# University of Rajasthan Jaipur

## **SYLLABUS**

## Three / Four Year Bachelor of Social Science/Science in Geography B. A. (UG 9104)

B.A./B.Sc. I & II Semester

(2024-25)

Cl-s



### **Syllabus**

### Three/ Four Year Bachelor of Social Science/Science

### in Geography

### B. A. (UG 9104)

### (2024-25)

### SEMESTER WISE PAPER TITLES WITH DETAILS

		Semeste Type	Туре	ype Title		Credits			Contact
No.	1	r			L	Т	Р	Tota l	Hours
1.	5	Ι	MJR	<b>GEO-51T-151</b> Physical Geography-I	4	0	0	4	4
2.	5	Ι	MJR	<b>GEO-51T-152</b> Geography of Rajasthan-I	4	0	0	4	4
3.	5	Ι	MJR	GEO-51P-153 Practical-I	0	0	2	2	4
4.	5	I	MJR	GEO-51P-154 Practical-II	0	0	2	2	4
5.	5	П	MJR	<b>GEO-52T-155</b> Physical Geography-II	4	0	0	4	4
6.	5	П	MJR	<b>GEO-52T-156</b> Geography of Rajasthan-II	4	0	0	4	4
7.	5	II	MJR	GEO-52P-157 Practical-III	0	0	2	2	4
8.	5	II	MJR	GEO-52P-158 Practical-IV	0	0	2	2	4





### <u>Syllabus</u>

### GEO-51T-151- Physical Geography-I

Code of Course	Title of the Course	Level of the Course	Credits of the Course	
GEO-51T-151	Physical Geography I	5	4	
Types of the Course	Delivery type of the Course			
Major	Lecture, 60 Lectures including diagnostic and formative assessments during lecture hours			
Prerequisites	Central Borad of Secondary Education or Equivalent			
<b>Objectives of the Course</b>	To attain detailed knowledge about physical geography and associated branches.			

### **Duration-3 Hours**

### Max. Marks- 20(Internal) +80

Min. Marks- 8+32

Pattern of Examination	Bifurcation of Marks
Part A	$10 \times 2 = 20$
Part B	15 × 4=60
Total	80

### \*Note:

- 1. Internal assessment of 20 marks will be as per University Norms.
- 2. End Semester Examination question paper will comprise two parts: Part A and Part B.
- 3. Part A will comprise TWO questions consisting of Map Work and Multiple-Choice Questions (MCQs)/ Short Answer type questions.
- *4. Part B will comprise FOUR descriptive type questions with Internal choice from each unit.*
- 5. In all, student will have to attempt a total of 6 questions, 2 questions from Part A and 4 questions from Part B.

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### <u>Syllabus</u>

### Unit – I

Definition, Scope & Development of Physical Geography. Origin of the Earth- The Big-Bang Hypothesis; The Interstellar Dust Hypothesis. Geological History of the Earth. Origin of the Continents & Oceans- Continental Drift Theory; Plate Tectonics Theory.

भौतिक भूगोल की परिभाषा, क्षेत्र और विकास। पृथ्वी की उत्पति– बिग–बैंग परिकल्पना; अंतरतारकीय धूल परिकल्पना। पृथ्वी का भूवैज्ञानिक इतिहास, महाद्वीपों एवं महासागरों की उत्पति–महाद्वीपीय विस्थापन सिद्धान्त; प्लेट विवर्तनिकी सिद्धान्त।

### Unit – II

Interior of the Earth. Earth Movements –Endogenetic & Exogenetic. Isostasy – views of Airy; Pratt & Holmes. Volcanoes & Earthquakes.

पृथ्वी की आंतरिक संरचना पृथ्वी की हलचलें—अंतर्जात एवं बहिर्जात। भूसंतुलन—एयरी, प्राट एवं होम्स के मत; ज्वालामुखी व भूकंप।

### Unit – III

Mountain Building Theories– Kobber & Holmes. Rocks– Classifications & Characteristics. Denudation- Erosion & Weathering; Cycle of Erosion– views of W.M. Davis & W. Penck. Drainage System & Pattern.

पर्वत निर्माणकारी सिद्धान्त–कोबर एवं होम्स। चट्टाने–वर्गीकरण एवं विषेषताएँ। अनाच्छादन–अपरदन

एवं अपक्षय; अपरदन चक्र–डब्ल्यू. एम. डेविस और डब्ल्यू. पेंक के विचार; अपवाह तन्त्र एवं प्रतिरूप।

### Unit – IV

Formation of Various Topographies from Erosional & Depositional Work- River, Underground Water, Glaciers, Wind & Oceanic Waves.

