

5118 C
M.A. / M.Sc. (Final) Geography
Paper - IV (C) : Environmental Geography

Unit - I

- a) Environmental geography: definition scope and concepts.
- b) Ecology: meaning, scope and concepts.
- c) Environment: meaning, elements, and types.
- d) Principles of environmental geography.
- e) Man-environment relationship: review of different perspectives.

Unit - II

- a) Ecosystem: concept, definitions, characteristics and types.
- b) Components and functioning of ecosystem.
- c) Trophic level, food chain and ecological pyramids.
- d) Energy flow in ecosystem.
- e) Geo-chemical cycles and circulation of element in the ecosystem: carbon cycle, nitrogen cycle and oxygen cycle.

Unit - III

- a) Fresh water ecosystems: meaning, types and their properties.
- b) Marine ecosystems: meaning, types and their properties.
- c) Terrestrial ecosystems: meaning, types and their properties.
- d) Biomes: concept, types, characteristics and distribution.
- e) Detail study of alpine and tropical desert biomes.

Unit - IV

- a) Environmental hazards and disasters: meaning, types and impacts.
- b) Environmental degradation: meaning, process, causes, types and impacts.
- c) Environmental pollution: meaning, causes, types and impact.
- d) Environmental planning and management: concept, objectives and strategies.
- e) Sustainable development: concept, need, problems and strategies.

Unit - V

Case studies of man induced environmental and ecological changes:

- a) Ecology of tropical farming systems.
- b) Mountain ecosystem with special reference to Aravalli hills.
- c) Big dams with reference to Sardar Sarovar. Environmental legislation:
- d) The Stockholm Conference and the Earth Summit.
- e) Environmental laws in India related to: wild life, water, forest and environment.

Suggested Readings:

1. Ackerman, E.A., Geography as a Fundamental Research Discipline, University of Chicago Research Papers, 1958.
2. Agarwal, A. and S. Sen, The Citizens Fifth Report, Centre for Science and Environment, New Delhi, 1999.
3. Bertalanffy, L., General Systems Theory, George Bragiller, New York, 1958.
4. Bodkin, E., Environmental Studies, Charles E. Merrill Publishing Co., Columbus, Ohio, 1982.
5. Chandna, R.C., Environmental Awareness, Kalyani Publishers, New Delhi, 1998.
6. Chorley, R.J., Geomorphology and General Systems Theory, U.S.G.S. Professional Paper, 500 B, 1962.
7. Eyre, S.R. and G.R.J. Jones (eds.), Geography as Human Ecology, Edward Arnold, London, 1966.
8. Haggett, R.J., Geo-ecology: An Evolutionary Approach, Routledge, London, 1995.
9. Kormondy, E.J., Concepts of Ecology, Prentice Hall, 1989.
10. Moore, R., Man in the Environment, McGraw Hill.
11. Murphy, E.F., Man and His Environment, Harper & Row.
12. Odum-Fugene, P., Fundamentals of Ecology, W.B. Saunders Co.