Minor papers syllabus 2026-27 B.A, B.Sc. four year SYLLABUS- NEP (2020)

B.A./B.Sc.. 1st Semester (Session 2026-27)

NHEQF Level	Sem	Course Type	Course Code	Course Title	L	P	H/W	Total Hours	Credits	Total Credits	Marks		
											C.A.	EoSE	Total
4.5	I	MNR	09/GEO/MNR/101/T	Universe and Earth System	L	-	4	60	4	4	20	80	100
4.5	I	MNR	09/GEO/MNR/101/P	Introduction to Cartography		P	4	60	2	2	10	40	50

B.A./B.Sc.. 2nd Semester (Session 2026-27)

NHEQF Level	Sem	Course Type	Course Code	Course Title	L	P	H/W	Total Hours	Credits	Total Credits	Marks the syllabus		
											C.A.	EoSE	Total
4.5	II	MNR	09/GEO/MNR/151/T	Environmental Degradation, Natural Hazards and their mitigation	L	-	4	60	4	4	20	80	100
4.5	II	MNR	09/GEO/MNR/151/P	Elements of Cartography	-	P	4	60	2	2	10	40	50

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B.A./B.Sc.. 3rd Semester (Session 2027-28)

NHEQF Level	Sem	Course Type	Course Code	Course Title	L	P	H/W	Total Hours	Credits	Total Credits	Marks the syllabus		
											C.A.	EoSE	Total
5	III	MNR	09/GEO/MNR/201/T	Water Resource Management	L	-	4	60	4	4	20	80	100
5	III	MNR	09/GEO/MNR/201/P	Map and Scales	-	P	4	60	2	2	10	40	50

B.A./B.Sc.. 4th Semester (Session 2027-28)

NHEQF Level	Sem	Course Type	Course Code	Course Title	L	P	H/W	Total Hours	Credits	Total Credits	Marks		
											C.A.	EoSE	Total
5	IV	MNR	09/GEO/MNR/251/T	Geography of Tourism	L	-	4	60	4	4	20	80	100
5	IV	MNR	09/GEO/MNR/251/P	Map projections: Perspective projections		P	4	60	2	2	10	40	50

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B.A./B.Sc.. 5th Semester (Session 2028-29)

NHEQF Level	Sem	Course Type	Course Code	Course Title	L	P	H/W	Total Hours	Credits	Total Credits	Marks		
											C.A.	EoSE	Total
5.5	**V**	**MNR**	**09/GEO/MNR/301/T**	Regional Geography of world	**L**	**-**	**4**	**60**	**4**	**4**	**20**	**80**	**100**
5.5	**V**	**MNR**	**09/GEO/MNR/301/T**	Principles of Surveying		**P**	**4**	**60**	**2**	**2**	**10**	**40**	**50**

B.A./B.Sc.. 6th Semester (Session 2028-29)

NHEQF Level	Sem	Course Type	Course Code	Course Title	L	P	H/W	Total Hours	Credits	Total Credits	Marks		
											C.A.	EoSE	Total
5.5	**VI**	**MNR**	**09/GEO/MNR/351/T**	Statistical Methods in Geography	**L**	**-**	**4**	**60**	**4**	**4**	**20**	**80**	**100**
5.5	**VI**	**MNR**	**09/GEO/MNR/351/P**	Surveying Equipment's: 1. Chain and Tape Survey 2. Plane table Survey		**P**	**4**	**60**	**2**	**2**	**10**	**40**	**50**

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Undergraduate Programme (Geography) Syllabus, Semester-I	
Session 2026-2027	
Part-A Introduction	
Subject	**Geography**
Semester	**I**
Name of the Course	**Universe and Earth System**
Course Code	**09/GEO/MNR/101/T**
Course Type:	MNR
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	**After completing the course:** **CLO 1: Universe and Solar System** • Understand the **meaning and concept of the Universe**. • Explain the **origin of the Universe (Big Bang Theory)**. • Identify and classify **types of galaxies and their distribution**. • Understand the **origin of the Solar System** (Nebular Hypothesis and modern theories). • Describe the **structure and components of the Solar System**. **CLO 2: Solar System and Celestial Bodies** • Explain the **structure and importance of the Sun**. • Classify **planets into terrestrial and jovian categories**. • Understand the **role and significance of satellites**. • Describe characteristics of **asteroids, comets, and meteors**. • Analyze why the **Earth is considered a unique planet**. **CLO 3: Earth as a Planet** • Understand the **origin and evolution of the Earth**. • Explain the **shape and size of the Earth**. • Analyze the **movements of the Earth (rotation and revolution)**. • Evaluate the **effects of Earth's movements** (day-night, seasons, etc.).

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	CLO 4: Latitude, Longitude and Time • Understand the **concept of latitudes and major parallels**. • Explain the **importance of longitudes in geographical studies**. • Analyze the **Earth's grid system**. • Understand concepts of **local time, standard time, and International Date Line**. • Calculate **time differences based on longitude**. **CLO 5: Earth System** • Understand the **concept of the Earth as an integrated system**. • Identify components of the Earth System: ✓ Lithosphere ✓ Atmosphere ✓ Hydrosphere ✓ Biosphere • Analyze the **interrelationship among Earth system components**. • Evaluate the importance of **Earth system interactions in sustaining life**.
Credits	4
Total Marks	20+80=100
Part-B Contents of the Course	
Total lecture per week	4

Units	**Topics**	**No. of Lecture/Contact Hours**
I	**Universe and Solar System** ▪ Meaning and concept of the Universe ▪ Origin of the Universe – Big Bang Theory ▪ Galaxies: types and distribution ▪ Origin of the Solar System (Nebular Hypothesis and modern views) ▪ Structure of the Solar System	12
II	**The Solar System and Celestial Bodies** ▪ The Sun: structure and importance	12

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	▪ Planets: classification (terrestrial and jovian) ▪ Satellites and their significance ▪ Asteroids, comets and meteors Earth as a unique planet	
III	**Earth as a Planet** ▪ The Earth ▪ Origin of Earth ▪ Shape and size of the Earth ▪ Movements of the Earth and their effects	12
IV	**Latitude, Longitude and Time** ▪ Latitudes: concept and major parallels of latitude ▪ Longitudes and their significance ▪ Grid system of the Earth ▪ Concept of Time: Local time, Standard time and International Date Line ▪ Calculation of time differences	12
V	**Earth System** ▪ Concept of the Earth System ▪ Components of the Earth System: ✓ Lithosphere ✓ Atmosphere ✓ Hydrosphere ✓ Biosphere ▪ Interrelationship among the components of the Earth System	12

