

**B.Sc. (Part-I) Semester-II Examination
GEOLOGY (NEW)**

Time : Three Hours]

[Maximum Marks : 80

Note :— (1) All questions are compulsory.
(2) Draw neat and well labelled diagram wherever necessary.

1. (A) Fill in the blanks :
- (i) Dyke is an example of _____ form of igneous rock.
 - (ii) Mechanically formed sedimentary rock shows _____ type of texture.
 - (iii) Temperature is dominant factor in _____ type of metamorphism.
 - (iv) Fluvial deposits are formed by _____. 2
- (B) Choose the correct alternatives :
- (i) Intrusive igneous rocks are :
 - (a) Mesocratic (b) Melanocratic
 - (c) Leucocratic (d) All of above
 - (ii) Slate is an example of :
 - (a) Non-foliated rock (b) Foliated rock
 - (c) Equigranular rock (d) Clastic rock
 - (iii) Graded bedding is commonly shown as :
 - (a) Sedimentary rock (b) Igneous rock
 - (c) Metamorphic rock (d) None of above
 - (iv) In phase rule temperature and pressure are considered as :
 - (a) Component (b) System
 - (c) Degree of freedom (d) Phase 2
- (C) Answer the following in **one or two** sentences :
- (i) What is rock cycle ?
 - (ii) Define Eutectic.
 - (iii) What is Stress and Antistress mineral ?
 - (iv) What are Rain prints ? 4
2. Explain the following :
- (a) Concept of rock cycle. 4
 - (b) Inequigranular texture. 4
 - (c) Vesicular and Amygdaloidal structure. 4
- OR**
- (p) Concordant forms of igneous rock. 4
 - (q) Directive and intergrowth texture. 4
 - (r) Columnar joints. 4

3. Describe Bowen's reaction series in detail. 12
- OR**
- Describe the classification of igneous rock. 12
4. Describe the following :
- (a) One component system of quartz. 4
 - (b) Variation diagram. 4
 - (c) Eutectic. 4
- OR**
- (p) Phase rule. 4
 - (q) Solid solution series. 4
 - (r) Kindreds of igneous rock. 4
5. What are sedimentary rocks ? Describe the classification of sedimentary rocks. 12
- OR**
- What is sedimentary depositional environment concept ? Describe in brief fluvial depositional environment. 12
6. Explain the following :
- (a) Ager ts of metamorphism. 4
 - (b) Gneissose structure. 4
 - (c) Thermal metamorphism and its products. 4
- OR**
- (p) Classification of metamorphic rocks. 4
 - (q) Texture in metamorphic rock. 4
 - (r) Cataclastic metamorphism and its products. 4
7. Describe the following :
- (a) Organic sedimentary deposits. 4
 - (b) Conglomerate and Breccia. 4
 - (c) Metasomatism. 4
- OR**
- (p) Stress and Antistress minerals. 4
 - (q) Phosphatic deposits. 4
 - (r) Sandstone and limestone. 4