



**B.Sc. (Part—II) Semester—IV Examination**

**GEOLOGY (New)**

**(Structural Geology, Tectonics and Geomorphology)**

Time : Three Hours]

[Maximum Marks : 80

**N.B. :—** (1) **ALL** the questions are compulsory.

(2) Draw well labelled diagram wherever necessary.

1. (A) Fill in the blanks :

- (i) Undulation or curve developed in the rock body are known as .....
- (ii) In ..... drainage pattern develops in terrain containing tilted rock beds and parallel faults.
- (iii) Divisional planes or fractures along which there has been no relative displacement are called .....
- (iv) The concept of continental drift was proposed by ..... in 1910. 2

(B) Choose the correct alternatives :

- (i) A symmetrical fold :
  - (a) Two limbs dip at different angles but in opposite direction
  - (b) Two limbs dip at same angle but in opposite direction
  - (c) Two limbs dip at different angle but different direction
  - (d) Two limbs dip at different angle but same direction
- (ii) Disconformity is also called as :
  - (a) Local Unconformity
  - (b) Blended Unconformity
  - (c) Parallel Unconformity
  - (d) Structural Unconformity
- (iii) Which among the following is not part of fault ?
  - (a) Head and heave
  - (b) Throw
  - (c) Head and throw
  - (d) Hingle and limbs
- (iv) Aeolian deposits are associated with :
  - (a) Glaciers
  - (b) Wind
  - (c) Deserts
  - (d) River 2

(C) Answer in one or two sentences :

- (i) What is foliation ?
- (ii) What is tensional joint ?
- (iii) What is bifurcation ratio ?
- (iv) What is reverse fault ? 4

2. Explain the following :

- (A) Angular unconformity 4
- (B) Onlap and offlap 4
- (C) Dip and strike 4

**OR**

- (P) Outcrop 4
- (Q) Recognition of unconformity 4
- (R) Outlier and inlier. 4



3. Describe the method to determine strain by using unilateral symmetrical fossil. 12

OR

What is Strain and Stress ? Describe the interrelationship of stress, strain and deformation. 12

4. Explain the following :

(A) Causes of folding 4

(B) Normal fault 4

(C) Classification of joints 4

OR

(P) Isoclinal folds 4

(Q) Significance of joint 4

(R) Parts of fault. 4

5. What is geosyncline ? Describe in detail classification and its importance. 12

OR

Describe in detail the plate tectonic theory. 12

6. Explain the following :

(A) Endogenic process 4

(B) Radial drainage pattern 4

(C) Drainage frequency 4

OR

(P) Fluvial cycle 4

(Q) Dendritic drainage pattern 4

(R) Scope and aim of geomorphology. 4

7. Explain the following :

(A) Glacial landforms 4

(B) Soil profile 4

(C) Delta formation 4

OR

(P) Karst topography 4

(Q) Alluvial fans and cones 4

(R) Tools of geomorphologist. 4