नदी, भूमिगत जल, हिमनद, पवन और समुद्री लहरों का अपरदनात्मक एवं निक्षेपणात्मक कार्यों द्वारा विभिन्न स्थलाकृतियों का निर्माण।

### **Recommended Readings:**

- Bloom, A. L. (2003). Geomorphology: A Systematic Analysis of Late Cenozoic Landforms. New Delhi: Prentice-Hall of India.
- Bridges, E. M. (1990). World Geomorphology. Cambridge: Cambridge University Press.
- Christopherson, Robert W. (2011). Geo-systems: An Introduction to Physical Geography 8 Ed. England: Macmillan Publishing Company.
- Ernst, W.G. (2000). Earth systems: Process and Issues. Cambridge: Cambridge University Press. Gautam, A. (2010). Bhautik Bhugol. Meerut: Rastogi Publications.
- Kale, V. S. and Gupta, A. (2001). Introduction to Geomorphology. Hyderabad: Orient Longman.
- Selby, M.J. (2005). Earth s Changing Surface. United Kingdom: OUP.
- Singh, S. (2009). Bhuatic Bhugol ka Swaroop. Allahabnad: Prayag Pustak.
- Skinner, Brian J. and Stephen, C. (2000). The Dynamic Earth: An Introduction to physical Geology, John Wiley and Sons.



- Strahler, A.N. and Strahler, A.H. (2005). Modern Physical Geography. John Wiley & Sons. Revised edition.
- Thornbury, W. D. (1968). Principles of Geomorphology. Wiley.

#### **Course Learning Outcomes:**

By the end of the course, students should be able to:

- **1.** Understand the concepts of Origin of Earth and landforms.
- **2.** Recognise the different forces acting over the Earth.
- **3.** Compare and analyze the different cycles of landform erosion and their processes.
- 4. Build competency and academic excellence for professional cources.

Code of Course	Title of the Course	Level of the Course	Credits of the Course
GEO-51T-152	Geography of Rajasthan-I	5	4
Types of the Course	Delivery type of the Course		
Major	Lecture, 60 Lectures including diagnostic and formative assessments during lecture hours		
Prerequisites	Central Borad of Secondary Education or Equivalent		
<b>Objectives of the Course</b>	To make students familiar with regional geography of Rajasthan.		

### GEO-51T-152 - Geography of Rajasthan-I

### **Duration-3 Hours**

### Max. Marks- 20+80

### Min. Marks-8+32

Pattern of Examination	Bifurcation of Marks
Part A	$10 \times 2 = 20$
Part B	15 × 4=60
Total	80

\*Note:

- 1. Internal assessment of 20 marks will be as per University Norms.
- 2. End Semester Examination question paper will comprise two parts: Part A and Part B.
- 3. Part A will comprise TWO questions consisting of Map Work and Multiple-Choice Questions (MCQs)/ Short Answer type questions.
- 4. *Part B will comprise FOUR descriptive type questions with Internal choice from each unit.*
- 5. In all, student will have to attempt a total of 6 questions, 2 questions from Part A and 4 questions from Part B.



### <u>Syllabus</u>

#### Unit – I

Introduction and post-independence integration of Rajasthan. Geological structure. Physiographic divisions. Climate: Factors, Classification-General, Koppen and Thornthwaite.

राजस्थान का परिचय और स्वतंत्रता के बाद का एकीकरण। भूवैज्ञानिक संरचना। भौतिक विभाजन। जलवायुः कारक, वर्गीकरण—सामान्य, कोपेन और थॉर्नथ्वेट।

### Unit-II

Drainage: Rivers and Lakes. Types and distribution of Soil, problems and conservation. Types and distribution of Natural vegetation, Biodiversity in Rajasthan. Wildlife, sanctuaries, reserved and protected areas, national parks; Wildlife Acts and Rules.

अपवाह तंत्रः नदियाँ और झीलें। मृदा के प्रकार और वितरण, समस्याएँ और संरक्षण। प्राकृतिक वनस्पति के प्रकार और वितरण, राजस्थान में जैव विविधता। वन्यजीव, अभयारण्य, आरक्षित और संरक्षित क्षेत्र, राष्ट्रीय उद्यान; वन्यजीव अधिनियम और नियम।

### Unit-III

Livestock: types and distribution. Major cereals (Wheat, Rice, Barley, Millet) and cash crops (Cotton, Oilseeds, Sugarcane and Tobacco). Agro-climatic regions. Sources of Irrigation-Wells, Tube-wells, Canals, Ponds.

