



DEPARTMENT OF GEOGRAPHY
University College of Social Sciences & Humanities
Mohanlal Sukhadia University, Udaipur, Raj. - 313001

Proposed Scheme of Courses in Geography
Three-Year Pass Course (B. A.) 2015-16

TDC I Year Arts

Paper I : Physical Geography

Paper II : Human Geography

Practical : Cartography-I (Scales and presentation of geomorphic and climatic data)

TDC II Year Arts

Paper I : World Regional Geography

Paper II : Economic & Resource Geography

Practical : Cartography-II (Projections and presentation of socio-economic data & elementary statistical methods)

TDC III Year Arts

Paper I : Geography of India

Paper II : Geography of Rajasthan

Practical : Surveying and Remote Sensing

Notes:

1. Each theory paper will be of 70 marks each with minimum pass marks of 28
2. Each practical will be of 60marks with minimum pass marks of 23.
3. Teaching hours for each theory paper and practical will be three hours per week.
4. Practical batch will comprise of twenty Five students in one batch.
5. Use of map stencils (outline of political boundaries only) and simple function calculators are allowed in the examination.
6. Each theory paper of three hour duration will be divided into five units and questions will be asked as per following scheme:

Sections	Questions		Marks	Distribution of Questions
	To be Asked	To be Attempted		
1. Very Short (20-50 Words Answers)	10	10	20	Proportionately from each Unit with internal choice
2. Short Answers from each Unit with internal choice (250 words)	10	5	20	
3. Analytic/Descriptive Answers (500 words)	5	2	30	
Total	25	17	70	

B.A. First Year
Subject: Geography
Paper I - Physical Geography

Unit – I

- a) Definition and scope of physical geography.
- b) Origin of the earth - Tidal Hypothesis of James Jeans and Big Bang theory.
- c) Interior of the earth.
- d) Origin of the continent and oceans:- Wegner's theory of Continental drift and Plate tectonics.
- e) Theories of mountain building:- Geosynclines Organ theory of Kober and Plate tectonic theory.

Unit – II

- a) Isostasy :- Concept and Views of Airy and Pratt.
- b) Diastrophism: - Faults & folds.
- c) Weathering: - Physical, Chemical and Biological.
- d) Drainage pattern and Cycle of erosion :- Davis & Penck.
- e) Landforms: - Fluvial, coastal and arid.

Unit – III

- a) Composition and structure of the atmosphere.
- b) Atmospheric temperature: – Isolation and heat budget.
- c) Atmospheric pressure :- Vertical and horizontal distribution of air pressure.
- d) Winds: - Planetary, periodic and local winds.
- e) Jet stream.

Unit – IV

- a) Air masses: - Source region and classification of air masses.
- b) Fronts :- Front genesis and frontolysis , Type of fronts.
- c) Cyclones :- Tropical and temperate cyclones.
- d) Anti cyclones.
- e) Climatic classification by Koeppen.

Unit – V

- a) Reliefs of the ocean basins - Bottom reliefs of the Indian ocean.
- b) Distribution of temperature and Salinity of oceans.
- c) Ocean currents : - Atlantic ocean and Pacific ocean currents.
- d) Tides :- Type and theory of origin (Progressive wave and Stationary Wave theory.
- e) Coral reefs :- Conditions of growth, types and origin according to Darwin and Murray.

Suggested Readings:

1. Dayal, P., A Text book of Geomorphology, Shukla Book Depot, Patna, 1996.
2. Dury, G. H., The Face of the Earth, Penguins, 1980.
3. Ernst, W.G., Earth Systems: Process and Issues, Cambridge University Press 2000.
4. ICSSR, A Survey of Research in Physical Geography, Concept, New Delhi, 1983.

