

**2017**

**DDE**

**M.A./M.Sc. Part-I Examination**

**GEOGRAPHY**

**PAPER—I**

*Full Marks : 100*

*Time : 4 Hours*

*The figures in the right-hand margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

*Write the answer question of each Group in separate books*

**MODULE-1**

**(Geotectonics and Geomorphology)**

[Marks : 50]

**Group—A**

Answer any *two* questions.

2×15

1. Critically discuss the 'Nebula hypothesis' in explaining the origin of the Earth. Justify the significance of the doctrine

*(Turn Over)*

of uniformitarianism in comparison to Catastrophism.

(5+3)+7

2. Elucidate the processes of earthquake in the light of plate tectonic theory with necessary illustrations. What is the role of Neo-tectonics in deformation of global landforms?

8+7

3. Illustrate karst cycle of erosion identifying favourable condition of developing karst landform. Identify the features developed by the interruptions of the Fluvial cycle.

8+7

4. Identify slope elements from an ideal slope profile and explain the nature of development of the pediment slope. Briefly explain the idea of Non-cyclic concept put forwarded by Hack.

8+7

#### Group—B

(Answer any two questions) 2×10

5. Discuss the structures and their seismic and physical characters of Interior Earth with suitable illustrations. 10

6. How does the sea level changes in the global and local levels? Explain impacts of sea level rise on coastal regions. 10

7. Discuss the concept of geomorphic threshold after Chorley and Schumm. 10

8. Write short notes : (any two) 5+5

(i) Lithosphere

(ii) Raised Beach features

(iii) Applied Geomorphology

(iv) Outwash Plain

#### MODULE-2

#### (Oceanography and Hydrology)

[Marks : 50]

#### Group—A

Answer any two questions. 2×15

1. Classify marine sediments on the basis of their diverse origin. Critically examine the roles of tides and currents on the marine ecosystem. 7+8

2. Explain the geomorphic significance of mangrove ecology of the coastal regions. Identify the problems of coral reef environment due to global climate change. 8+7

3. Discuss the major functions of wetland ecosystems. Identify the major watersheds and their characters in India. 8+7

4. Elucidate the nature of chemical composition of ocean waters. How does the characters of temperature salinity vary between Pacific and Atlantic Ocean? 8+7

**Group—B**

(Answer any *two* questions) 2×10

5. Explain the methods of estimation of Infiltration. 10
6. Differentiate between confined and unconfined aquifer with illustrations. 10
7. Give an account of the ecology of coastal sand dunes. 10
8. Write short notes : (any *two*) 5+5
- (i) Hydrology-environment interface
  - (ii) Role of trace elements in water
  - (iii) River Basin hydrology
  - (iv) Characters of oceanic crusts.