

**B.Sc. (Part-III) Semester-VI Examination****6S : GEOLOGY**

Time : Three Hours]

[Maximum Marks : 80

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

(2) Draw a neat diagram wherever necessary.

1. (A) Fill in the blanks :

- (i) Sample collected along the line of suitable interval is called \_\_\_\_.
- (ii) The \_\_\_\_ of a fault is the angle of inclination of fault plane measured from the vertical.
- (iii) A fault which runs parallel to the strike of strata is called \_\_\_\_ fault.
- (iv) Mineral exploration is the process of finding \_\_\_\_ to mine. 2

(B) Choose the correct alternatives :

- (i) The total displacement measured along the fault plane is known as :
  - (a) Throw (b) Strike
  - (c) Net-slip (d) All of the above
- (ii) The instrument used to view the aerial photograph in 3D :
  - (a) Pocket or mirror stereoscope (b) Goniometer
  - (c) Rotimeter (d) All of the above
- (iii) When platy of flaky mineral orient themselves parallel to one another, then the texture is called as :
  - (a) Foliation (b) Liniation
  - (c) Lithification (d) All of the above
- (iv) The low angle faults are those which have dip :
  - (a) less than  $45^\circ$  (b) less than  $10^\circ$
  - (c) more than  $45^\circ$  (d) less than  $100^\circ$  2

(C) Answer in **one or two** sentences :

- (i) What is stress ?
- (ii) What is reverse fault ?
- (iii) What is exploration ?
- (iv) What is aerial photo ? 4

2. What is stress and strain ? Describe in detail behavior of rock with depth. 12**OR**Describe the method of determining strain by using bilateral symmetrical fossils. 12

3. Explain the following :

- (a) Normal fault. 4
- (b) Liniation. 4
- (c) Causes of faulting. 4

**OR**



- (p) Recognition of fault in field 4
- (q) Part of fault. 4
- (r) Horst and graben. 4
4. Explain the following :
- (a) Drift and crab. 4
- (b) Mirror stereoscope. 4
- (c) Overlap and sidelap. 4
- OR**
- (p) Stereo-pairs. 4
- (q) Pocket stereoscope. 4
- (r) Lithological interpretation of aerial photos. 4
5. Explain the following :
- (a) Application of remote sensing. 4
- (b) Shape and size of aerial photo. 4
- (c) Tone and texture of aerial photo. 4
- OR**
- (p) Scale of photograph. 4
- (q) Vertical exaggeration. 4
- (r) Application of photogeology 4
6. Explain the following :
- (a) Channel sampling. 4
- (b) Criteria and guides to ore search. 4
- (c) Coning and quartering. 4
- OR**
- (p) Car sampling. 4
- (q) Chip sampling. 4
- (r) Calculation of grade and ore reserves. 4
7. Describe in detail geophysical magnetic method. 12
- OR**
- Describe in detail geophysical electrical method. 12