PG/IS/GEOG/GR - 1101/09

2008

GEOGRAPHY

COURSE—1101

Full Marks : 40

Time : 2 hours

The figures in the right-hand margin indicate marks

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

Illustrate the answers wherever necessary

Write the answers question of each Unit in separate books

UNIT—I

(*Geotectonics*)

1. Answer any *one* question :   8 × 1

   (*a*) Critically discuss the views of Stephen W. Hawking in relation to planetary beginning and origin of the Earth.

(b) How does 'Wilson Cycle' explain the formation of Rift Valley, Transform fault, Mid-oceanic Ridge and Suture zone with suitable examples.

2. Answer any *two* questions :   4 x 2

  (a) Measure the Spreading Rate of a basaltic mass in cm/year that has travelled 400 kms. in 10 million years over the sea floor.

  (b) Describe the nature of Seismic Waves and their propagation through earth's interior.

  (c) Discuss the evolution of a Geosynclinal Sedimentary basin with particular reference to Andes system.

  (d) Analyze the significance of Palaeomagnetism in geotectonic studies.

3. Answer any *two* questions :   2 x 2

  (a) What is the nature and composition of the mantle ?

  (b) What is Accretionary Prism ?

  (c) Bring out the probable causes of Geomagnetic Polarity Reversal .

  (d) What is meant by Hot Spot in geotectonics ?

UNIT—II

(Geomorphology - I)

4. Answer any *one* question : 8 x 1

   (a) Identify and discuss the Resultant Landforms of weathering processes.

   (b) Explain the concept of Dynamic Metastability in slope evolution.

5. Answer any *two* questions : 4 x 2

   (a) Enumerate the factors that off set the balance between Shear Stress and Shear Strength along a slope.

   (b) Explain how the Profile of Equilibrium is achieved over different geomorphic time scales.

   (c) Elucidate the Functional Approach of landform studies.

   (d) How Does Base Level of Erosion change ?

6. Answer any *two* questions :　　　　　　　2 × 2

　(*a*) Identify the Elements of Slope.

　(*b*) Mention the condition for Toppling Failure.

　(*c*) Specify　two　major　characteristics　of
　　　Muti-concave Surface.

　(*d*) Define Angle of Repose.

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