

GEOGRAPHY (Code-021)

M.A./M.Sc. पूर्व भूगोल में विनियमित प्रश्न पत्र होने -

क्र.मांक	प्रश्न पत्र	प्रश्न पत्र का नाम	काठ संख्या	पूर्णांक
1.	प्रथम	Geomorphology	(0399)	100
2.	द्वितीय	Climatology & Oceanography	(0400)	100
3.	तृतीय	Geographical Thought	(0401)	100
4.	चतुर्थ	Advanced Geography of India	(0402)	100
5.	पंचम	Population Geography	(0403)	100
6.	प्रयोगिक	Advanced cartography and surveying		100

The M.A./M.Sc. Previous examination in Geography shall consist of 600 marks.

There shall be five theory papers and one practical each of 100 marks as follows:

Paper I	Geomorphology
Paper II	Climatology & Oceanography
Paper III	Geographical Thought
Paper IV	Advanced Geography of India
Paper V	Population Geography
Practical	Advanced Cartography and Surveying

The theory papers shall be of three hours duration.

Candidates will be required to pass separately in theory and practical examinations.

Each theory paper in M.A./M.Sc. Previous Geography has been divided into four units.

- (a) In the practical examination the following shall be the allotment of time and marks.
- (i) Practical record 20%
 - (ii) Lab work (up to three hours) 50%
 - (iii) Field work (up to three hours) 25%
 - (iv) Viva on i, ii, & iii above 5%
- (b) The external and internal examiners shall jointly submit marks.
- (c) Candidates shall be examined in survey individually. They will however be allowed to take the help of a labourer each at their own expense.
- (d) All the candidates shall present at the time of the practical examination their practical record regularly signed by the teachers concerned.

PAPER - I GEOMORPHOLOGY (Paper Code - 0399)

- IT-1 Nature and Scope of Geomorphology; Fundamental concepts; Interior of the earth; Earth movements: epirogenic and orogenic movements; Forces of crustal instability, isostasy, plate tectonics, earthquakes, volcanic activities, faulting, mountain building.
- IT-2 Exogenic processes: concept of gradation; Agents and processes of gradation: weathering, mass wasting and erosion, aggradation; soil formation; Climatic Geomorphology and morphogenetic regions; slope evolution.
- IT-3 Concept of geomorphic cycle and its controversy; Dynamics of fluvial, glacial, periglacial, aeolian and marine (coastal) processes and resulting landforms; Complications of fluvial geomorphic cycle.

UNIT-4 Geological structure and landforms: development of landscape and drainage on unclinal, folded and domal structures and in Karst region; Erosion surfaces; Applied geomorphology

SUGGESTED READINGS -

1. Ahmed, E. : Coastal Geomorphology of India.
2. Chorley, R.J. : Spatial Analysis in Geomorphology, Methuen, London, 1972
3. Cooke R.U. and Doornkamp, J.C.: Geomorphology in Environmental Management A introduction, Clarendon Press, Oxford, 1974
4. Dury, G. H. : The Face of the Earth, Penguin Harmondsworth 1959
5. Fairbridge, R.W. Encyclopedia of Geomorphology, Reinholdts, New York, 1968.
6. Goudie, A.: The Nature of the Environment Oxford & Blackwell, London, 1993.
7. Garnet, H.F. : The Origin of landscape- A Synthesis of Geomorphology, Oxford University Press, London, 1974.
8. Holms, A. : Principles of Physical Geology, Thomas Nelson, London.
9. Mitchell, C.W.: Terrain Evaluation, Longman, London, 1973.
10. Ollier, C.D. Weathering, Longman, London, 1979.
11. Pilly, A.F.: Introduction to Geomorphology, Methuen, London, 1971.
12. Stoddart, D.R. (ed.): Process and Form in Geomorphology, Roulledge, New York, 1996.
13. Skinner, B.J. & Porter, S.C.: The Dynamic Earth John Wiley, New York, 1995.
14. Sparks, B.W. Geomorphology, Longman, London, 1960.
15. Sharma, H.S.(ed.): Perspectives in Geomorphology, Concept, New Delhi, 1980
16. Singh, S: Geomorphology, Prayag Publication, Allahabad, 1998.
17. Steers, J.A. : The Unstable Earth Methuen, London.
18. Thornbury, W.D. Principles of Geomorphology, John Wiley, New York, 1960.
19. Strahler, A.N. : Physical Geography, Wiley, New York.
20. कोशिक, एस.डी. : भू - आकृति विज्ञान
21. नेगी, सी.एच. : भू - आकृति विज्ञान
22. दवाल परमेश्वर : भू - आकृति विज्ञान
23. गदव तथा रामसुरेश : : भू - आकृति विज्ञान, ग्रन्थय, कानपुर
24. सिंह, सविन्द्र के. : : भू - आकृति विज्ञान, शास्त्रा पुस्तक भवन, इलाहाबाद