5. Kale, V. and Gupta, A., Elements of Geomorphology, Oxford University Press, Calcutta, 2001.
6. Monkhouse, F. J., Principles of Physical Geography, Hodder and Stoughton, London, 1960.
7. Pitty, A., Introduction to Geomorphology, Methuen, London, 1974.
8. Sharma, H. S., Tropical Geomorphology, Concept, New Delhi, 1987.
9. Singh, S., Geomorphology, Prayag Pustakalaya, Allahabad, 1998.
10. Small, R. J., The Study of Landforms, McGraw Hill, New York, 1985.
11. Sparks, B. W., Geomorphology, Longmans, London, 1960.
12. Steers, J. A., The Unstable Earth: Some Recent Views in Geography, Kalyani Publishers, New Delhi, 1964.
13. Strahler, A. N., Environmental Geo-Science, Hamilton Publishing, Santa Barbara, 1973.
14. Strahler, A. N. and A. H. Strahler, Modern Physical Geography, John Wiley & Sons, 1992.
15. Summerfield, M. A., Global Geomorphology, Longman, 1991
16. Thornbury, W. D., Principles of Geomorphology, Wiley Eastern, 1969.
17. Wooldridge, S. W. and R. S. Morgan, The Physical Basis of Geography: An Outline of Geomorphology, Longman Green & Co., London, 1959.
18. Wooldridge, S. W., The Geographer as Scientist, Thomas Nelson and Sons Ltd., London, 1956.
19. Barry, R. G. and R. J. Chorley, Atmosphere, Weather and Climate, Routledge, 1998.
20. Critchfield, H., General Climatology, Prentice-Hall, New York, 1975.
21. Das, P. K., The Monsoons, National Book Trust, New Delhi, 1968.
22. Lydolph, Paul E., The Climate of the Earth, Rowman and Allanheld, Totowa, N. J., 1985.
23. Mather, J. R., Climatology, McGraw Hill, New York, 1974.
24. Patterson, S., Introduction of Meteorology, McGraw Hill Book Co., London, 1969.
25. Stringer, E. T., Foundation of Climatology, Surjeet Publications, Delhi, 1982.
26. Trewartha, G. T., An Introduction to Climate, International Students Edition, McGraw Hill, New York, 1980.
27. Anikouchine, W. A. and R. W. Sternberg, The World Oceans: An Introduction to Oceanography, Englewood Cliffs, N. J. 1973.
28. Gerald, S., General Oceanography: An Introduction, John Wiley & Sons, New York, 1980.
29. Garrison, T., Oceanography, Wadsworth Co. USA, 1998.
30. King, C. A. M., Beaches and Coasts, E. Arnold, London, 1972.
31. King, C. A. M., Oceanography for Geographers, E. Arnold, London, 1975.
32. Sharma, R. C. and M. Vatel, Oceanography for Geographers, Chetnya Publishing House, Allahabad, 1970.
33. Shepard, F. P., Submarine Geology, Harper & Sons, New York, 1948.
34. Thurman, H. B., Introductory Oceanography, Charles Webber E. Merrill Publishing Co., 1984.
35. Weisberg, J. and Howard, Introductory Oceanography, McGraw Hill Book Co., New York, 1976.
36. सविन्द्रसिंह : भौतिक भूगोल, वसुन्धरा प्रकाशन, गोरखपुर, 1997
37. शर्मा एच.एस. : "भौतिक भूगोल" पंचशील प्रकाशन, जयपुर

38. चतुर्भुज मामोरिया एव जैन : भौतिक भूगोल एवं जीव मण्डल, साहित्य भवन आगरा, 1996
39. वीरेन्द्र सिंह चौहान : भौतिक भूगोल, रस्तोगी पब्लिकेशन्स, मेरठ, 1996
40. उपाध्याय एल. एन. : भौतिक भूगोल, राज. हिन्दी ग्रन्थ अकादमी, जयपुर
41. तिकखा, रामनाथ : भौतिक भूगोल, केदारनाथ रामनाथ, मेरठ
42. तिवारी, ए. के. : जलवायु विज्ञान के मूल तत्व, राज.हिन्दी ग्रन्थ अकादमी, जयपुर
43. नेगी, बी. सी. : जलवायु विज्ञान तथा समुद्र विज्ञान, केदारनाथ रामनाथ, मेरठ

B.A. First Year
Subject: Geography
Paper: II Human Geography

Unit – I

- a) Definition and scope of Human geography.
- b) Its relation with other social sciences.
- c) Schools of Human geography: - Determinism, Possibilism and Neo – Determinism.
- d) Concept of Man – Environment relationship.
- e) Fundamental principles of Human geography: Principles of activities, Principle of areal differentiation, Principle of terrestrial unity.

Unit – II

- a) Stages of evolution of man
- b) Races of mankind: - criteria of classification according to G. Taylor
- c) Classification and distribution of races according to G. Taylor
- d) Factors of evolution of human races
- e) Migration zone theory by Griffith Taylor

Unit – III

- a) Distribution of Tribes in the world.
- b) Habitat, Occupation & social organization: Pigmies, Badawins, Eskimos and Khirgiz,
- c) Distribution of Tribes in India
- d) Habitat, economic activities and social organization of Bhil, Naga, Toda and Santhal.
- e) Early economic activities of mankind :- Food gathering, Hunting, Fishing & Shifting cultivation.

