



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

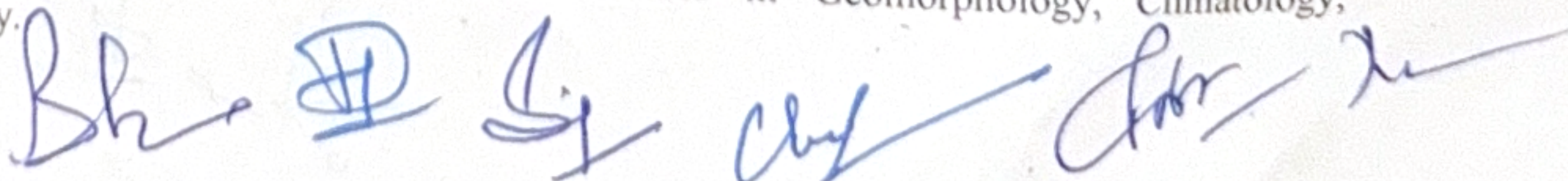
1 Credit – 25 Marks
4 Credits – 100 Marks
Question Paper – 70 Marks
Internal Assessment – 30 Marks

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।

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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 :		ESE (External)	50 M
		CIA (Internal)	30M
1) ESE			20M
(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	

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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

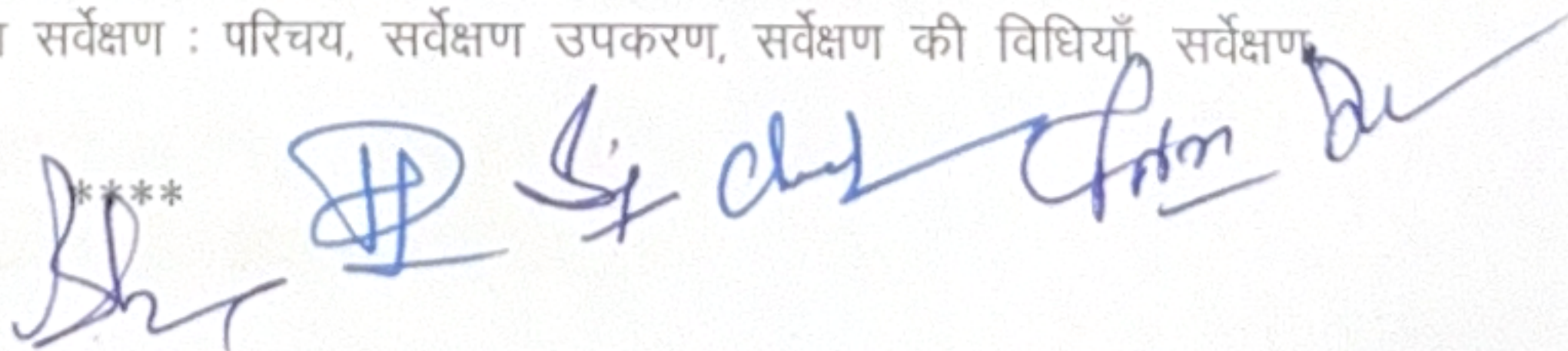
उच्चावच निरूपण : उच्चावच निरूपण की विधियाँ, हैश्यूर, पहाड़ी छायाकरण, स्थानिक ऊँचाइयाँ, तल चिह्न, त्रिकोणमितीय स्टेशन, आकृति रेखाएँ, समोच्च रेखा : महत्वपूर्ण उच्चावचों की समोच्च रेखाओं द्वारा अध्ययन – ढाल के प्रकार, साधारण शंक्वाकार पहाड़ी, पठार, कटक, काठी, वी आकार की घाटी, यू आकार की घाटी, गॉर्ज (महा 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।





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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 बजाज 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, पंचशील प्रकाशन, जयपुर।
साईवाल, स्नेह	:	राजस्थान का भूगोल, कॉलेज बुक हाउस, जयपुर।

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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	

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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।

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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।