Part-C Learning Resources

1. Strahler, A. N. & Strahler, A. H. (2005): *Physical Geography: Science and Systems of the Human Environment*. John Wiley & Sons.
2. Lutgens, F. K. & Tarbuck, E. J. (2016): *The Atmosphere: An Introduction to Meteorology*. Pearson Education.
3. Garrison, T. (2012): *Essentials of Oceanography*. Brooks/Cole.
4. Singh, Savindra (2013): *Physical Geography*. Prayag Pustak Bhawan, Allahabad.
5. Trewartha, G. T. & Horn, L. H. (1980): *An Introduction to Climate*. McGraw Hill.
6. Lal, D. S. (2012): *Climatology*. Sharda Pustak Bhawan, Allahabad.
7. Singh, R. L. (1979): *Elements of Practical Geography*. Kalyani Publishers.
8. Sharma, J. P. (2010): *Bhoutik Bhugol* (Hindi). Rastogi Publications, Meerut.
9. Singh, Savindra (2010): *Bhoutik Bhugol ke Tatva* (Hindi). Prayag Pustak Bhawan, Allahabad.

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Undergraduate Programme (Geography) Syllabus, Semester- I	
Session 2026-27	
Part-A Introduction	
Subject	**Geography**
Semester	**I**
Name of the Course	**Introduction to Cartography**
Course Code	09/Geog./MNR/101/P
Course Type:	MNR
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	After completing the course: **CLO 1: Fundamentals of Cartography and Earth Representation** • Understand the **meaning, nature, and scope of cartography**. • Analyze the **development of cartography from traditional to modern techniques**. • Explain the **importance of maps in geographical studies**. • Understand the **shape and size of the Earth** and its representation. • Apply the **geographical coordinate system (latitude and longitude)** in map reading. **CLO 2: Types and Elements of Maps** • Identify different **types of maps** (topographical, thematic, atlas maps). • Understand key **elements of maps** such as scale, direction, symbols, and legend. • Apply methods for **representation of point, line, and area data**. • Analyze principles of **map design and generalization**. **CLO 3: Map Scale and Accuracy** • Understand the **concept and types of map scales**

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	(statement, RF, graphical).
	• Perform **conversion between different types of scales**.
	• Apply techniques for **enlargement and reduction of maps**.
	• Analyze issues of **accuracy and errors in map representation**.
	
	CLO 4: Map Projections
	• Understand the **concept and necessity of map projections**.
	• Classify projections into **zenithal, conical, and cylindrical types**.
	• Analyze **properties, uses, and limitations of major projections**.
	• Evaluate and select **appropriate projections for specific purposes**.
	
	CLO 5: Thematic Mapping and Modern Cartography
	• Understand the **concept and methods of thematic mapping**:
	  o Choropleth maps
	  o Dot maps
	  o Isopleth maps
	  o Diagrammatic maps
	• Apply principles of **cartographic representation of data**.
	• Understand basics of **digital cartography, GIS, and remote sensing**.
	• Evaluate the role of modern mapping techniques in **spatial analysis and planning**.

Credits	2
Total Marks	10+40=50
Part-B Contents of the Course	
Total lecture per week	4

Units	**Topics**	**No. of Lecture/Contac**

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		t Hours
I	Cartography—meaning, nature and scope; development of cartography (traditional and modern); importance of maps in geography; shape and size of the Earth; geographical coordinate system (latitude and longitude) and basic concepts of map reading.	12
II	Types of maps—topographical, thematic and atlas maps; elements of maps (scale, direction, symbols and legend); representation of point, line and area data; principles of map design and generalization.	12
III	Map scale—concept and types (statement, representative fraction and graphical scale); conversion of scales; enlargement and reduction of maps; accuracy and errors in map representation.	12
IV	Map projections—concept and necessity; classification of projections (zenithal, conical and cylindrical); properties, uses and limitations of major projections; selection of suitable projections for different purposes.	12
V	Thematic mapping—concept and methods (choropleth, dot, isopleth and diagrammatic maps); basic principles of cartographic representation; introduction to digital cartography and modern mapping techniques (GIS and remote sensing basics).	12

Part-C Learning Resources

1. Robinson, A.H.: Elements of Cartography, John Wiley & Sons, New York.
2. Mishra, R.P. & Ramesh, A.: Fundamentals of Cartography, Concept Publishing, New Delhi.
3. Monkhouse, F.J. & Wilkinson, H.R.: Maps and Diagrams, Methuen, London.
4. Sarkar, A.: Practical Geography: A Systematic Approach, Orient Longman.
5. Singh, R.L. & Dutt, P.K.: Elements of Practical Geography, Kalyani Publishers.
6. Raisz, E.: General Cartography, McGraw Hill, New York.
7. Anson, R. & Ormeling, F.J.: Basic Cartography, ICA Publications.
8. Survey of India: Topographical Map Manuals and Mapping Guidelines.
9. ISRO/NRSC: Introductory materials on GIS and Digital Mapping.
10. Journal: Cartographic Journal (Selected Articles).

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GEOGRAPHY PRACTICAL
Scheme of Examination for B.A./B.Sc. Geography Semester I (NEP 2020)

CA and EoSE will be as per University NEP ordinance

NHEQF Level	Course Type	Course Code	Course Title	P	H/W	Total Hours	Credits	Total Credits	Marks		
									C.A.	EoSE	Total
4.5	MNR	09/GEO/MNR/101/P	Introduction to Cartography	P	4	60	2	2	10	40	50

Scheme

In each Practical Group the number of students will be 20 students

1. Continues Assessment (CA):Max. Marks CA : 10 Marks
   The internal assessment is of 10 Marks which is expended to 100 Marks as follows
   a. Practical record book evaluation and Viva : 30 Marks
   b. Assessment of Practical conducted by the students : 70 Marks
2. EoSE (End of Semester Exam) Max. Marks **EoSE** : 40

Note: Each student is required to complete at least Twenty Exercise in the Record Book.