Unit – IV

- a) Distribution of population: world distribution pattern physical, economic and social factors influencing spatial distribution.
- b) Concept of over population, under population, optimum population and zero population growth.
- c) Demographic transition theory.
- d) Migration-internal and international, general laws of Migration
- e) Concept of human development and population problems and policy of India.

Unit – V

- a) Settlement: origin and types of settlement.

- b) Rural settlement-Pattern of rural settlements, house types and building materials, rural settlement in India
- c) Urban settlement- origin of towns, patterns of cities.
- d) Functional classification of cities, zoning of cities, Christaller's theory
- e) Urbanization and problems: slums, town planning, concept and principles.

*Note – Stencils are to be permitted in the examination.

Suggested Readings:

- 1. Brunhes, J. : Human Geography
- 2. Huntington, E.: The Principles of Human Geography, John Wiley & Sons, N.Y.
- 3. Perpillou, A.V. : Human Geography, Longmans, 1965
- 4. Money, D.C.: An Introduction to Human Geography; U.I.P. London
- 5. Karan, M.P. : Manav Bhugol ke Siddhant, Kitabghar, Kanpur
- 6. Mamoria, C.B. : Principles of Human Geography
- 7. Negi, B.S. : Human Geography- An Ecological Aproach, Kedarnath Ramnath, Meerut,1982
- 8. Dwivedi, R.L. & Singh, R.L. : Manav Bhugol ki Samiksha
- 9. Blache Vidal de la : Manav Bhugol ke Siddhant (in Hindi)

**B. A. First Year
Subject: Geography
Practical**

Practical: Cartography-I (Scales and presentation of geomorphic and climatic data)

The art and science of cartography; history; techniques and preparation of maps and their classification.

- 1. Scales: plain, diagonal, comparative, time and Venire's (two exercises of each scale and two scales on each sheet). (10 exercises)
- 2. Enlargement, reduction and combination of maps (2 exercises)
- 3. Methods of representation of relief: hachure, form line, contour and layer tint methods. (4 exercises on two sheets)
- 4. Composite features to be drawn with the help of contours based on topo sheets representing the typical areas of glaciated region, arid region, region and fluvial region (any one of either youth, mature and old stage). (4 exercises)
- 5. Drawing of profiles: serial (at least four), composite, superimposed and projected. (4 exercises on two sheets)
- 6. Knowledge of principles and working of weather instruments including self-recording instruments: thermometer, thermograph, barometer, barograph, hygrometer, hygrograph, rain gauge, rainograph, wind wane and cup anemometer.
- 7. Weather symbols: based on Indian weather maps. (one exercise)
- 8. Study and interpretation of Indian weather maps: One each of December-January and July August. (2 exercises)
- 9. Representation and interpretation of climatic data:
- 10. (a) Rainfall histogram (b) Hyther graph, (c) Climograph, (d) Rainfall variability graph (departure from mean). (4 exercises)

Notes:

1. Candidates will be examined by an External Examiner in consultation with the Internal Examiner.
2. Each exercise should be drawn on 1/4th of a full drawing sheet.
3. The test paper of practical will be of two hours duration and candidates will be required to answer three questions out of five.
4. The distribution of marks will be as follows:

a. Paper	36 Marks
b. Record Work*	14 Marks
c. Viva-voce**	10 Marks

* Record work will be assessed by the teacher in-charge of the practical group and the external examiner.

** Viva-voce will be based on the record work and weather instruments.

5. Ex-students will have to complete the prescribed practical work under the guidance of the Head of the Department of the respective college and to produce a certificate to that effect before the commencement of the examination.

Suggested Readings:

1. Monkhouse, F. J., Maps and Diagrams, Methuen & Co. Ltd., London.
2. Robinson, A. R., Elements of Cartography, Chapman & Hall.
3. Singh, R. L., Elements of Practical Geography, Kalyani Publishers.
4. Raize, E., General Cartography, McGraw Hill Book Co., London.
5. Singh, R. N. and Kanaujia L. R. S., Map Work & Practical Geography, Central Book Depot, Allahabad.
6. Mishra, R. P. and A. Ramesh, Fundamentals of Cartography, Concept Publishers, New Delhi.