पशुधनः प्रकार और वितरण। प्रमुख अनाज (गेहूं, चावल, जौ, बाजरा) और नकदी फसलें (कपास, तिलहन, गन्ना व तंबाकू)। कृषि—जलवायु क्षेत्र। सिंचाई के स्रोत— कुएँ, नलकूप, नहरें, तालाब।

### Unit-IV

Multi-purpose Projects- Indira Gandhi Canal Project, Chambal River Valley Project, Mahi Bajaj Sagar Project, Bisalpur Dam Project. Metallic (Iron, Copper, Zinc and Silver, Lead, Manganese, Tungsten) and Non-metallic resources (Salt, Mica, Limestone, Sandstone, Gypsum) and Precious Stones. Energy resources- Coal, Petroleum, Natural Gas, Solar energy, Wind energy, Biomass energy.

बहुउद्देश्यीय परियोजनाएँ— इंदिरा गांधी नहर परियोजना, चंबल नदी घाटी परियोजना, माही बजाज सागर परियोजना, बीसलपुर बाँध परियोजना। धात्विक संसाधन (लोहा, तांबा, जस्ता और चांदी, सीसा, मैंगनीज, टंगस्टन) और गैर–धात्विक संसाधन (नमक, अभ्रक, चूना पत्थर, बलुआ पत्थर, जिप्सम) और बहुमूल्य पत्थर। ऊर्जा संसाधन— कोयला, पेट्रोलियम, प्राकृतिक गैस, सौर ऊर्जा, पवन ऊर्जा, बायोमास ऊर्जा।

### **Recommended Readings:**

• Bhalla, L.R. (2010). Rajasthan ka Bhugol. Jaipur: RBD Publication.



• Gupta & Prakash. (1979). Environmental Analysis of Thar Desert. Dehradun: English Books Depot.

Old

- Misra, V.C. (1977). Geography of Rajasthan. New Delhi: NBT.
- Roonwal, M.L. (1977). Natural Resources of Rajasthan Vols. I & II. University of Jodhpur.
- Sharma, R.C. (1972). Settlement Geography of the India Desert. New Delhi: Korwar Brother.
- Sharma, R.C. (2000). Settlement Geography of the India Desert. New Delhi: Korwar Brother.
- Singh, R.L. (2000). India: A Regional Geography. Varanasi: National Geographical Society of India.

#### **Course Learning Outcomes:**

By the end of the course, students should be able to:

- 1. Classify and understand the physiographic divisions of Rajasthan.
- **2.** Discussion about the agricultural regions and contribution of multipurpose projects in Rajasthan.
- **3.** List the major metallic, non-metallic resources and correlate with industrial development of the state.
- 4. Build competency and academic excellence about the competitive exams.

Code of Course	Title of the Course	Level of the Course	Credits of the Course
GEO-51P-153	Practical-I	5	2
Types of the Course	Delivery type of the Course		
Major	60 contact hrs- Laboratory lectures and field study including diagnostic and formative assessments during lecture hours		
Prerequisites	Central Borad of Secondary Education or Equivalent		
Objectives of the Course	To make the students understand about the relief features through scale and relief representation techniques.		

### GEO-51P-153 - Practical-I

#### **Duration-4 Hours**

### Max. Marks-10+40

#### Min. Marks- 4+16

Pattern of Examination	<b>Bifurcation of Marks</b>	Time	
Written Test	$4 \times 5 = 20$	2 Hours	
Survey and Viva-Voce	7+3	2 Hours	
Record Work and Viva-Voce	7+3		
Total	40	4 Hours	

\*Note-



1. The students will have to prepare A3 Size Record Book which will be simultaneously checked by the Teacher in the class after teaching and evaluated during the examinations.



- 2. There will be 6 questions (3 questions from each unit) in written paper. The students have to attempt 4 questions in total (2 questions from each unit).
- 3. The student will have to prepare Model/Chart **INDIVIDUALLY** form the practical syllabus of Geography and have to submit during the examination.
- *4. Simple Calculator is permitted in practical examination.*

### Unit – I

Definition and Conversion of Scale; Graphical Scale - Simple, Comparative & Diagonal; Methods of Relief Representation: Hachure, Hill-shading, Bench mark, Spot-Height, Form-lines & Contours.

मापनी की परिभाषा और रूपान्तरण; आलेखी मापक– सरल, तुलनात्मक और विकर्ण; उच्चावच निरूपण की विधियाँ– हैष्यूर, पर्वतीय छायाकरण, तल चिन्ह, स्थानिक ऊँचाई, आकृति रेखाएँ एवं समोच्च रेखाएँ।

### Unit – II

Profiles: Definition and Types- Serial, Superimposed, Projected and Composite;

Surveying: Meaning, Classification and Significance; Chain and Tape Surveying: Open & Closed Traverse and Tie-line.

