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# **SAURASHTRA UNIVERSITY**

## **STRUCTURE OF THE COURSES**

### **SUBJECT : GEOGRAPHY**

#### **B. A. SEMESTER STRUCTURE**

***(Revised Syllabus in Force from : June - 2010)***



# **SAURASHTRA UNIVERSITY, RAJKOT**

## **REVISED SYLLABUS**

(Introduced from June 2010)

**B. A. (GEOGRAPHY)**

### **SEMESTER STRUCTURE**

#### **B. A. Semester - I From June - 2010**

| S.No. | Code | Course                          | Hours/Week | Credit   |
|-------|------|---------------------------------|------------|----------|
| 1.    | 1    | Elements Geomorphology-I (A)    | 3          | 3        |
| 2.    | 2    | Regional Geography of Gujarat-I | 3          | 3        |
|       |      | or Introduction to Geography    |            |          |
|       |      | <b>Total</b>                    | <b>6</b>   | <b>6</b> |

#### **B. A. Semester - II From November - 2010**

| S.No. | Code | Course                           | Hours/Week | Credit   |
|-------|------|----------------------------------|------------|----------|
| 1.    | 3    | Elements Geomorphology-II (B)    | 3          | 3        |
| 2.    | 4    | Regional Geography of Gujarat-II | 3          | 3        |
|       |      | or Man and Environment System    |            |          |
|       |      | <b>Total</b>                     | <b>6</b>   | <b>6</b> |

**B. A. Semester - III From June - 2011**

| S.No. | Code | Course                       | Hours/Week | Credit   |
|-------|------|------------------------------|------------|----------|
| 1.    | 5    | Elements of Climatology      | 3          | 3        |
| 2.    | 6    | Geography of India Part-I    | 3          | 3        |
| 3.    | 7    | Elements of Cartography-I(A) | 3          | 3        |
|       |      | <b>Total</b>                 | <b>9</b>   | <b>9</b> |

**B. A. Semester - IV From November - 2011**

| S.No. | Code | Course                       | Hours/Week | Credit   |
|-------|------|------------------------------|------------|----------|
| 1.    | 5    | Elements of Oceanography     | 3          | 3        |
| 2.    | 6    | Geography of India Part-II   | 3          | 3        |
| 3.    | 7    | Elements of Cartography-I(B) | 3          | 3        |
|       |      | <b>Total</b>                 | <b>9</b>   | <b>9</b> |

**B. A. Semester - V From June - 2012**

| S.No. | Code | Course   | Hours/Week | Credit    |
|-------|------|--|------------|-----------|
| 1.    | 11   | Human Geography                                | 3          | 3         |
| 2.    | 12   | Principals of Economic Geography<br>(Part - I) | 3          | 3         |
| 3.    | 13   | Soil Geography                                 | 3          | 3         |
| 4.    | 14   | Environmental Geography                        | 3          | 3         |
| 5.    | 15   | Geography of Manufacturing                     | 3          | 3         |
| 6.    | 16   | Elements of Cartography-II A                   | 3          | 3         |
|       |      | <b>Total</b>                                   | <b>18</b>  | <b>18</b> |

**B. A. Semester - VI From November - 2012**

| S.No. | Code | Course                                       | Hours/Week | Credit    |
|-------|------|--|------------|-----------|
| 1.    | 17   | Settlement Geography                         | 3          | 3         |
| 2.    | 18   | Principal of Economic Geography<br>Part - II | 3          | 3         |
| 3.    | 19   | Agriculture Geography                        | 3          | 3         |
| 4.    | 20   | Geography of Resource                        | 3          | 3         |
| 5.    | 21   | Transportation Geography                     | 3          | 3         |
| 6.    | 22   | Elements Cartography-II (B)                  | 3          | 3         |
|       |      | <b>Total</b>                                 | <b>18</b>  | <b>18</b> |

**Note :**

1. Each Paper consist of 70 Marks external and 30 marks internal.
2. Each Practical Paper Consist of 100 Marks external.
3. Figures at the end of each topic of all the courses (Theory and Practical) indicate tentative number of lecture to be delivered on respective topic of theory Paper. (Total 3 credit and 45 hours)
4. Students can Carry Stencil Maps in the Examination.

## **ELEMENTS OF GEOMORPHOLOGY : PART – I**

**SEMESTER – 1 : PAPER – I**

**COURSE CONTAIN**

*3 credit  
45 hours*

- |          |  |    |
|----------|--|----|
| UNIT : 1 | Meaning, nature and scope of geomorphology<br>relation with other branches of earth sciences,<br>signification of geomorphology.   | 5  |
| Unit : 2 | Solar system, Earth's origin : Kant's gaseous<br>Hypothesis, Nebular Eypothesis of Laplace,<br>planetesimal Theory of Chamberlin and Moulton,<br>Tidal Theory of James Jeans and Zaffreys, Nova star<br>Theory, Age of the earth Geological Eras and periods,<br>Earth's interior Isostary, Relief features of the first<br>order, Origin of the Centinents and the Oceans :<br>Theories of Wegner's Conntinental Drift and Plate<br>Tectonics | 15 |
| Unit : 3 | Rocks : meaning, classification and characteristics.<br><br>Soils : meaning, formation, natural characteristics,<br>Soil Profile   | 10 |
| Unit : 4 | Diastrophism – Earth's movements : Endogenetic<br>and Exogenetic Forces. Folding & Faulting, Earth<br>Quakes and Volcanoes, Relief Features of the second<br>order : Mountains, Plateaus and Plains.   | 15 |

