



S. S. Jain Subodh P.G. College, Jaipur

(AUTONOMOUS)

(Affiliated to University of Rajasthan, Jaipur)

SYLLABUS



B.A./B.Sc. (Batch-2025-2028/29)

(THREE/FOUR YEAR UNDERGRADUATE PROGRAMME)

Paper – Physical Basis of Geography

Paper – Practical – I

(Session – 2025-26)

SEMESTER-I, EXAMINATION -2026

As per NEP-2020

Department of Geography
S.S. Jain Subodh P.G. College, Jaipur

2025

15

B.A./B.Sc.

Semester – I

Paper- Physical Basis of Geography

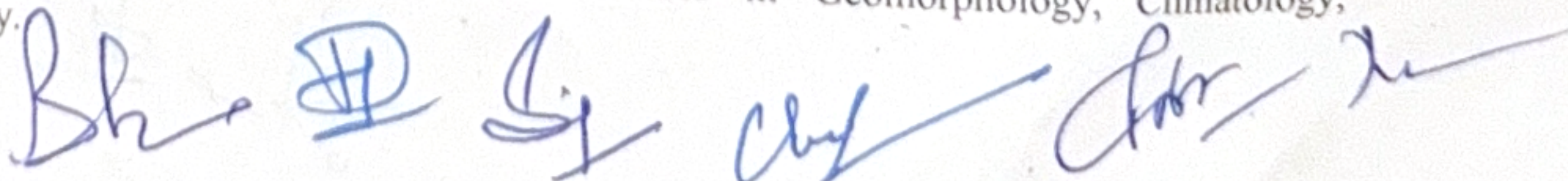
1 Credit – 25 Marks
4 Credits – 100 Marks
Question Paper – 70 Marks
Internal Assessment – 30 Marks

Course Objectives:

- Introduce students to the fundamental concepts, nature, and scope of Physical Geography as a core branch of geographical science.
- Explain the origin and internal structure of the Earth, including key scientific theories related to its formation, continents, and oceans.
- Develop an understanding of geomorphic processes, earth movements, and the evolution of diverse landforms formed by both internal and external forces.
- Familiarize students with the structure and composition of the atmosphere and the principles governing weather and climatic phenomena.
- Provide knowledge of the oceanic realm — its floor topography, temperature, salinity, currents, tides, and associated depositional features.
- Explain the interrelationship between physical environments and living organisms through the study of biosphere, ecosystem, ecology, and major biomes of the world.
- Enhance scientific reasoning and spatial thinking for analyzing natural processes and their geographical significance in shaping the Earth's surface.

Learning outcomes: After successful completion of this paper, students will be able to :

- Define, describe, and interpret the scope and subdivisions of Physical Geography in relation to other branches of Geography.
- Explain various theories of the origin of the Earth, continents, and oceans, and demonstrate understanding of the Earth's interior and isostasy.
- Identify and differentiate between various geomorphic processes and landforms created by endogenetic and exogenetic forces.
- Analyze the dynamics of weather and climate by understanding the composition, structure, and functioning of the atmosphere.
- Interpret the distribution and causes of temperature, pressure, winds, and cyclonic systems on a global scale.
- Describe and illustrate oceanic features such as ocean floor topography, temperature, salinity, currents, tides, and coral reefs.
- Understand the concepts of biosphere, ecosystem, and ecology, and classify world biomes based on climatic and vegetational characteristics.
- Apply physical geographical knowledge to explain spatial variations in environmental phenomena and their impact on human life.
- Develop practical skills for observation, analysis, and interpretation of natural processes using maps, diagrams, and models.
- Build a foundational understanding necessary for advanced studies in Geomorphology, Climatology, Oceanography, and Biogeography.



Marks Distribution		
TOTAL MARKS	=	100 M
ESE (End Semester Exam)	=	70 M
CIA (Continuous Internal Assessment)	=	30 M
ESE contains 2 parts i.e. Part-A and Part-B		
Part-A (I) : 07 Ques. of Map (compulsory)	= 7 x 1 Mark	= 07M
Student will have to locate 7 out of 8 in world map, supplied by exam centre		
(II) : 07 Ques. of short ans. (one word / 15 words) (compulsory)	= 7x1 Mark	= 07M
(Student will have to attempt 7 out of 8 ques.)		
Part- B : 04 Ques. with Internal Choice (01 Q. attempt from each unit) = 4 x 14 Marks	=	56M.
Maximum Marks	=	70M.
Minimum Passing Marks for ESE	=	28 M
Minimum Passing Marks for CIA	=	12 M
Total Passing Marks	=	40 M

Unit-I: Introduction to Physical Geography, Origin of the Earth and its Internal Structure

Meaning, Definition, Nature and Scope of Physical Geography; Main Divisions of Physical Geography. Origin of the Earth: General introduction to the hypotheses of Kant, Laplace, Chamberlin, and James Jeans; Detailed study of the Big Bang Theory. Interior of the Earth. Origin of Continents and Oceans: Continental Drift Theory of Wegener, Sea Floor Spreading, Plate Tectonic Theory. Concept of Isostasy: Views of Airy and Pratt.

ईकाई- I : भौतिक भूगोल का परिचय, पृथ्वी की उत्पत्ति एवं आंतरिक संरचना

भौतिक भूगोल का अर्थ, परिभाषा, प्रकृति एवं विषय क्षेत्र; भौतिक भूगोल की प्रमुख शाखाएँ। पृथ्वी की उत्पत्ति: काण्ट, लाप्लास, चेम्बरलिन तथा जेम्स जीन्स की परिकल्पनाओं का सामान्य परिचय; बिग बैंग सिद्धांत का विस्तृत अध्ययन। पृथ्वी की आंतरिक संरचना। महाद्वीप एवं महासागरों की उत्पत्ति: वेगेनर का महाद्वीपीय प्रवाह सिद्धांत, सागर नितल प्रसरण, प्लेट विवर्तनिकी सिद्धांत। समस्थिति की अवधारणा: एयरी और प्रैट के विचार।

Unit-II: Earth Movements, Geomorphic Processes, and Landform Evolution

Rocks; Drainage Patterns, Earth Movements: Endogenetic forces – Epeirogenic and Orogenic movements, Earthquakes, Volcanoes, and associated landforms. Concept of Geosynclines. Mountain Building Theories – Kober and Plate Tectonic Theory. Exogenetic forces – Denudation: Types of Weathering and their results. Erosion and the Cycle of Erosion – Davis and Penck. Evolution of Landforms (Erosional and Depositional): Fluvial, Karst, Aeolian, Glacial, and Coastal.

ईकाई- II : भू-संचलन, भूआकृतिक प्रक्रम एवं स्थलाकृति विकास

शैल (चट्टान); अपवाह प्रतिरूप। भू-संचलन: अन्तर्जात बल – महादेशीय एवं पर्वतीय संचलन, भूकम्प, ज्वालामुखी एवं संबद्ध स्थलरूप। भूसन्नति की अवधारणा। पर्वत निर्माण सिद्धांत – कोबर तथा प्लेट विवर्तनिकी सिद्धांत। बहिर्जात बल – अनाच्छादन: अपक्षय के प्रकार एवं इसके परिणाम। अपरदन तथा अपरदन चक्र – डेविस एवं पेंक। स्थलरूपों का विकास (अपरदनात्मक एवं निक्षेपात्मक): नदीजन्य, कार्स्ट, पवनजन्य, हिमानी एवं तटीय।

Unit-III: Atmosphere, Weather Systems, and Climate

Atmosphere: Composition and Structure. Insolation and Heat Budget. Temperature: Distribution and Inversion. Atmospheric Pressure: Pressure belts and Winds; Jet Streams. Air Masses, Fronts, and Cyclones. Classification of World Climate – Köppen and Thornthwaite.

ईकाई - III : वायुमंडल, मौसम तंत्र एवं जलवायु

वायुमंडल: संघटन एवं संरचना। सूर्यातप तथा ऊष्मा संतुलन (बजट)। तापमान: वितरण एवं तापमान व्युत्क्रमण। वायुमंडलीय दाब: दाब पेटियाँ एवं पवनें; जेट स्ट्रीम्स (धाराएँ)। वायुराशियाँ, वाताग्र एवं चक्रवात। विश्व जलवायु का वर्गीकरण – कोपेन एवं थॉर्नथ्वेट की पद्धति (योजनाएँ)।

Unit-IV: Oceanography and Biosphere

Bottom Topography of the Indian, Atlantic, and Pacific Oceans. Ocean Temperature, Salinity, and Deposits. Ocean Movements: Tides and Currents. Coral Reefs. Biosphere and its components; Ecosystem and Ecology. Biomes: Monsoon, Desert, Savanna, and Temperate Grasslands. Biodiversity.