परिछेदिकाएँ–परिभाषा एवं प्रकार–संक्रम, अध्यारोपित, प्रक्षिप्त एवं मिश्रित;

सर्वेक्षणः अर्थ, वर्गीकरण एवं महत्व; जरीब–फीता सर्वेक्षणः खुली व बंद मालारेख विधि एवं योजक रेखा।

### **Recommended Readings:**

- Monkhouse, F. J. and Wilkinson, H. R. (1973). Maps and Diagrams. London: Methuen.
- Rhind, D. W. and Taylor, D. R. F. (2000). Cartography: Past, Present and Future. International Cartographic Association.
- Robinson, A. H., (2009). Elements of Cartography. New York: John Wiley and Sons.
- Robinson, A.H. (2000). Elements of Cartography. U.S.A.: John Wiley& Sons.
- Sarkar, A. K. (2005). Practical Geography: A Systematic Approach. Calcutta: Oriental Longman.
- Sharma, J. P. (2010). Prayogik Bhugol. Meerut: Rastogi Publishers.
- Singh, R.L. and Dutt, P.K. (2010). Elements of Practical Geography. New Delhi: Kalyani Publishers.

### **Course Learning Outcomes:**



- 1. To have basic knowledge of measurements and representative distances.
- 2. To develop skills and competency regarding area analysis and map making with relief features.

### GEO-51P-154 - Practical-II

Code of Course	Title of the Course	Level of the Course	Credits of the Course
GEO-51P-154	Practical-II	5	2
Types of the Course	Delivery type of the Course		
Major	60 contact hrs- Laboratory lectures and field study including diagnostic and formative assessments during lecture hours		
Prerequisites	Central Borad of Secondary Education or Equivalent		
Objectives of the Course	To make the students understand about the relief representation techniques and climatic data.		

### **Duration- 4 Hours**

### Max. Marks-10+40

### Min. Marks- 4+16

Pattern of Examination	<b>Bifurcation of Marks</b>	Time	
Written Test	$4 \times 5 = 20$	2 Hours	
Model/chart and Viva-Voce	va-Voce 7+3		
Record Work and Viva-Voce	7+3	2 Hours	
Total	40	4 Hours	

\*Note-

- 1. The students will have to prepare A3 Size Record Book which will be simultaneously checked by the Teacher in the class after teaching and evaluated during the examinations.
- 2. There will be 6 questions (3 questions from each unit) in written paper. The students have to attempt 4 questions in total (2 questions from each unit).
- 3. The student will have to prepare Model/Chart **INDIVIDUALLY** form the practical syllabus of Geography and have to submit during the examination.
- 4. Simple Calculator is permitted in practical examination.

### Unit – I

Representation of Relief features through Contours and description – Conical hill, Plateau, Ridge, Cliff, Escarpment, Gorge, Waterfall, V-shaped valley, U- shaped valley and Hanging valley, Types of Slopes- Gentle, Steep, Uniform, Undulating and Terraced; Lake,



Caldera, Spur.

समोच्च रेखाओं के माध्यम के द्वारा उच्चावच निरूपण एवं उनका वर्णन— शंक्वाकार पहाड़ी, पठार, कटक, भृगू, कगार, महाखड्ड, जलप्रपात, वी–आकार की घाटी, यू–आकार की घाटी तथा लटकती घाटी, ढाल के प्रकार– मंद, तीव्र, समान, असमान तथा सीढीनुमा; झील, काल्डेरा, पर्वतस्कंध।

Old

#### Unit – II

Graphs: Hythergraph, Climograph, Climatograph & Water budget graph; Wind Rose. Weather instruments with description and diagrams, Weather Symbols, Interpretation of Indian Daily Weather maps (July and January).

ग्राफः हीदरग्राफ, क्लाइमोग्राफ, क्लाइमेटोग्राफ एवं जल बजट ग्राफ, पवन आरेख। मौसम उपकरणों का चित्रण एवं वर्णन, मौसम प्रतीक चिन्ह्, भारतीय दैनिक मौसम मानचित्र की व्याख्या (जुलाई और जनवरी)।

#### **Recommended Readings:**

- Monkhouse, F. J. and Wilkinson, H. R. (1973). Maps and Diagrams. London: Methuen.
- Rhind, D. W. and Taylor, D. R. F. (2000). Cartography: Past, Present and Future. International Cartographic Association.
- Robinson, A. H., (2009). Elements of Cartography. New York: John Wiley and Sons.
- Robinson, A.H. (2000). Elements of Cartography. U.S.A.: John Wiley& Sons.
- Sarkar, A. K. (2005). Practical Geography: A Systematic Approach. Calcutta: Oriental Longman.
- Sharma, J. P. (2010). Prayogik Bhugol. Meerut: Rastogi Publishers.
- Singh, R.L. and Dutt, P.K. (2010). Elements of Practical Geography. New Delhi: Kalyani Publishers.

