

AP-494

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 :

- (i) The lower continental crust is known as ____.
- (ii) According to Wegner, the pangea was surround by universal ocean named as ____.
- (iii) Columnar joints are found in ____ rock.
- (iv) ____ is extensively used for ground water exploration. 2

(B) Choose the correct alternatives.

- (i) Disconformity is also called as :
 - (a) Parallel Unconformity
 - (b) Local Unconformity
 - (c) Blended Unconformity
 - (d) Non-conformity.

(ii) The term isostasy was first introduced by :

- (a) Airy
- (b) Pratt
- (c) Dutton
- (d) Heisskinnan

(iii) The continental drift refers to which movement :

- (a) Inclined
- (b) Vertical
- (c) Horizontal
- (d) None of these

(iv) In Recumbent fold the axial plane is essentially :

- (a) Horizontal
- (b) Vertical
- (c) Inclined
- (d) All of the above.

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(C) Answer in only **one** sentence :

- (i) What is an Unconformity ?
- (ii) Define the aquifer.

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(Contd.)

7. Describe the following :

- (A) Darcy's Law. 4
- (B) Gondwana provinces. 4
- (C) Influent seepage. 4

OR

- (P) Cone of depression. 4
- (Q) Recharge and discharge. 4
- (R) Alluvial province. 4

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(iii) What are influent streams ?

(iv) Define the Darcy's Law. 4

2. Describe the following :

(A) Recognition of an unconformity in the field. 4

(B) Out-lier and Inlier. 4

(C) Construction of Clinometer compass. 4

OR

(P) Onlap and Offlap. 4

(Q) Dip and Strike of a bed. 4

(R) Outcrop in relation to topography. 4

3. Give an account of types of fold with examples. 12

OR

Discuss the geometrical and genetic classification of joints and give the significance of joints. 12

4. Give a brief account of interior of the Earth on the basis of seismological evidences. 12

OR

Discuss various theories in favour of Isostasy in detail. 12

5. Explain the following :

- | | |
|--|---|
| (A) Causes of plate tectonic. | 4 |
| (B) Palaeo magnetism. | 4 |
| (C) Evidences in support of continental drift. | 4 |

OR

- | | |
|---|---|
| (P) Sea floor spreading. | 4 |
| (Q) Types of Plates. | 4 |
| (R) Wegener's Continental drift hypothesis. | 4 |

6. Explain the following :

- | | |
|----------------------|---|
| (A) Hydrologic cycle | 4 |
| (B) Water-table | 4 |
| (C) Porosity. | 4 |

OR

- | | |
|-----------------------------------|---|
| (P) Distribution of Ground Water. | 4 |
| (Q) Permeability. | 4 |
| (R) Unconfined aquifer. | 4 |