Practical Examination	**Duration**	**Marks**
1. Lab Work (Written paper)	01.30Hours	30 Marks
2. Record Work & Viva	30 Minutes	5+5 = 10 Marks
Total	**02 Hours**	**40 Marks**

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Undergraduate Programme (Geography) Syllabus, Semester-II	
Session 2026-2027	
Part-A Introduction	
Subject	**Geography**
Semester	**II**
Name of the Course	**Environmental Degradation, Natural Hazards and their mitigation**
Course Code	**09/GEO/MNR/151/T**
Course Type:	MNR
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	**After completing the course:** **CLO 1: Environment and Ecological Concepts** • Understand the **concept, components, and approaches of environment**. • Explain the structure and functioning of an **ecosystem and ecological balance**. • Analyze the **causes and dimensions of environmental degradation**. • Evaluate human-environment interactions and their impacts. **CLO 2: Environmental Degradation and Issues** • Understand processes of **land, water, and air degradation**. • Analyze causes and impacts of: ✓ Deforestation ✓ Desertification ✓ Soil erosion ✓ Pollution ✓ Biodiversity loss ✓ Climate-related environmental stress • Evaluate the consequences of environmental degradation on **ecosystems and human life**. **CLO 3: Natural Hazards** • Understand the **concept, classification, and distribution of natural hazards**.

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	• Analyze causes and impacts of major hazards: ✓ Earthquakes ✓ Volcanoes ✓ Landslides ✓ Floods ✓ Droughts ✓ Cyclones ✓ Heat waves ✓ Forest fires • Interpret spatial patterns and vulnerability of hazard-prone regions. **CLO 4: Disaster Risk and Management** • Understand **disaster vulnerability and risk assessment**. • Analyze **hazard zonation and risk mapping**. • Evaluate **human responses to natural hazards**. • Explain stages of the **disaster management cycle**: ✓ Preparedness ✓ Response ✓ Recovery ✓ Rehabilitation **CLO 5: Mitigation, Adaptation and Sustainability** • Understand **mitigation and adaptation strategies** for environmental hazards. • Analyze the role of **environmental planning and sustainable development**. • Evaluate importance of **community participation and early warning systems**. • Examine **disaster management practices in India**.
Credits	4
Total Marks	20+80=100
Part-B Contents of the Course	
Total lecture per week	4

Units	**Topics**	**No. of Lecture/Contact Hours**
I	Environment: concept, components and approaches; ecosystem and ecological balance; causes and dimensions	12

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	of environmental degradation.	
II	Land, water and air degradation; deforestation, desertification, soil erosion, pollution, biodiversity loss and climate-related environmental stress.	12
III	Natural hazards: concept, classification and distribution; earthquakes, volcanoes, landslides, floods, droughts, cyclones, heat waves and forest fires.	12
IV	Disaster vulnerability and risk assessment; hazard zonation; human response to hazards; disaster management cycle: preparedness, response, recovery and rehabilitation.	12
V	Mitigation and adaptation measures; environmental planning, sustainable development, community participation, early warning systems and disaster management in India.	12

Part-C Learning Resources

1. Singh, Savindra : Environmental Geography
2. Goudie, A. : The Human Impact on the Natural Environment
3. Smith, K. : Environmental Hazards
4. Bryant, E. : Natural Hazards
5. Burton, Kates and White : The Environment as Hazard
6. Coppola, D.P. : Introduction to International Disaster Management
7. Keller, E.A. and Blodgett, R. : Natural Hazards
8. Huggett, R. : Fundamentals of Geomorphology
9. Sharma, V.K. : Disaster Management
10. Singh, R.B. : Natural Hazards and Disaster Management
11. Government of India : Disaster Management Act and NDMA Guidelines
12. UNEP reports on environment and hazards
13. IPCC reports on climate risk
14. Savindra Singh : पर्यावरणभूगोल
15. Saxena, H.M. : Environmental Geography

Undergraduate Programme (Geography) Syllabus, Semester-II

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Session 2026-2027	
Part-A Introduction	
Subject	**Geography**
Semester	**II**
Name of the Course	**Elements of Cartography**
Course Code	**09/GEO/MNR/151/P**
Course Type:	**MNR**
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	**After completing the course:** **CLO 1: Fundamentals of Cartography and Map Components** • Understand the meaning, nature, and importance of cartography. • Analyze the development of map-making through a brief historical perspective. • Identify different types of maps (physical, political and thematic). • Understand basic components of maps such as title, legend, scale and direction. **CLO 2: Map Scale and Distance Measurement** • Understand the concept and types of map scales (statement, representative fraction and linear scale). • Perform simple scale conversions. • Apply techniques for measuring distance on maps. • Develop basic understanding of map accuracy in distance representation. **CLO 3: Map Projections** • Understand the meaning, importance and uses of map projections. • Identify different types of projections. • Analyze basic properties of projections. • Select suitable projections for specific geographical purposes. **CLO 4: Representation of Data and Relief**

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	• Understand methods of representing geographical data and relief. • Apply contour method for representation of relief. • Use thematic mapping techniques such as choropleth and dot maps. • Interpret maps using symbols, colours and basic map reading principles. **CLO 5: Digital Cartography and Its Applications** • Understand the concept of digital cartography. • Gain basic knowledge of Geographic Information System (GIS). • Analyze applications of cartography in navigation, planning and environmental studies. • Evaluate the role of modern cartographic techniques in geographical analysis.
Credits	2
Total Marks	10+40= 50
Part-B Contents of the Course	
Total lecture per week	6

Units	**Topics**	**No. of Lecture/Contact Hours**
I	Meaning, nature and importance of cartography; brief history of map-making; types of maps (physical, political and thematic); basic components of a map—title, legend, scale and direction.	18
II	Map scale and distance; concept and types of scale (statement, representative fraction and linear scale); simple scale conversion; measurement of distance on maps.	18
III	Map projections—meaning, importance and uses; Types of projections; basic properties and selection of suitable	18

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	projections.	
IV	Representation of geographical data and relief—methods of showing relief (contours); thematic mapping techniques (choropleth and dot maps); use of symbols and colours; principles of map reading.	18
V	Modern cartography—digital maps; introduction to GIS; applications of cartography in navigation, planning and environmental studies.	18

Part-C Learning Resources

Recommended Readings:

1. Arthur H. Robinson - Elements of Cartography.
2. Deets & Adams- Principles of Cartography
3. Lan Hey wood- An Introduction to Geographical Information Systems
4. R.N. Mishra & P.K. Sharma- Practical Geography (Methods and Techniques).
5. डॉ. आर.एल. सिंह - मानचित्रणकेसिद्धान्त
6. डॉ. गोपालसिंह - मानचित्रणएवंसर्वेक्षण
7. डॉ. सुरेशचन्द्रबंसल - व्यावहारिकभूगोल
8. डॉ. हरिहरप्रसाद - मानचित्रणकला
9. डॉ. के.के. खन्ना- भूगोलप्रयोगात्मकपुस्तक
10. डॉ. एस.डी. मौर्य - प्रायोगिकभूगोल
11. डॉ. जगदीशसिंह - सर्वेक्षणएवंमानचित्रण
12. डॉ. रामलालदुबे- भूगोलकीप्रायोगिकविधियां
13. डॉ. आर. खुल्लर-प्रयोगात्मकभूगोल
14. जे. पी. शर्मा- प्रायोगिकभूगोल