ईकाई- IV : समुद्र विज्ञान एवं जीवमंडल

हिन्द, अटलांटिक और प्रशांत महासागरों की नितल स्थलाकृतियाँ। महासागरीय तापमान, लवणता और तलछट (निक्षेप)। महासागरीय संचलन: ज्वार एवं धाराएँ। प्रवाल भित्तियाँ। जीवमंडल तथा उसके संघटक; पारिस्थितिकी तंत्र एवं पारिस्थितिकी। जैव क्षेत्र (बायोम): मानसूनी, मरुस्थलीय, सवाना और समशीतोष्ण घासभूमि, जैव विविधता।

[Handwritten signatures and marks]

Text Books

Khullar, D.R.	:	Physical Geography, Kalyani Publication, New Delhi
Gautam, Alka	:	Physical Geography, Sharda Publication, Prayagraj
Singh, Savindra	:	Physical Geography, Pravalika Publication, Prayagraj
Husain, Majid	:	Fundamentals of Physical Geography, Rawat Publication, Jawahar Nagar, Jaipur.
Lal, D.S.	:	Physical Geography, Sharda Pustak Bhawan, Prayagraj.
Bryant, Richard	:	Physical Geography, Rupa Publications,

References:-

Strahler, A.N.	:	Modern Physical Geography, John Wiley and Sons
HarmDe, Blij	:	Physical Geography : The Global Environment, Oxford University Press
Holden, Joseph	:	An Introduction to Physical Geography and the environment, Pearson Education
Leong, Goh Cheng	:	Certificate Physical and Human Geography, Oxford University Press
Siddhartha, K.	:	Physical Geography, Kitab Mahal, New Delhi
Siddhartha, K.	:	The Earth's Dynamics Surface, Kitab Mahal, New Delhi

पाठ्य पुस्तक

सिंह, सविन्द्र	:	भौतिक भूगोल का स्वरूप, प्रवालिका प्रकाशन, प्रयागराज।
जोशी, यशवन्त गोविन्द	:	भूगोल के भौतिक आधार (स्थल मण्डल), मध्यप्रदेश हिन्दी ग्रन्थ अकादमी, भोपाल।
लाल, डी.एस.	:	भौतिक भूगोल, शारदा पुस्तक भवन, प्रयागराज।
सिंह, के.एन.	:	भौतिक भूगोल, ज्ञानोदय प्रकाशन, गौरखपुर।
शर्मा, एच.एस., शर्मा, एम.एल.	:	भौतिक भूगोल, पंचशील प्रकाशन, जयपुर।
मिश्रा, आर.एन.	:	भौतिक भूगोल, रावत पब्लिकेशन्स, जयपुर।
हुसैन, माजिद	:	भौतिक भूगोल, साहित्य भवन पब्लिकेशन्स, आगरा।
मामोरिया, सी.बी., जोशी, रतन	:	भौतिक भूगोल, पारीक पब्लिकेशन्स, जयपुर।
बंसल, सुरेश चन्द्र	:	भौतिक भूगोल, राजस्थान हिन्दी ग्रन्थ अकादमी, झालाना संस्थानिक क्षेत्र
तिवाड़ी, राजकुमार	:	जयपुर।

B.A./B.SC.

Semester – I

Practical- I

1 Credit – 25 Marks
2 Credits – 50 Marks
Question Paper – 30 Marks
Internal Assessment- 20 Marks

Course Objectives:

The main objectives of this paper are:

- To introduce students to the basic concepts and types of Scales, Diagrams, Graphs, Relief representation, and Surveying methods.
- To develop the ability to construct and convert different types of map scales (Plain, Comparative, Diagonal, Vernier) accurately.
- To enable students to represent statistical data using appropriate diagrams and graphs for geographical analysis.
- To acquaint learners with the various methods of representing relief features and contour interpretation for different landforms.
- To provide practical training in Chain and Tape Surveying, including instrument handling, measurement techniques, and plotting of data.
- To build accuracy, observation skills, and spatial understanding essential for field work and cartographic representation.

Learning Outcomes:

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

- Define and classify scales, and accurately convert between Representative Fraction (R.F.) and Statement scales.
- Construct various types of scales (Plain, Comparative, Diagonal, Vernier) and use them in map drawing and measurement.
- Prepare and interpret different diagrams and graphs such as bar, pyramid, wind rose, rainfall dispersion, and water budget graphs.
- Identify and represent relief features using traditional and contour methods, and interpret landforms from contour maps.
- Conduct Chain and Tape Surveys independently — measuring distances, preparing field sketches, and plotting survey data.
- Develop cartographic and graphical accuracy, spatial visualization, and field observation skills useful in advanced geographical studies.

Marks Distribution			
Total Marks :			50 M
	ESE (External)		30M
	CIA (Internal)		20M
1) ESE			30 M
(i) Written Paper on Lab work (02 Hours) 4 (ques) x 5marks	20 M		
(Students will have to answer 4 ques. out of 8 ques. , selecting one question from each unit)			
(ii) Field Survey and viva-voce (02 Hours) (5+ 1)	06 M		
(iii) Record/File work and Viva-Voce (3+1)	04 M		
2.) CIA			20 M
(i) Written test (01 hour) 2(ques.) x7.5 marks	15 M		
(Students will have to answer any 2 ques. out of 4 ques.)			
(ii) Class workbook and Viva-Voce (1 hour) (4+1)	05 M		
Minimum Passing Marks for ESE	12 M		
Minimum Passing Marks for CIA	8 M		
Total Passing Marks	20 M		

[Handwritten signatures]

Unit – I Scales

Scales: Definition and Types, Conversion of R.F into Statement and Vice-versa, Construction of Plain, Comparative, Diagonal Scale and Vernier Scale.

ईकाई-I मापक

मापक : मापक की परिभाषा एवं प्रकार, कथानात्मक से प्र.भि. का तथा प्र.भि. से कथानात्मक का रूपांतरण, साधारण, तुलनात्मक, विकर्ण एवं वर्नियर मापक का निर्माण।

Unit – II Diagrams and Graphs

Diagrams: Meaning, Definition, types and uses. One Dimensional Diagrams: Simple Bar Diagram, Compound Bar Diagram, Multiple Bar Diagram, Battleship Diagram. Pyramid Diagram : Simple Pyramid Compound Pyramid, Superimposed Pyramid Diagram, Wind Rose Diagram, Rainfall Dispersion Diagram. Graphs: Meaning, Definition, types and uses. Simple Line graph, Combined line graph, Combined line and Bar Graph, Water Budget Graph.

ईकाई-II : आलेख एवं रेखाचित्र

आरेख: अर्थ, परिभाषा, प्रकार एवं उपयोग; एक विमा आरेख – साधारण दण्ड (स्तंभ), मिश्रित दण्ड आरेख, बहु-दण्ड आरेख, युद्धपोत आरेख, पिरामिड आरेख : साधारण पिरामिड, मिश्रित पिरामिड, अध्यारोपित पिरामिड आरेख, पवन आरेख, वर्षा प्रकीर्णन आरेख। रेखाचित्र – अर्थ, परिभाषा, प्रकार एवं उपयोग; साधारण रेखाचित्र, संयुक्त रेखाचित्र, संयुक्त रेखा एवं स्तंभ रेखाचित्र। जल बजट आलेख।

Unit – III Representation of Relief and Contours

Representation of Relief: Methods of showing Relief: Hachures, Hill Shading, Spot heights, Bench Mark, Trigonometrical station, Form lines and Contours. Contours : Study of Contours of Important Landforms - Types of Slopes, Simple Conical Hill, Plateau, Ridge, Saddle, V-shaped Valley, U-shaped Valley, Gorge, Hanging valley, Waterfall, Escarpment, Spur, Lake, Caldera, Simple Meander, Ox-bow lake and Cirque.

ईकाई-III : उच्चावच तथा समोच्च रेखाओं का निरूपण

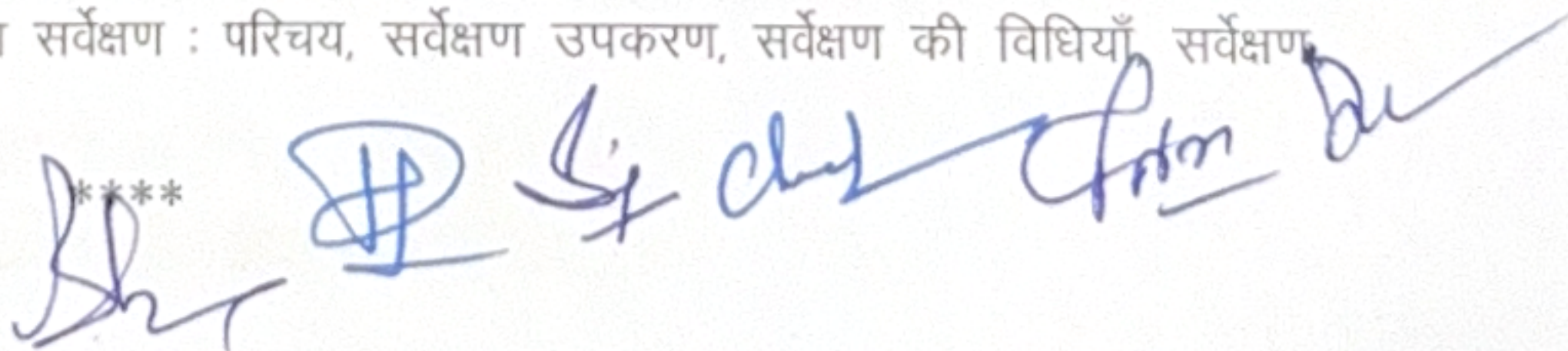
उच्चावच निरूपण : उच्चावच निरूपण की विधियाँ, हैश्यूर, पहाड़ी छायाकरण, स्थानिक ऊँचाइयाँ, तल चिह्न, त्रिकोणमितीय स्टेशन, आकृति रेखाएँ, समोच्च रेखा : महत्वपूर्ण उच्चावचों की समोच्च रेखाओं द्वारा अध्ययन – ढाल के प्रकार, साधारण शंक्वाकार पहाड़ी, पठार, कटक, काठी, वी आकार की घाटी, यू आकार की घाटी, गॉर्ज (महा खड्ड), निलंबी घाटी, जलप्रपात, कगार, भृगु, झील, काल्डेरा, साधारण विसर्प, छाड़न झील एवं हिमगह्वर।

Unit – IV Chain and Tape Survey

Survey: Definition, methods and Types. Chain and Tape Survey: Introduction, Surveying Instruments, Methods of Surveying, Survey Process, Merits and Demerits of Chain and Tape Survey.

