human geography. 2. enhance the knowledge of race and religion. **3.** understand the organization of space. 4. familiarize with world economic systems. _____ 5* gain knowledge of mapping socio – economic and demographic data.		
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 consisting of five sub parts spread over entire syllabus (two marks for each sub parts), 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.	11
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	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. Composition of major religions of the world (1 exercise). 2. Methods of representing population distribution and density (2excercises). 3. Flow diagram of migration streams of world population (1excercise). 4. Plotting of isotims and isodapane (2 exercises). **5.** Spatial and temporal growth of world population (2 exercises).	30

Suggested Evaluation Methods	
Internal Assessment: ➢ **Theory** • Class Participation: **5 Marks** • Seminar/presentation/assignment/quiz/class test etc**.: 5 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** **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 component.

DSEC-1			
Session: 2023-24			
Part A – Introduction			
Subject	Geography		
Semester	II		
Name of the Course	Cartographic Techniques in Geography		
Course Code	B23-GEO-202		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	DSEC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	N.A.		
Course Learning Outcomes (CLO):	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: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 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).	11
IV	7. Methods and representation of climatic data. 8. Methods and representation of socio-economic data.	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. 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: ➢ **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. 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 components.

CC-M2			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	II		
Name of the Course	General Geography of India		
Course Code	B23-GEO-203		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	CC-M		
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. understand the location, geographical expansion, and physiography. 2. have acquaintance with the drainage and climate. 3. enrich knowledge about peopling of the nation. 4. internalize the concept of unity in diversity of our nation. 5* NA		
Credits	Theory	Practical	Total
	02	00	02
Contact Hours	2	-	2
Max. Marks:50 **Internal Assessment Marks:15** **End-Term Exam Marks: 35**		**Time:3 hours**	
Part B- Contents of the Course			
Instructions for Paper-Setter Question 1 is compulsory comprising seven sub-parts spread over the entire syllabus (one mark for each sub-part), to be answered in 10-15 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. India: Locational setting and geographical expansion. 2. Physiographic divisions of India.	8
II	3. Drainage system and climate. 4. Soil and natural vegetation.	8
III	5. The Peopling of India. 6. Population distribution, density and growth.	7
IV	7. Population composition: ethnic and socio-cultural attributes (castes and tribes). 8. Unity in diversity in India.	7
V*	NA	

Suggested Evaluation Methods

Internal Assessment: ➢ **Theory** • Class Participation**: 04 marks** • Seminar/presentation/assignment/quiz/class test etc.: **04 marks** • Mid-Term Exam: **7 marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **NIL** • Mid-Term Exam: **NIL**	**End-Term Examination:** **35 Marks** **NIL**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Bose, A. et. al. eds (2001) Population in India's Development, 1947-2000, Vikas, New Delhi.
2. Deshpande C. D. (1992) India: A Regional Interpretation, ICSSR, New Delhi.
3. Johnson, B. L. C., ed. (2001) Geographical Dictionary of India. Vision Books, New Delhi.
4. Mandal R. B. (ed.) (1990) Patterns of Regional Geography – An International Perspective. Vol. 3 – Indian Perspective.
5. Sdyasuk Galina and P Sengupta (1967) Economic Regionalisation of India, Census of India
6. Sharma, T. C. (2003) India - Economic and Commercial Geography. Vikas Publ., New Delhi.
7. Singh R. L. (1971) India: A Regional Geography, National Geographical Society of India.
8. Singh, Jagdish (2003) India - A Comprehensive & Systematic Geography, Gyanodaya Prakashan, Gorakhpur.
9. Spate O. H. K. and Learmonth A. T. A. (1967) India and Pakistan: A General and Regional Geography, Methuen

10. Pathak, C. R. (2003) Spatial Structure and Processes of Development in India. Regional Science Assoc., Kolkata.
11. Tirtha, Ranjit (2002) Geography of India, Rawat Publs., Jaipur & New Delhi.

*Applicable for courses having practical components.