### **SUGGESTED READINGS :**

1. ભૌતિક ભૂગોળ : પ્રા મહેન્દ્રકુમાર આર. શાહ  
ગુજરાત ગ્રંથ નિર્માણ પ્રા. કાનજીભાઈ એન. જસાણી બોર્ડ, ગાંધીનગર
2. Rice R.J. : Fundamentals of Geomorphology, Longmans 1977
3. Thornbury : Principles of Geomorphology : John Wiley & Sons
4. Worcester P.G. : A text book of Geomorphology : D Van Noster & Co.
5. Wooldridge S.W. : An outline of Geomorphology : Longmans
6. Sparks B.W. : Geomorphology : Longmans
7. Lobeck A.K. : Geomorphology : McGraw Hill
8. Easter Book Den J : Principles of Geomorphology : John Wiley & Sons
9. Chorlegy, R.J. : Spatial Analysis in Geomorphology, Methuen, London, 1972.
10. Cooke, R.U. and Doornkamp, J.C. : Geomorphology in Environmental Management – A Introduction, Clarendon Press, Oxford, 1974.
11. Dury, G.H. : The Face of the Earth, Penguin Harmondsworth, 1959.
12. Fairbridge, R.W. Encyclopaedia of Geomorphology, Reinholdts, New York, 1968.
13. Goudie, A. : The Nature of Environment, Oxford & Blackwell, London, 1993.
14. Garner, H.F. : The Origin of Landscape – A Synthesis of Geomorphology, Oxford University Press, London, 1974.
15. Mitchell, C.W. : Terrain Evaluation, Longman, London, 1973.



16. Ollier, C.D. : Weathering, Longman, London, 1979.
17. Pitty, A.F. Introduction to Geomorphology, Methuen, London, 1971.
18. Stoddart, D.R. (ed) : Process and Form in Geomorphology, Routledge, New York, 1996.
19. Skinner, B.J. & Porter, S.C. : The Dynamic Earth John Wiley, New York, 1995.
20. Sparks, B.W. Geomorphology, Longman, London, 1960.
21. Sharma, H.S. (ed) : Perspectives in Geomorphology, Concept, New Delhi, 1980.
22. Singh, S : Geomorphology, Prayag Publication, Allahabad, 1998.
23. Thorunbury, W.D. Principles of Geomorphology, John Wiley, New York, 1960.

## **REGIONAL GEOGRAPHY OF GUJARAT - I**

### **SEMESTER – 1 : PAPER – II**

*3 credit  
45 hours*

- UNIT : 1 Gujarat Location area, structure, and relief features,  
Major physiographic divisions.
- Drainage pattern – major rivers, Their importance  
and utilities 15
- Unit : 2 Climate and Climatic regions : temperature, rainfall  
and seasons
- Natural Vegetation, Types, distributions 10
- Unit : 3 Soil Irrigation & Agriculture
- Soil Major Types and their distribution, soil  
problems and their remedies.
  - Major Multile purpose irrigation projects and their  
regional significance with special reference to Sardar  
Sarovar Project.
  - Major crops – Cotton, Tobacco, Ground nut, Rice,  
Wheat, Bajra etc., characteristics of agriculture 20
  - Agricultural problems and their remedies

**SUGGESTED READINGS :**

1. દવે મંજુલાબેન બી. – ગુજરાતની આર્થિક અને પ્રાદેશિક ભૂગોળ (યુનિ. ગ્રંથ નિર્માણ બોર્ડ, અમદાવાદ)
2. સી.સી. ડોક્ટર – ગુજરાતની વસ્તી (યુનિ. ગ્રંથ નિર્માણ બોર્ડ, અમદાવાદ)
3. યુનિ. ગ્રંથ નિર્માણ બોર્ડ, ગુજરાત રાજ્ય, અમદાવાદ – નકશામાં ગુજરાત.
4. Dikshit K.R. Geography of Gujarat (National Book Trust of India)
5. Spate O.H.K. India and Pakistan.
6. Kapadia – Animal Life in Gujrat.
7. Bhatt – Ports of Gujarat.
8. Statistical Beaur Government of Gujarat – Statistical Atlas of Gujarat.

## **INTRODUCTION TO GEOGRAPHY**

**(CREDIT BY CHOICE)**

**SEMESTER : PAPER – 2**

*3 credit  
45 hours*

### **COURSE CONTENTS**

- |          |   |    |
|----------|---|----|
| UNIT : 1 | The nature of geography, objectives and relevance place of geography in the classification of sciences, geography and other disciplines.                        | 5  |
| UNIT : 2 | Geography as the study of Environment Man – Environment relationship, Ecology and Ecosystem, Environmental Determinism Possibilism, Neo-determinism.            | 10 |
| UNIT : 3 | Map making and mapping techniques, Statistical methods, Collection of data, Analysis of data and Preparation of Maps  | 5  |
| UNIT : 4 | Introduction of Modern techniques, Recent trends in geography with special reference to India, Imperatives for the future, career opportunities for geographers | 15 |

### **SUGGESTED READINGS :**

1. Abler, Ronald f. et al Geography's Inner Worlds; Pervasive themes in contemporary American Geography (Routledge, New Jersey – 1992)
2. Dikshit R.D. : The Arts, Science of Geography (Integrated Readings Prentice Hall of India, New Delhi – 1994).

3. Dohrs, F.E. and Sommers L.W. (eds) Introuction to Geography (Thomas Y. Crowell Co., New York - 1967)
4. Hart Shorne Richard : Perspective on the Nature of Geography (Rand MCNally and Co. Chicago - 1959)
5. Harvey David : Explanation In Geography (Edward - Arnold London - 1972)
6. Jones P.A. : Field Work in Geography (Longmans - 1968)
7. Lownsburg J.F. and Aldrieh F.T. : Introduction to Geographical Methods and Techniques (Charles Marrill, Columbus - 1979)
8. Minshull R. : The Changing Nature of Geography (Hut Chinson University Library London : 1970)
9. Wooldridge S.W. : The Geographer As Scientist (Thomas Nelson and Sons Ltd. London - 1956)