PAPER - II

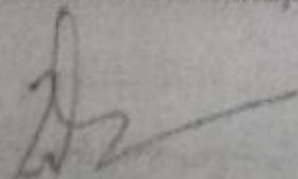
CLIMATOLOGY AND OCEANOGRAPHY

(Paper Code - 0400)

(A) CLIMATOLOGY

UNIT-1 Nature and scope of climatology and its relationship with meteorology; composition of the atmosphere; insolation, heat balance of the earth, stability and instability, green house effect, vertical and horizontal distribution of temperature; Jet stream; General circulation in the atmosphere; Acid rain; concept of air masses and atmospheric disturbances. Ocean atmospheric interaction. El Nino and La Nino. Monsoon winds and cyclones.

UNIT-2 The application of general principles of elementary physical and synoptic meteorology to the study and classification of climate. Climatic classification of Koppen and Thornthwaite. Major climates of the world- tropical, temperate, desert and mountain



Climate. Climatic changes during geological and historical times. evidences. possible causes, global warming, environmental impacts and society's response. Applied climatology.

(B) OCEANOGRAPHY

- T-3 Nature and scope of oceanography; Distribution of land and water; Major features of ocean basins; Marine sediments. Physical and chemical properties of sea water; Interlink between atmospheric circulation and circulation pattern in the oceans, surface currents, thermohaline, waves and tides.
- T-4 Marine biological environment: Bio geochemical cycle in the ocean, biozones, types of organisms; plankton, nekton and benthos, food and mineral resources of the sea. Major marine environments; coastal; estuary, deltas, barrier island, rocky coasts; Open: reefs, continental shelf, continental slope and deep; Pelagic environment and floor of the ocean basins. Impact of Humans on the marine environment. Law of the sea; exclusive economic zone; marine deposits and formation of coral-reefs.

SUGGESTED READINGS :

- Barry, R.G. and Chorley P.J.: Atmosphere, Weather and Climate, Roulledge, London and New York, 1998
- Critchfield, J.H.: General Climatology, Prentice Hall, India, New Delhi, 1993.
- Das, P.K.: Monsoons National Book Trust, New Delhi, 1987.
- Fein, J.S. and Stephens, P.N.: Monsoons. Wiley Interscience, 1987.
- India Met. Deptt. : Climatological Tables of Observatories in India, Govt. of India 1968.
- Lal, D.S.: Climatology, Chaitanya Publications, Allahabad, 1986.
- Lydolph, P.E. : The Climate of the Earth, Rowman, 1985.
- Menon, P.A.: Our Weather, N.B.T., New Delhi, 1989.
- pelerson, S.: Jentroduction to Meteorology, Mc Graw Hill Book, London, 1969.
- Robinson, P.J. and Henderson S.: Contemporary Climatology, Henlow, 1999.
- Thompson, R.D. and Perry, A (ed.): Applied Climatology. Principles and Practice, Routledge, London, 1997.
- Davis Richard J.A.: "Oceanography- An Introduction to the Marine Environment". Wm. C. Brown Iowa. 1986.
- Duxbury, C.A. and Duxbury B.: An Introduction to the world's Oceans-C. Brown. Iowa 2nd ed. 1986.
- Garrison, T.: "Oceanography - An Introduction to Marine Science" Books/Cole, Pacific Grove, USA, 2001
- Gross, M. Grant: Oceanography, a View of the earth, prantice- Hall inc, New Jersey, 1987.
- King C.A.M. Oceanography for Geographers 1962.
- Sharma, R.C. "The Oceans" Rajesh N. Delhi. 1985.
- Ummerkutty, A.N.P. Science of the Oceans and Human life, NBT, New Delhi 1985.
- Trewartha, G.T. : An Introduction to weather and climates.
- Ommany, F.D.: The Ocean
- Sharma, R.C. & M. Vatal : Oceanography : A Brief Introduction kislaya Pub. New Delhi.
- Siddartha, K. : Oceanography : A Brief Itroduction, Kislaya Pub. New Delhi.
- तिवारी, अनिल कुमार : जलवायु विज्ञान, राजस्थान हिन्दी ग्रंथ अकादमी
- नेगी, बी. एस. : जलवायु तथा समुद्र विज्ञान