MDC-2			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	II		
Name of the Course	Human Geography of India		
Course Code	B23-GEO-204		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	MDC		
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. gain knowledge about population characteristics of India. 2. have understanding about distribution of tribes in India **3.** acquaint with distribution of religion in India 4. gain insight into intricacies of caste structure of India 5* understand the mapping of racial and cultural characteristics of Indian population		
Credits	Theory	Practical	Total
	2	1	3
Contact Hours	2	2	4
Max. Marks: 75 **Internal Assessment Marks:15+05=20** **End Term Exam Marks: 35+20=55**		**Time: 03 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 mark for each sub part), to be answered in 10-15 words. There will be eight long questions, two from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Population distribution, density and growth. 2. Population composition, sex ratio and literacy.	11
II	3. Pattern and growth of urbanization. 4. Working population: composition and distribution.	11
III	5. Distribution of scheduled tribe population in India 6. Religion: distribution of major religions in India.	11
IV	7. Linguistic and cultural diversity in India. 8. Unity and diversity in India.	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. Age and sex pyramid of Indian population (1 exercise). 2. State wise distribution and composition of working population in India (1 exercises). 3. Map the scheduled tribe population distribution in India (1 exercises). 4. Concentration of urban population by location quotient (1 exercise). 5. Distribution of scheduled caste population (1 exercises). 6. Composition of the major religions in India (1 exercises). 7. Distribution of literacy –rural - urban and male-female (2 exercises).	30

Suggested Evaluation Methods	
Internal Assessment: ➢ **Theory** • Class Participation: **5 Marks** • Seminar/presentation/assignment/quiz/class test etc**.: 5 Marks** • Mid-Term Exam: **5 Marks** ➢ **Practicum:** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **5 Marks** • Mid-Term Exam: **NIL**	**End Term Examination:35** **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 component.

CC-3/MCC-4/CC-M3			
Session: 2023-24			
Part A – Introduction			
Subject	Geography		
Semester	III		
Name of the Course	Geography of India		
Course Code	B23-GEO-301		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	CC/MCC/CC-M		
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	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			

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. Physical divisions and drainage system. 2. Climate, soils and natural vegetation.	12
II	3. Agricultural crops: major crops and cropping pattern, green revolution and its impacts. 4. Development of irrigation sources - canals and tubewells.	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 8 exercises on the below mentioned themes: - 1. Identification and delineation of watershed of major rivers on map 2. Landuse pattern of India (pie chart) 3. Occupational structure of India (pie chart) 4. Distribution and population density map of India (choropleth and dot method) 5. Age and sex structure (pyramid diagram) 6. Identification of the major industrial region of India by cartogram 7. Rainfall deviation diagram of at least 20 years 8. Cropping intensity and irrigation intensity (bivariate method)	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. 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, Gyanodaya Prakashan, 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, Rawat Publs., Jaipur & New Delhi.
13. Tiwari, R.C. (2007) Geography of India. Prayag Pustak Bhawan, Allahabad

*Applicable for courses having practical components.

MCC-5			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	III		
Name of the Course	History and Philosophy of Geography		
Course Code	B23-GEO-302		
Course Type: (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. Emergence of geography as chorological science – landerkunde and landschaftkunde. 6. Concepts – environmental determinism and possibilism, areal differentiation.	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		

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.

MDC-3			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	III		
Name of the Course	Resource Geography of India		
Course Code	B23-GEO-303		
Course Type: (CC/MCC/MDC/CCM/DSEC/VOC/ DSE/PC/AEC/VAC)	MDC		
Level of the course (As per Annexure-I)	200-299		
Pre-requisite for the course (if any)	NA		
Course Learning Outcomes (CLOs):	After completing this course, the learner will be able to: 1. understand regional diversity of India with respect to its agriculture, water, energy and mineral resources. 2. enhance knowledge about policies and problems of resource management in India. 3. to develop ideas on different aspects of resources, and the linkages with development issues that geographers usually address. 4. introduce about policies of resource management and its relevance to sustainable development. _____ 5* attain skills in plotting graphs, correlation and time series analysis of resource-based data.		
Credits	Theory	Practical	Total
	2	1	3
Contact Hours	2	2	4
Max. Marks: 75 **Internal Assessment Marks: 15+05 = 20** **End Term Exam Marks: 35+20 = 55**		**Time: 03 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 mark for each sub part), to be answered in 10-15 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. Agriculture: Environmental, technological and institutional factors affecting Indian Agriculture and dry land agriculture. 2. Distribution and production of rice, wheat, sugarcane and tea.	3 4
II	3. Water resources: development and means of irrigation, intensity of irrigation. 4. Development and management of water resources, national water mission and policy; Jal Shakti Abhiyan.	3 4
III	5. Economic significance of minerals; production, distribution and trade of metallic minerals (iron ore and bauxite). 6. Production, distribution and trade of non-metallic minerals (mica and limestone); problems of mining industry and conservation of minerals.	3 4
IV	7. Energy resources: production, distribution and trade of coal, and petroleum. 8. Non-conventional energy resources (solar and wind); energy crisis and conservation.	4 5
V*	Instructions for external practical examiner: There will be three questions in all and candidate has to attempt two exercises. 1. Distribution of marks for evaluation 2. Exercise = 10 marks 3. File record = 5 marks 4. Viva-Voce = 5 marks Practical Record: A project file consisting of 8 exercises on the below mentioned themes: - 1. Distribution of net sown area India or Haryana (1 exercises).	30