7- शर्मा, जे.पी.	:	प्रायोगिक भूगोल, रस्तोगी प्रकाशन, मेरठ
8. जैन षेपमल	:	प्रायोगात्मक भूगोल, साहित्य भवन आगरा
9. भल्ला, एल. आर.	:	प्रायोगात्मक भूगोल, के.डी. प्रकाशन, अजमेर
10. मामोरिया चतुर्भुज	:	मानचित्र विज्ञान एवं प्रायोगात्मक भूगोल, साहित्य भवन, आगरा
11. पंवार, आर. एस.	:	मानचित्र विज्ञान एवं प्रायोगात्मक भूगोल, तुलसी प्रकाशन, मेरठ
12. वर्मा, एल एन.व आर. एम लोढा	:	प्रायोगात्मक भूगोल, राज. हिन्दी ग्रन्थ अकादमी, जयपुर
13. सिंह, एल.आर.;	:	मानचित्र एवं प्रायोगात्मक भूगोल, सेन्ट्रल बुक डिपो, इलाहाबाद
14. सिंह एवं कन्नोजिया	:	प्रायोगात्मक भूगोल की रूपरेखा, सेन्ट्रल बुक डिपो, इलाहाबाद

B.A. Second Year
Subject: Geography
Paper I: World Regional Geography

Unit – I

Asia

- a) Asia in the context of the world.
- b) Terrain and drainage.
- c) Climate, natural vegetation and soils.
- d) Spatial distribution of population and economic base of the continent in general.
- e) Regional study of West Asia.

Unit – II

Europe

- a) Europe in the context of Asia and Africa.
- b) Terrain and drainage.
- c) Climate, natural vegetation and soils.
- d) Demographic structure and economic characteristics.
- e) Regional study of Western Europe.

Unit – III

Africa

- a) Africa in the context of Europe and North America.
- b) Terrain and drainage.
- c) Climate, natural vegetation and soils.
- d) Demographic structure and economic characteristics.
- e) Regional study of Southern Africa.

Unit – IV

North America and South America

- a) North and South America in the context of the Atlantic and Pacific Rim states.
- b) Terrain and drainage.
- c) Climate, natural vegetation and soils.
- d) Demographic structure and economic characteristics.
- e) Regional study of Middle America.

Unit – V

Oceania; Global issues

- a) Australia & New Zealand in the context of Oceania, Micronesia and South Asia.
- b) Terrain and drainage.
- c) Climate, natural vegetation and soils.
- d) Demographic structure and economic characteristics.
- e) Globalisation and W.T.O, Population, Environment and Sustainable development.

Suggested Reading:

1. Cole, J., A Geography of the World's Major Regions, Routledge, London, 1996.
2. Cole, J. P., Latin America - Economic and Social Geography, Butterworth, USA, 1975.
3. Cole, M. M., South Africa, Dutton, New York, 1961.
4. de Blij, H. J., Geography: Regions and Concepts, John Wiley & Sons Inc., New York, 1994.
5. Dickenson, J. P. et al., The Geography of the Third World, Routledge, London, 1996.
6. Gourou, R., The Tropical World, Longman, London, 1980.
7. Jackson, R. H. and L. E. Hudman, World Regional Geography: Issues for Today, John
8. Kolb, A., East Asia: Geography of a Cultural Region, Methuen, London, 1977.
9. Minshull, G. N., Western Europe, Hoddard & Stoughton, New York, 1984.
10. Patterson, J. H., Geography of Canada and the United States, Oxford University Press, 1985.
11. Songquiao, Z., Geography of China, John Wiley & Sons Inc., New York, 1994.
12. Ward, R. W. and A. Miller, World Regional Geography: A Question of Place, John Wiley & Sons Inc., New York, 1989.

B. A. SECOND YEAR
SUBJECT: GEOGRAPHY
Paper-II: Economic & Resource Geography

Unit – I

- a) Definition, nature and scope of economic geography
- b) Recent trends in economic geography; its relation with economics, and allied subjects.
- c) Classification of economies and spatial organization.
- d) Sectors of economy: primary, secondary and tertiary.
- e) Impact of economic activities on environment.

Unit – II

- a) Natural resources: meaning; Classification of resources.
- b) Conservation of resources; Water and forest resource conservation.
- c) Changing nature of economic activities: Mining and forestry,
- d) Changing nature of economic activities: Agriculture and industry.
- e) Changing nature of economic activities: Trade and transport.

Unit – III

- a) Agricultural types and classification.
- b) Agriculture: physical, social, cultural environment influencing crop production.
- c) Spatial distribution, production and international trade of rice and wheat
- d) Spatial distribution, production and international trade of cotton and rubber.
- e) Spatial distribution, production and international trade of coffee and tea.