## **ELEMENTS OF GEOMORFOLOGY - II**

**SEMESTER – II : PAPER – II**

3 credit  
45 hours

### **COURSE CONTAIN**

- UNIT : 1 Denudation and Diposition : weathering and it's types.
- Geomorphic agent and processes : Erosion, transportation, diposition
  - Mass wasting and Evalution of landscape – concept of cycle of Erosion – Devis and Pench 10
- UNIT : 2 Works of fluvival, Glacial and Associated Land Scape with it's works 15
- UNIT : 3 Works of Wind (Arid) Under Ground water (Karst) and sea-waves (Coastal) and associated land scapes with their works 15
- UNIT : 4 Application of geomorphology to human activities : settlements, transport landuse, mining, resource evolution, environmental hazards and assessment 05

### **SUGGESTED READINGS :**

1. ભૌતિક ભૂગોળ : પ્રા મહેન્દ્રકુમાર આર. શાહ  
ગુજરાત ગ્રંથ નિર્માણ પ્રા. કાનજીભાઈ એન. જસાણી બોર્ડ, ગાંધીનગર
2. Rice R.J. : Fundamentals of Geomorphology, Longmans 1977
3. Thornbury : Principles of Geomorphology : John Wiley & Sons
4. Worcester P.G. : A text book of Geomorphology : D Van Noster & Co.
5. Wooldridge S.W. : An outline of Geomorphology : Longmans
6. Sparks B.W. : Geomorphology : Longmans

7. Lobeck A.K. : Geomorphology : McGraw Hill
8. Easter Book Den J : Principles of Geomorphology : John Wiley & Sons
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10. Cooke, R.U. and Doornkamp, J.C. : Geomorphology in Environmental Management – A Introduction, Clarendon Press, Oxford, 1974.
11. Dury, G.H. : The Face of the Earth, Penguin Harmondsworth, 1959.
12. Fairbridge, R.W. Encyclopeida of Geomorphology, Reinholdts, New York, 1968.
13. Goudie, A. : The Nature of Environment, Oxford & Blackwell, London, 1993.
14. Garner, H.F. : The Origin of Landscape – A Synthesis of Geomorphology, Oxford University Press, London, 1974.
15. Mitchell, C.W. : Terrain Evaluation, Longman, London, 1973.
16. Ollier, C.D. : Weathering, Longman, London, 1979.
17. Pitty, A.F. Introduction to Geomorphology, Methuen, London, 1971.
18. Stoddart, D.R. (ed) : Process and Form in Geomorphology, Routledge, New York, 1996.
19. Skinner, B.J. & Porter, S.C. : The Dynamic Earth John Wiley, New York, 1995.
20. Sparks, B.W. Geomorphology, Longaman, London, 1960.
21. Sharma, H.S. (ed) : Perspectives in Geomorphology, Concept, New Delhi, 1980.
22. Singh, S : Geomorphology, Prayag Publication, Allahabad, 1998.
23. Thorunbury, W.D. Principles of Geomorphology, John Wiley, New York, 1960.

## **REGIONAL GEOGRAPHY OF GUJARAT – II**

**SEMESTER – 2 : PAPER – 2**

*3 credit  
45 hours*

**COURSE CONTAIN :**

UNIT : 1 - Animal life & animal resource, Dairy farming and industries, White revolution

- Marine resources – fish, salt and other minerals  
Inland and coastal

- Important Mineral resources and power Resource  
Lime stone, China clay, Flour spar, Gypsum, Calcite,  
Bauxite, Mineral oil and Natural gas their distribution  
and utility

15

UNIT : 2 Major industries and their distribution – cotton and Textile Industry, Sugar industry, Chemical and petro chemicals industry, Cement industry, Engineering industry & agro based industries their locational factors and problems.

UNIT : 3 Transport, Trade & Communication.

- Role of transportation in economic development  
major road, rail and water ways

- Important Ports of Gujarat

- Population their types distribution & problems

- Contemporary issues – Environmental hazards –  
Earth quake, floods and drought issues related to  
environment

10



**MEN AND ENVIRONMENT SYSTEM**  
**(CREDIT BY CHOICE)**

**SEMESTER – 2 : PAPER – 2**

*3 credit*  
*45 hours*

**COURSE CONTAIN**

- UNIT : 1 Introduction Nature and Scope of Environmental Geography – pererspective on men environment relationship, historical perspective of men environment
- Classification of environment – physical, biological, social, econimic and ecological etc. Effect of environment on men. Bio-physical, perception and behavioural
- 15
- UNIT : 2 - Approches of environemtnal studies – landscape ecology, economic approach, environmental approach environmental hazards nature and causes.
- 10
- Pollution. Types of pollution; air pollution, water pollution, noice pollution, land pollution, water pollution etc., origin, causes, characteristics types consequences
- 10
- UNIT : 3 Ecology, types of ecosystem, strcuture and function of ecosystem, the water cycle, the carbon cycle, The oxygen cycle, The nitrogen cycle, The mineral cycle, Ecological balance
- 10
- UNIT : 4 Study of any two Ecological regions of India in relation to their plant and animal life, in their relatilons, problems, conservation and management.
- 10

### **SUGGESTED READINGS :**

01. Ackerman, E.A., Geography as a Fundamental Research Discipline, University of Chicago Research Papers, 1958.
02. Agarwal, A. and Sen, S. : The Citizens Fifth Report Centre for Science and Environment, New Delhi, 1999.
03. Bertalanffy, L. General System Theory, George Bragiller, New York, 1958.
04. Bodkin, E. : Environmental Studies, Charles E. Merrill Pub. Co., Columbus, Ohio, 1982.
05. Chandna, R.C. : Environmental Awareness, Kalyani Publishers, New Delhi, 1998.
06. Chorley, R.J., Geomorphology and General Systems Theory, U.S.G.S. Professional Paper, 500B, 1962.
07. Eyre, S.R. and Jones, G.R.J. (eds), Geography as Human Ecology, Edward Arnold, London, 1966.
08. Kormondy, E.J. : Concepts of Ecology, Prentice Hall, 1989.
09. Manners, I.R. and Mikesell, M.W. (eds.), Perspectives of Environment, Commission on College Geography, Publ. No. 13, Washington, D.C., 1974.
10. Noble and Wright : Environmental Science, Prentice Hall, New York, 1996.
11. Odum, E.P. : Fundamentals of Ecology, W.B. Saunders, Philadelphia, 1971.