	2. Proportion of irrigated area by choropleth method (1 exercise). 3. Trend of food grains production (rice, wheat, maize) and pulshes production (gram and Tur or arhar) in India by line and poly graph (2 exercises). 4. Time series analysis of the trend of coal/crude oil/natural gas production in India since 1950-51 using 3/5/10-year moving average method (3 exercises). **5.** Proportional distribution of conventional and non - conventional energy using comparative bar diagram (1exercise).	

Suggested Evaluation Methods

Internal Assessment: ➢ **Theory** • Class Participation: **04 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **04 Marks** • Mid-Term Exam: **07Marks** ➢ **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. Deshpande, CD (1992) India: A Regional Interpretation, ICSSR, New Delhi.
2. Husain, M (2020) Geography of India, McGraw Hill, Chennai.
3. Iyer, RR (2003) Water Perspective, Issues and Concerns, SAGE Publications, New Delhi.
5. Johnson, BLC (2001) Geographical Dictionary of India, Vision Books, New Delhi.
6. Khullar, DR (2011) India-A Comprehensive Geography, Kalyani Publishers, New Delhi.
7. Misra, R (2002) Fresh Water Environment, Anmol Publications, New Delhi.
8. Misra, RP and Sundaram, KV (1979) Rural Area Development: Perspectives and Approaches, Sterling Publications, New Delhi.
9. Pathak, CR (2003) Spatial Structure and Processes of Development in India. Regional Science Association, Kolkata.
10. Saroha, J and Singh, S (2022) Geography of India, Pearson, Noida.
11. Sharma, TC (2003) India: Economic and Commercial Geography, Vikas Publications, New Delhi.
12. Sharma, TC (2013) Economic Geography of India, Rawat Publications, Jaipur.
13. Shetty, R (2009) An Analysis of World Resources with reference to India, Sarala Raj Ria Publishers, Mysore.
14. Singh, RL (1971) India: A Regional Geography, National Geographical Society of

India, Varanasi.
15. Singh, J (2003) India: A Comprehensive and Systematic Geography, Gyanodaya Prakashan, Gorakhpur.
16. Tirtha, R (2002) Geography of India, Rawat Publications, Jaipur.
17. Tiwari, RC (2007) Geography of India, Prayag Pustak Bhawan, Allahabad.

*Applicable for courses having practical component.

SEC-3			
Session: 2023-24			
Part A – Introduction			
Subject	Geography		
Semester	III		
Name of the Course	Geographical Landscapes: Exploration beyond the classroom learning		
Course Code	B23-SEC-325		
Course Type: (CC/MCC/MDC/CCM/DSEC/VOC/ DSE/PC/AEC/VAC)	SEC		
Level of the course (As per Annexure-I)	200-299		
Pre-requisite for the course (if any)	NA		
Course Learning Outcomes (CLOs):	After completing this course, the learner will be able to: 5. understand the nature of physical and cultural landscapes 6. internalize the processes shaping natural and cultural landscapes 7. understand the transformation process of urban and rural landscapes. 8. 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
	2	1	3
Contact Hours	2	2	4
Max. Marks: 75 **Internal Assessment Marks: 15+05 = 20** **End Term Exam Marks: 35+20 = 55**		**Time: 03 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 mark for each sub part), to be answered in 10-15 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. Landscapes: concept, definition and classification. 2. Major land surface features and divisions: continents and oceans and their characteristics.	3 4
II	3. Natural landscapes characteristics, types and significance. 4. Processes involved in shaping natural landscapes – plate tectonics, weathering and erosional agents.	3 4
III	5. Cultural landscapes and their formation processes. 6. Factors shaping cultural landscapes – physical, historical, social and political.	3 4
IV	7. Urban landscapes – changing characteristics and factors shaping modern cities. 8. Rural landscapes – characteristics and agents of transformation.	4 5
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:	**End Term Examination:**
➢ **Theory** • Class Participation: **04 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **04 Marks** • Mid-Term Exam: **07Marks**	**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 component.