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GEOGRAPHY PRACTICAL
Scheme of Examination for B.A./B.Sc. Geography Semester II (NEP 2020)

CA and EoSE will be as per University NEP ordinance

NHEQF Level	Course Type	Course Code	Course Title	P	H/W	Total Hours	Credits	Total Credits	Marks		
									C.A.	EoSE	Total
4.5	MNR	09/GEO/MNR/151/P	Elements of Cartography	P	4	60	2	2	10	40	50

Scheme

In each Practical Group the number of students will be 20 students

1. Continues Assessment (CA):Max. Marks CA : 10 Marks
   The internal assessment is of 10 Marks which is expended to 100 Marks as follows
   a. Practical record book evaluation and Viva : 30 Marks
   b. Assessment of Practical conducted by the students : 70 Marks
2. EoSE (End of Semester Exam) Max. Marks **EoSE** : 40

Note: Each student is required to complete at least Twenty Exercise in the Record Book.

Practical Examination	Duration	Marks
1. Lab Work (Written paper)	01.30Hours	30 Marks
2. Record Work & Viva	30 Minutes	5+5 = 10 Marks
Total	**02 Hours**	**40 Marks**

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Undergraduate Programme (Geography) Syllabus, Semester-III	
Session 2027-2028	
Part-A Introduction	
Subject	**Geography**
Semester	**III**
Name of the Course	**Water Resource Management T**
Course Code	**09/GEO/MNR/201/T**
Course Type:	**MNR**
Level of the course (As per Annexure-I)	**200-299**
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	After completing the course, students will be able to: • **CLO–1 (Remember & Understand):** Students will understand the concept, scope, and global distribution of water resources, including India's water availability. They will be able to analyse spatial variations and identify major water resource regions. • **CLO–2 (Understand & Appreciate):** Students will explain the hydrological cycle and groundwater systems, and evaluate different water demand sectors (agriculture, industry, municipal). They will develop skills to estimate and compare water usage. • **CLO–3 (Analyse):** Students will identify key water issues like salinity, alkalinity, groundwater depletion, pollution, floods, and droughts. They will analyse causes, impacts, and management strategies with special reference to India and Rajasthan. • **CLO–4 (Apply):** Students will understand soil conservation, afforestation, flood control, and drought management techniques. They will evaluate case studies and suggest sustainable land and water management practices. • **CLO–5 (Evaluate):** Students will learn about irrigation methods, water conservation techniques, watershed management, and water disputes. They will assess traditional practices and modern approaches for sustainable water resource management.

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Credits	4	
Total Marks		
Part-B Contents of the Course		
Total lecture per week	4	
Units	**Topics**	**No. of Lecture/Contact Hours**
I	Definition and scope of water resource geography, Inventory and distribution of word`s water resources, Water resources of India.	12
II	Groundwater, World Hydrological cycle, Demand and use of water, method of estimation –agricultural industrial and municipal uses of water.	12
III	Salinity, Alkalinity, over exploitation of ground water and Arsenic problem, problem of water logging, Water pollution, River water pollution, Demand and water supply in industries, Flood management, drought and dry farming projects in India and Rajasthan.	12
IV	Soil Conservation, Afforestation, flood forecasting, Floodplains: Land use Regulation and Insurance, Case studies of Major Floods, Droughts – Accurrence, major Droughts management with reference to Rajasthan.	12
V	Irrigation Method and conservation of water. Water conservation, Traditional methods of water conservation in India and Rajasthan, water Quality parameters, Integrated basin Planning, Watershed Management: International and Inter-state River water Disputes and case studies, Environmental disasters and Water crisis.	12
Part-C Learning Resources		

1. Mahnot, S.C. and Singh, P.C. ,1993: Soil and Water Conservation Inter Cooperation Coordination Office , Jaipur
2. Dakshinamurti, C., Michael, A.M. and Mohan, S., 1972: Water Resources of India

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and their Utilization in Agriculture. IARI Monograph No. 3,NEW DELHI
3. Black, Magie, 2005: The No-Nonsense Guide to Water, Rawat Publications, Jaipur.
4. Rao, K.L. : India`s Water Wealth, Orient Long man New Delhi
5. Athavale, R.N.: Water Harvesting and Sustainable Supply in India, Rawat Publication, Jaipur.

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Undergraduate Programme (Geography) Syllabus, Semester-III	
Session 2027-28	
Part-A Introduction	
Subject	**Geography**
Semester	**III**
Name of the Course	**Map and Scales**
Course Code	**09/GEO/MNR/201/P**
Course Type:	MNR
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	After completing the course: **CLO 1: Fundamentals of Cartography** • Understand the **meaning, nature, and scope of cartography**. • Explain the **importance of maps in geographical studies**. • Identify different **types of maps** (physical, political, thematic). • Classify maps based on **purpose and content**. **CLO 2: Elements of Maps and Interpretation** • Understand key **elements of maps** such as direction, scale, symbols, and legend. • Differentiate between **True North and Magnetic North**. • Identify and interpret **conventional signs and Survey of India symbols**. • Develop basic skills in **map interpretation**. **CLO 3: Concept and Types of Scales** • Understand the **concept and importance of map scale**. • Differentiate between **statement scale, representative fraction (RF), and linear scale**. • Perform **conversion between different types of scales**. • Apply appropriate **units of measurement in map reading**.

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	CLO 4: Construction and Application of Scales
	• Develop skills in **construction of scales**:
	  o Plain scale
	  o Diagonal scale
	  o Comparative scale
	• Apply techniques for **enlargement and reduction of maps**.
	• Use scales for **accurate measurement and representation**.
	
	CLO 5: Topographical Maps and Analysis
	• Understand the **concept of topographical maps and Survey of India toposheets**.
	• Interpret **conventional symbols and signs** used in toposheets.
	• Analyze **relief, drainage, and settlement patterns**.
	• Develop skills in **preparation and interpretation of cross profiles**.