### **Course Learning Outcomes:**

- 1. To make students aware about the representation of various climatic data.
- 2. To develop skills and competency regarding area analysis and map making with relief features.

Old -





### Semester II

### GEO-52T-155 - Physical Geography-II

Code of Course	Title of the Course	Level of the Course	Credits of the Course
GEO-52T-155	Physical Geography-II	5	4
Types of the Course	Delivery type of the Course		
Major	Lecture, 60 Lectures including diagnostic and formative assessments during lecture hours		
Prerequisites	Central Borad of Secondary Education or Equivalent		
Objectives of the Course	To attain knowledge in detail about climatology and oceanography.		

### **Duration-3 Hours**

### Max. Marks- 20+80

### Min. Marks- 8+32

Pattern of Examination	Bifurcation of Marks
Part A	$10 \times 2 = 20$
Part B	15 × 4=60
Total	80

\*Note:

- 1. Internal assessment (of 20 marks) will be as per University Norms.
- 2. End Semester Examination question paper will comprise of two parts: Part A and Part B.
- 3. Part A will comprise TWO questions consisting of Map Work and Multiple-Choice Questions (MCQs)/ Short Answer type questions.
- 4. Part B will comprise FOUR descriptive type questions with Internal choice from each unit.
- 5. In all, student will have to attempt a total of 6 questions, 2 questions from Part A and 4 questions from Part B.

### Unit – I

Composition & Structure of the Atmosphere. Insolation & Heat budget of the Earth. Horizontal and Vertical distribution of Atmospheric Temperature, Inversion of Temperature. Atmosphere Pressure, Pressure belts & Planetary winds.

वायुमंडल की संरचना और संरचना। पृथ्वी का सूर्यातप और ऊष्मा बजट। वायुमंडलीय तापमान का क्षैतिज और ऊर्ध्वाधर वितरण, तापमान का व्युत्क्रमण। वायुमंडलीय दबाव, दबाव बेल्ट और ग्रहों की हवाएँ।



Old -

#### Unit – II

Mechanism of Indian monsoon and jet streams. Classification of Clouds and Precipitation. Types of Air Masses, Fronts & Cyclones. Classification of World Climate- Kopen and Thorthwaite, General climatic classification.

भारतीय मानसून और जेट स्ट्रीम का तंत्र। बादलों और वर्षा का वर्गीकरण। वायु राषियाँ, वाताग्र और चक्रवातों के प्रकार। विश्व जलवायु का वर्गीकरण– कोपेन और थोर्नथ्वेट, सामान्य जलवायु वर्गीकरण।

### Unit – III

Definition, nature and Scope of Oceanography, Hydrological Cycle. Surface Configuration of Pacific, Atlantic and Indian Ocean's bottom. Horizontal and Vertical distribution of Oceanic Temperature and Salinity.

महासागरीय विज्ञानः परिभाषा, प्रकृति और विषय क्षेत्र, जल चक्र, प्रषांत, अटलांटिक और हिंद महासागर के तलीय उच्चावच, महासागरीय तापामन एवं लवणता का क्षेतिज और ऊर्ध्वाधर वितरण।

### Unit – IV

Oceanic Movements- Tides, Waves and Oceanic Currents. Coral Reefs. Oceanic Deposits.

महासागरीय संचलन– ज्वारभाटा, लहरें एवं महासागरीय धाराएँ, प्रवाल भित्ति, महासागरीय निक्षेप।