CC-4/MCC-6			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Economic Geography		
Course Code	B23-GEO-401		
Course Type: (CC/MCC/MDC/CCM/DSEC/VOC/ DSE/PC/AEC/VAC)	CC/MCC		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (if any)	N.A.		
Course Learning Outcomes (CLOs):	After completing this course, the learner will be able to: 5. provides knowledge about the fundamental concepts of economic geography. 6. acquisition of knowledge about resources and their conservation. 7. enrichment of knowledge about distribution of crops, minerals and energy resources 8. acquaintance with global industries, transport, communication and trade _____ 5* attain skills in solving practical problems associated with economic geography.		
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). 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.	11
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.	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. 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	30

	exercise). 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 Pustak Bhawan, 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 component.

MCC-7			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Introduction to Social Geography		
Course Code	B-23-GEO-402		
Course Type: (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. acquaint with social structure in spatial context. 2. gain knowledge about ethnic and social groups in India. 3. understand the social structure and religious diversity of India. 4. be well versed with concept of well-being and its indicators. 5* develop the skill to process social data.		
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 and comprise 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 questions from these by selecting at least one question from each unit. All questions carry equal marks.

Unit	Topics	Contact Hours
I	1. Definition, nature and scope of social geography. 2. Development of social geography and approaches to study.	12
II	3. Social Structure and Processes: Tribes, and their spatial distribution. 4. Caste: origin, form and its distribution.	11
III	5. Language and dialects: origin and linguistic diversity. 6. Religion: major religion and religious plurality in India.	11
IV	7. Social problems: geography of poverty and human development index. 8. Gender inequality and gender development index	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. Computation and mapping of human development index (1 exercise) 2. Computation and mapping of gender development index (1 exercise). 3. Concentration of S.C. population: Location Quotient & dissimilarity index (2 exercises). 4. Graphical representation of income inequality: Lorenz curve (2 exercises). 5. Construction of composite index by ranking and standardization method (2 exercises).	30

Suggested Evaluation Methods	
Internal Assessment: ➢ **Theory** • Class Participation: 5 • Seminar/presentation/assignment/quiz/class test etc.:5 • Mid-Term Exam: 10 ➢ **Practicum** • Class Participation: NIL • Seminar/Demonstration/Viva-voce/Lab records etc.:10 • Mid-Term Exam: NIL	**End Term Examination:** **70** **30**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Ahmad, A. (1993) Social Structure and Regional Development, Rawat Publications, Jaipur
2. Ahmad, A. (1999) Social Geography, Rawat Publications, Jaipur
3. Ahmad, A. (2012) Social Geography of India, Concept Publishing Company, New Delhi
4. Knox, P. L. (1975) Social Wellbeing- A Spatial Perspective, Oxford University Press, London
5. Pain, R., Barke, M., Fuller, D., Gough, J., MacFarlane, R. and Mowl, G. (2001) Introducing Social Geographies, Arnold and Oxford University Press, New York
6. Panelli, R. (2004) Social Geographies: From Difference to Action, Sage Publications, London
7. Sopher, D. (1980) An Exploration of India: Geographical Perspectives on Society and Culture, Cornell Press, New York
8. Smith, D.M. (1977) Human Geography: A Welfare Approach, Arnold Heinemann.
9. Smith, D.M. (1973) The Geography of Social Well-being in the United States. McGraw Hill, New York.
10. Smith, D.M. (1977) Where the Grass is Greener: Geographical Perspectives on Inequality, Penguin.

*Applicable for courses having practical component.

