

2010**M.Sc.****1st Semester Examination****GEOGRAPHY AND E.M.****PAPER—GEO-101***Full Marks : 40**Time : 2 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.

Write the answers of each Unit in separate books.

Unit—I**(Geotectonics)****[Marks : 20]****Group—A**

1. Answer any one question : 1×8
- (a) Explain the origin of earth's magnetic field and what is the role of paleomagnetism in construction of paleomagnetic polar wandering curves for the earth ?
8
- (b) Identify the major tectonic landforms of arc-trench system and Accretionary prism with special reference to the formation of Andaman Nicobar Islands and Andaman Trench.
8

(Turn Over)

Group—B

2. Answer any two questions : 2×4
- (a) Narrate the vies of Stephen W. Hawking on Black Holes. 4
 - (b) Explain the tectonic set up of Andes Mountain within the Circum-Pacific system. 4
 - (c) Identify the Internal zones of the earth, their subdivisions, composition and dynamics as evidenced by the study of seismic waves. 4
 - (d) Discuss the tectonic landforms of MOR. 4

Group—C

3. Answer any two questions : 2×2
- (a) What is Big Bang?
 - (b) Define sedimentary basin.
 - (c) What is Transform Fault?
 - (d) What do you understand by sea-floor spreading?
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Unit—II
(Theoretical Geomorphology)

[Marks : 20]

Group—A

1. Answer any *one* question : 1×8
- (a) Enumerate the elements of slope and discuss the mechanism for development of wasing and waning slopes. 8
- (b) Explain how a profile of equilibrium can develop in a fluvial system with reference to its controlling parameters.

Group—B

2. Answer any *two* questions : 2×4
- (a) Establish the linkage between temporal and functional approaches to landform study. 4
- (b) Explain the role of chemical processes in landform evolution. 4
- (c) Assess the role of weathering for reducing shear strength of materials. 4
- (d) What are the principal mechanisms of base level change? 4

Group—C

3. Answer any two questions : 2×2
- (a) Define the concept of 'Complex response'. 2
- (b) What is the practical applicability of shear stress measurement in rocks? 2
- (c) What is 'Geomorphic Stress'? 2
- (d) What are the chief slope elements in parallel retreat model? 2
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