12. Russwurm, L.H. and Sommerville, E.(eds.) : Man's Natural Environment - A Systems Approach, Duxbury, Massachusetts, 1985.
13. Sharma, H.S. : Ranthambhore Sanctuary - Dilemma of Eco-development, Concept, New Delhi - 2000.
14. Simmons, I.G. : Ecology of Natural Resources, Edward Arnold, London, 1981.
15. Singh, S : Environmental Geography, Prayag Publications, Allahabad, 1991.
16. Smith, R.L : Man and his Environment : An Ecosystem Approach, Harper & Row, London, 1992.
17. U.N.E.P. : Global Environmental Outlook, U.N. Pub. New York, 1998.
18. World Resources Institute : World Resources (Latest Report) Washington D.C.
19. World Watch Institute : State of the World, (Latest Report), Washington, D.C.

## **ELEMENTS OF CLIMATOLOGY**

**SEMESTER - III : PAPER - 05**

3 credit  
45 hours

### **COURSE CONTENTS**

#### **Unit-1**

- Weather and climate : Definition and significance of climatology, elements of weather and climate, Difference between weather and climate.
- Origin and Composition and Structure of the atmosphere

#### **Unit-2**

- Atmospheric Temperature : Insolation vertical & Horizontal Distribution of temperature, Temperature Inversions.
- Atmospheric pressure and winds : Vertical and Horizontal Distribution of pressure Seasonal Variations in Pressure,
- Earth Surface wind system and local winds and the Monsoon.

#### **Unit-3**

Atmospheric moisture : Humidity, Evaporation and Condensation, the Hydrological cycle, Types of precipitation.

#### **Unit-4**

Atmospheric disturbances : Tropical and Temperate cyclones.  
Applied Climatology, Atmospheric Pollution and Global Warming.

#### **• SUGGESTED READING**

1.

2.    डॉ. जगदीश सिंह अन्ड के. ऐन. सिंह : भौतिक भूगोल  
          (राधा पब्लिकेशन, नई दिल्ली १/२००२)
3.    Dr. Indira Singh & Dr. Satnam Singh : Climatology an  
          Introduction, Srishti book Distributions N. Delhi
4.    Mather J. R. : Climatology (MC Grace - Hioll New York)
5.    Stringer E. T. : Foundation of Climatology (Subject Pub.  
          Delhi)
6.    Philip lake : Text book of Physical Geography  
          (Srishti Book Distributors) (New Delhi)
7.    Glenn T. Trewartha : The Earth's problem climates :  
          The University of wisconsin press methyem & Co. Ltd.  
          London.
8.    D. S. Lal : Physical Geography, Sharda Prakashan  
          Bhawan Allahabad, - 2009.
9.    D. S. Lal : Climatology and Oceangraphy Sharda  
          Prakashan Bhawan Allahabad, - 2009.

## **GEOGRAPHY OF INDIA (PART-I)**

**Semester - III : Paper-6**

3 credit  
45 hours.

**Course Contents :**

### **Unit - 1**

India in the context of South East and South Asia, India : land of diversities, unity within diversities

major terrain, Elements of India and their role in shaping physical landscape of India.

### **Unit - 2**

Drainage system of India and their functional significance.

Regional and Seasonal Variations of Climate - The Monsoon, Western Disturbances, Norwesters, Climatic Regions of India.

### **Unit - 3**

Soil types of India - Their distributions and characteristics

Vegetation Types and their distributions.

### **Unit - 4**

Forests - The status of their use and need for conservation.

Agriculture regions Major Crops.

### **SUGGESTED READINGS :**

1. Singh R. L. India : A Regional Geography National Geography Society of India Varanasi - 1971.
2. Sharma T. C. : Economic and Commercial Geography of India - Vikas Publishing House Pvt. Ltd.
3. Dube R. N. : Economic & Geography of India.
4. Mamona G. B. : Advance Geography of India.
5. Das P. K. : The Monsoon - (National Book Trust)

## **ELEMENTS OF CARTOGRAPHY - I (A)**

**SEMESTER - III : PAPER - 7**

3 credit  
45 hours

**Note :**

1. Two practicals each of three duration.
2. The Course shall be covering three practical sessions per week. Each practical session shall of two periods each period of 1(one) hours.

**COURSE CONTENT :-**

### **Unit-1**

The Nature and Scope of Cartographic Maps and their uses,  
Types of Maps.

Map making and Mapping Techniques

### **Unit-2**

Methods of Showing relief (hachures, shading contours and layer tints.)

Representation of Relief - Pictorial and Mathematical methods.

Representation of different Landforms by contour.

### **Unit-3**

Study of Toposheets - Interpretation of a hilly and plain area of India in respect of (1) Relief (2) Drainage (3) Vegetation (4) Settlement (5) Communication patterns, etc..

**Note :**

Candidates shall record their Practical work the journal and the journal duly certified by the professor in charge Compulsion Certificate should be produced at the time of Examination. Candidates who have

no journal or completed the practical should not be appear at the Examination.