ईकाई-IV चेन एवं टेप सर्वेक्षण

सर्वेक्षण: परिभाषा, विधियाँ एवं प्रकार, जरीब एवं फीता सर्वेक्षण : परिचय, सर्वेक्षण उपकरण, सर्वेक्षण की विधियाँ, सर्वेक्षण प्रक्रिया, जरीब एवं फीता सर्वेक्षण के गुण-दोष।



Text Book :

Mishra, R.N. & Sharma, P.K.	:	Practical Geography, Pareek Publication, Jaipur
Singh, L.R.	:	Fundamentals of Practical Geography, Sharda Pustak Bhawan, Prayagraj.
Sharma, S.R.	:	Practical Geography, College Book depot, Jaipur.
Crampton, J.	:	Mapping, Black well, Publications, Meerut, U.P.
Singh, R. L., Singh Rana, P.B.	:	Elements of Practical Geography, Kalyani Publishers, Delhi.
Khullar, D.R.	:	Essential of Practical Geography, Kalyani Publishers, Delhi.
Sarkar, Ashish	:	Practical Geography, A systematic Approach Orient Black Swan, Kolkata
शर्मा, जे.पी.	:	प्रयोगात्मक भूगोल, रस्तोगी प्रकाशन, मेरठ।
मिश्रा, आर.एन., शर्मा, पी.के.	:	प्रयोगात्मक भूगोल, रावत पब्लिकेशन, जयपुर।
मामोरिया, चतुर्भुज, जैन, एस.एम.	:	प्रयोगात्मक भूगोल, साहित्य भवन पब्लिकेशन, आगरा।





S. S. Jain Subodh P.G. College, Jaipur

(AUTONOMOUS)

(Affiliated to University of Rajasthan, Jaipur)

SYLLABUS



B.A./B.Sc. (Batch-2025-2028/29)

(THREE/FOUR YEAR UNDERGRADUATE PROGRAMME)

Paper – Geography of Rajasthan

Paper – Practical – II

(Session – 2025-26)

SEMESTER-II, EXAMINATION -2026

As per NEP-2020

**Department of Geography
S.S. Jain Subodh P.G. College**

2025

B.A./B.SC.

Semester – II

Paper- Geography of Rajasthan

1 Credit – 25 Marks
 4 Credits – 100 Marks
 Question Paper – 70 Marks
 Internal Assessment - 30 Marks

Course Objectives:

- To introduce students to the physical, social, and economic geography of Rajasthan with a regional perspective.
- To enable learners to understand the relationship between environment and human activities in Rajasthan.
- To develop knowledge about natural resources, land use patterns, agriculture, industries, and tourism in Rajasthan.
- To acquaint students with traditional practices of water conservation, agriculture, and livelihood in the arid and semi-arid conditions of Rajasthan.
- To promote understanding of regional disparities, development issues, and planning approaches in the state.
- To enhance students' awareness of environmental challenges such as drought, desertification, and soil erosion, and their management strategies.
- To inculcate appreciation of folk culture, tribal life, and sustainable development initiatives in Rajasthan.

Learning Outcomes:

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

- Identify and explain the major physical divisions, climate types, and vegetation zones of Rajasthan.
- Analyze the causes and consequences of drought, soil erosion, and desertification in Rajasthan.
- Describe the traditional water harvesting systems and evaluate their present-day relevance.
- Interpret population distribution, density, and regional disparities in the state.
- Understand the social and cultural diversity of Rajasthan including its tribes and traditional occupational groups.
- Examine the land use patterns, cropping systems, and irrigation projects of Rajasthan.
- Discuss the role of industries, mineral and energy resources in the economic development of the state.
- Assess the potential of tourism and handicrafts as sustainable economic activities.
- Develop map-based knowledge and analytical skills to study regional issues in geography.
- Formulate practical and sustainable solutions to environmental and developmental problems in Rajasthan.

Marks Distribution			
TOTAL MARKS			= 100 M
ESE (End Semester Exam)			= 70 M
CIA (Continuous Internal Assessment)			= 30 M
ESE contains 2 parts i.e. Part -A and Part -B			
Part-A (I) : 07 Ques. of Map (compulsory)	= 7 x1 Mark		= 07 M
Student will have to locate 7 out of 8 in Rajasthan map, supplied by exam centre			
(II) : 07 Ques. of short ans. (one word / 15 words) (compulsory)	= 7x1 Mark		= 07 M
(Student will have to attempt 7 out of 8 ques.)			
Part- B : 04 Ques. with Internal Choice (01 Q. attempt from each unit) = 4 x14 Marks			= 56 M
Maximum Marks			= 70 M
Minimum Passing Marks for ESE			= 28 M
Minimum Passing Marks for CIA			= 12 M
Total Passing Marks			= 40 M

Bh. D. S. Ch. Chm.

Unit-I: Physical Environment of Rajasthan

Physical Divisions of Rajasthan. Climate: Climatic Regions of Rajasthan, Climate Change and its impact on Rajasthan. Droughts in Rajasthan. Water Resources: Drainage Systems, Lakes, Water Availability, Traditional Techniques of Water Conservation in Rajasthan – Johad, Tanka, Bawari, Nadi, Khadin, Jhalara (Structure, Distribution and Contemporary Relevance), Soils: Classification and Distribution of Soils in Rajasthan, Soil Erosion and Conservation, Desertification and the Desert Development Programme, Vegetation: Natural Vegetation of Rajasthan: Types and Distribution, Major Medicinal Plants of Rajasthan – Production, Significance, Uses, Distribution and Challenges: Ashwagandha, Guggul, Giloye, Shankhpushpi, Neem. Akra, Safed Musli, Isabgol, Vajardanti, Punarava and Aloe Vera.

ईकाई-I : राजस्थान का भौतिक पर्यावरण

राजस्थान के भौतिक विभाग, जलवायु : राजस्थान के जलवायवीय प्रदेश; जलवायु परिवर्तन एवं उसका प्रभाव; राजस्थान में सूखा। जल संसाधन : प्रवाह तंत्र, झीलें तथा जल उपलब्धता। राजस्थान में परम्परागत जल संरक्षण तकनीक – जोहड़, टांका, बावड़ी, नाड़ी, खडीन, झलारा (संरचना, वितरण एवं समकालीन प्रासंगिकता)। मृदा : राजस्थान की मृदाओं का वर्गीकरण एवं वितरण; मृदा अपरदन एवं संरक्षण; मरुस्थलीकरण तथा मरुस्थल विकास कार्यक्रम। वनस्पति : राजस्थान की प्राकृतिक वनस्पति – प्रकार एवं वितरण। राजस्थान की प्रमुख औषधीय वनस्पतियाँ – उत्पादन, महत्व, उपयोग, वितरण एवं चुनौतियाँ : अश्वगंधा, गुग्गुल, गिलोय, शंखपुष्पी, नीम, आकड़ा, सफेद मूसली, इसबगोल, वज्रदन्ती, पुनर्नवा और एलोवेरा।

Unit-II: Population and Social Geography of Rajasthan

Factors Affecting Growth, Distribution and Density of Population in Rajasthan, Population Problems and Measures, Regional Disparities in Rajasthan, Folk Culture and Traditional Occupational Communities – Manganiyar, Langa, Kumhar, Gadia Lohar, Julaha, Khati, Tribes of Rajasthan – Bhil, Garasia, Sahariya, Damor (Problems and Development Programmes)

ईकाई-II : राजस्थान की जनसंख्या एवं सामाजिक भूगोल

राजस्थान में जनसंख्या की वृद्धि, वितरण और घनत्व को प्रभावित करने वाले कारक। जनसंख्या से संबंधित समस्याएँ एवं समाधान। राजस्थान में क्षेत्रीय असमानताएँ। लोक संस्कृति और पारंपरिक व्यवसायिक समुदाय – मांगनियार, लांगा, कुम्हार, गड़िया लोहार, जुलाहा, खाती। राजस्थान के जनजातीय समुदाय – भील, गरसिया, सहारिया, डामोर (समस्याएँ और विकासात्मक कार्यक्रम)।

Unit-III: Land Utilization, Agriculture and Irrigation in Rajasthan

Land Utilization in Rajasthan, Agriculture: Characteristics, Problems and Development, Major Crops, Livestock and Dairy Development in Rajasthan, Agro-Climatic Zones of Rajasthan, Irrigation Projects – A Detailed Study of Physical and Socio-economic Impacts of Indira Gandhi Canal Project, Chambal Project and Mahi Bajaj Sagar Project, GI-Tagged or Potential GI-Tagged Agricultural Products in Rajasthan – Sojat Mehndi, Nagauri Pan Melhi (Kasuri Methi), Sangari: Significance and Promotion Strategies.