#### **Recommended Readings:**

- Bloom, A. L. (2003). Geomorphology: A Systematic Analysis of Late Cenozoic Landforms. New Delhi: Prentice-Hall of India.
- Christopherson, Robert W. (2011). Geosystems: An Introduction to Physical Geography 8 Ed. England: Macmillan Publishing Company.
- Ernst, W.G. (2000). Earth systems: Process and Issues. Cambridge: Cambridge University Press. Gautam, A. (2010). Bhautik Bhugol. Meerut: Rastogi Publications.
- Kale, V and Gupta, A. (2001). Elements of Geomorphology. Calcutta: Oxford University Press.
- Kale, V. S. and Gupta, A. (2001). Introduction to Geomorphology. Hyderabad: Orient Longman.
- Selby, M.J. (2005). Earth's Changing Surface. United Kingdom: OUP.
- Singh, S. (2009). Bhuatic Bhugol ka Swaroop. Allahabnad: Prayag Pustak.
- Skinner, Brian J. and Stephen, C. (2000). The Dynamic Earth: An Introduction to physical Geology, John Wiley and Sons.
- Strahler, A.N. and Strahler, A.H. (2005). Modern Physical Geography. John Wiley & Sons. Revised edition.
- Thornbury, W. D. (1968). Principles of Geomorphology. Wiley.

### **Course Learning Outcomes:**

- 1. Have the knowledge about the atmosphere and concepts of Indian monsoon
- 2. To attain the knowledge about atmospheric pressure and various planetary & local winds.
- 3. Compare and analyze the different types of bottom relief features of the oceans.
- 4. Build competency and academic excellence for competitive exams.



Old

### GEO-52T-156 - Geography of Rajasthan-II

### **Duration- 3 Hours**

### Max. Marks- 20+80

### Min. Marks- 8+32

Code of Course	Title of the Course	Level of the Course	Credits of the Course	
GEO-52T-156	Geography of	5	4	
	Rajasthan-II			
Types of the	Delivery type of the Course			
Course				
Major	Lecture, 60 Lectures including diagnostic and formative assessments			
	during lecture hours			
Prerequisites	Central Borad of Secondary Education or Equivalent			
<b>Objectives of</b>	<b>of</b> To make students familiar with regional geography of Rajasthan.			
the Course				

### **Duration-3 Hours**

### Max. Marks- 20+80

### Min. Marks- 8+32

Pattern of Examination	Bifurcation of Marks
Part A	$10 \times 2 = 20$
Part B	15 × 4=60
Total	80

#### \*Note:

- 1. Internal assessment (of 20 marks) will be as per University Norms.
- 2. End Semester Examination question paper will comprise two parts: Part A and Part B.
- 3. Part A will comprise TWO questions consisting of Map Work and Multiple-Choice Questions (MCQs)/ Short Answer type questions.
- 4. Part B will comprise FOUR descriptive types questions with Internal choice from each unit.
- 5. In all, student will have to attempt a total of 6 questions, 2 questions from Part A and 4 questions from Part B.

### <u>Syllabus</u>

### Unit – I

Industries: Cement, Marble, Copper, Textile, Sugar, Agro-chemical and Cottage industries. Schemes and Policies of Industrial development- Rajasthan Financial Corporation (RFC), RIICO, SEZ. Transport Development: Road, Rail and Air. Trade: Import and Export, Inland Container Dry Ports.



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उद्योगः सीमेंट, संगमरमर, तांबा, वस्त्र, चीनी, कृषि–रसायन और कुटीर उद्योग। औद्योगिक विकास की योजनाएँ और नीतियाँ– राजस्थान वित्त निगम (RFC), रीको, सेज़। परिवहन विकासः सड़क, रेल और हवाई। व्यापारः– आयात और निर्यात, अंतर्देशीय कंटेनर, ड्राई पोर्ट।

### Unit-II

Factors affecting Population; Size, Growth, Density and Distribution of Population. Sex-ratio, Literacy, Rural-Urban Distribution, Occupational Structure, Scheduled Caste and Scheduled Tribes Distribution. Urbanization, National Population Policy 2000, Problems of Population. Study of Bhil, Meena, Garasia, Saharia and Damor Tribes.

जनसंख्या को प्रभावित करने वाले कारक, जनसंख्या का आकार, वृद्धि, घनत्व और वितरण। लिंग–अनुपात, साक्षरता, ग्रामीण–शहरी वितरण, व्यावसायिक संरचना, अनुसूचित जाति और अनुसूचित जनजाति वितरण। नगरीकरण, राष्ट्रीय जनसंख्या नीति 2000, जनसंख्या की समस्याएँ। भील, मीना, गरासिया, सहरिया और डामोर जनजातियों का अध्ययन।

### Unit-III

Land Degradation and Desertification, Wastelands and Ravines. Drought and Famine- types and mitigation. Desert Development Programme, Aravali Hill Development Programme, Mukhyamantri Jal Swavlamban Yojana (MJSY). Tribal Development Programme, Dairy Development Programme, Tourism Development Programmes

भूमि क्षरण और मरुस्थलीकरण, बंजर भूमि और बीहड़। सूखा और अकाल– प्रकार और उपाय। मरुस्थल विकास कार्यक्रम, अरावली पहाड़ी विकास कार्यक्रम, मुख्यमंत्री जल स्वावलंबन योजना (MJSY)। जनजातीय विकास कार्यक्रम, डेयरी विकास कार्यक्रम, पर्यटन विकास कार्यक्रम

### Unit-IV

Tourism and Cultural Heritage: Types, Circuits and Problems, Rajasthan Tourism Policy 2020. Human Settlements- Types and Patterns. Building Materials and House Types. Master Development Plan of Jaipur City.