Unit – IV

- a) Classification of minerals; distribution, production and trade of iron ore and bauxite.

- b) Distribution and production of coal, petroleum and hydroelectricity.
- c) Factors of localization of industries; iron and steel industry.
- d) Chemical and cement industries.
- e) Textile and ship building industries.

Unit – V

- a) Trade and transport: geographical factors in their development.
- b) Major water, land and air transport routes.
- c) Internal and international trade.
- d) World Trade Organization (WTO) and globalisation.
- e) Impact of WTO and globalisation on developing countries of the world.

Suggested Readings:

1. Bengston, N. A. and V. L. Royen, Fundamental of Economic Geography, Prentice Hall, New York.
2. Boesch, H., A Geography of World Economy, D. Van-Nostrand Co., New York, 1964.
3. Chapman, J. D., Geography and Energy, Longman, London, 1989.
4. Gregor, H. F., Geography of Agriculture, Prentice Hall, New Jersey, USA, 1970.
5. Griggs, D. B., The Agricultural Systems of the World, Cambridge University Press, New York, 1974.
6. Hartshorne, T. N. and J. W. Alexander, Economic Geography, Prentice Hall, New Delhi, 1988.
7. Jones, C. F. and G. G. Darkenwald, Economic Geography, McMillan Co., New York. 1975.
8. Millar E., Geography of Manufacturing, Prentice Hall, New York, 1962.
9. Pickes, L. D., The Wealth of The World, Dan & Co., London.
10. Raza. M. and Y. Agrawal, Transport Geography of India, Concept, New Delhi, 1986.
11. Robinson, H., Economic Geography, Longmans.
12. Smith, D. M., Industrial Location - An Economic Geographical Analysis, John Wiley, New York, 1971.
13. Stamp, L. D., A Commercial Geography, Longmans.
14. Thomas, R. S., The Geography of Economic Activities, McGraw Hill, New York 1962.
15. UNO, Statistical Year Book (Latest Edition).
16. दास, गुप्ता एवं कपूर: आर्थिक और वाणिज्य भूगोल, एस चांद एण्ड कम्पनी, दिल्ली
17. दुबे रामनाथ :आर्थिक-वाणिज्य भूगोल, किताब महल, इलाहाबाद
18. नेगी :संसाधन भूगोल
19. नेगी :मानव तथा आर्थिक भूगोल
20. जैन, पी. :आर्थिक भूगोल की समीक्षा
21. कौषिक, एस. डी. :आर्थिक भूगोल की समीक्षा
22. कौषिक, एस. डी. :संसाधन भूगोल

B.A. Second Year
Subject: Geography
Practical: Cartography-II (Projections and Presentation of socio-economic data)

Map projections:

1. Meridians and parallels: definition, and characteristics.
2. Map projections: meaning, compromises, classification,
3. Characteristics, use and graphical construction along with outline map of the following projections:
 - i. Zenithal projections: orthographic, stereographic and gnomonic (both polar and equatorial cases) (6 exercises)
 - ii. Conical projections: Bonne's and polyconic (2 exercises)
 - iii. Mercator's projections (1 exercise)
 - iv. Globular projection (1 exercise)
 - v. Gall's projection (1 exercise)
 - vi. Mollweide's projection (1 exercise)
 - vii. Sinusoidal projection (1 exercise)

Presentation socio-economic data:

1. Thematic maps: Elements and characteristics of thematic maps.
2. Drawing and use of dot, choroschematic, chorochromatic, choropleth and isopleth maps (6 exercises)
3. Diagrams: elements and characteristics of diagrams.
4. Drawing of diagrams along with appropriate scales:
 - i. One dimensional (2 exercises)
 - ii. Two dimensional (3 exercises)
 - iii. Three dimensional (3 exercises)
 - iv. Traffic flow diagram (1 exercise)
5. Graphs: elements and characteristics of graphs.
6. Drawing of poly, band, and triangular graphs. (3 exercises)

Basic statistical methods:

1. Frequency distribution and its presentation.
2. Measures of central tendency: Arithmetic mean, mode and median.
3. Measures of dispersion: Standard deviation and coefficient of variation.
4. Measures of correlation: Rank correlation and product moment correlation.

Notes:

1. Candidates will be examined by an External Examiner in consultation with the Internal Examiner.
2. Each exercise should be drawn on 1/4th of a full drawing sheet.
3. The test paper of practical will be of two hours duration and candidates will be required to answer three questions out of five.