2. There shall be two practicals session each of three hours duration.

3. Distribution of Marks for Practical Exam :

Practical - I(A) - Maps

- Contours 50 Marks

- Toposheets

Practical - I- Contours

- Toposheets 35 Mark

- Journal 10 Mark

- Viva 05 Mark

**100 Mark**

Suggested readings :-

Singh R. L. - Practical Geography

5. Dr. L. R. Singh Fundamentals of Practical Geography,  
Sharda Pustak Bhavan, Allahabad, 2009



## **ELEMENTS OF OCEANOGRAPHY**

**SEMESTER - IV : PAPER - 8**

3 credit  
45 hours

### **COURSE CONTENTS :-**

#### **Unit-1**

- Relevane of oceanography in earth and atmospheric Sciences :  
Defination, Nature and Scope of Oceanography Surface  
Contiguration of the Ocean floor - Continental shelf,  
Continental Slope, Deep Sea Plain or Abyssal Plain,  
Oceandeep or Trench Relief of Atlantic, Pacific and Indian  
Oceans.

#### **Unit-2**

Composition of Oceanic Water, Distributor of Temperature and  
Salinity of Oceans and Seas.

#### **Unit-3**

Circulation of Oceanic Waters : Waves and Tides

Currents : Currents of the Atlantic, Pacific and Indian Oceans.

#### **Unit-4**

Marine Deposits and Coral Reefs, Coastal Environment Oceans  
as Store House of Resources for the Future.

### **Suggested Readings :-**

- 2.
3. Garrison T. Oceanography Wads worth com. USA
4. Grald General Oceanography : An Intordution John wiley &  
Sons New York

5. Thurman H. B. : Introductory Oceanography Charles webber E Merrill Publication Co. 1984
6. Philip lake : Text book of Physical Geography Srishti Book Distribution. New Delhi
7. Matthew Fortaine : The Physical geography of the sea, the belknap press of Harvard university press.

## **GEOGRAPHY OF INDIA - (PART : II)**

**SEMESTER - IV : PAPER - 9**

*3 Credit*  
*45 hours*

**COURSE CONTENTS :-**

### **Unit-1**

Resources - Animal, Marine, Mineral and Power Resources use and need of Conservation.

Industrial Development and Indian Economic, Industrial Regions of India.

Major Industries and their distribution.

### **Unit-2**

- Special Distribution of Population and Density, Population Structure.
- Population Explosion and Urbanisation.

### **Unit-3**

- Transportation - Railways, Road and Air Transportation - Distribution and Development.
- Trade - Nation and International.

### **Unit-4**

- Regional Disparity, Poverty, Globalization, Social and Ethnic tension, Empowerment of Women.

### **Suggested Readings :**

1. Despande CD - India - A Regional interpretation, Northern Book Center, New Delhi. 1992
2. Farmer B. H. - An Introduction south Asia, Methuen, London - 1983.
3. Wadia D. N. : Geology of India Mc Millan & Co., London 1967.
4. डो. रामकुमार गुर्जर एन्ड बी. सी. जाट भारत का भूगोल - पंचशील प्रकाशन, जयपूर.

## **ELEMENTS OF CARTOGRAPHY II(B)**

**SEMESTER - IV : PAPER -10**

*3 credit  
45 hours*

**COURSE CONTAIN :**

**Note :**

1. Two Practicals each of three duration.
2. The Course shall be covering three practical sessions per week, each practical session shall of two peridos, each period 1(one) hours.

### **Unit-1**

Scale - Plain Linear, Statment, Diagonal and Comparative, Representative Fraction.

### **Unit-2**

- Map Projections - Scale and Projection - Deformation Clasification and Choice of map Projections - Properties, Merit and Demerits.

1. Zenithal Group - Gnomonic, Sterographic, Orthographic (Polar cases)
2. Conical Group - One Standered Parallel.
3. Cylindrical Group - Simple, Equidistant, Equal Area Projections.

### **Unit-3**

- Study of Weather Instruments - Study of Weather Map of India. (Summer & Winter)

### **Unit-4**

- Educational Excursion to get familiarised with the various aspects of Geography - The Report of which should be recorded in the Journal.

**Note :**

Candidate shall record their partical working the journal and the journal duly certified by the proffecer in charge and the certificate should be produced at the time of examination. Candidates who have no journal or completed the practical should not be appear at the Examination.

2. There shall be two Practicals Session each of three hours duration.
3. Distribution of Marks for Practical Exam :

Practical - II(B) Scale

|                     |          |
|---------------------|----------|
| Map Projections     | 50 Marks |
| Weather Instruments |          |

Practical - II (B) Scale

|                 |          |
|-----------------|----------|
| Map Projections | 35 Marks |
|-----------------|----------|

Weather Instrments and

Weather Map

|                |          |
|----------------|----------|
| Jourani & Viva | 15 Marks |
|----------------|----------|

**100 Marks**

## **HUMAN GEOGRAPHY**

**SEMESTER - V : PAPER -11**

*3 credit  
45 hours*

### **COURSE CONTENTS :-**

#### **Unit-1 :**

Human Geography : Meaning and scope, its relation with other branches of Geography.

Man and Environment : Man as a Geographical factor, Determinism and Possibilism.

#### **Unit-2 :**

Distribution of Human Population : Factors Influencing Distribution, Movement and Migrations of Population, Future Distribution Trends, Density of Population.

#### **Unit-3 :**

Ethnic Distribution : Meaning of Race, Physiological Characteristics, Brief Study of Racial Classification and Distribution of main types of races., Indian Major Types of Tribes.

#### **Unit-4 :**

Development of Culture : Gradual Emancipation of the man from the control of nature Technology and Civilization Importance of Tools and Techniques.

Human Habitation : Human dwellings types of dwelling and their characteristics, Localization, Settlement Patterns and Urban community.

### **SUGGESTED READINGS :-**

- (1)
- (2) डो. जितेन्द्र प्रसाद सक्सेना : मानव भूगोल : लक्ष्मी नारायण अग्रवाल :  
आगरा - ३
- (3) डो. राजकुमार गुर्जर & डो. बी. सी. जाट : मानव भूगोल
- (4) Perpillon A. V. : Human Geogrpby (Long Mans)
- (5) Huntington - E : Principles of human Geography
- (6) Vidal De-La Blanche : Principles of Human Geography  
(Cinstable)

## **PRINCIPALS OF ECONOMIC GEOGRAPHY- PART - I**

**SEMESTER - V : PAPER - 12**

*3 credit  
45 hours*

### **Course Contents :-**

#### **Unit-1 :**

Meaning, Nature and scope of Economic Geography.