पर्यटन और सांस्कृतिक विरासतः प्रकार, सर्किट और समस्याएँ, राजस्थान पर्यटन नीति 2020. मानव बस्तियाँ– प्रकार और प्रारूप. निर्माण सामग्री और गृहों के प्रकार। जयपुर शहर की मास्टर डेवलपमेंट योजना।

### **Recommended Readings:**

- Bhalla, L.R. (2010). Rajasthan ka Bhugol. Jaipur: RBD Publication.
- Gupta & Prakash. (1979). Environmental Analysis of Thar Desert. Dehradun: English Books Depot.
- Misra, V.C. (1977). Geography of Rajasthan. New Delhi: NBT.
- Roonwal, M.L. (1977). Natural Resources of Rajasthan Vols. I & II. University of Jodhpur.
- Sharma, R.C. (1972). Settlement Geography of the India Desert. New Delhi: Korwar Brother.



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- Sharma, R.C. (2000). Settlement Geography of the India Desert. New Delhi: Korwar Brother.
- Singh, R.L. (2000). India: A Regional Geography. Varanasi: National Geographical Society of India.

#### **Course Learning Outcomes:**

By the end of the course, students should be able to:

- 1. Classify and understand the essential aspects of economy of Rajasthan.
- 2. Discussion about the population of Rajasthan and its aspects.
- **3.** To gain knowledge about various development programmes by central & state government. Also to understand about the tribal community of Rajasthan.
- 4. Build competency and academic excellence about the competitive exams.

Code of Course	Title of the Course	Level of the Course	Credits of the Course
GEO-52P-157	Practical III	5	2
Types of the Course	Delivery type of the Course		
Major	60 contact hrs- Laboratory lectures and field study including diagnostic and formative assessments during lecture hours		
Prerequisites	Central Borad of Secondary Education or Equivalent		
Objectives of the Course	To attain the knowledge about the geographical data representation with the help of cartographical skills and statistical techniques.		

### GEO-52P-157 - Practical III

### **Duration- 4 Hours**

### Max. Marks- 10+40

### Min. Marks- 4+16

Pattern of Examination	<b>Bifurcation of Marks</b>	Time	
Written Test	$4 \times 5 = 20$	2 Hours	
Model/chart and Viva-Voce	7+3	2 Hours	
Record Work and Viva-Voce	7+3		
Total	40	4 Hours	

<sup>\*</sup>Note-

1. The students will have to prepare A3 Size Record Book which will be simultaneously checked by the Teacher in the class after teaching and evaluated during the examinations.

2. There will be 6 questions (3 questions from each unit) in written paper. The students have to attempt 4 questions in total (2 questions from each unit).





- 3. The student will have to prepare Model/Chart **INDIVIDUALLY** form the practical syllabus of Geography and have to submit during the examination.
- 4. Simple Calculator is permitted in practical examination.

### Unit-I

One Dimension Diagram- Line Graph (Simple, Polyline); Bar Graph- (Simple, Compound, Superimposed, Multiple); Line and Bar Graph; Pyramid diagram- (Simple, Superimposed, Compound), Wheel / Pie Diagram; Two Dimension Diagrams- Square, Rectangle- (Simple, Compound), Circle, Ring.

एकविमीय आरेख–रेखीय आरेख (सरल, बहुरैखिक),दण्ड आरेख– (सरल, संयुक्त, अध्यारोपित, मिश्रित), रेखीय –दण्ड आरेख, पिरामिड, आरेख– (सरल, अध्यारोपित, मिश्रित), वक्रारेख / पाई आरेख, द्विविमीय आरेख – वर्गारेख, आयातारेख– (सरल, मिश्रित), वृतारेख, वलय आरेख

### Unit-II

Measure of Central Tendencies-Mean, Median, and Mode. Measures of Dispersion-Standard Deviation, Quartiles.