ईकाई-III: राजस्थान में भूमि उपयोग, कृषि और सिंचाई

राजस्थान में भूमि उपयोग, कृषि: विशेषताएँ, समस्याएँ और विकास, राजस्थान में प्रमुख फसलें, पशुधन और दुग्ध विकास। राजस्थान के कृषि जलवायु क्षेत्र सिंचाई परियोजनाएँ – इंदिरा गांधी नहर परियोजना, चंबल परियोजना और माही बाजाज सागर परियोजना के भौतिक और सामाजिक – आर्थिक प्रभावों का विस्तृत अध्ययन। राजस्थान में GI-टैग प्राप्त या संभावित GI-टैग वाले कृषि उत्पाद – सोजत मेंहदी, नागौरी पान मेथी (कसूरी मेथी), सांगरी: महत्व और संवर्द्धन तथा रणनीतियाँ।

Unit-IV: Resources, Industries and Infrastructure of Rajasthan

Mineral Resources: Metallic and Non-Metallic, Energy Resources: Renewable, Non-Renewable and Green Energy as a Solution to Energy Crisis, Major Industries: Textile, Sugar, Cement, Granite and Marble, Handicraft and Cottage Industries of Rajasthan (GI Products, Cultural Identity and Export Potential of Rajasthani Products- Puppetry, Marble Carvings, Lac Bangles, Kota Doria, Blue Pottery, Bikaneri Bhujia, Sanganeri Print, Bagru Print), Trade and Transport Development: Railways and Roadways, Tourism :Resources, Importance and Problems.

ईकाई-IV : राजस्थान के संसाधन, उद्योग और आधारभूत संरचना

खनिज संसाधन: धात्विक और अधात्विक ऊर्जा संसाधन: नवीनीकृत, अनवीनीकृत एवं ऊर्जा संकट के समाधान के रूप में हरित ऊर्जा, मुख्य उद्योग: वस्त्र, चीनी, सीमेंट, ग्रेनाइट और संगमरमर, हस्तशिल्प और कुटीर उद्योग (GI उत्पाद, सांस्कृतिक पहचान और राजस्थान के उत्पादों का निर्यात संभाव्यता – कठपुतली, संगमरमर की नक्काशी, लाख की चूड़ियाँ, कोटा डोरिया, नीली मिट्टी के बर्तन (ब्ल्यू पॉटरी), बीकानेरी भुजिया, सांगनेरी प्रिंट, बगरू प्रिंट) व्यापार और परिवहन विकास: रेलवे और सड़क परिवहन। पर्यटन: संसाधन, महत्व और समस्याएँ।

Text Books :

Sharma , P.K. & Mishra, Preeti	:	Geography of Rajasthan, Pareek Publication, Jaipur.
Bhalla, L.R.	:	Geography of Rajasthan, Kuldeep Publication, Jaipur.
Mishra, V.C.	:	Geography of Rajasthan, NBT, Delhi.

पाठ्य पुस्तक

सक्सैना, एच.एम.	:	राजस्थान का भूगोल, हिन्दी ग्रन्थ अकादमी, झालाना संस्थानिक क्षेत्र, जयपुर
भल्ला, एल.आर.	:	राजस्थान का भूगोल, कुलदीप पब्लिकेशन, जयपुर।
शर्मा, एच.एस., मिश्रा, आर.एन.	:	राजस्थान का भूगोल, पंचशील प्रकाशन, जयपुर।
शर्मा, एम.एल.	:	राजस्थान का भूगोल, कॉलेज बुक हाउस, जयपुर।
साईवाल, स्नेह	:	

[Handwritten signatures and initials in blue ink]

B.A./B.Sc.
Semester – II
Practical- II

1 Credit – 25 Marks
2 Credits – 50 Marks
Question Paper – 30 Marks
Internal Assessment – 20 Marks

Objectives:

- To develop the ability to construct and interpret various geographical profiles such as serial, superimposed, projected, and composite profiles.
- To introduce students to the basic concepts, history, tools, and techniques of cartography for effective map representation.
- To enable students to understand and prepare different types of quantitative and qualitative maps.
- To train students in representing statistical data through suitable diagrams and graphical techniques.
- To enhance scientific drawing and analytical skills useful for spatial data interpretation and geographical visualization.

Learning outcomes:

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

- Draw and interpret different types of geographical profiles with appropriate vertical exaggeration.
- Explain the concept, development, and techniques of cartography and apply them in map preparation.
- Prepare and differentiate between quantitative and qualitative thematic maps.
- Construct and analyze various statistical diagrams such as pyramid, square, rectangular, pie, ring, and traffic flow diagrams.
- Represent Demographic, agricultural, and transportation data graphically and interpret their geographical significance.
- Apply cartographic and graphical methods in geographical analysis and research-based field studies.

Marks Distribution		
Total Marks :		50 M
	ESE (External)	30M
	CIA (Internal)	20M
1) ESE		30 M
(i) Written Paper on Lab work (02 Hours) 4 (ques) x 5marks	20 M	
(Students will have to answer 4 ques. out of 8 ques. , selecting one question from each unit)		
(ii) Model /Chart and viva-voce (5+ 1)	06 M	
(iii) Record/File work and Viva-Voce (3+1)	04 M	
2.) CIA		20 M
(i) Written test (01 hour) 2(ques.) x7.5 marks	15 M	
(Students will have to answer any 2 ques. out of 4 ques.)		
(ii) Class workbook and Viva-Voce (1 hour) (4+1)	05 M	
Minimum Passing Marks for ESE	12 M	
Minimum Passing Marks for CIA	8 M	
Total Passing Marks	20 M	

[Handwritten signatures and initials]

Unit – I : Profiles

Definition and Types of Profiles, Methods of Drawing a Profile: Strip Method, Perpendicular Method, Significance of Vertical Exaggeration while drawing profiles of mountainous and plain areas. Drawing of Different Types of Profiles: Serial Profile, Superimposed Profile, Projected Profile, Composite Profile.

इकाई- I : परिच्छेदिकाएं

परिच्छेदिका की परिभाषा और प्रकार, परिच्छेदिका बनाने की विधियाँ : पट्टी विधि, लंबवत विधि, पहाड़ी और मैदानी क्षेत्रों की परिच्छेदिका बनाते समय ऊर्ध्वाधर अतिशयोक्ति का महत्व। विभिन्न प्रकार की परिच्छेदिका बनाना: संक्रम परिच्छेदिका, अध्यारोपित परिच्छेदिका, प्रक्षेपित परिच्छेदिका, मिश्रित (संयुक्त) परिच्छेदिका।

Unit – II : Introduction to Cartography

Definition, History and Development of Cartography, Tools and Techniques Used in Cartography.

इकाई – II : मानचित्रण का परिचय

मानचित्रकला की परिभाषा, इतिहास और विकास। मानचित्रकला में प्रयुक्त उपकरण और तकनीकें।

Unit – III : Maps

Maps : Introduction, Meaning and Definition.

Quantitative Maps: Dot Map, Isopleth Map, Choropleth Map.

Qualitative Maps: Picture Map, Chorochromatic Map, Choroschematic Map.

इकाई – III : मानचित्र

मानचित्र : परिचय, अर्थ एवं परिभाषा।

मात्रात्मक मानचित्र : बिंदु मानचित्र, सममान मानचित्र, वर्णमात्री मानचित्र।

गुणात्मक मानचित्र: चित्र मानचित्र, रंगारेख मानचित्र, वर्णप्रतिकी मानचित्र।

Unit – IV : Representation of Statistical Data

Construction, Properties and Uses of Two-Dimensional Diagrams, with special reference to representation of Population, Agriculture, and Transportation Data.

- Square Diagram: Unit Square Diagram, Square Block Diagram, Divided Square Diagram.
- Rectangular Diagram: Simple Rectangular Diagram, Divided Rectangular Diagram.
- Circle Diagram : Simple /Coin Circle Diagram, Wheel or Pie or Divided circle Diagram.
- Ring Diagram.
- Traffic Flow Diagram.

इकाई – IV: सांख्यिकीय आँकड़ों का निरूपण

द्वि-विमा आरेखों का निर्माण, गुण और उपयोग, जनसंख्या, कृषि और परिवहन आँकड़ों के विशेष संदर्भ में निरूपण।

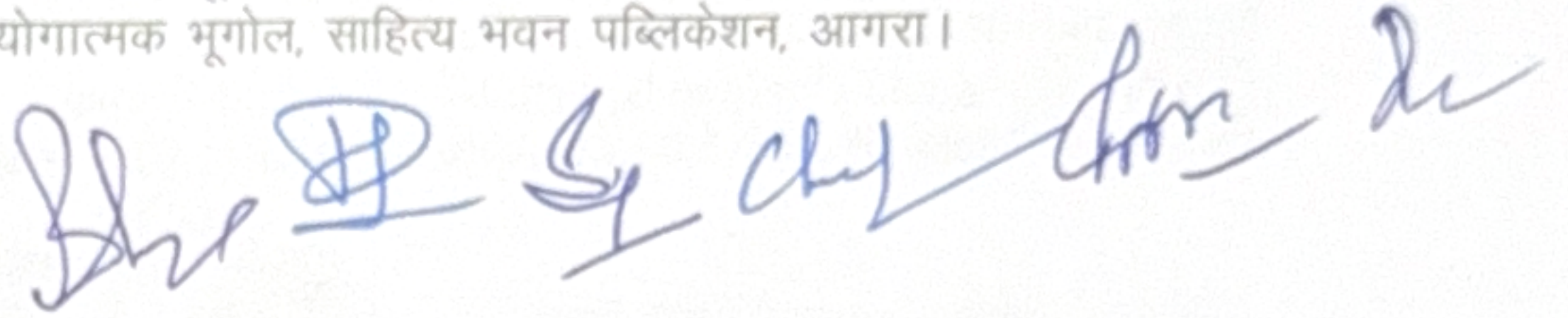
- वर्ग आरेख : इकाई वर्ग आरेख, विभाजित वर्ग आरेख, वर्गाकार ब्लॉक आरेख।
- आयताकार आरेख : सरल आयताकार आरेख, विभाजित आयताकार आरेख।
- वृत्त आरेख : सरल वृत्त आरेख, त्रिज्यखंड (चक्र) आरेख।
- वलय आरेख।
- यातायात प्रवाह आरेख।

She [Signature] [Signature] [Signature] [Signature]

....