PAPER-III
GEOGRAPHICAL THOUGHT
(Paper Code - 0401)

- UNIT-1** The field of geography, its place in the classification of science; geography as a social science, and natural science. Definition, scope and functions of geography; Geography as science of relationship, as science of areal differentiation, as spatial science. Geography and environmentalism: forms of man-nature relationship and current view, Dualism in geography, Regional Concept.
- UNIT-2** The growth of geographical knowledge from earliest times upto the 15th century. Contributions of Greek and Roman thinkers. Arab Geographers and their contributions. Geographical information in Ancient Indian literature. The dark age in Geography. The Great Age of Maritime Discovery and Exploration. Contributions of various schools of thought in Modern Geography:
(i) German School. (ii) French School
(iii) British School (iv) American and Russian Schools.
- UNIT-3** Scientific explanations: routes to scientific explanation (inductive/deductive); Types of explanation: cognitive description, cause and effect, temporal, functional/ ecological, systems; Laws, theories and models in geography; Quantitative revolution and philosophy of positivism.
- UNIT-4** Responses to positivism, behaviouralism and humanistic geography, relevance movement and radical geography; Changing paradigms; Status of Indian Geography; Future of geography.

SUGGESTED READINGS :

1. Abler, Ronald; Adams, John S. Gold, Peter; Spatial Organization: The Geographer's view of the World, Prentice Hall, N.J., 1971.
2. Ali S.M.: The Geography of Puranas, Peoples Publishing House, Delhi, 1968.
3. Amedeo, Douglas: An Introduction to Scientific Reasoning in Geography, John Wiley, U.S.A., 1971.
4. Dikshit, R.D. (ed.): The Art & Science of Geography Rand Mc Nally & Co., 1959.
5. Hartshorne, R.: Perspectives on Nature of Geography Rand Mc Nally & Co., 1959.
6. Husain, M.: Evolution of geographic Thought, Rawat Pub. Jaipur, 1984.
7. Johnston, R.J.: Philosophy and Human Geogrpahy, Edward Arnold, London, 1983.
8. Johnston, R.J.: The Future of Geography, Methuen, London, 1988.
9. Minshull, R.: The Changing Nature of Geography, Hutchinson University Library, London, 1970.
10. Ali, S.M. : Arab Geography
11. Taylor, G. : Geography in the 20th Century.
12. Dikshit, R.D. : Geographical Thought : A Contextual History of Ideal, Prentice Hall of India, New Delhi.
13. Harvey D. : Explanation in Geography
14. सिंह उद्गाविर : भौगोलिक चिन्तन का विकास , कल्याणी पब्लिशर्स नई दिल्ली.
15. त्रिपाठी एवं बिरले : भौगोलिक चिन्तन का विकास एवं विभिन्न , जे.तामरकर काठगुड
16. कौरिक, एस.डी. : भौगोलिक विचारधाराओं का इतिहास एवं विभिन्न , कल्याणी पब्लिशर्स नई दिल्ली
17. सिंह, उद्गाविर : भौगोलिक चिन्तन का मूलाधार , कल्याणी पब्लिशर्स नई दिल्ली

PAPER-IV
ADVANCED GEOGRAPHY OF INDIA
(Paper Code - 0402)

- UNIT-1 Physical and Biological elements in the Geography of India : Geological structure, relief, climate, water resources, vegetation and soils.
- UNIT-2 (a) Population: distribution, density and growth, problems and policies.
(b) Irrigation
(c) Agriculture : Major characteristics and problems, impact of infrastructural and institutional factors on agriculture. Important crops-wheat, rice, cotton, sugarcane, oil-seeds, tea and coffee. Agricultural regions. Green revolution, Agro- climatic regions.
(d) Sources of power: Coal, Petroleum, Natural gas, Hydroelectricity and Atomic energy.
- UNIT-3 (a) Mineral resources with specific reference to iron ore, manganese and bauxite.
(b) Industrial development with specific reference to iron and steel, cement, cotton, jute, sugar and paper industries; Industrial regions.
(c) Transport infrastructure: Road, rail, water and air.
(d) Trade: Internal and Foreign.
- UNIT-4 (a) Regional division of India: Purpose and Methodology.
(b) Major schemes of regions of India: O.H.K. Spate and R.L. Singh.
(c) Detailed regional study of the following: Kashmir valley, Middle Ganga Plain, Narmada Basin, Marusthali and Kerala.
(d) Physical and cultur geography of Chhattisgarh State.

