

B.Sc. Part—I (Semester—I) Examination

1S: GEOLOGY (New)

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

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) Nicol prism made up of pure variety of calcite is known as _____.

(ii) Weathering and Erosion are combinedly called as _____.

(iii) Hornblende shows _____ type of extinction.

(iv) The point above the focus of the earthquake is called as _____.

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(B) Choose the correct alternatives :

(i) The normal class of triclinic system had :

(a) One plane, no axis and centre

(b) No plane, one axis and centre

(c) One plane, one axis and centre

(d) No plane, no axis and centre

(ii) Light that vibrates only in one direction is called as :

(a) Ordinary light

(b) Polarised light

(c) Extraordinary light

(d) Plane polarised light

(iii) The mineral which shows cross-hatch structure under cross-nicol :

- (a) Microcline
- (b) Calcite
- (c) Muscovite
- (d) Hornblende

(iv) The Gaseous tidal hypothesis was proposed by :

- (a) Jean's and Jeffrey
- (b) Kant-Laplace
- (c) Moulton and Chamberlain
- (d) None of above

2

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

- (i) What is Talus ?
- (ii) What is plane of Symmetry ?
- (iii) What is Fumarole ?
- (iv) What is Isotropism ?

4

2. Explain the following :

- (a) Branches of Geology
- (b) Nebular-hypothesis
- (c) Hydrosphere-Biosphere

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OR

- (d) Uranium-lead method
- (e) Composition of Mantle
- (f) Lithosphere-Atmosphere.

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3. What is weathering ? Describe in detail the various types of weathering of rock. 12

OR

Describe in detail the geological work done by wind. 12

4. Explain the following :

(a) Structure of volcanoes 4

(b) Elastic-rebound-theory 4

(c) Solid product of volcano 4

OR

(d) Seismic belt of India 4

(e) Liquid product of volcanoes 4

(f) Diastropism. 4

5. What is petrological microscope ? Describe the parts and function of petrological microscope. 12

OR

What is Specific Gravity ? Describe the Jolly's spring balance method of sp. gravity. 12

6. Explain the following :

(a) Interfacial angle 4

(b) Plane of symmetry 4

(c) Index system of Miller 4

OR

(d) Solid-angle 4

(e) Axis of symmetry 4

(f) Parameter system of Weiss. 4

7. Explain the following :

(a) Importance of Geological Field Work 4

(b) Numbering of Toposheet 4

(c) Latitude and Longitude 4

OR

(d) Plane table survey 4

(e) Conventional sign 4

(f) Abney-level. 4