Text Book :

Mishra, R.N. & Sharma, P.K.	:	Practical Geography, Pareek Publication, Jaipur
Singh, L.R.	:	Fundamentals of Practical Geography, Sharda Pustak Bhawan, Prayagraj.
Sharma, S.R.	:	Practical Geography, College Book depot, Jaipur.
Crampton, J.	:	Mapping, Black well, Publications, Meerut, U.P.
Singh, R. L., Singh Rana, P.B.	:	Elements of Practical Geography, Kalyani Publishers, Delhi.
Khullar, D.R.	:	Essential of Practical Geography, Kalyani Publishers, Delhi.
Sarkar, Ashish	:	Practical Geography, A systematic Approach Orient Black Swan, Kolkata
शर्मा, जे.पी.	:	प्रयोगात्मक भूगोल, रस्तोगी प्रकाशन, मेरठ।
मिश्रा, आर.एन., शर्मा, पी.के.	:	प्रयोगात्मक भूगोल, रावत पब्लिकेशन, जयपुर।
मामोरिया, चतुर्भुज, जैन, एस.एम.	:	प्रयोगात्मक भूगोल, साहित्य भवन पब्लिकेशन, आगरा।





S. S. Jain Subodh P.G. College, Jaipur
(AUTONOMOUS)
(Affiliated to University of Rajasthan, Jaipur)

SYLLABUS



B.A./B.Sc.
(THREE/FOUR YEAR UNDERGRADUATE PROGRAMME)

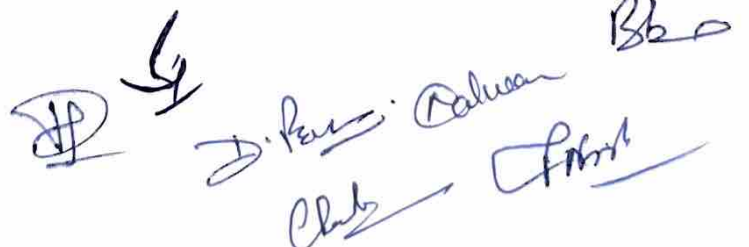
Subject: Geography
Paper – Human Geography
Paper - Practical – III

SEMESTER-III EXAMINATION, 2026-27

As per NEP-2020

Department of Geography
S.S. Jain Subodh P.G. College, Jaipur

2026



B.A./B.Sc.
Semester – III
Paper - Human Geography

1 Credit - 25 Marks
4 Credits - 100 Marks
Question Paper - 70 Marks
Internal Assessment- 30 Marks

Course Objectives:

The main objectives of this paper are:

- To introduce the scope and significance of Human Geography as a core branch of Geography.
- To explain the relationship between man and environment through various geographical approaches.
- To provide an understanding of major concepts, theories, and thinkers of Human Geography.
- To analyze human diversity through the study of races, tribes, and cultural adaptations.
- To examine population dynamics, migration patterns, and urbanization trends at global and regional levels.
- To develop a balanced understanding of human–environment interaction for sustainable development.

Learning Outcomes:

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

- To understand the meaning, nature, and scope of Human Geography and its relevance in geographical studies.
- To describe the essential elements and fundamental principles of Human Geography as proposed by major scholars.
- To critically evaluate the concepts of Environmental Determinism, Possibilism, and Stop-and-Go Determinism, along with the contributions of key scholars.
- To analyze the racial composition of mankind and examine the spatial distribution, economic life, and cultural ecology of selected major tribes.
- To interpret and assess population growth, density, migration types, and urbanization patterns with their socio-economic and environmental impacts.
- To develop awareness about sustainable human–environment interactions and balanced regional development.

Marks Distribution	
TOTAL MARKS	= 100 M
ESE (End Semester Exam)	= 70 M
CIA (Continuous Internal Assessment)	= 30 M
ESE contains 2 parts i.e. Part -A and Part -B	
Part-A (I) : 07 Ques. of Map (compulsory) 7 x1 Mark	= 07M
Student will have to locate 7 out of 8 in world map, supplied by exam centre	
(II) : 07 Ques. of short ans. (one word / 15 words) (compulsory) 7ques.x1 Mark	= 07M
Student will have to attempt 7 out of 8 ques.	
Part- B : 04 Ques. (01 Q. from each unit with Internal choice) = 4 x14 Marks	= 56M.
Maximum Marks	= 70M.
Minimum Passing Marks for ESE	= 28 M
Minimum Passing Marks for CIA	= 12 M
Total Passing Marks	= 40 M



Unit-I: Introduction to Human Geography

Human Geography- Meaning, Definition, Nature, Scope, and Importance, Basic Principles of Human Geography, Essential Elements of Human Geography (Brunhes and Huntington).

इकाई - I मानव भूगोल का परिचय

मानव भूगोल: अर्थ, परिभाषा, प्रकृति, क्षेत्र और महत्व, मानव भूगोल के मूलभूत सिद्धांत, मानव भूगोल के आवश्यक तत्व (ब्रून्स और हंटिंग्टन)।

Unit-II: Approaches to Human-Environment Relationship

Environmental Determinism, Possibilism, Stop-and-Go Determinism, Contributions of Scholars: Friedrich Ratzel, Ellen C. Semple, Vidal de la Blache.

इकाई - II मानव - पर्यावरण सम्बन्ध के दृष्टिकोण

पर्यावरण नियतिवाद, संभववाद, रुको और जाओ निश्चयवाद, विद्वानों के योगदान : फ्रेड्रिक रेटजेल, एलेन चर्चिल सैम्पल, विडाल-डि लाब्लाश

Unit-III: Racial and Tribal Geography

Races of Mankind: Distribution and Characteristics, Major Tribes- Eskimo, Pygmy, Bushman, Naga, Gonds, and Santhal: Distribution, Characteristics, Economy, and Development.

इकाई - III प्रजातीय एवं जनजातीय भूगोल

मानव प्रजातियाँ : वितरण और विशेषताएँ, प्रमुख जनजातियाँ - एस्किमो, पिग्मी, बुशमैन, नागा, गोंड, संथाल : वितरण और विशेषताएँ, अर्थव्यवस्था और विकास।

Unit-IV: Population, Migration, and Urbanization

World Population Growth, Density, and Policies, Principal Human Agglomerations: Ecumene and Non-Ecumene, Migration: Causes, Types, and Consequences. Human Settlements: Rural Settlements, Urban Settlements- Factors of the Growth and Development of Settlement, Types and Patterns. Urbanization: Trends and Problems

इकाई - IV जनसँख्या, स्थानांतरण और नगरीकरण

विश्व जनसँख्या वृद्धि, घनत्व और नीतियाँ, प्रमुख मानव महासमूह - वास्तव्य और अवास्तव्य क्षेत्र, जनसँख्या स्थानांतरण : कारण, प्रकार और परिणाम। मानव अधिवास : ग्रामीण अधिवास, नगरीय अधिवास - अधिवासों की वृद्धि और विकास के कारक, प्रकार एवं प्रतिरूप। नगरीकरण प्रवृत्तियाँ एवं समस्याएँ।

Essential Readings :

Tripathi, R.K. (2000)	: Human Geography, Commonwealth.
Hussain, Majid (2021)	: Human Geography, Rawat Publication, Jaipur.
Maurya, S.D. (2019)	: Human Geography, Pravalika Publications, Prayagraj.
Singh, Kumar Nand (2015)	: A Text Book of Human Geography, Rajesh Publications, Delhi.
Singh Surendra, Saroha Jitendra (2021)	: Human and Economic Geography, Pearson Education.

Leong, Goh Cheng, Morgan, Gillian C (1973) : Human and Economic Geography, Oxford University Press.

गुर्जर, रामकुमार, जाट, बी सी (2025)

ममोरिया, चतुर्भुज (2023)

: मानव भूगोल, पंचशील प्रकाशन, जयपुर।
: मानव भूगोल, साहित्य भवन पब्लिकेशन्स, आगरा।

[Handwritten signatures and initials]

B.A /B.Sc.
Semester- III
Practical – III

1 Credit = 25 Marks
2 Credit = 50 Marks
Question Paper = 30 Marks
Internal Assessment = 20 Marks

Course Objectives :

The main objectives of this paper are:

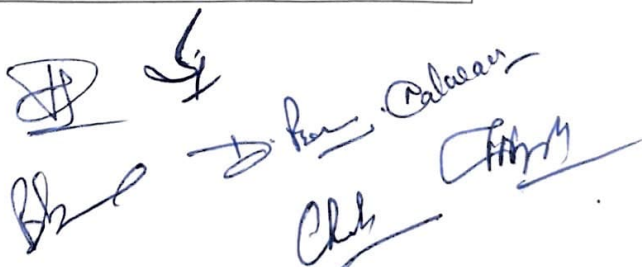
- To introduce the basics of qualitative and quantitative techniques in geography with its practical applications.
- To impart the knowledge of various elements of weather symbols and instruments.
- To explain the different weather conditions and prediction of these phenomena.
- To introduce instrumental survey which will help the students to collect the ground coordinates and learn to prepare sketched map of small areas.

