

**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 bilateral 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