4. The distribution of marks will be as follows:

a. Paper	36 Marks
b. Record Work*	14 Marks
c. Viva-voce**	10 Marks

* Record work will be assessed by the teacher in-charge of the practical group and the external examiner.

** Viva-voce will be based on the record work.

5. Ex-students will have to complete the prescribed practical work under the guidance of the Head of the Department of the respective college and to produce a certificate to that effect before the commencement of the examination.

Suggested Readings:

1. Ahmed, K. S., Simple Map Projection, Friends Book House, Aligarh.
2. Bygott, J., An Introduction to Map Work and Practical Geography, University Tutorial Press, London.
3. Meux, A. H., Reading Topographical Maps, University of London Press.
4. Mishra, R. P. and A. Ramesh, Fundamentals of Cartography, Concept Publishers, New Delhi.
5. Monkhouse, F. J., Maps and Diagrams, Methuen & Co. Ltd., London.
6. Raize, E., General Cartography, McGraw Hill Book Co., London.
7. Robinson, A. R., Elements of Cartography, Chapman & Hall.
8. Singh, R. L. and P. K. Dutt, Elements of Practical Geography, Student Friends, Allahabad
9. Singh, R. L., Elements of Practical Geography, Kalyani Publishers.
10. Singh, R. N. and L. R. S. Kanaujia, Map Work & Practical Geography, Central Book Depot, Allahabad.
11. Tamaskar E. G. and V. M. Deshmukh, Geographical Interpretation of Indian Topographical Maps, Orient Longman.
12. शर्मा, जे. पी. : प्रायोगिक भूगोल, रस्तोगी प्रकाशन, मेरठ
13. जैन षेपमल : प्रायोगात्मक भूगोल, साहित्य भवन आगरा
14. भल्ला, एल. आर. : प्रायोगात्मक भूगोल, के.डी. प्रकाशन, अजमेर
15. मामोरिया चतुर्भुज : मानचित्र विज्ञान एवं प्रायोगात्मक भूगोल, साहित्य भवन, आगरा
16. पंवार, आर. एस. : मानचित्र विज्ञान एवं प्रायोगात्मक भूगोल, तुलसी प्रकाशन, मेरठ
17. वर्मा, एल एन.व आर. एम लोढा : प्रायोगात्मक भूगोल, राज. हिन्दी ग्रन्थ अकादमी, जयपुर
18. सिंह, एल.आर.; : मानचित्र एवं प्रायोगात्मक भूगोल, सेन्ट्रल बुक डिपो, इलाहाबाद
19. सिंह एवं कन्नोजिया : प्रायोगात्मक भूगोल की रूपरेखा, सेन्ट्रल बुक डिपो, इलाहाबाद

B.A. Third Year
Subject: Geography
Paper-I: Geography of India

Unit – I

- a) India in the context of Southeast and South Asia.
- b) India: a land of diversities; unity within diversities.
- c) Major terrain elements of India and their role in shaping physical landscape of India.
- d) Drainage systems of India and their functional significance.
- e) The morphological regions of India.

Unit – II

- a) Regional and seasonal variations of climate: the monsoon, western disturbance, norwesters, climatic regions of India.
- b) Soil types of India: their distribution and characteristics
- c) Vegetation types and their distribution; forest resources
- d) Status, use and need for conservation of mineral resources
- e) Status, use and need for conservation of power resources

Unit – III

- a) Spatial distribution of population and density; socio-economic implications of population growth; urbanization;
- b) Changing nature of Indian economy.
- c) Agricultural growth during the plan period; Green Revolution vis-à-vis traditional farming;
- d) Major crops and their status; wheat, Rice, Sugarcane, cotton
- e) Regionalization of Indian agriculture;

Unit – IV

- a) Industrial development and Indian economy.
- b) Industrial regions of India and their industrial structure.
- c) Major industries: Iron and steel, Cotton, cement, chemical Industries
- d) Means of transportations: Roads, Railways and Railways
- e) Composition of Domestic and International trade.