Credits	2
Total Marks	10+40=50
Part-B Contents of the Course	
Total lecture per week	4

Units	**Topics**	**No. of Lecture/Contact Hours**
I	**Fundamentals of Cartography: Meaning, Nature & Scope of Cartography. Importance of map in Geography. Types of maps: Physical maps, Political maps, Thematic maps. Classification of maps.**	12
II	**Elements of Maps: Direction (True North, Magnetic North), Scale, Symbols & Conventional signs, Legend (Index). Introduction to survey of India symbols. Basics of map Interpretation.**	12
III	**Concept & Types of Scales: Meaning & Importance of scale. Types of Scales: Statement Scale, Representative Fraction (R.F.), Linear (Plain) Scale. Conversion of**	12

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	Scales. Units of measurement.	
IV	**Methods of scale Construction: Plain scale, Diagonal Scale, Comparative scale. Enlargement & Reduction of maps.**	12
V	**Introduction to topographical maps. Survey of India Toposheets. Conventional Symbols & Signs. Interpretation of Relief, Drainage Settlement. Basics of Cross Profile.**	12

Part-C Learning Resources

1. R.L. Singh & R. P.B. Singh - Elements of Practical Geography.
2. R.P. Mishra & A. Ramesh - Fundamentals of cartography..
3. A.H. Robinson - Elements of cartography.
4. Anson & Ormelling - Basic Cartography
5. R.N. Mishra & P.K. Sharma - Practical Geography (Methods and Techniques).
6. आर. एल. सिंह - प्रायोगिकभूगोलकेतत्व
7. जे. पी. शर्मा-प्रायोगिकभूगोल
8. गोपालसिंह-मानचित्रकार्यएवंप्रायोगिकभूगोल
9. सुरेशचन्द्रबंसल – प्रायोगिकभूगोल
10. के.के. खन्ना - मानचित्रणएवंसर्वेक्षण
11. शिवकुमारसिंह-मानचित्रणकेसिद्धान्त
12. डी. आर. खुल्लर-प्रयोगात्मकभूगोल

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GEOGRAPHY PRACTICAL
Scheme of Examination for B.A./B.Sc. Geography Semester III (NEP 2020)

CA and EoSE will be as per University NEP ordinance

NHEQF Level	Course Type	Course Code	Course Title	P	H/W	Total Hours	Credits	Total Credits	Marks		
									C.A.	EoSE	Total
5	MNR	09/GEO/MNR/201/P	Map and Scales	P	4	60	2	2	10	40	50

Scheme

In each Practical Group the number of students will be 20 students

1. Continues Assessment (CA):Max. Marks CA : 10 Marks
   The internal assessment is of 10 Marks which is expended to 100 Marks as follows
   a. Practical record book evaluation and Viva : 30 Marks
   b. Assessment of Practical conducted by the students : 70 Marks
2. EoSE (End of Semester Exam) Max. Marks **EoSE** : 40

Note: Each student is required to complete at least Twenty Exercise in the Record Book.

Practical Examination	Duration	Marks
1. Lab Work (Written paper)	01.30Hours	30 Marks
2. Record Work & Viva	30 Minutes	5+5 = 10 Marks
Total	**02 Hours**	**40 Marks**

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Undergraduate Programme (Geography) Syllabus, Semester-IV		
Session 2027-2028		
Part-A Introduction		
Subject	**Geography**	
Semester	**IV**	
Name of the Course	**Geography of Tourism**	
Course Code	**09/GEO/MNR/251/T**	
Course Type:	**MNR**	
Level of the course (As per Annexure-I)	**200-299**	
Pre-requisite for the course (if any)	NA	
Course Learning Outcomes (CLO)	After completing the course, students will be able to: CLO–1 (Remember & Understand): Learners will understand the meaning, nature, scope, and historical evolution of tourism from ancient to modern periods. CLO–2 (Understand & Appreciate): Learners will examine key elements of tourism such as attractions, accessibility, accommodation, and amenities. CLO–3 (Analyse): Learners will understand the physical and cultural bases of tourism in India and identify major tourist circuits and types. CLO–4 (Apply): Learners will explore tourism in Rajasthan focusing on desert, heritage, and wildlife tourism and major tourist centres. CLO–5 (Evaluate): Learners will analyze Rajasthan's cultural heritage, fairs, festivals, and folk traditions as tourism resources.	
Credits	4	
Total Marks	20+80=100	
Part-B Contents of the Course		
Total lecture per week	4	
Units	**Topics**	**No. of Lecture/Contact Hours**
I	Meaning, nature and scope of tourism; growth of travel through ancient, medieval and modern	12

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	periods; types of tourism and factors influencing tourism development; tourism as an industry; role of international organizations (UNWTO, UNESCO, WTTC) and impact of globalization.	
II	Elements of tourism—tourist, attractions, accessibility, accommodation and amenities; tourism transport and hospitality industry; economic, socio-cultural and environmental impacts of tourism; domestic and international tourism; concept of sustainable and responsible tourism.	12
III	Tourism in India—physical and cultural bases; major tourist circuits and types (cultural, religious, wildlife, eco and medical tourism); problems and challenges; role of Ministry of Tourism and ITDC; tourism policies and promotional campaigns.	12
IV	Tourism in Rajasthan—desert, heritage and wildlife tourism; survey of major tourist centres; infrastructure and facilities; role of RTDC; problems, prospects and sustainable tourism development in Rajasthan; Rajasthan Tourism Policy.	12
V	Cultural heritage of Rajasthan; fairs, festivals and folk traditions as tourism resources; patterns of domestic and foreign tourist influx; seasonality and tourism statistics; tourism planning and future prospects.	12

Part-C Learning Resources

1. Robinson, H.: *Geography of Tourism*, Macdonald & Evans, London, 1976.
2. Robinson, J.H.: *A Geography of Tourism*, Macdonald and Evans Ltd.
3. Bhatia, A.K.: *Tourism Development: Principles and Practices*, Sterling Publishers, New Delhi.
4. Bhatia, A.K.: *International Tourism Management*, Sterling Publishers, New Delhi.
5. Seth, P.N. & Bhat, S.S.: *An Introduction to Travel and Tourism*, Sterling Publishers Pvt. Ltd., New Delhi.
6. Kaul, R.N.: *Dynamics of Tourism: A Trilogy*, Sterling Publishers, New Delhi.

