

**B.Sc. Part—III Semester—V Examination**  
**5S : GEOLOGY**

Time : Three Hours]

[Maximum Marks : 80

**Note** :—(1) All questions are compulsory.

(2) Draw neat sketches wherever necessary.

1. (A) Fill in the blanks :— 2
- (i) Perched Aquifer occurs in \_\_\_\_\_ Zone.
- (ii) The plastic layer of the mantle is called \_\_\_\_\_.
- (iii) Upper continental crust is known as \_\_\_\_\_.
- (iv) According to Wegener, the Pangea was surrounded by a universal ocean named \_\_\_\_\_.
- (B) Choose the correct alternative :— 2
- (i) Which of the following are the fold with parallel arrangement of limb :
- (a) Isoclinal fold                      (b) Reclined fold
- (c) Symmetrical fold                  (d) Chevron fold
- (ii) Which processes can be attributed to the formation of both outlier and inliers.
- (a) Folding                              (b) Faulting
- (c) Erosion                              (d) All the above
- (iii) Vadose zone is :
- (a) Zone of aeration                  (b) Zone of saturation
- (c) Phreatic zone                      (d) All the above
- (iv) Younger bed will always be found in the :
- (a) Opposite direction of dip      (b) Direction of dip
- (c) Direction of strike line        (d) None of these
- (C) Answer in **ONE** sentence :— 4
- (i) Width of outcrop.
- (ii) Porosity
- (iii) Strike Joints and Dip Joints.
- (iv) Plunge of fold.

2. Explain the following —
- (a) Clinometer compass. 4
  - (b) Non conformity 4
  - (c) Dip and its types. 4

OR

- (p) Brunton compass. 4
  - (q) Angular Unconformity. 4
  - (r) Onlap-offlap. 4
3. Explain the following : --
- (a) Fold and its parts. 4
  - (b) Causes of folding. 4
  - (c) Genetic classification of joints. 4

OR

- (p) Anticline and syncline. 4
  - (q) Recognition of fold in field. 4
  - (r) Geometric classification of joint. 4
4. What is Isostasy ? Describe in detail the isostatic balance maintained within the Earth-Crust. 12

OR

Give a brief account of the internal structure of the Earth. What are the major characteristics of each region ? 12

5. What is continental drift ? Describe in detail various evidences of continental drift. 12

OR

What are Plates ? Describe the various type of plate margins. 12

6. Explain the following :--
- (a) Occurrence and distribution of Ground water. 4
  - (b) Confined Aquifer. 4
  - (c) Storage coefficient. 4

OR

- (p) Hydrologic cycle. 4
  - (q) Confined Aquifer. 4
  - (r) Porosity-Permeability. 4
7. Explain the following : -
- (a) Cone of depression. 4
  - (b) Recharge and discharge. 4
  - (c) Influent-effluent seepage. 4
- OR**
- (p) Darcy's law. 4
  - (q) Deccan trap Groundwater provience. 4
  - (r) Validity of Darcy's law. 4

