

BAGEO - SN/01

B.A /B.SC SEMISTER-I SUBJECT: GEOGRAPHY PAPER - I Physical Geography

Objectives

To learn about 1) Types of rocks, Earth Movements, Volcanoes, of Theory of Continental Drift, 2) Weathering and erosion processes, 3) Origin and composition of Atmosphere, 4) Types of precipitation 5) Land and water distribution.

Unit-I

Definition, Nature, scope of Physical Geography, Classification of rocks. Earth Movements; organic, epeirogenic, earth quakes and volcanoes. Wegner 's theory of continental drift and plate tectonic theory.

Unit-II

Weathering: causes and its types. Mass – movements; causes, its types and impacts. Concept of cycle of erosion; cycle of erosion by W.M. Davis. Process of Wind, River, Underground water, Glaciers and Sea waves

Unit-III

Weather and Climate; Origin, composition and structure of atmosphere. Insolation, Horizontal and vertical distribution of temperature, inversion of temperature. Atmospheric pressure- measurement and distribution, pressure belts, planetary winds, Monsoon and Local winds

Unit-IV

Humidity- measurement and variables, evaporation, condensation, precipitation forms and types and distribution. Climate classification by Koppen.

Unit-V

Configuration of oceanic floors, Temperature and Salinity of ocean, Land and water distribution. Tides, waves and ocean currents.

Learning Outcomes

After completion of paper student will learn Physical factors of the Earth system like earthquakes, volcanoes, atmosphere, climate, weathering processes types of precipitation, distribution of land and water.

References:

1. Sharma H.S. Perspective in Geomorphology , Concept , New Delhi 1980.
2. Singh Savinder, Geomorphology, Prayag Publication, Allahabad 1998.
3. Singh Savinder, Physical Geography Prayag Publication, Allahabad, 1998.
4. Sparks B.W. Geomorphology, Jojngman, London ,1960.
5. Thornbury W.D. 1969 principles of Geomorphology, New York, John Wiley & Sons.
6. Barry, RG and Chorley R.J., Atmosphere, Weather and Climate, Routledge, 1998.
7. Critchfield, H., General Climatology, Prentice-Hall of India, 2002.
8. King, C. Oceanography for Geographers, Edward Arnold, London, 1975.
9. Trewartha, GT: An Introduction to Climate, Mc-Graw Hill; New York, 1981.

10. Trewartha, G.T., The Earth's Problems Climates, University of Wisconsin Press, USA.

Practical: Study of Weather and Climate

Objectives

To learn about the weather, measuring of weather conditions, instruments, interpretation of weather reports and Weather Forecasting.

Weather Reports – Definition and applications

Use of Weather Instruments- Wet & Dry Bulb Thermometer, Barometer

Wind-Vane, Rain Gauge.

Study of Weather Symbols and Interpretation of Indian Daily Weather Reports of January & July.

Weather Forecasting.

Learning Outcome

After completion of the paper the student will learn about weather reports, instruments to study weather and climate, interpretation of weather reports and applications of weather forecasting.

Suggested readings:

1. Allen, P.D. :-Environment & Development
2. Gerasimov: Ecology & Geography
3. Kayastha, S.L. :-Fundamentals of Environmental Studies
4. Khushoo, T.N. :-Environment and Sustainable Development of India
5. Singh, J. :-Vatavaran Niyojanaum Samvikas
6. Singh, Savindra :-Environmental Geography (Hindi & English)
7. Shrivastava, V.K. & Rao, B.P. :- Paryavaran Evam Paristhitiki