SUGGESTED READINGS :

1. Centre for Science & Environment (1988) State of India's Environment, New Delhi.
2. Desphande C.D. India: a Regional Interpretation ICSSR & Northern Book Centre 1992.
3. Dreze, Jean & Amartya Sen (ed.) India Economic Development and Social opportunity Oxford University Person, New Delhi. 1996.
4. Kundu A. Raza Moonis: Indian Economy: the Regional Dimension Spectaum Publishers, New Delhi, 1992.
5. Robinson, Francis: The Cambridge Encyclopaedia of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan & Maldives Cambridge University Press, London, 1989.
6. Singh R.L. (ed.): India- A Regional Geography National Geographical Society, India Varanasi, 1971.
7. Spate OHK & ATA Learmont-India & Pakistan Methuen, London. 1967.
8. Tirtha R. & Gopal Krishna, Emerging India Reprinted by Rawat Publications, Jaipur 1996.
9. Sharma T.C. and O. Coutinho : Economic and Commercial Geography of India.
10. अग्रवाल पी.सी. : भारत का भौतिक भूगोल, एशिया प्रकाशन सं., पणपुर 2003.
11. बोस, ब्रह्मन् गोविंद : नर्मदा बेसिन का कृषि भूगोल
12. देशबंधु प्रकाशन : संदर्भ उत्तीर्ण

PAPER - V
POPULATION GEOGRAPHY
(Paper Code - 0403)

- UNIT-1** Definition and scope of Population Geography, Relation of Population Geography with other subjects of social sciences. Historical development of Population Geography in western countries and in India. Sources of population data, Census and its history.
- UNIT-2** Distribution of Population : The concept of population density and its types. Factors affecting population distribution. Distribution of population in the world with special reference to Europe and Asia. Distribution of population in India.
Growth of population: Measure of decennial and annual rates of population growth, prehistoric and modern trends of population growth in the world. Regional aspect of population growth in India.
Population theories, Demographic transition, Future growth of population.
- UNIT-3** Population composition in terms of age and sex, rural-urban residence, educational status and occupational structure. Significance of these elements in population analysis, factors affecting their composition in population, broad world patterns and detailed spatial patterns in India.
Fertility and Mortality of population : Significance and factor, Indices and rates. World pattern and pattern in India.
- UNIT-4** Migration of population: Causes, characteristics and types. Methods of estimating value of internal migration, Important international migrations of the world, internal migration in India.
Population and Resources: concept of optimum population, over population and under population, Population-Resource regions.
Population Regions: Concept and methods, population regions of India, causes and consequences of population growth, population policies of India, Human Development Index and its components.

SUGGESTED READINGS :

1. Bilasborrow, Richard E and Daniel Hogan, Popopulation and Delorestation in the Humid Eropics, International Union for th Scientific Study of Population, Belgium 1999.
 2. Bogua, D.J. Principles in Demography, John Wiley, New York 1969.
 3. Bose, Ashish et al.: Population in India's Development (1947-2000); Vikas Publishing House, New Delhi 1974.
 4. Census of India, India: A State Profile. 1991.
 5. Chandna, R.C.-Geography of Population; Concept, Determinants and Patterns. Kalyani Publishers, New York 2000.
 6. Clarke, John I. Population Geography, Pergamon Press, Oxford 1973.
 7. Crook, Nigel Principles of Population and Development. Pergmaon Press. New York 1997.
 8. Daugherty, Helen Gin, Kenneth C.W. Kammeyir, An Introduction to Population (Second Edition)The Guilford Press, New York London 1998.
 9. Garnier, B.J. Geography of Population Longman, London 1970.
 10. Kochihar, Rajesh, The Vedic People: Their History and Geography Orient I ongman Rd., New Delhi 2000.
 11. Mamoria, C.B. India's Population Problem, kitab Mahal New Delhi 1981.
 12. Mitra, Ashok India's Population: Aspects of Quality and Control Vol I & II. Abhiman Publications, New Delhi 1978.
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