

**SEMESTER 1<sup>st</sup>**  
**MAJOR COURSE**

**GGY122J GEOGRAPHY (PHYSICAL GEOGRAPHY)**

**CREDITS: THEORY 04, PRACTICAL 02**

**COURSE OUTCOME/LEARNING OBJECTIVES:** *Student will gain the knowledge of physical geography. Student will have a general understanding about the geomorphological and geotechnical process and formation. They will be able to correlate the knowledge of physical geography with the human geography.*

**THEORY (4 CREDITS)**

**UNIT-I**

- 1) Introduction to Physical Geography
- 2) Structure of Earth's Interior
- 3) Wegner's Theory of Continental Drift
- 4) Concept of Seafloor Spreading, Plate Tectonics
- 5) Earthquakes: Origin, Scales of Measurement

**UNIT –II**

- 1) Classification and Characteristics of Rocks
- 2) Weathering: Factors and Types
- 3) Endogenetic and Exogenetic Processes
- 4) Landform Development: Fluvial and Glacial
- 5) Davisian Cycle of Landform Evolution

**UNIT –III**

- 1) Definition and Significance of Climatology
- 2) Insolation and Global Energy Budget
- 3) Atmospheric Pressure and Winds (Planetary, Periodic and Local Winds)
- 4) Precipitation: Forms, Types and Global Distribution Patterns
- 5) Atmospheric Disturbances: Tropical and Temperate Cyclones

**UNIT –IV**

- 1) Ocean Bottom Topography: Continental Shelf, Continental Slope, Abyssal Plain, Mid- Oceanic Ridges and Oceanic Trenches
- 2) Coral Reefs: Significance, Origin and Types
- 3) Tides: Origin and Types
- 4) Currents: Origin and Types
- 5) Oceans as Store-houses of Resources for the future

**PRACTICALS (2 CREDITS)**

**UNIT – V**

- 1) Cartography: Nature and Scope
2. Maps: Essentials and Classification
- 3) Scales: Concept, Types and Applications
- 4) Geographical Construction of Plain, Diagonal and Comparative Scales
- 5) Contours: Representation of different Landforms

**UNIT – VI**

- 1) Drawing of Profiles: Serial, Longitudinal, Superimposed, Composite and Projected
- 2) Graphical Representation of Socio-economic Data
- 3) Construction of Climograph and Hythergraph
- 4) Representation of Geographical Data: Choropleth, Isopleth, Chrocromatic and Chroschematic
- 5) Digital Cartography: Scope and Applications

## SUGGESTED READINGS

- A. H. Strahler & A. N. Strahler, Modern Physical Geography, John Willy & sons, 1980.
- Barry, R. G & Chorley, R.J., Atmosphere, Weather and Climate Routledge, 1998.
- Calcutta, 1997.
- Critchfield, H, General Climatology, Prentice Hall, New York, 1975.
- D. S. Lal, Physical Geography, Sharda Pustak Bhawan, 2009
- Gopal Singh, Map World and Practical Geography, Vikas Publishing House, 2000
- Grald, S, General Oceanography- An Introduction, John Wiley & Sons, New York,
- Inc. 2001.
- Kali Charan Sahu, Textbook of Remote Sensing and Geographic Information
- King, C.A.M., Oceanography for Geographers, E Arnold, London, 1975.
- Majid Hussain, Physical Geography, Anmol Publications Pvt. Ltd., 2007
- Publishers New Delhi, 1979.
- Robinson, A.H et al., Elements of Cartography, John Wiley & Sons, U.S.A., 1995.
- S. A. Qazi, Principals of Physical Geography, AHP Publishing Co. 2004
- Sarkar, A.K., Practical Geography: A Systematic Approach, Oriental Longman,
- Satopa Mukherjee, Understanding Physical Geography, Oriental Longman 2002
- Savindra Singh, Physical Geography, Prayag Pustak Bhawan, 2000
- Singh, R.L and Dutt, P.K., Elements of Practical Geography, Kalyani
- Singh, S.: Geomorphology, Prayag Pustakalaya, Allahabad, 1998.
- Sparks, B.N.: Geomorphology, Prayag Pustakalaya, Allahabad, 1998
- Stringer, E.T Foundation of Climatology, Surjeet Publication, Delhi, 1982.