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7. Singh, S.: *Tourism Geography*, Prayag Pustak Bhawan, Allahabad.
8. Acharya, Ram: *Tourism in India*, National Publishers, New Delhi.
9. Ministry of Tourism, Government of India: *India Tourism Statistics (Latest Edition)*.
10. Rajasthan Tourism Development Corporation (RTDC): *Tourism Policy Documents and Annual Reports*.
11. UNWTO: *Tourism Highlights and World Tourism Barometer Reports*.
12. UNESCO: *World Heritage and Sustainable Tourism Programme Reports*.
13. Annals of Tourism Research (Elsevier): Selected Research Articles.
14. Journal of Tourism and Cultural Change: Selected Research Papers.
Government of Rajasthan: *Rajasthan Tourism Policy (Latest Edition)*.

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Undergraduate Programme (Geography) Syllabus, Semester- IV	
Session 2027-28	
Part-A Introduction	
Subject	**Geography**
Semester	**IV**
Name of the Course	Map projections: Perspective projections
Course Code	**09/GEO/MNR/251/P**
Course Type:	MNR
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	After completing the course: **CLO 1: Fundamentals of Map Projections** • Understand the **concept and classification of map projections**. • Explain the **need and properties of map projections**. • Analyze different types of **distortions (area, shape, distance, direction)**. • Evaluate the suitability of projections for **different geographical purposes**. **CLO 2: Perspective Projections and Gnomonic Projection** • Understand the **concept, geometry, and classification of perspective projections**. • Explain the principles of **gnomonic projection**. • Analyze characteristics and uses of **gnomonic projection**. • Apply methods for **construction of gnomonic projection**. **CLO 3: Stereographic Projection** • Understand the **concept and properties of stereographic projection**. • Analyze its **characteristics and areas of application**. • Develop skills in **construction of stereographic projection**. • Evaluate its advantages and limitations in mapping. **CLO 4: Orthographic Projection** • Understand the **concept and characteristics of orthographic projection**.

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	• Analyze its **uses in geographical representation**. • Apply methods for **construction of orthographic projection**. • Evaluate its limitations in terms of **distortion and perspective**. **CLO 5: Comparative Analysis and Applications** • Apply perspective projections in **practical mapping situations**. • Compare **gnomonic, stereographic, and orthographic projections**. • Evaluate the suitability of each projection for **different mapping purposes**. • Develop analytical skills for **selection of appropriate projections**.
Credits	2
Total Marks	10+40=50
Part-B Contents of the Course	
Total lecture per week	4

Units	**Topics**	**No. of Lecture/Contact Hours**
I	Concept and classification of map projections; need and properties of projections; distortions in map projections.	12
II	Perspective projections: concept, geometry and classification; gnomonic projection.	12
III	Stereographic projection: properties, characteristics and construction.	12
IV	Orthographic projection: characteristics, uses and construction methods.	12
V	Applications of perspective projections; comparative study of gnomonic, stereographic and orthographic projections.	12

Part-C Learning Resources

1. Raisz, E. – **General Cartography**
2. Robinson, A.H. – **Elements of Cartography**
3. Monkhouse & Wilkinson – **Maps and Diagrams**
4. Kellaway, J. – **Map Projections**

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5. Lawrence, G.R.P. – **Cartographic Methods**
6. Singh, R.L. – **Elements of Practical Geography**
7. Singh & Kanujia – **Map Work and Practical Geography**
8. Dickinson, G.C. – **Statistical Mapping and Presentation of Statistics**
9. Sharma, J.P. – **Prayogic Bhoogol**

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GEOGRAPHY PRACTICAL
Scheme of Examination for B.A./B.Sc. Geography Semester IV (NEP 2020)

CA and EoSE will be as per University NEP ordinance

NHEQF Level	Course Type	Course Code	Course Title	P	H/W	Total Hours	Credits	Total Credits	Marks		
									C.A.	EoSE	Total
5	**MNR**	**09/GEO/MNR/251/P**	Map projections: Perspective projections	**P**	**4**	**60**	**2**	**2**	**10**	**40**	**50**

Scheme

In each Practical Group the number of students will be 20 students

1. Continues Assessment (CA):Max. Marks CA : 10 Marks
   The internal assessment is of 10 Marks which is expended to 100 Marks as follows
   a. Practical record book evaluation and Viva : 30 Marks
   b. Assessment of Practical conducted by the students : 70 Marks
2. EoSE (End of Semester Exam) Max. Marks **EoSE** : 40

Note: Each student is required to complete at least Twenty Exercise in the Record Book.

Practical Examination	**Duration**	**Marks**
1. Lab Work (Written paper)	01.30Hours	30 Marks
2. Record Work & Viva	30 Minutes	5+5 = 10 Marks
Total	**02 Hours**	**40 Marks**

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Undergraduate (Honours) Programme (Geography) Syllabus, Semester-V	
Session 2028-2029	
Part-A Introduction	
Subject	**Geography**
Semester	**V**
Name of the Course	**Regional Geography of world**
Course Code	**09/GEO/MNR/301/T**
Course Type:	MNR
Level of the course (As per Annexure-I)	300-399
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	After successful completion of the course, students will be able to: CLO–1 - Understand the fundamental concepts of world regional geography and physiography. -Analyze global patterns of vegetation and soil distribution. -Develop the ability to interpret physical environments and their regional variations. CLO–2 - Examine the economic structure, agriculture, and population distribution of Europe. -Compare Eastern and Western European economic regions. -Evaluate regional development patterns and disparities. CLO–3 - Understand the economic and agricultural systems of North and South America. -Analyze population distribution and regional development in the USA and Brazil. -Assess factors influencing economic growth in these regions. CLO–4 - Study the economic and agricultural characteristics of Africa and Oceania. -Analyze population patterns, deserts, tribes of Africa, and Egypt. -Evaluate regional diversity with a focus on Australia. CLO–5

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	- Examine Asia's economic structure, agriculture, and population distribution. -Analyze regional development in the Indian subcontinent and Japan. -Apply knowledge to understand diverse socio-economic patterns in Asia.
Credits	4
Total Marks	20+80=100
Part-B Contents of the Course	
Total lecture per week	4

Units	**Topics**	**No. of Lecture/Contact Hours**
I	Introduction to World Regional Geography Physiography, Vegetation and Soil	12
II	Europe Economic, Agriculture, Population Distribution Special Study- Eastern and Western European Economic Region.	12
III	North and South Americas Economic, Agriculture, Population Distribution Special Study- Regional Economic Development of USA and Brazil.	12
IV	Africa, Oceania Economic, Agriculture, Population Distribution Special Study: Australia, Desert and Tribes of Africa, Egypt.	12
V	Asia Economic, Agriculture, Population Distribution, Agriculture, Special Study: Indian Subcontinent, Japan.	12