Unit – V

- a) Basis of regional divisions of India.
- b) Classification of Economic Regions of India: P. Sen Gupta
- c) Comparative Analysis of macro regions.
- d) Resource regions of India.
- e) Planning region of India

Suggesting Readings:

1. Deshpande, C. D., India - A Regional Interpretation, Northern Book Centre, New Delhi,

- 1992.
2. Farmer, B. H., An Introduction to South Asia, Methuen, London, 1983.
 3. Govt. of India, India - Reference Annual, Pub. Div, New Delhi, (latest edition)
 4. Govt. of India, National Atlas of India, NATMO Publication, Calcutta.
 5. Govt. of India, The Gazetteer of India, Vol. I & III Publication Division, New Delhi, 1965.
 6. Khullar, D. R., India: A Comprehensive Geography, Kalyani Publishers, Ludhiana, 2000.
 7. Learmonth, A. T. A. et al (ed), Man and Land of South Asia, Concept, New Delhi.
 8. Manorama Press, Manorma Year Book, Kottayam (Kerala), (Latest Edition).
 9. Mitra, A., Levels of Regional Development of India, Census of India, Vol. 1, Part I-A (i) and (ii), New Delhi, 1967.
 10. Routray, J. K., Geography of Regional Disparity, Asian Institute of Technology, Bangkok, 1993.
 11. Shafi, M, Geography of South Asia, McMillan & Co., Calcutta, 2000.
 12. Singh, G., Geography of India. Atmaram & Sons, Delhi.
 13. Singh, R. L. (ed), India: A Regional Geography, National Geographical Society, India,
 14. Spate, O. H. K. and Learmonth, A. T. A., India and Pakistan - Land, People and Economy Methuen & Co., London, 1967.
 15. Times of India Press, Times of India Year Book, Bombay (Latest Edition)
 16. Vaidiya, K. S., Dynamic Himalaya, University Press, Hyderabad, 1998,
 17. Wadia, D. N., Geology of India, McMillan & Co., London, 1967.
 - 18- गौड कृपाशंकर : भारत की भौगोलिक समीक्षा, हिन्दी प्रचार पुस्तकालय, वाराणसी
 - 19- मामोरिया चतुर्भुज : भारत का आर्थिक भूगोल, आगरा बुक स्टोर, आगरा
 - 20- दुबे, रामनाथ : भारत का आर्थिक भूगोल, किताब महल, इलाहाबाद
 - 21- तिवारी विष्णुनाथ : भारत का वृहद् भूगोल, रामप्रसाद एण्ड सन्स, आगरा
 - 22- चौहान, वीरेन्द्रसिंह : विषाल भारत, रस्तोगी एण्ड कम्पनी, मेरठ
 23. चौहान, तेजसिंह : भारत का भूगोल, विज्ञान प्रकाशन, जयपुर

B. A. Third year
Subject: Geography
Paper-I: Geography of Rajasthan

Unit – I

- a) Rajasthan in the context of India; diversity and unity; history of emergence.
- b) Geological structure and formation of the state.
- c) Relief features and physiographic regions; drainage characteristics.
- d) The monsoon rhythm and weather conditions; climatic regions; climate and man.
- e) Vegetation; forests; soils types.

Unit – II

- a) Distribution of population: status, factors and implications.
- b) Population characteristics: gender, literacy and workforce.
- c) Urbanization and migration.
- d) Tribal population: composition, concentration and principal tribal groups.
- e) Population growth and associated problems.

Unit – III

- a) Agriculture and economy of Rajasthan
- b) Cropping pattern: detailed study of bajra, maize, wheat, pulses and oilseed crops
- c) Source of irrigation; irrigation system of Indira Gandhi Canal and Chambal Command Area; problem of depleting ground water resources
- d) Livestock resource: distribution by composition and size; dairy development
- e) Major agricultural problems and their solution.

Unit – IV

- a) Minerals, industries and economy of Rajasthan.
- b) Detailed study of minerals: rock phosphate, mica, marble, soapstone and limestone.
- c) Status and potential of energy minerals: lignite, petroleum and natural gas.
- d) Detailed study of industries: zinc, cement, chemical, cottage and small-scale industries.
- e) Industrial problems and prospects of the state.

Unit – V

- a) Tourism: basis of tourism in Rajasthan; major destinations; tourists by place of origin.
- b) Means of transportation: net work of roads and railways and related problems.
- c) Droughts in Rajasthan: nature, causes, implications and coping measures.
- d) Basis of regions of Rajasthan and study of different schemes of regionalization.
- e) Detailed study of Marusthali and Aravalli regions.