Learning Outcomes :

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

- To compile the acquired ground data and secondary data into diagrams and figures and to analyze the same.
- To read and understand weather maps and instruments which provide understanding of the weather conditions and will guide them in critical daily decisions in various fields like agriculture, commerce, aviation, etc.
- To create maps and sketches for spatial analysis and resource planning.

Marks Distribution	
Total Marks :	50 M
ESE (External)	30M
CIA (Internal)	20M
1.) ESE	30 M
(i) Written Paper on Lab work (02 Hours) 4 (ques) x 5marks	20M
(Students will have to answer 4 ques. out of 8 ques. , selecting one question from each unit)	
(ii) Field Survey and viva-voce (02 Hours) (5+ 1)	06M
(iii) Record/File work and Viva-Voce (3+1)	04 M
2.) CIA	20 M
(i) Written test (01 hour) 2(ques.) x7.5 marks (Students will have to answer any 2 ques. out of 4 ques.)	15 M
(ii) Class workbook and Viva-Voce (1 hour) (4+1)	05M
Minimum Passing Marks for ESE	12 M
Minimum Passing Marks for CIA	8M
Total Passing Marks	20 M



Unit – I Three Dimensional Diagrams and Statistical Methods

Three Dimensional Diagrams - Meaning, Definition, Types and Applications . Construction -Block Pile, Spherical and Cube Diagram. **Statistical Methods** - Measurement of Central Tendencies- Mean, Median and Mode. Mean Deviation, Quartile Deviation, Standard Deviation, Correlation in Geography.

इकाई -I त्रि- विमीय आरेख और सांख्यिकीय विधियां

त्रि - विमीय आरेख -अर्थ, परिभाषा, प्रकार और अनुप्रयोग , रचना - ब्लॉक पुंज, गोलीय और घन आरेख; सांख्यिकीय विधियां - केंद्रीय प्रवृत्ति के माप - माध्य,मधिका और बहुलक । माध्य विचलन ,चतुर्थक विचलन ,मानक विचलन तथा भूगोल में सहसंबंध ।

Unit – II Weather Maps

Weather maps - Study and Interpretation of Indian Weather Maps of January and July, Construction- Climograph, Climatograph and Hythergraph. Construction of Isotherms, Isobar and Isohytes Map.

इकाई -II मौसम मानचित्र

मौसम मानचित्र - जनवरी और जुलाई के भारतीय मौसम मानचित्रों का अध्ययन एवं निर्वचन । रचना - क्लाइमोग्राफ ,क्लाइमेटोग्राफ और हीदरग्राफ, समताप, समदाब और समवर्षा रेखीय मानचित्रों की रचना ।

Unit– III Weather Instruments

Weather Instruments : Introduction, Uses, and Interpretation - Simple Thermometer, Six's Maximum and Minimum Thermometer, Wet and Dry Bulb Thermometer, Mercury Barometer, Aneroid Barometer, Wind Vane, Anemometer, Rain Gauge, Weather Symbols.

इकाई -III मौसम उपकरण

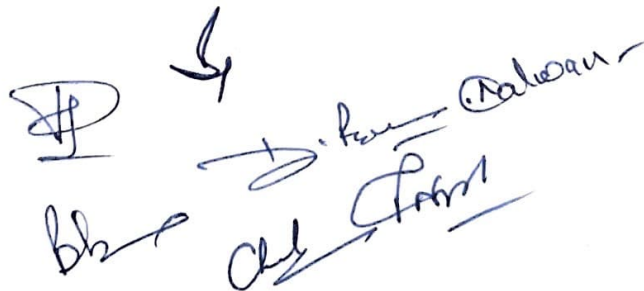
मौसम उपकरण - परिचय, उपयोग, निर्वचन - साधारण तापमापी ,सिक्स का अधिकतम एवं न्यूनतम तापमापी ,आर्द्र एवं शुष्क बल्ब तापमापी,पारद वायुदाबमापी , निद्रव वायुदाबमापी,पवन दिगसूचक यंत्र , पवन वेगमापी,वर्षामापी, मौसम चिन्ह ।

Unit – IV Prismatic Compass Survey

Prismatic Compass Survey: Introduction, use and applications of Prismatic Compass Survey, Importance of Prismatic Compass Surveying, characteristics, merits and demerits of this survey. Study of the instruments used in this Survey. **Methods** – Radiation and Intersection methods; Open and Closed traverse. Closing Error, Correction of bearings Bowditch Method.

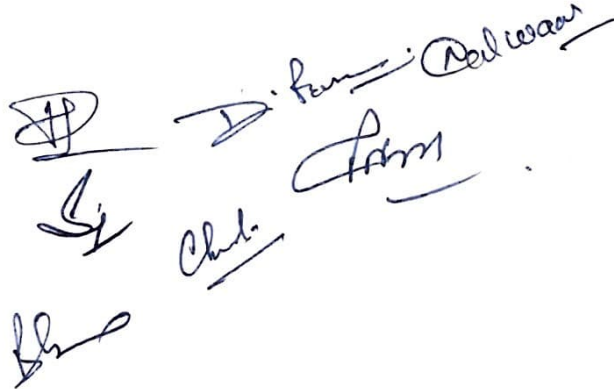
इकाई -IV प्रिज्मेटिक कम्पास सर्वेक्षण

प्रिज्मेटिक कम्पास सर्वेक्षण: प्रिज्मेटिक कम्पास सर्वेक्षण का परिचय,उपयोग और अनुप्रयोग, प्रिज्मेटिक कम्पास सर्वेक्षण का महत्व, विशेषताये, सर्वेक्षण के गुण एवं दोष , सर्वेक्षण उपकरणों का अध्ययन । **सर्वेक्षण की विधियां** -विकिरण और प्रतिच्छेदन विधि ,खुली मालारेखा ,बंद मालारेखा ,समापक त्रुटि ,दिकमानो का संशोधन, बाउडिच विधि ।

The block contains several handwritten signatures and initials in blue ink. There are four distinct signatures: one on the left, one in the center, one on the right, and one at the bottom center. The signatures are stylized and appear to be of Indian origin.

Essential Readings :

- Mishra, R.N. & Sharma, P.K. (2023) : Practical Geography, Pareek Publication, Jaipur
- Singh, L.R. (2011) : Fundamentals of Practical Geography, Sharda Pustak Bhawan, Prayagraj.
- Sharma, S.R. : Practical Geography, College Book depot, Jaipur.
- Crampton, J. (2009) : Mapping, Black well, Publications, Meerut, U.P.
- Khullar, D.R. (2000) : Essential of Practical Geography, Kalyani Publishers, Delhi.
- Singh, R. L., Singh Rana, P.B. (1999) : Elements of Practical Geography, Kalyani Publishers, Delhi.
- Sarkar, Ashish (1997) : Practical Geography, A systematic Approach Orient Black Swan, Kolkata
- Compbell, J. (1989) : Introduction to Remote Sensing, Guilford, New York
- Curran, Paul J. (1985) : Principles of Remote Sensing, Longman, London
- शर्मा, जे.पी. (2023) : प्रायोगिक भूगोल, रस्तौगी पब्लिकेशन, मेरठ।
- अय्यर, एन.पी. : सर्वेक्षण, मध्यप्रदेश हिन्दी ग्रंथ अकादमी, भोपाल।
- राव, बी.पी. : प्रायोगिक भूगोल, वसुन्धरा प्रकाशन, गोरखपुर।
- खुल्लर, डी.आर. : प्रयोगात्मक भूगोल के तत्व, न्यू एकेडमिक पब्लिशिंग कम्पनी, जालन्धर।
- जैन एवं मामोरिया (2024) : प्रयोगात्मक भूगोल एवं मानचित्रांकन, साहित्य भवन, आगरा।

A collection of handwritten signatures and initials in black ink. There are approximately seven distinct marks, including a large stylized 'S', a signature that looks like 'D. Rana', and others that are less legible.



S. S. Jain Subodh P.G. College, Jaipur
(AUTONOMOUS)
(Affiliated to University of Rajasthan, Jaipur)

SYLLABUS



(THREE/FOUR YEAR UNDERGRADUATE PROGRAMME)

B.A./B.Sc.