Part-C Learning Resources

1. Cole, J.: A Geography of the World's Major Regions, Routledge, London, 1996.
2. Cole, J. P.: Latin America - Economic and Social Geography, Butterworth, USA, 1975.
3. Cole, M. M.: South Africa, Dutton, New York, 1961.
4. De Blij, H. J.: Geography: Regions and Concepts, John Wiley & Sons Inc., New York, 1994.
5. Dickenson, J. P. et al.: The Geography of the Third World, Routledge, London, 1996.
6. Gourou, R., The Tropical World, Longman, London, 1980.
7. Jackson, R. H. and L. E. Hudman: World Regional Geography: Issues for Today,

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John
8. Kolb, A.: East Asia: Geography of a Cultural Region, Methuen, London, 1977.
9. Minshull, G. N.: Western Europe, Hoddard& Stoughton, New York, 1984.
10. Patterson, J H.: Geography of Canada and the United States, Oxford University Press. 1985.
11. Songquíao, Z.: Geography of China, John Wiley & Sons Inc., New York, 1994.
12. Ward, R. W. and A. Miller: World Regional Geography: A Question of Place, John Wiley & Sons Inc., New York, 1989.
13. Hussain , Majid: Fundamentals of Physical Geography, Rawat Publications, New Delhi.
14. Cheng Goh Leong,: Certificate Physical and Human Geography, Oxford University Press New Delhi.
15. Khanna K K, Gupta VK: Economic and Commercial Geography, Sultan Chand and Sons. Educational Publishers, New Delhi.
16. Bala Renu,: Text book of Geography, Ankit Publishing House, New Delhi..
17. Qazi, S. A., Qazi Navaid Shabir: Geography of the World, APH Publishing Corporation, New Delhi.
18. Gautam, Alka (2007): World Geography, Sharda Pustak Bhawan, Allahabad.
19. Christopher L Satter, Jospeh J Hobbs: Essentials of World Regional Geography. Thompson Books.
20. D.S. Lal: Climatology, Sharda Pustak Bhawan, Allahabad pp. 340-375.
21. Robinson, H: World Regional Geography.
22. Tikkha, Bali, Sekhon (2007): World Regional Geography, New Academic Publishing Co., Jalandhar.

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Undergraduate (Honours) Programme (Geography) Syllabus, Semester-V	
Session 2028-2029	
Part-A Introduction	
Subject	**Geography**
Semester	**V**
Name of the Course	Principles of Surveying
Course Code	**09/GEO/MNR/301/T**
Course Type:	MNR
Level of the course (As per Annexure-I)	300-399
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	After successful completion of the course, students will be able to: CLO 1 • Understand the concept, definition, and significance of surveying in geographical studies • Differentiate between plane surveying and geodetic surveying • Explain the role of surveying in map-making and spatial data collection • Develop basic conceptual clarity of surveying principles • CLO 2 • Apply different methods of distance measurement such as chaining, taping, and EDM • Demonstrate understanding of angle measurement using theodolite and total station • Analyze accuracy and sources of error in measurement techniques • Develop practical skills in field data collection CLO 3 • Explain the principles of leveling including differential and trigonometric leveling • Interpret and construct contour maps

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	• Apply contouring techniques for terrain analysis • Evaluate the importance of contouring in geographical and environmental studies CLO 4 • Identify and describe modern surveying instruments such as theodolite, total station, and GPS • Demonstrate operational knowledge of survey instruments in fieldwork • Understand the role of surveying software and data processing tools • Analyze accuracy, efficiency, and technological advancements in surveying CLO 5 • Apply surveying techniques in topographic mapping and land use planning • Assess the role of surveying in environmental monitoring and urban planning • Interpret spatial data for real-world geographical problem-solving • Integrate surveying knowledge with GIS and remote sensing applications
Credits	2
Total Marks	10+40=50
Part-B Contents of the Course	
Total lecture per week	4

Units	**Topics**	**No. of Lecture/Contact Hours**
I	Introduction to Surveying - Definition and importance of surveying in geography - Types of surveying: plane and geodetic	12
II	Measurement Techniques - Distance measurement: chaining, taping, EDM - Angle measurement: theodolite, total station	12

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III	Leveling and Contouring - Principles of leveling: differential, trigonometric - Contouring: methods, applications	12
IV	Surveying Instruments - Theodolite, total station, GPS - Surveying software and data processing	12
V	Geographical Applications - Topographic mapping, land use plan - Environmental monitoring, urban planning	12
Part-C Learning Resources		
1. "Surveying: Theory and Practice" by James M. Anderson 2. "Principles of Surveying" by J.C. Bhattacharjee		

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GEOGRAPHY PRACTICAL
Scheme of Examination for B.A./B.Sc. Geography Semester V (NEP 2020)

CA and EoSE will be as per University NEP ordinance

NHEQF Level	Course Type	Course Code	Course Title	L	P	H/W	Total Hours	Credits	Total Credits	Marks		
										C.A.	EoSE	Total
5.5	**MNR**	**09/GEO/MNR/301/T**	Principles of Surveying		**P**	**4**	**60**	**2**	**2**	**10**	**40**	**50**

Scheme

In each Practical Group the number of students will be 20 students

1. Continues Assessment (CA):Max. Marks CA : 10 Marks
   The internal assessment is of 10 Marks which is expended to 100 Marks as follows
   a. Practical record book evaluation and Viva : 30 Marks
   b. Assessment of Practical conducted by the students : 70 Marks
2. EoSE (End of Semester Exam) Max. Marks **EoSE** : 40

Note: Each student is required to complete at least Twenty Exercise in the Record Book.