MCC-8			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Geography of Settlements		
Course Code	B23-GEO-403		
Course Type: (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)	NA		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. provide knowledge about the fundamentals of settlements geography. 2. enrich knowledge about the distribution of rural and urban settlements. 3. familiarized with the types and patterns of rural and urban settlements. 4. acquaint with the issues and policies regarding settlement. _____ 5* develop skill of mapping socio-economic and demographic data.		
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: 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, scope, significance and approaches to study settlement geography. 2. Theories of evolution and development of settlements.	12
II	3. Geographical factors affecting the growth of settlements distribution, importance of settlement studies in geography 4. Types of settlement: rural and urban rural-urban dichotomy and continuum.	11
III	5. Rural settlement: shape, site, types and pattern. 6. Urban settlement: Characteristics of ancient and medieval cities.	11
IV	7. Hierarchy of urban settlement: rank-size rule and primate city. 8. Issues and policies in settlements.	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. Location and distribution of urban and rural settlements using toposheets (1 exercises). 2. Graphical representation of rank size rule (1 exercise). 3. Identification of settlement pattern (2 exercises). 4. Traffic flow diagram (1 exercise). 5. Diagrammatic distribution of different class towns (1 exercise).	30

	6. Composition of urban & rural population (1 exercise). 7. Distribution of types of houses by 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. Desphpande, C. D. (2005) "Cities: A Geographical Study", Translated by V. G. Amrita, Manan Prakashan, Mumbai
2. Gharpure, V. (2013) "Nagari Bhugol", (Marathi) Pimpalapure and Company Publishers, Nagpur
3. Gharpure, V. (2013) "Vasti Bhugol", (Marathi) Pimpalapure and Company Publishers, Nagpur
4. Gharpure, V. (2017) "Manavi Bhugol", (Marathi) Pimpalapure and Company Publishers, Nagpur
5. Ghosh. S. (2015) "Introduction to Settlement Geography", Orient Blackswan Private Limited, Hyderabad
6. Jyptirmoy Sen (2007) A Text Book of Social and Cultural Geography," Kalyani Publishers, New Delhi.
7. Knowles, R, and Wareing, J. (1996) "Economic and Social Geography", the Made Simple Series, Rupa & Co., Calcutta
8. Leong, Goh-Cheng and Morgan, G. (1994) "Human and Economic Geography", Oxford University Press, Oxford
9. Misra, R. P. & Misra, K. eds. (1998) Million Cities of India, Sustainable Development Foundation, New Delhi.
10. Siddhartha, K and Mukherjee, S. (2016) "Cities, Urbanisation and Urban Systems (Settlement Geography)", Kitab Mahal, Allahabad
11. Singh, L. R. (2009) "Fundamentals of Human Geography", Sharda Pustak Bhawan, Allahabad
12. Singh, R. Y. (2012) "Geography of Settlements", Rawat Publications, Jaipur
13. Thakur S. A. (2012) "Settlement Geography"/ Vasti Bhugol- Konkan Geographers, Publication
14. Tiwari, R. C. (2016) "Geography of India", Pravalika Publications, Allahabad

*Applicable for courses having practical components.

DSE-1			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Fundamentals of Biogeography		
Course Code	B23-GEO-404		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	DSE		
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. understand the basic ecological principles. **2.** enrich understanding about distribution of plants and animals' life on the earth. 3. aware about conservation of biotic resources and effects of industrial effluents on ecosystems. 4. acquaint with environmental hazards and bio reserves. 5* develop the skill of mapping ecological areas, flora and fauna.		
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 consisting of five sub parts spread over entire syllabus (two marks for each sub parts), 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 and significance of biogeography. 2. Basic ecological principles: Bio-energy cycle in territorial ecosystem; energy budget of the earth; trophic levels and food web.	11
II	3. Distribution of plant life on the earth and its relation to soil, climate and human activities. 4. Geographical distribution of animal life on the earth and its relation to vegetation types, climate and human activities.	12
III	5. Communities: nature of communities and ecosystems: bio-diversities; human induced communities' change; habitat decay and conservation of biotic resources. 6. Industrial effluent and its effect on fresh water and marine biology.	11
IV	7. Environmental hazards: ecological consequences; human perception and adjustment with respect to flood, drought and earthquake. 8. Bio-Reserves in India; distribution and characteristics.	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. Identification of natural vegetation of neighborhood environment and interpretation of their characteristics. 2. Identification of wild animals of neighborhood environment and interpretation of their characteristics. 3. Mapping of forest area and percent of forest to geographical area of selected individual countries.	30

	4. Trend in population of selected wild animal species. 5. Trends in flood frequency and casualties in India for at least 2-3 decades. 6. Mapping of national parks and sanctuaries of India by suitable method. 7. Mapping the ecological hot spots of the world and interpretation of their characteristics. 8. Mapping the water bodies based on topographical sheets of an area. 9. Mapping the frequency or intensity of earthquakes and casualties of a geographical area. 10. Comparative analysis of seasonal variability of rainfall from different climatic reasons of India.	