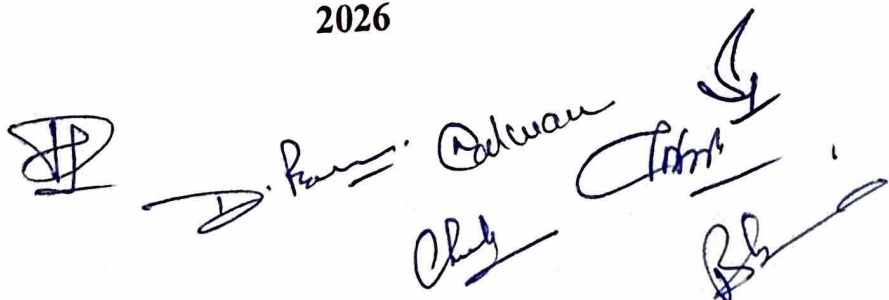
Subject: Geography
Paper – Geography of India
Paper - Practical – IV

SEMESTER-IV EXAMINATION, 2026-27

As per NEP-2020

Department of Geography
S.S. Jain Subodh P.G. College, Jaipur

2026



B.A./B.Sc.
Semester – IV
Paper - Geography of India

1 Credit - 25 Marks
4 Credits - 100 Marks
Question Paper - 70 Marks
Internal Assessment- 30 Marks

Course Objectives :

The main objectives of this paper are:

- To introduce students to the physical environment of India including but not limited to physiography, drainage, and climate.
- To enable learners to understand the relationship between environment and human activities in India.
- To develop knowledge about natural resources, their distribution and limitations in India.
- To inculcate the knowledge of demographical distribution and its problems and the major tribes of India.
- To promote understanding of regional disparities, developmental issues, and planning approaches in the country.
- To enhance students awareness of environmental challenges such as floods and droughts, and their management strategies & policies.

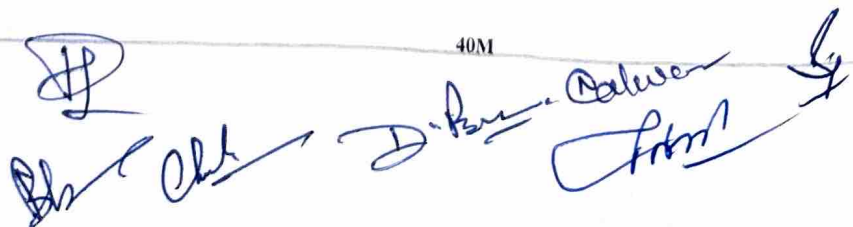
Learning Outcomes :

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

- To explain the major physiographic divisions, drainage systems, monsoon mechanism of India.
- To analyze the spatial distribution of minerals, energy, and agricultural resources, and evaluate their contribution to India's economy.
- To assess the factors influencing the location and development of major industries, transport networks, international trade, and population distribution in India.
- To evaluate regional planning approaches, environmental hazards, and developmental policies in India.

Marks Distribution

TOTAL MARKS	= 100 M
ESE (End Semester Exam)	= 70 M
CIA (Continuous Internal Assessment)	= 30 M
ESE contains 2 parts i.e. Part-A and Part-B	
Part-A (I) : 07 Ques. of Map (compulsory) 7 x1 Mark	= 07M
Student will have to locate 7 out of 8 in India map, supplied by exam centre	
(II) : 07 Ques. of short ans. (one word / 15 words) (compulsory) 7ques.x1 Mark	= 07M
Student will have to attempt 7 out of 8 ques.	
: 04 Ques. (01 Q. from each unit with Internal choice) = 4 x14 Marks	= 56M.
Maximum Marks	70M
Minimum Passing Marks for ESE	28M
Minimum Passing Marks for CIA	12M
Total Passing Marks	40M



Unit-I Physical Environment of India

Physiography; Drainage; Climate - Mechanism of Indian Monsoons, Classification of Climate; Soil and Natural Vegetation- Distribution and Types, Biodiversity Hotspots.

इकाई-I भारत का भौतिक पर्यावरण

भौतिक स्वरूप, अपवाह तंत्र, जलवायु - भारतीय मानसून की क्रियाविधि, जलवायु का वर्गीकरण, मृदा और प्राकृतिक वनस्पति - वितरण और प्रकार, जैव विविधता हॉटस्पॉट।

Unit-II Population and Agriculture of India

Population: Distribution, Density and Growth, Population Composition, Population Problems and Policies, HDI, Major tribes and their problems: Bhil, Gond, Naga. Agriculture - Importance in Indian Economy, Major Crops - Geographical conditions, Distribution and Production of Wheat, Rice, Sugarcane, and Tea, Livestock Resources, Green Revolution, Agro-climatic Regions, Irrigation Development in India.

इकाई-II भारत में जनसँख्या और कृषि

जनसँख्या - वितरण, घनत्व, वृद्धि, जनसँख्या संघटन, जनसँख्या समस्याएँ एवं नीतियाँ, मानव विकास सूचकांक, प्रमुख जनजातियाँ एवं उनकी समस्याएँ; भिल, गोंड, नागा. कृषि - भारतीय अर्थव्यवस्था में महत्व; प्रमुख फसलें - भौगोलिक परिस्थितियाँ, वितरण और उत्पादन - गेहूँ, चावल, गन्ना और चाय। पशुधन संसाधन, हरित क्रांति, कृषि - जलवायु प्रदेश, भारत में सिंचाई का विकास।

Unit-III Resources, Industries and Transportation of India

Minerals - Distribution and Production of Iron Ore, Bauxite, Manganese, Copper, Mica, and Limestone; Energy resources: Renewable and Non-Renewable- Coal, Petroleum, Solar Energy, Wind Energy and Nuclear Energy of India; Industries - Cotton Textile industry, Iron & Steel industry and Sugar industry and Major Industrial Regions of India. Transport and Communication: Development of Roadways, Railways, Airways, and Waterways in India, Foreign Trade of India.

इकाई-III भारत के संसाधन, उद्योग एवं परिवहन

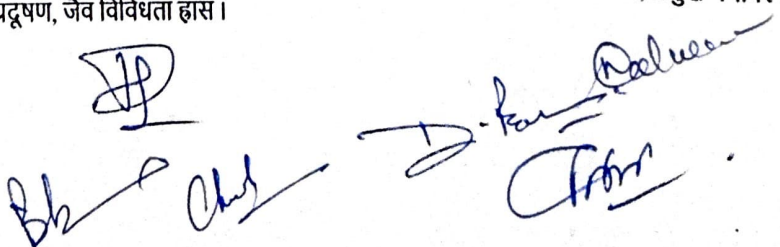
खनिज - वितरण और उत्पादन - लौह अयस्क, बॉक्साइट, मैंगनीज, तांबा, अभ्रक और चूनापत्थर. ऊर्जा संसाधन - नव्यकरणीय और अनव्यकरणीय - कोयला, पेट्रोलियम, सौर ऊर्जा, पवन ऊर्जा तथा भारत की परमाणु ऊर्जा। उद्योग; सूती वस्त्र उद्योग, लौह - इस्पात उद्योग, चीनी उद्योग, भारत के प्रमुख औद्योगिक प्रदेश. परिवहन और संचार - सड़क, रेल, वायु तथा जल परिवहन का विकास, भारत का विदेशी व्यापार।

Unit-IV Regional Planning and Contemporary Issues of India

Regional Development and Planning- Concept of Region, Regional Disparities, Planning Regions of India, Regional Study of Western Rajasthan and Backward Area Development Programme; Urbanization and related problems; Smart Cities Mission; Globalization; River Water Sharing Disputes; Major Environmental Issues- Climate Change, Air, Water, and Plastic Pollution, Biodiversity Loss.

इकाई-IV भारत में प्रादेशिक विकास और समसामयिक मुद्दे

प्रादेशिक विकास एवं नियोजन: प्रदेश की संकल्पना, प्रादेशिक विषमताएँ, भारत के नियोजन प्रदेश, पश्चिमी राजस्थान का प्रादेशिक अध्ययन, पिछड़ा क्षेत्र विकास कार्यक्रम, नगरीकरण और उससे संबंधित समस्याएँ, स्मार्ट सिटी मिशन, वैश्वीकरण, नदी जल बँटवारा विवाद, प्रमुख पर्यावरणीय मुद्दे - जलवायु परिवर्तन, वायु, जल तथा प्लास्टिक प्रदूषण, जैव विविधता ह्रास।



Essential Readings:

- Khullar, D.R. (2026)
 Gautam, Alka (2023)
 Husain, Majid (2013)
 Sharma, T.C., (2013)
 Chand, M and Puri, V.V., (2011)
 Singh, Jagdish, (2003)
- Gopal Krishnan, R., (2001)
- Tritha, R (2000)
 Drez, Jean and Amartya Sen (Eds.) (1996)
 Siddhartha, K. (1998)
 Deshpande, C.D., (1992)
 Singh, R.L. (1992)
 Singh Jagdish
 Tiwari, R.C.
 बंसल एस.सी., (2021)
- सिंह, गोपाल (2007)
 तिवाड़ी, आर.सी. (2016)
 हुसैन, माजिद (2020)
 मामोरिया, चतुर्भुज (2020)
 शर्मा, एच.एस., शर्मा, एम.एल., शर्मा, जे.के. (2022)
- India : A Comprehensive Geography, Kalyani Publishers, New Delhi.
 Advanced Geography of India, Sharda Pustak Bhawan, Prayagraj.
 Geography of India, M.C. Education.
 Economic Geography of India, Sterling Book House.
 Regional Planning in India, Allied Publishers, New Delhi
 India: A Comprehensive and Systematic Geography, Gyanodaya Prakashan, Gorakhpur.
 Geography of India, Jawahar Publishers & Distributors, New Delhi.
- Geography of India, Rawat Publication, New Delhi
 India Economic Development and Social Opportunity, Oxford University Press, New Delhi
 India: The Physical Aspects, Trans world Media and Communication Ltd., Patna
 A Regional Interpretation, Northern Book Centre, New Delhi
 India-A Regional Geography, UBS Publication & Distributors Ltd, New Delhi.
 India-A, Comprehensive Systematic Geography, Gayonodaya Prakasan, Gorkhpur,
 Geography of India, Pravalika Publications, Allahabad.
 भारत का वृहद् भूगोल, मीनाक्षी प्रकाशन, मेरठ
- भारत का भूगोल, आत्माराम एण्ड सन्स, नई दिल्ली।
 भारत का भूगोल, वसुन्धरा प्रकाशन, गोरखपुर।
 भारत का भूगोल, टाटा मैप्राहिल्स पब्लिशिंग कम्पनी लि. नई दिल्ली।
 आधुनिक भारत का वृहद् भूगोल, प्रतियोगिता साहित्य सीरिज, आगरा।
 भारत का नूतन भूगोल, आर.बी.डी., जयपुर।

