

6. Discuss the following :

- (a) Structural controls of ore localisation.
- (b) Drill hole sampling
- (c) Calculation of ore reserves.

**OR**

- (p) Mineral prospecting and exploration.
- (q) Channel sampling
- (r) Coning and quartering.

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7. Discuss the following :

- (a) Gravity method
- (b) Electromagnetic method
- (c) Geochemical cycle.

**OR**

- (p) Magnetic method
- (q) Self potential method
- (r) Geochemical prospecting.

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### B.Sc. Part—III (Semester—VI) Examination

#### GEOLOGY

Time : Three Hours]

[Maximum Marks : 80

**Note** :—(1) ALL question are compulsory.

(2) Draw neat and well labelled diagrams wherever necessary.

1. (A) Fill in the blanks :

- (i) In inclined fault, the block that lies above the fault plain is known as \_\_\_\_\_.
- (ii) For ground water exploration the \_\_\_\_\_ method is best suited.
- (iii) The oblique photographs in which the horizon is seen are called as \_\_\_\_\_ photographs.
- (iv) If the amount of strain in all parts of a body is equal, the strain is said to be \_\_\_\_\_ strain.

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(B) Choose correct alternatives :

- (i) The scale of aerial photograph is expressed as \_\_\_\_\_.
- (a)  $S = \text{Altitude}/\text{Focal length}$
- (b)  $S = \text{Focal length}/\text{Altitude}$
- (c)  $S = \text{Altitude} \times \text{Focal length}$ .

(ii) In faulting, the horizontal component of displacement is called as \_\_\_\_\_.

- (a) Heave
- (b) Throw
- (c) Fault plane.

(iii) When platy of flaky minerals orient themselves parallel to one another, then the texture is called as \_\_\_\_\_.

- (a) Foliation
- (b) Lincation
- (c) Crenulation.

(iv) The geochemical prospecting method is suitable mostly for :

- (a) Industrial minerals
- (b) Rock forming minerals
- (c) Metallic ore minerals. 2

(C) Answer in **ONE** or **TWO** sentences :

- (i) What is Reverse fault ?
- (ii) What do you mean by Photo Mosaic ?
- (iii) Define sampling.
- (iv) Give the principle of Gravity method. 4

2. Explain the following :

- (a) Strain and its types
- (b) Mohr's Circle.

(c) Types of Deformation.

**OR**

- (p) Stress and strain
- (q) Strain Ellipsoid
- (r) Behaviour of rock with depth. 12

3. Define fault and describe the classification of faults in detail.

**OR**

What is meant by foliation ? Describe the origin and various kinds of foliation. 12

4. Describe the following :

- (a) Aerial photos and its types.
- (b) Over lap and side lap
- (c) Pocket stereoscope.

**OR**

- (p) Satellite Imageries
- (q) Drift and Crab
- (r) Mirror stereoscope. 12

5. Describe the different elements of photorecognition in detail.

**OR**

Write in detail about the different guidelines for interpretation of aerial photographs. 12