केंदीय प्रवृतियों के माप– माध्य, माध्यिका एवं बहुलक।अपकिरण के माप–प्रमाप विचलन, चतुर्थक।

### **Recommended Readings:**

- Misra, R.P & Ramesh. (1986). A Fundamentals of Cartography. New Delhi: McMillan Co.
- Monkhouse, F. J. and Wilkinson, H. R. (1973). Maps and Diagrams. London: Methuen.
- Rhind, D. W. and Taylor, D. R. F. (2000). Cartography: Past, Present and Future. International Cartographic Association.
- Robinson, A. H., (2009). Elements of Cartography. New York: John Wiley and Sons.
- Robinson, A.H. (2000). Elements of Cartography. U.S.A.: John Wiley& Sons.
- Sarkar, A. K. (2005). Practical Geography: A Systematic Approach. Calcutta: Oriental Longman.
- Sharma, J. P. (2010). Prayogic Bhugol. Meerut: Rastogi Publishers.
- Singh, R.L. and Dutt, P.K. (2010). Elements of Practical Geography. New Delhi: Kalyani Publishers.

### **Course Learning Outcomes:**

- Develop skills and competency regarding statistical analysis and representation of geographical data.
- To learn the techniques for representation of data graphically.

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### GEO-52P-158 - Practical IV

Code of Course	Title of the Course	Level of the Course	Credits of the Course
GEO-52P-158	Practical IV	5	2
Types of the Course	Delivery type of the Course		
Major	60 contact hrs- Laboratory lectures and field study including diagnostic and formative assessments during lecture hours		
Prerequisites	Central Borad of Secondary Education or Equivalent		
Objectives of the Course	To attain the knowledge about the enlargement and reduction of various maps and topographical techniques.		

### **Duration-4 Hours**

### Max. Marks-10+40

### Min. Marks- 4+16

Pattern of Examination	<b>Bifurcation of Marks</b>	Time	
Written Test	$4 \times 5 = 20$	2 Hours	
Model/chart and Viva-Voce	7+3	2 Hours	
Record Work and Viva-Voce	7+3		
Total	40	4 Hours	

\*Note-

- 1. The students will have to prepare A3 Size Record Book which will be simultaneously checked by the Teacher in the class after teaching and evaluated during the examinations.
- 2. There will be 6 questions (3 questions from each unit) in written paper. The students have to attempt 4 questions in total (2 questions from each unit).
- 3. The student will have to prepare Model/Chart **INDIVIDUALLY** form the practical syllabus of Geography and have to submit during the examination.
- 4. Simple Calculator is permitted in practical examination.

### Unit-I

Enlargement & Reduction (Square and Triangle method); Combination of Maps and measurements of area.

मानचित्रों का विवर्धन एवं लघुकरण (वर्ग एवं त्रिकोणीय विधि), मानचित्रों का संयोजन तथा क्षेत्र मापन।

### Unit –II

Topographical Sheet- Introduction, Importance, History of Topographical Mapping in India, Geographical Survey of India, Classification of Indian Topographical Sheet



(Nomenclature and Numbering of Topographical Sheet), Conventional Signs / Symbols, Method of Studying and Interpretation of Topo Sheet.

रथलाकृतिक मानचित्र— परिचय, महत्व, भारत में स्थलाकृतिक मानचित्रण का इतिहास, भारतीय भौगोलिक सर्वेक्षण, भारतीय स्थलाकृतिक मानचित्र का वर्गीकरण (स्थलाकृतिक मानचित्र का नामकरण) और क्रमांकन, पारंपरिक संकेत / प्रतीक , स्थलाकृतिक अंषचित्र का अध्ययन और व्याख्या।

### **Recommended Readings:**

- Misra, R.P & Ramesh. (1986). A Fundamentals of Cartography. New Delhi: McMillan Co.
- Monkhouse, F. J. and Wilkinson, H. R. (1973). Maps and Diagrams. London: Methuen.
- Rhind, D. W. and Taylor, D. R. F. (2000). Cartography: Past, Present and Future. International Cartographic Association.
- Robinson, A. H., (2009). Elements of Cartography. New York: John Wiley and Sons.
- Robinson, A.H. (2000). Elements of Cartography. U.S.A.: John Wiley& Sons.
- Sarkar, A. K. (2005). Practical Geography: A Systematic Approach. Calcutta: Oriental Longman.
- Sharma, J. P. (2010). Prayogic Bhugol. Meerut: Rastogi Publishers.
- Singh, R.L. and Dutt, P.K. (2010). Elements of Practical Geography. New Delhi: Kalyani Publishers.

### **Course Learning Outcomes:**

By the end of the course, students should be able to:

- Develop skills and competency regarding representation of geographical data through topographical sheets.
- To enhance the techniques for enlargement and reduction of maps.

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