

AP-398

B.Sc. Part-I (Semester-I) Examination
1S : GEOLOGY

Time : Three Hours]

[Maximum Marks : 80

- N.B. :—** (1) All questions are compulsory.
(2) Draw neat diagrams wherever necessary.

1. (A) Fill in the blanks :

- (i) The axis about which the crystal may be rotated is termed as _____.
- (ii) The crust and the mantle are separated by a discontinuity known as _____.
- (iii) Those geological processes which operate within the earth are termed as _____.
- (iv) The smallest subdivision in the geological time scale is _____.

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(B) Choose the correct alternatives :

- (i) Aeolian deposits are associated with :
 - (a) Rivers
 - (b) Glaciers
 - (c) Oceans
 - (d) Wind

(ii) Diamond is characterized by :

- (a) Waxy Lusture
- (b) Silky Lusture
- (c) Adamantine Lusture
- (d) Earthy Lusture

(iii) Mylonite is a characteristic of

- (a) Plutonic metamorphism
- (b) Cataclastic metamorphism
- (c) Dyanamothermal metamorphism
- (d) Thermal metamorphism

(iv) If the crystals are visible to the naked eye the rocks are said to be :

- (a) Aphanitic
- (b) Microcrystalline
- (c) Cryptocrystalline
- (d) Phanerocrystalline.

2

(P) Seismic belts in India

(Q) Diastrophism

(R) Structure of a typical Volcano.

12

7. Explain the following :

(A) Cast and Mould

(B) Extra peninsular India

(C) Geological time scale.

12

OR

(P) Petrification

(Q) Order of Superposition

(R) Indogangetic plains.

12

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

(i) What are index fossils ?

(ii) What are crystallographic axes ?

(iii) What is radioactivity ?

(iv) What are fumaroles ?

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2. Explain the following :

(A) Carbon-14 method.

(B) Tidal Hypothesis.

(C) Composition of the core.

12

OR

(P) Scope and importance of Geology.

(Q) Uranium-Lead method.

(R) Composition of the Crust.

12

3. What is specific gravity ? Describe the Walker steel yard method of specific gravity.

12

OR

What is interfacial angle ? Describe the function and working of contact Goniometer.

12

4. Explain the following :

(A) Batholith

(B) Formation of Sedimentary Rocks.

(C) Kinds of Metamorphism. 12

OR

(P) Extrusive Forms.

(Q) Temperature

(R) Lithification and Diagenesis. 12

5. What is Weathering ? Describe in detail the Weathering of rocks. 12

OR

Describe in detail the geological work of river. 12

6. Explain the following :

(A) Causes and distribution of Volcanoes

(B) Stages in Organic Cycle

(C) Elastic rebound theory. 12

OR