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. 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. Cunninghum W. P. and Cunninghum M. A., (2004) Principals of Environmental Science, McGraw hill, London.
4. Huggett, R.J. (1998) Fundamentals of Biogeography. Routledge, U.S.A.
5. Khushoo, T.N. and Sharma, M. (1991) Indian Geosphere-Biosphere Har-Anand Publication, Delhi.
6. Lllies, J. (1974) Introduction of Zoogeography, McMillan. London.
7. Mathur, H.S. (1998) Essentials of Biogeography, Anuj Printers, Jaipur.
8. MOEF (2006) National Environmental Policy-2006, Ministry of Environment and Forests, Government of India.
9. Odum, E. P. et al. (2005) Fundamentals of Ecology, Ceneage Learning India.
10. Pears, N. (1985) Basic Biogeography, Longman, London.
11. Simmon, I.G. (1974) Biogeography, Natural and Cultural, Longman, London.
12. Singh S. (1997) Environmental Geography, Prayag Pustak Bhawan. Allahabad.

13. Tivy, J. (1992) Biogeography: A study of Plants in Ecosphere, Oliver and Boyd, U.S.A.
14. UNEP (2007) Global Environment Outlook: GEO4: Environment for Development,
15. United Nations Environment Programme.

Hindi Reading List

16. Singh, Savindra (2001) Paryavaran Bhugol, Prayag Pustak Bhawan, Allahabad.
17. Singh, Shri Narayan (1993) Vatavaran Bhugol, Tara Book Agency.

*Applicable for courses having practical component.

DSE-1			
Session: 2023-24			
Part A – Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Geography of Tourism		
Course Code	B23-GEO-405		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	DSE		
Level of the course (As per Annexure-I	200-299		
Pre-requisite for the course (if any)	NA		
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	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			
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. 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	30

	resorts of Haryana (dot method). 7. Tourist-population pressure (Bivariate method). 8. Explored and unexplored tourist destinations (Point method).	
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. 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, Phadke Prakashan, 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.

CC-M4 (V)			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Introduction to Geographical Information System (GIS)		
Course Code	B23-VOC-226		
Course Type: (CC/MCC/MDC/CC-M/DSEC/VOC/DSE/PC/AEC/VAC)	VOC		
Level of the course (As per Annexure-I	200-299		
Pre-requisite for the course (if any)	Elementary Knowledge of computer		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. understand what is GIS 2. the spatial and non-spatial data 3. the principle of making maps 4. integration of data into GIS and real time mapping 5*develop skills of computer map making		
Credits	Theory	Practical	Total
	03	01	04
Contact Hours	3	2	5
Max. Marks:100 **Internal Assessment Marks:30** **End Term Exam Marks:** 70		**Time: 3 hours**	
Part B- Contents of the Course			
Question 1 is compulsory and comprise 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 questions from these by selecting at least one question from each unit. All			

questions carry equal marks.		
Unit	**Topics**	**Contact Hours**
I	1. Geographical Information System (GIS): Definition, historical development and significance. 2. Components of GIS- Hardware, software, data and sources of data.	06 05
II	3. The basis of GIS mapping: map projections, datum and coordinate systems 4. GIS data type (spatial and non-spatial) and data sources	06 05
III	5. Data models: vector and raster. 6. Data capture: input; editing and error correction.	06 06
IV	7. Application of GIS in resource mapping. 8. Application of GIS in monitoring and management of resources.	06 05
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. Spatial data input in GIS format- Scanning and Geo-referencing (1 exercise). 2. digitization and creation of layers: Point, line and polygon (3 exercises). 3. Entry of non-spatial/ attribute data (1 exercise). 4. linking of spatial and non-spatial data (labelling) (1 exercise). 5. Display of data by choropleth method (1 exercise) 6. Making of layout (1 exercise).	30
Suggested Evaluation Methods		

Internal Assessment:	**End Term Examination:**
➢ **Theory** • Class Participation: • Seminar/presentation/assignment/quiz/class test etc.: • Mid-Term Exam:	**70**
➢ **Practicum** • Class Participation: • Seminar/Demonstration/Viva-voce/Lab records etc.: • Mid-Term Exam:	**30**

Part C-Learning Resources

Recommended Books/e-resources/LMS:

1. Bhatta, B. (2010) Remote Sensing and GIS, Oxford University Publications.
2. Burrough, P.A., and McDonnell, R.A. (2000) Principles of Geographical Information System-Spatial Information System and Geo-statistics. Oxford University Press
3. Chauniyal, D.D. (2010) Sudur Samvedan evam Bhogolik Suchana Pranali, Sharda Pustak Bhawan, Allahabad
4. Heywoods, I., Cornelius, S and Carver, S. (2006) An Introduction to Geographical Infromation system. Prentice Hall.
5. Jha, M.M. and Singh, R.B. (2008) Land Use: Reflection on Spatial Informatics Agriculture and Development, New Delhi: Concept.
6. Nag, P. (2008) Introduction to GIS, Concept India, New Delhi.

*Applicable for courses having practical component.

VAC-4			
Session: 2023-24			
Part A - Introduction			
Subject	Geography		
Semester	IV		
Name of the Course	Disaster Management		
Course Code	B23-VAC-415		
Course Type: (CC/MCC/MDC/CCM/DSEC/VOC/ DSE/PC/AEC/VAC)	VAC		
Level of the course (As per Annexure-I)	200-299		
Pre-requisite for the course (if any)	NA		
Course Learning Outcomes (CLOs):	After completing this course, the learner will be able: 1. understand the meaning of hazard and disaster and its approaches and classification. 2. acquire knowledge about various fundamental concepts of hazard and disaster including technological interventions in the field. 3. develop an awareness regarding management of common hydrological disasters occurring in and around. 4. develop an understanding about the consequences and management of frequently occurring man-made hazards. 5* NA		
	Theory	Practical	Total
	2	0	2
Contact Hours	2	0	2
Max. Marks: 50 **Internal Assessment Marks: 15 = 15** **End Term Exam Marks: 35= 35**		**Time: 03 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 mark for each sub part), to be answered in 10-15 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. Natural hazards and disasters: definition and approaches of study; classification of disasters. 2. Disaster profile of India and world.	3 4
II	3. Concepts of disaster vulnerability and mitigation. 4. Preventive measures and preparedness for disasters.	3 4
III	5. Flood: factors, vulnerability, consequences and management. 6. Drought: Definition, nature, mitigation measures and management.	4 4
IV	7. Industrial disasters: major industrial disasters and their causes and consequences. 8. Epidemics: Causes and consequences, Covid-19 a case study.	4 4
V*	NA	
Suggested Evaluation Methods		
Internal Assessment: ➢ **Theory** • Class Participation: **04 Marks** • Seminar/presentation/assignment/quiz/class test etc.: **04 Marks** • Mid-Term Exam: **07Marks** ➢ **Practicum** • Class Participation: **NIL** • Seminar/Demonstration/Viva-voce/Lab records etc.: **NIL** • Mid-Term Exam: **NIL**		**End Term Examination:** **35 Marks** **NIL**
Part C-Learning Resources		

Recommended Books/e-resources/LMS:

1. Coch, NK (1994) Geohazards: Natural and Human, Pearson, New Delhi.
2. Cutter, SL (2006) Hazards Vulnerability and Environmental Justice, Routledge, London.
3. Gupta, HK (2013) Disaster Management, University Press, New Delhi.
4. Kapur, A (2010) Vulnerable India: A Geographical Study of Disasters, Sage Publication, New Delhi.
5. Modh, S (2010) Managing Natural Disaster: Hydrological, Marine and Geological Disasters, Macmillan, New Delhi.
6. Pine, JC (2014) Hazards Analysis: Reducing the Impact of Disasters, CRC Press, New Delhi.
7. Sinha, A (2001) Disaster Management: Lessons Drawn and Strategies for Future, New United Press, New Delhi.
8. Smith, K (2013) Environmental Hazards: Assessing Risk and Reducing Disaster, Routledge, London.
9. Singh, RB (2006) Natural Hazards and Disaster Management: Vulnerability and Mitigation, Rawat Publications, New Delhi.
10. Singh, S (2000): Environmental Geography, Prayag Pustak Bhavan, Allahabad.
11. Stoltman, JP (2004) International Perspectives on Natural Disasters, Kluwer Academic Publications. Dordrecht.
12. Turk, J (1985) Introduction to Environmental Studies, Saunders Publications, Tokyo, Japan.

*Applicable for courses having practical component.