Practical Examination	**Duration**	**Marks**
1. Lab Work (Written paper)	01.30Hours	30 Marks
2. Record Work & Viva	30 Minutes	5+5 = 10 Marks
Total	**02 Hours**	**40 Marks**

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Undergraduate (Honours) Programme (Geography) Syllabus, Semester-VI	
Session 2028-2029	
Part-A Introduction	
Subject	**Geography**
Semester	**VI**
Name of the Course	**Statistical Methods in Geography**
Course Code	**09/GEO/MNR/351/T**
Course Type:	MNR
Level of the course (As per Annexure-I)	300-399
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	After successful completion of the course, students will be able to: CLO–1 (**Use of Data in Geography**) - Understand the significance of statistical methods in geography. -Identify sources of geographical data and their reliability. -Apply appropriate scales of measurement (nominal, ordinal, interval, ratio) for analysis. CLO–2 (**Tabulation and Descriptive Statistics)** - Develop skills in tabulating and summarizing data. - Calculate and interpret frequencies, deciles, quartiles, and cross-tabulations. -Organize data effectively for geographical analysis. CLO–3 - Understand measures of central tendency: mean, median, and mode. -Apply these measures to summarize geographical data. -Analyze data to identify typical patterns and trends. CLO–4 - Understand concepts of data dispersion: standard deviation, variance, and coefficient of variation. -Calculate and interpret dispersion to assess variability. -Apply these measures to compare geographical datasets. CLO–5 (**Association and Correlation**) - Understand association and correlation between variables. -Apply rank correlation, product-moment correlation, and simple

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	regression. -Analyze relationships and predict trends in geographical data.	
Credits	4	
Total Marks	20+80=100	
Part-B Contents of the Course		
Total lecture per week	4	
Units	**Topics**	**No. of Lecture/Contact Hours**
I	**Use of Data in Geography**: Significance of Statistical Methods inGeography; Sources of Data, Scales of Measurement (Nominal, Ordinal, Interval, Ratio).	12
II	**Tabulation and Descriptive Statistics**: Frequencies (Deciles, Quartiles), Cross Tabulation,	12
III	Measures of Central Tendency (Mean, Median and Mode)	12
IV	Dispersion (Standard Deviation, Variance and Coefficient of Variation).	12
V	**Association and Correlation**: Rank Correlation, Product Moment Correlation, and Simple Regression.	12

Part-C Learning Resources

1. Berry B. J. L. And Marble D. F. (eds.): Spatial Analysis – A Reader in Geography.
2. Ebdon D., 1977: Statistics in Geography: A Practical Approach.
3. Hammond P. And McCullagh P. S., 1978: Quantitative Techniques in Geography: An Introduction, Oxford University Press.
4. King L. S., 1969: Statistical Analysis in Geography, Prentice-Hall.
5. Mahmood A., 1977: Statistical Methods in Geographical Studies, Concept.
6. Pal S. K., 1998: Statistics for Geoscientists, Tata McGraw Hill, New Delhi.
7. Sarkar, A. (2013) Quantitative geography: techniques and presentations. Orient Black Swan Private Ltd., New Delhi
8. Silk J., 1979: Statistical Concepts in Geography, Allen and Unwin, London.
9. Spiegel M. R.: Statistics, Schaum's Outline Series.
10. Yeates M., 1974: An Introduction to Quantitative Analysis in Human Geography, McGraw Hill, New York.

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11. Shinha, Indira (2007) Sankhyikibhugol. Discovery Publishing House, New Delhi

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Undergraduate (Honours) Programme (Geography) Syllabus, Semester-VI		
Session 2028-2029		
Part-A Introduction		
Subject	**Geography**	
Semester	**VI**	
Name of the Course	Surveying Equipments: 1. Chain and Tape Survey 2. Plane table Survey	
Course Code	**09/GEO/MNR/351/P**	
Course Type:	MNR	
Level of the course (As per Annexure-I)	300-399	
Pre-requisite for the course (if any)	NA	
Course Learning Outcomes (CLO)	To introduce the students with different types of survey techniques and importance of survey in Geography.	
Credits	2	
Total Marks	10+40=50	
Part-B Contents of the Course		
Total lecture per week	4	
Units	**Topics**	**No. of Lecture/Contact Hours**
I	Definition and importance of survey; method of surveying; primary division of survey; classification of survey. Types of survey based on instruments and method.	12
II	Chain Surveying: principles of chain Surveying, Instruments used in chain surveying with their brief description and sketch.	12
III	Plane Table Survey:Introduction, Brief description of Instruments used in Plane Table Survey,	12

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IV	Methods used in Plane Table Survey, Brief description of Centering, Levelling, Orientation operation used in Plane Table	12
V	Survey of a small area.	12

Part-C Learning Resources

1. Misra, R.P. and Ramesh, A. 1999. Fundamentals of Cartography, Concept Publishing Company, New Delhi
2. Monkhouse, F.J. and Wilkinson, H.R. 1980. Maps and Diagrams. B. I. Publications, New Delhi.
3. Singh, R.L (2005) Elements of Practical Geography. Kalyani Publishers, New Delhi. India.
4. Sharma, J.P. (2016) Prayogik Bhugol, Rastogi Publications, Meerut.
5. Sarkar, A. (2015) Practical geography: A systematic approach, Orient Black Swan Private Ltd., New Delhi.
6. Robinson, A.H., et. al. (1995) Elements of Cartography, John Wiley, New York.
7. Dent, B.D. (1999) Cartography: Thematic Map Design, (Vol. 1), McGraw Hill.
8. Gupta, K.K. and Tyagi, V.C (1992) Working with Maps, Survey of India, DST, New Delhi.
9. Singh, G (2005) Map work and practical geography. Vikas Publishing House Pvt. Ltd., New Delhi
10. Misra, R.P. and Ramesh, A. 1999. Fundamentals of Cartography, Concept Publishing Company, New Delhi
11. Sharma, J.P. (2016) Prayogik Bhugol, Rastogi Publications, Meerut.

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GEOGRAPHY PRACTICAL
Scheme of Examination for B.A./B.Sc. Geography Semester VI (NEP 2020)

CA and EoSE will be as per University NEP ordinance

NHEQF Level	Course Type	Course Code	Course Title	L	P	H/W	Total Hours	Credits	Total Credits	Marks		
										C.A.	EoSE	Total
5.5	**MNR**	**09/GEO/MNR/351/P**	Surveying Equipment's: 1. Chain and Tape Survey 2. Plane table Survey		**P**	**4**	**60**	**2**	**2**	**10**	**40**	**50**

Scheme

In each Practical Group the number of students will be 20 students

1. Continues Assessment (CA):Max. Marks CA : 10 Marks
   The internal assessment is of 10 Marks which is expended to 100 Marks as follows
   a. Practical record book evaluation and Viva : 30 Marks
   b. Assessment of Practical conducted by the students : 70 Marks
2. EoSE (End of Semester Exam) Max. Marks **EoSE** : 40

Note: Each student is required to complete at least Twenty Exercise in the Record Book.

Practical Examination	**Duration**	**Marks**
1. Lab Work (Written paper)	01.30Hours	20 Marks
2. Record Work & Viva	30 Minutes	5+5 = 10 Marks
3. Field Survey &Viva Voce	01 Hours	5+5 = 10 Marks
Total	**03 Hours**	**40 Marks**

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