

## B.Sc. (Part-I) Semester-I Examination

## 1S : GEOLOGY (NEW)

(General Geology, Physical Geology, Mineralogy, Crystallography and Field Geology)

Time : Three Hours]

[Maximum Marks : 80

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

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

1. (A) Fill in the blanks :

(i) Study of mineral is called \_\_\_\_\_.

(ii) Solar system consists of \_\_\_\_\_ number of planets.

(iii) Pot holes are formed by \_\_\_\_\_ erosion.

(iv) Pleochroism is studied under \_\_\_\_\_ light. 2

(B) Choose the correct alternatives :

(i) Polarising microscope has \_\_\_\_\_.

(a) Fixed stage

(b) Rotating stage

(c) Vertical rotating stage

(d) Revolving stage

(ii) Nebula is :

(a) Rotating cloud

(b) Solid cloud

(c) Flying cloud

(d) None of the above

(iii) Mechanical weathering is called :

(a) Physical weathering

(b) Chemical weathering

(c) Biological weathering

(d) Erosional weathering

(iv) Products of Volcano include :

(a) Volcanic sand-stone

(b) Volcanic bomb

(c) Sedimentary rocks

(d) Metamorphic rocks 2

(C) Answer the following in **one/two** sentences :

(i) What is crystal ?

(ii) What is axis of symmetry ?

(iii) What is seismogram ?

(iv) What is plane polarised light ? 4

2. Explain the following :

(a) Branches of Geology.

(b) Planetesimal hypothesis.

(c) Composition of mantle.

**OR**

- (d) Rb-Sr method of age determination of rocks.  
 (e) Crust and mantle.  
 (f) Nature of core. 12
3. Describe in detail geological work done by wind.  
**OR**  
 Describe in detail geological activity of river. 12
4. Explain the following :  
 (a) Epirogeny and orogeny.  
 (b) Types of volcano.  
 (c) Measurement of earthquake.  
**OR**  
 (d) Elastic rebound theory.  
 (e) Product of volcano.  
 (f) Causes of earthquake. 12
5. Describe in detail construction and working of petrological microscope.  
**OR**  
 What is form of a mineral ? Describe in detail various forms of a mineral. 12
6. Explain the following :  
 (a) Elements of a crystal symmetry.  
 (b) Symmetry elements of cubic system.  
 (c) Law of constancy of interfacial angle.  
**OR**  
 (d) Symmetry elements of Hexagonal system.  
 (e) Parameter system of Weiss.  
 (f) Contact Goniometer. 12
7. Explain the following :  
 (a) Toposheet.  
 (b) Latitude and Longitude.  
 (c) Signs on Toposheets.  
**OR**  
 (d) Plane table survey.  
 (e) Clinometer compass.  
 (f) Dumpy level. 12