Physical Controls of Economic activities :

Location, Relief Mineral resources Soils, Climate Vegetation and Animals.

#### **Units-2 :**

The human factor : Density and Distribution of population and its Geographical controls Man as a producer and consumer.

#### **Unit-3 :**

Classification of Economic Activities : Types of Activities Primary, Secondary and Tertiary.

#### **Unit-4 :**

Agriculture : Subsistence and Commercial farming, Mixed farming, Plantation Agriculture and Dairy farming.

### **SUGGESTED READINGS :-**

- (1)
- (2) Cooper E. H. Economic Geography (Uni Tutorial Press)
- (3) Arunachalam B. Economic and commercial Geography.  
(A.R. Sheth & Co. Bombay)
- (4) Thowman : The Geography of Economic Activities.
- (5) डो. बी. सी. जाह : आर्थिक भूगोल पंचशील प्रकाशन - जयपुर



## **SOIL GEOGRAPHY**

**SEMESTER - V : PAPER - 13**

3 credit  
45 hours

### **Course Contents :-**

#### **Unit-1 :**

Nature Scope and Significance of soil Geography Its Relationship with Pedology.

Soil factors - Parent material Organic Climatic Topographic, Spatio Temporal Dimensions

#### **Unit-2 :**

Process of Soil Formation and Soil Development Physical, Biotic and Chemical Process, Composition of Soils.

Soil Profile Development, Podzolization laterisation, calcification, gleization.

#### **Unit-3 :**

Physical properties of soil Morphology, Texture, Structure, water, air, Temperature and other properties of soil chemicals Properties, soil and soil reaction, Biologic Process.

#### **Unit-4 :**

Classification of soils, Their Characteristics and world patterns Soil Erosion, and Causes degradation and conservation of soil, Soils of India.

### **Suggested readings :**

1. Backman, H. O. and Brady, N. C. : The Nature and properties of soils, Mc Milan New York, 1960.
2. Bennet, Hugh H. : Soil Conservation, Mc.Graw Hill New York.
3. Bunting B. T. : The Geography of Soils, Hutchinson, London, 1973

4. Clarke G. R. : Study of the soil in the Field, Oxford University Press, Oxford, 1957.
5. Foth H. D. and Turk, L. M. : Fundamentals of Soil Science, John Wiley, New York, 1972.
6. Govinda Rajan, S. V. and Gopal Rao, H. G. : Studies on soils of India Vikas, New Delhi, 1978
7. Mc. Bride, M. B. : Environmental Chemistry of Soils, Oxford University Press, New York 1999.
8. Nye, P.H and Greene, D. J. The Soil under shifting Cultivation Commonwealth Bureau of Soil Science, Technical Communication No. 51 ;Harpender England, 1960.
9. Raychodhuri, S. P. Soils of India, ICAR New Delhi, 1958.
10. Russell, Sir Edward J. : Soil Conditions and Plant Growth, wiley New York, 1961.
11. डो. घर्मेन्द्रसिंह - भृदा विज्ञान - हिमांशु पब्लिकेशन, उदयपुर.
- 12.
- 13.

## **ENVIRONMENTAL GEOGRAPHY**

**SEMESTER - V : PAPER - 14**

3 credit  
45 hours

**Course Contain :**

### **Unit-1**

Environmental Geography - Definition Nature and Scope, Environment Geography and other Sciences.

Concept of the Environment and Deninition, Componenets, and Types of Environment.

### **Unit-2**

Man Environmental Inter-Relation, Determinisim, Possibilism, Symbiosis between man and Environment.

Ecosystems - Meaning and Definition, Principals of Ecology Types Functioning and productivity of Ecosystems, Conservation.

### **Unit-3**

Environmental Hazards - Types, Introduction of Disaster Managment.

Environemental Degradation - Types, Degradation by Human Acitivities.

### **Unit-4**

Environmental Pollutions - Types of pollutions sources,

Environmental Awareness and Education Awarness, Environmental Policy, Remadial menasures Legislation.

### **SUGGESTED READIENGs :**

1. डो. सविन्द्र सिंह - पर्यावरण भूगोल - प्रयाग पुस्तक भवन, इलाहबाद.
2. Botkin D. B. and Keller Ea - Environmental Studies - Merrillpublishing Componey Colombus.
3. Dikshit R. D. - Geography and Teching of the environement in Geography - Pune.
4. Bleton C - Natural Hazards and globla change - Tc Journal- 1989
5. Park CC - Ecology and Environmental Management - London.

## **GEOGRAPHY OF MANUFACTURING**

**SEMESTER -V : PAPER - 15**

3 credit  
45 hours

### **COURSE CONTENT :**

#### **Unit-1 :**

Nature, Scope and Recent Developments Elements and Factors of localization of Manufacturing Industries, Centralization and Decentralization of Industrial Enterprise.

#### **Unit-2 :**

Horizontal, Vertical and Diagonal linkages of modern Industries.

Theories and Models of industrial location weber.

#### **Unit-3 :**

Distribution and Spatial pattern of Manufacturing Industries Iron and Steel, Energy goods and Automobiles, Textiles, Chemical, Petro Chemicals, Major Manufacturing Regions of world and India.

#### **Unit-4 :**

Environmental degradation caused by manufacturing industries and Industrial hazards.

Impact of Manufacturing industries on economic development with special reference to India Special economic Zones.

### **Suggested readings :**

1. Alexander. J. W. Economic Geography, Prentice Hall, Englewood Cliffs, 1988.
2. Alexander, C : Geography of Manufacturing, Prentice Hall, Bombay, 1967.