[Signature]

[Signature] *[Signature]* *[Signature]* *[Signature]*

**B.A./B.Sc.
Semester- IV
Practical – IV**

1 Credit = 25 Marks
2 Credit = 50 Marks
Question Paper = 30 Marks
Internal Assessment = 20 Marks

Course Objectives :

The main objectives of this paper are:

- To make the students learn about the significance of charts and models in geographical study.
- To explain the principles of topographical maps and how to interpret these maps.
- To explain the basic concepts, components, and applications of Remote Sensing, GIS, GPS, and AI in geographical study.
- To develop scientific, analytical, cartographic, and report-writing skills for geographical research.

Learning Outcomes :

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

- To interpret Indian topographical sheets using conventional symbols.
- To design and prepare geographical models using suitable methods and techniques.
- To conduct a village survey and collect primary data and analyse the data using maps, diagrams and tables.

Marks Distribution	
Total Marks :	50 M
ESE (External)	30M
CIA (Internal)	20M
1.) ESE	30 M
(i) Written Paper on Lab work (02 Hours) 4 (ques) x 5marks	20M
(Students will have to answer 4 ques. out of 8 ques. , selecting one question from each unit)	
(ii) Village report and viva-voce (02 Hours) (5+ 1)	06M
(iii) Record/File work and Viva-Voce (3+1)	04 M
2.) CIA	20 M
(i) Written test (01 hour) 2(ques.) x7.5 marks	15 M
(Students will have to answer any 2 ques. out of 4 ques.)	
(ii) Class workbook and Viva-Voce (1 hour) (4+1)	05M
Minimum Passing Marks for ESE	12 M
Minimum Passing Marks for CIA	8M
Total Passing Marks	20 M

HP

Chak

Dr. P. S. Adwan
Bh. Chak

Unit – I Model and Chart

Model and Chart - Tools and Techniques of Model Making, Charts- Meaning, Scope, Types, Components, and Importance. Model and Chart making materials

इकाई-I मॉडल एवं चार्ट

मॉडल एवं चार्ट - मॉडल निर्माण के उपकरण एवं तकनीक, चार्ट – अर्थ, क्षेत्र, प्रकार, घटक और महत्व, मॉडल एवं चार्ट निर्माण की सामग्री।

Unit – II Topographical Sheets

Topographical Sheets - Definition, classification, Topographical Symbols, Interpretation of Indian topographical Sheets.

इकाई-II स्थलाकृतिक पत्रक

स्थलाकृतिक पत्रक - परिभाषा, वर्गीकरण, रूढ़ चिन्ह, भारतीय स्थलाकृतिक पत्रकों का निर्वचन।

Unit – III Remote Sensing and GIS

Remote Sensing and Aerial Photography : Introduction, Components, Basic Principles and History of Remote Sensing, EMR, Remote Sensing Platforms and Imaging Interpretation of Aerial Images and Digital Aerial Images. **GIS, GPS and AI** – Basic Concepts, Components, and Principles, Integration of GIS, GPS, Remote Sensing, and AI for Geospatial Data Analysis.

इकाई-III सुदूर संवेदन और जी आई एस

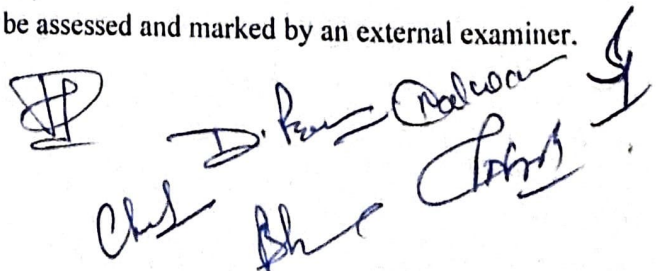
सुदूर संवेदन और वायु फोटोग्राफी : परिचय, घटक, मूलभूत सिद्धांत और सुदूर संवेदन का इतिहास, ई एम आर, सुदूर संवेदन के प्लेटफॉर्म और वायवीय फोटोचित्रों का निर्वचन, डिजिटल वायुचित्र। जी आई एस, जी पी एस और ए आई - आधारभूत संकल्पनाएँ, घटक और सिद्धांत, भू स्थितिक आंकड़ों के विश्लेषण में जी आई एस, जी पी एस, सुदूर संवेदन और ए आई का समाकलन।

Unit – IV Geography Project

Village Survey Report- Introduction, Steps of report writing, and Importance.

Project Details- A candidate has to prepare a project report of a village area under the supervision of a faculty. The marking on the project report will be done by the external examiner. The project should be based on primary data obtained by the candidate. The assessment of the report will be based on the content, data compilation and representation by using Maps, diagrams and any other cartographic methods.

- **Scope and Subjects:** Projects can focus on social, economic, agricultural, industrial, or geographical issues.
- **Group Size:** Each student can work separately on Project under the guidance of subject expert.
- **Project Report:** Candidates are required to prepare a detailed project report, comprising a minimum of 25 to 30 pages (including maps and diagrams etc)
- **External Evaluation:** The project report will be assessed and marked by an external examiner.



इकाई-IV भूगोल प्रोजेक्ट

ग्राम सर्वेक्षण रिपोर्ट- परिचय, रिपोर्ट लेखन के चरण, और महत्व।

रिपोर्ट विवरण- एक विद्यार्थी को संकाय सदस्य की देखरेख में एक ग्राम क्षेत्र की सर्वेक्षण रिपोर्ट तैयार करनी है। सर्वेक्षण रिपोर्ट पर अंकन बाहरी परीक्षक द्वारा किया जाएगा। सर्वेक्षण विद्यार्थी द्वारा प्राप्त प्राथमिक आंकड़ों पर आधारित होनी चाहिए। मानचित्रों, आरेखों और किसी अन्य मानचित्रण विधियों का उपयोग करके रिपोर्ट का मूल्यांकन सामग्री, आंकड़ों का संकलन और प्रतिनिधित्व के आधार पर किया जाएगा।

- क्षेत्र और विषय: सर्वेक्षण सामाजिक, आर्थिक, कृषि, औद्योगिक या भौगोलिक मुद्दों पर केंद्रित होगा।
- समूह का आकार: प्रत्येक छात्र विषय विशेषज्ञ के मार्गदर्शन में सर्वेक्षण पर अलग-अलग काम कर सकता है।
- सर्वेक्षण रिपोर्ट: उम्मीदवारों को न्यूनतम 25 से 30 पृष्ठों (मानचित्रों और आरेखों आदि सहित) की एक विस्तृत सर्वेक्षण रिपोर्ट तैयार करनी है।
- बाहरी मूल्यांकन : प्रोजेक्ट रिपोर्ट का मूल्यांकन और अंकन एक बाहरी परीक्षक द्वारा किया जाएगा।

Essential Readings :

Mishra, R.N. & Sharma, P.K. (2023)	: Practical Geography, Pareek Publication, Jaipur
Singh, L.R. (2011)	: Fundamentals of Practical Geography, Sharda Pustak Bhawan, Prayagraj.
Sharma, S.R.	: Practical Geography, College Book depot, Jaipur.
Crampton, J. (2009)	: Mapping, Black well, Publications, Meerut, U.P.
Khullar, D.R. (2000)	: Essential of Practical Geography, Kalyani Publishers, Delhi.
Singh, R. L., Singh Rana, P.B. (1999)	: Elements of Practical Geography, Kalyani Publishers, Delhi.
Sarkar, Ashish (1997)	: Practical Geography, A systematic Approach Orient Black Swan, Kolkata
Compbell, J. (1989)	: Introduction to Remote Sensing, Guilford, New York
Curran, Paul J. (1985)	: Principles of Remote Sensing, Longman, London
शर्मा, जे.पी. (2023)	: प्रायोगिक भूगोल, रस्तौगी पब्लिकेशन, मेरठ।
अय्यर, एन.पी.	: सर्वेक्षण, मध्यप्रदेश हिन्दी ग्रंथ अकादमी, भोपाल।
राव, बी.पी.	: प्रायोगिक भूगोल, वसुन्धरा प्रकाशन, गोरखपुर।
खुल्लर, डी.आर.	: प्रयोगात्मक भूगोल के तत्व, न्यू एकेडमिक पब्लिशिंग कम्पनी, जालन्धर।
जैन एवं मामोरिया (2024)	: प्रयोगात्मक भूगोल एवं मानचित्रांकन, साहित्य भवन, आगरा।