Suggesting Readings:

1. Bhalla, L. R., Rajasthan ka Bhugol, Kuldeep Publication, Ajmer (Hindi).
2. Census of India, Rajasthan Series, General Population Tables of 1961 to 2001.
3. DST (Govt. of Rajasthan), Resource Atlas of Rajasthan, Jaipur.
4. Govt. of Rajasthan, Statistical Abstract (latest edition), Jaipur.
5. Mishra, V. C., Geography of Rajasthan, National Book Trust, New Delhi.
6. NCEAR, Techno-economic Survey of Rajasthan, Vol. I and II, New Delhi.
7. Publication Division, Govt. of India, India (Latest edition), New Delhi.
8. Spate, O. H. K., India and Pakistan, Methuen, 1960.
9. चौहान, तेजसिंह : राजस्थान का भूगोल, विज्ञान प्रकाशन, जोधपुर
- 10- लोढा, राजमल एवं महेष्चरी, दिपक : राजस्थान का भूगोल, हिमांशु पब्लिकेशन्स, उदयपुर
- 11- मामोरिया, चतुर्भुज व जैन षेपमल : राजस्थान का भूगोल, साहित्य भवन पब्लिकेशन्स, आगरा
- 12- सक्सेना, एच.एम. : राजस्थान का भूगोल, राजस्थान हिन्दी ग्रन्थ अकादमी, जयपुर
- 13- विजयवर्गीय, राम रक्षपाल : राजस्थान का भू-विज्ञान एवं खनिज सम्पदा, राजस्थान हिन्दी ग्रन्थ अकादमी, जयपुर

B. A. Third year
Subject: Geography
Practical: Surveying, Topographical Maps and Remote Sensing

I. Surveying:

1. Objectives; primary division and classification of surveying; principles of surveying.
2. Plane table survey:
 - i. Radiation; intersection; open and close traverse with a minimum of five stations. (4 exercises)
 - ii. Resectioning: three point problem by mechanical and graphical methods of Bessel and Llano. (3 exercises)
3. Prismatic compass survey:
 - i. Types of bearings and conversion of bearings.
 - ii. Radiation; intersection; open and close traverse (with a minimum of five stations. (4 exercises)
 - iii. Calculation of included angles; correction of bearing; closing of the error. (1 exercise)

II. Topographical maps:

1. A brief history of Survey of India; scheme of topographical maps; and conventional symbols. (2 exercises)
2. Scale of slopes. (1 exercise)
3. Study and interpretation of Survey of India 1:50,000 or 1:63,360 topographical maps representing typical areas of Rajasthan in respect of relief, drainage, land use, settlement and means of transport (2 exercises)

III. Remote sensing:

1. Remote sensing as a tool for data generation and mapping;
2. Basic concepts of aerial photographs and satellite imageries;
3. Generating maps (physical and human features) from aerial photographs and remote sensing data products using pocket stereoscope and other aids. (2 exercises)

Notes:

1. Candidates will be examined by an External Examiner in consultation with the Internal Examiner.
2. Each exercise should be drawn on a full drawing sheet.
3. The test paper of practical will be of two hours duration and candidates will be required to answer three questions out of five.
4. The distribution of marks will be as follows:

a. Paper	30 Marks
b. Record Work*	10 Marks
c. Viva-voce**	5 Marks
d. Field survey and viva- voce	15 Marks (10+5)

* Record work will be assessed by the teacher in-charge of the practical group and the external examiner.

** Viva-voce will be based on the record work.

5. Ex-students will have to complete the prescribed practical work under the guidance of the Head of the Department of the respective college and to produce a certificate to that effect before the commencement of the examination.

Suggesting Readings:

1. Cole, John P. and Cuchlaine A. M. King, Quantitative Geography: Techniques and Theories in Geography, John Wiley & Sons Ltd., London, 1970.
2. Hammond, Robert and McCullagh Patrick, Quantitative Techniques in Geography: An Introduction, Clarendon Press, Oxford, 1978.
3. Kanetkar, T. P., Surveying and Levelling, Vol. I, A. V. Griha Prakashan, Bombay, 1985.
4. Nag, Prithvish and M. Kudrat, Digital Remote Sensing, Concept Publishing Company, New Delhi, 1998.
5. Singh, R. L., Elements of Practical Geography, Student Friends, Allahabad.
6. सिंह एवं कनोजिया : मानचित्र तथा प्रायोगात्मक भूगोल, सेन्ट्रल बुक डिपो, इलाहाबाद
- 7- तिवारी, विश्वनाथ : प्रायोगिक भूगोल, रामप्रसाद एण्ड संस, आगरा
- 8- वर्मा, एल.एन. एवं लोढा, आर. एम. : प्रायोगात्मक भूगोल, राजस्थान हिन्दी ग्रन्थ अकादमी, जयपुर
- 9- शर्मा, जे.पी. : प्रायोगात्मक भूगोल, रस्तोगी प्रकाशन, मेरठ