3. Hoover, E. M. : The Location and space Economy, McGraw Hill  
New York 1948
4. Isard W. : Methods of Regional Analysis, The Technology Press  
of M. I. T. & John wiley & Sons, New York 1956.
5. डो. श्री मती प्रमीला कुमार : औद्योगिक भूगोल मध्य प्रदेश ग्रंथ अकादमी, भोपाल.

## **ELEMENTS OF CARTOGRAPHY - II (A)**

**SEMESTER - V : PAPER -16**

3 credit  
45 hours

### **COURSE CONTAIN :**

1. Two Particles each of three duration.
2. The Course shall be covering three practical sessions per week. Each practical session shall of two periods each period of 1(one) hours.

### **Unit-1**

I Map projections General Principales, Clasification Drawing graticules on the following Projections by graphyical and manthematical methods.

1. Zenithal Groups - Gnomonic, Sterographic and Orthoeraphic (Equatorial Case)
2. Conical Groups - Bonne's and polyconic Projections.
3. Conventional Group - Mollweid, Sinu soidal choice of Projection.
4. Cylindrical Group - Mercator

### **Unit-2**

Enlargment and Reduction of Maps- Graphical and Pantographic methods - Idea of photographic device.

### **Unit-3**

Exercise on contor maps : To find out slopes and gradients profile along the curved lenes.

Marking routes and Intervisibility.

## Unit-4

Remote sensing and Geographical Information system (GIS). Aerial Photograph and Imagery.

### Note :

Candidate shall record their practical working the journal and the journal duly certified by the proffecer in charge and with certificate should be produced at the time of examination. Candidates who have no journal or completed the practical should not be apperer at the Examination.

2. There shall be two practicals session each of three hours duration.

3. Distribution of Marks for Practical Exam :

|                  |                         |                         |
|------------------|-------------------------|-------------------------|
| Practical - I(A) | Projections             |                         |
|                  | Enlargement and         |                         |
|                  | Reduction               | 50 Marks                |
|                  | Remote sensing and GIS. |                         |
| Practical - I    | Projections             |                         |
|                  | Enlargement and         |                         |
|                  | Reduction               | 35 Marks                |
|                  | Remote sensing and GIS. |                         |
|                  | Journal                 | 10 Marks                |
|                  | Viva                    | 05 Marks                |
|                  |                         | <b><u>100 Marks</u></b> |



## **SETTELMENT GEOGRAPHY**

**SEMESTER - VI : PAPER - 17**

3 credit  
45 hours

**COURSE CONTAIN :**

### **Unit-1**

Nature, Scope and development of Settlement Geography  
Defination of Urban and Rural Settlement : Merits and Demerits.

Settlement Types and Pattern

### **Unit-2**

Settlement Site and Structure :- Internal Morphology, External form, Filed Petterns, Functions, Types of Houses.

### **Unit-3**

Spatical Organization : Size, Spacing and Hierarchy of Settlements, Emergence and Characteristics of Urban Settlements.

### **Unit-4**

- Settlement : Environment Relationship Global and Regional Pattern, Policies and Programes.
- Salient Features of Human Settlements in India.

### **Suggested Readings :**

1. Bose A : India's urbanization 1947-2000 Tata MC Graw Hill, New Delhi.
2. Chisholm : M. Rural Settlement and land use, Hutchiason, London - 1970.
3. Clout R. D. : Rural Geography pergamon press, London - 1970.
4. Deshpande C.D. : Shehre Continental Prakshan Pune 1983 (Marathi)

5. Johnson J. H. : Urban Geography : An Introductory Analysis, Pergaman Press, London.
6. Krishan.G. : Nagar Bhoogol, Punjab State University, Text Book - Board, Chandigath.
7. Misra H. N. : Rural Geography Heritage Publishers New Delhi-1987.
8. Mukerji R. K. : Man and his Habitation :Popular Books Bombay, 1968
9. Singh R. L. : Readings in rural settlement Geography Banaras Hindu University, Department of Geography, Varanasi
10. Turner Roy : India's urban Future Oxford University Press Bombay, 1962.
11. माजिद हूसेन : मानव अधिवास, रावत पब्लिकेशन, जयपुर.

## **PRINCIPAL OF ECONOMIC GEOGRAPHY - PART II**

### **SEMESTER - VI : PAPER - 18**

*3 credit  
45 hours*

#### **COURSE CONTENTS :**

##### **Unit-1 :**

Energy Resources : Coal Petroleum Natural gas, Hydro-Power, Atomic Power, and other Natural Power Resources.

##### **Unit-2 :**

Mining activities & Distribution of Important Mineral Resources - Iron, Bauxite, Manganese.

##### **Unit-3. :**

Geography of Manufacturing : Meaning, Locational aspects of manufacturing, study of Iron and steel, Textile and Petro Chemicals Industries.

##### **Unit-4**

Transportation and Trade : Means (Land Railways and water) and Economic Significance of transportation,

Types of Trade, Bases of International Trade, Balance of Trade.

#### **SUGGESTED READINGS :**

1. Bose A : India's urbanization 1947-2000 Tata MC Graw Hill, New Delhi.
2. Deshpande C.D. : Shehre Continental Prakshan Pune 1983 (Marathi)
3. Miller E. W. : A Geography of manufacturing (Prentice and Industries (Harper)
4. Zimmerman : World Resources and Industries (Harper)

5. R. N. Chauhan : Basic Principles of Economic Geography

(ABD Publishers, Jaipur (India))

6. R. N. Chauhan : Industrial Geography (ABD Publishers)

7.                                   डॉ. बी. सी. जाट : आर्थिक भूगोल, पंचशील प्रकाशन  
   - जयपुर

8. Dr. Indira Singh : Industrial Geography of India.

Dr. Satnam Singh : Industrial Geography of India.

11. D. G. Gatade : Industrial Geography of India

Rupa Books Pvt. Limited, Jaipur.

