

2018

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 to question of each Group in separate books

MODULE-1

(Geotectonics and Geomorphology)

[Marks : 50]

Group—A

Answer any *two* questions. 2×15

1. Discuss the isostatic adjustments of the earth's crust with special reference to the Pratt's theory. How does Pratt's theory vary from that of Airy ? 10+5

(Turn Over)

2. Explain the process of Himalayan orogeny with the help of plate tectonic theory. Illustrate tectonic features of Beni-off zone. 10+5
3. Give an account of various landforms developed on Basalt and Granite rocks with examples and diagrams. Explain the theory of slope replacement. 10+5
4. Explain the evolution of Piedmont valleys by glacial process. Illustrate your answer with proper diagrams. Examine the impact of local base level in landscape delupturing. 10+5

Group—B

Answer any *two* questions 2×10

5. Briefly explain the origin of volcanoes along the island arc setting of Plate tectonics. 10
6. Elucidate the idea of L. C. King in connection to the cycle of erosion. 10
7. Give a brief account of the application of geomorphology in planning and development. 10
8. Write short notes : (any *two*) 5+5
 - (i) Interior of the earth
 - (ii) Profile of equilibrium
 - (iii) Impacts of sea level change.

MODULE-2

(Oceanography and Hydrology)

[Marks : 50]

Group—A

Answer any *two* questions. 2×15

1. Elucidate, with proper illustration, the origin of ocean basin through plate tectonics. Identify major trace elements present in water. 10+5
2. How are air-sea interactions changed by global climate change ? What are the modifications of wake when it moves from deep sea to coast ? 7+8
3. Explain physical and ecological importance of coastal dunes. Assess the significance of Sundarban-mangrove as biodiversity hotspot. 8+7
4. Explain the impact of global climate change on global hydrology. What are the standard techniques for estimating infiltration ? 5+10

Group—B

Answer any *two* questions 2×10

5. Name major wetlands in West Bengal and discuss on the significance of any one of them. 3+7

6. Illustrate the process of groundwater recharge. What do you know about artificial recharge ? 7+3
7. Define watershed. Compare between the morphology of high-energy coast and low energy coast. 3+7
8. Write short notes : (any two) 5+5
- (i) T-S diagram
 - (ii) Oceanic Trench
 - (iii) Coastal current
 - (iv) Measurement of Evaporation.
-