

2015

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. Make an analytical study on the theories of the origin of the earth. What is Bi-parental Hypothesis ?
— Explain the properties of a graded profile with illustrations. 12+3

(Turn Over)

2. Explain the properties of a graded profile with illustrations. Describe landforms generated by weathering. 7+8
3. Justify the application of Geomorphology in hydrological planning and mineral geology. Differentiate uniformitarianism from Catastrophism. 10+5
4. Distinguish between Plate tectonics and Neo tectonics. Discuss the role of plate tectonics in explanation of the world distribution of volcanoes.

Group—B

Answer any *two* questions : 2×10

5. Illustrate the non-cyclic concept of J. T. Hack. 10
6. Elucidate the major geomorphological processes along the rectilinear facet of slope. Examine the geomorphic significance of convexo-concave depositional slope. 7+3
7. Discuss the concept of decay equilibrium as was used in the cyclic theory of W. M. Davis. What is temporary base level? 2+2
8. Write short notes (any *two*) : 5+5
 - (i) Waxing slope ;
 - (ii) Dynamic equilibrium ;
 - (iii) Geomorphic Threshold.

MODULE-2

(Oceanography and Hydrology)

[Marks : 50]

Group—A

Answer any *two* questions. 2×15

1. What is the role of potential evapotranspiration in determining availability of water in a region? Discuss the functions of wetland ecosystems mentioning their causes of degradation. 3+12
2. Differentiate wave dominated coast from tides dominated coast. Examine the origin and dynamics of ocean currents. 8+7
3. Discuss the process through which coastal dunes develop. Examine the significance of Air-Sea interaction. 10+5
4. Make a comparative study on the processes and morphological characteristics of onshore and offshore regions. Assess the importance of marine ecosystem. 10+5

Group—B

Answer any *two* questions : 2×10

5. Give the definition of watershed and explain the need of constructing water budget of basin scale. 3+7

6. Discuss briefly the geomorphology of sandy coasts. 10
7. Define the term 'Wetland' and assess the role of East Calcutta Wetland in maintaining ecological and economic system of Kolkata. 2+8
8. Write short notes (any two) : 5+5
- (i) Marine sediments ;
 - (ii) Techniques of measuring stream discharge ;
 - (iii) Confined Aquifer ;
 - (iv) Dissolved gases in water.
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