## AGRICULTURE GEOGRAPHY

SEMESTER - VI : PAPER - 19

3 credit  
45 hours

### COURSE CONTAIN

- Unit-1** Concept, Meaning and Scope of Agricultural Geography. Origin and Development of Agriculture.
- Unit-2** Factors Affecting Agriculture Physical, Economic, Social etc. Agriculture Methods and System.
- Unit-3** Types of crops and - Wheat, Rice, Maize, Sugarcane, Tea, Coffee, Cotton, Rubber, Agricultural Regions.
- Unit-4** Models - Von thumen's Location, Agricultural Problems and prospects Developmental Policies

### SUGGESTED READINGS -

1. कृषि भूगोल : प्रमीला कुमार एवम्, श्रीकमल शर्मा मध्यप्रदेश ग्रंथ अकादमी, भोपाल
2. कृषि भूगोल : डॉ. बी. एम. शर्मा, साहित्य भवन, आगरा
3. कृषि भूगोल - लेजली सायमन, मध्यप्रदेश हिन्दी ग्रंथ अकादमी, रविन्द्रनाथ ठाकूर मार्ग, भोपाल - ४६२००३
4. Yadav SS : Agriculture Ecology - 2007, Pointer Publishers, Jaipur.
5. Rama J. L. Agriculture Geography - 2008, Ravat Publication Jaipur.
6. Hussain M. : Agriculture Geography Ravat Publication
7. Singh and Dhellon S. S. - Agricultural Geography, Tata Mcgraw Hill Pub., New Delhi 1988.

## **GEOGRAPHY OF RESOURCES**

**SEMESTER - VI : PAPER - 20**

3 credit  
45 hours

### **COURSE CONTAIN**

#### **Unit-1 :**

Definition Nature and Scope of Geography of Resources,  
Classification of Resources.

#### **Unit-2 :**

Water Resource - Inland and Oceanic

Forest and Wild Life Resources - Types, Distribution

#### **Unit-3**

Energy Resource - Coal, Petroleum, Hydroelectric, Atomic  
energy, Energy Cycles, Human Resource - Distribution, Factors  
affecting Population, Distribution, Population and Resource  
Regions.

#### **Unit-4**

Live stock resources and marine resource

Conservation of Resources and utilization, Major Resources.  
Soil, Forest, Water, Mineral etc.

Resource Policy

### **SUGGESTED READINGS :-**

1. N. S. Rathore : Non Conventional Energy Sources - Himanshu  
Publication, Udaipur.
2. Simmons L. G. - The Ecology of Natural resources, Edward  
Arnold, London.
3. Mongu and Agrwal : World resources and Trade National  
Publishing House Delhi.
4. Zimmermans ; World resources and Industries Harper.

## **TRANSPORTATION GEOGRAPHY**

**SEMESTER - VI : PAPER - 21**

*3 credit  
45 hours.*

### **COURSE CONTAIN**

#### **Unit-1 :**

Transportation - Meaning and Importance of Transportation as Tertiary activity,

Methods of study and characteristics of Geography.

#### **Unit-2 :**

- Factors affecting the Development of transportation :

#### **Unit-3 :**

Means of Transportation : Land - Road, Railway and Pipelines

Regional Density and Distribution of Transportation.

#### **Unit-4 :**

- Water Ways : Inland Water Ways and Sea Routes.
- Air Transportation - Regional Density and Distribution.
- Role of Technology in the Development of Transportation and Transport & Regional Development.

### **SUGGESTED READINGS :**

1

2. H. M. Saxena : Transport Geography Rawat Publications.
3. Moonis Raza & Yash Aggarwal : Transport Geography of India Concept Publicationing Company, New Delhi.
5. H & Bamford C. G. : Geography of transport Robinson Macdonald and Evans
6. Feulks R. W. Lan Allen : Principals of Transport - 1973

7. Seaby K. R. The Geography of Air Transport : Hytchinson University
8. Couper A.D. The Geography of Sea Transport : Hutchinson University



## **ELEMENTS OF CARTOGRAPHY - II (B)**

**SEMESTER - VI : PAPER - 22**

*3 credit  
45 hours.*

**COURSE CONTAIN :**

**Note :**

1. Two Practicals each of three duration.
2. The Course shall be covering three practical sessions per week, each practical session shall of two peridos, each period 1(one) hours.

### **Unit-1**

- Diagramic Representattion of stastical Data using population, agriculture, industry and transportation data :
  - (a) Points - Dots, Proportional circles and circle, spheres.
  - (b) Line Isopleths and flow lines
  - (c) Areas - Choropleth
  - (d) Line and Bargraph
  - (e) Climograph, Hythergraph, windrose diagram, Block and Pictorial diagram.

### **Unit-2**

- Surveying - Importance of field survey - scope and purpose, principles and application of selected survey instruments.
  1. Chain and tap Survey.
  2. Plane Table Survey.
  3. Prismatic Compass

### Unit-3

- Field work and field Report, Collect topo sheets of the area - 1 : 50000 Scale Visit the area and Identify the Settlements, Land use features of the region (Educational Excursion is Compulsory)

#### Note :

Candidate shall record their particual working the journal and the journal duly certified by the proffecer in charge and with certificate should be produced at the time of examination. Candidates who have no journal or completed the practical should not be apperer at the Examination.

2. There shall be two practicals session each of three hours duration.

3. Suggested Readings

Practical - II(B) Qualitative and Quantative data

|           |          |
|-----------|----------|
| Surveying | 50 Marks |
|-----------|----------|

Practical - II (B) Qualitative and

|                 |          |
|-----------------|----------|
| Quantative data | 35 Marks |
|-----------------|----------|

|           |  |
|-----------|--|
| Surveying |  |
|-----------|--|

|                  |          |
|------------------|----------|
| Journel and viva | 15 Marks |
|------------------|----------|

**100 Marks**