

**M.Tech. I Semester Degree Examination, April/May - 2024****MINERAL PROCESSING****Petrology****(NEP)**

Time : 3 Hours

Maximum Marks : 70

Note : Answer **any five** of the following questions with question No. **1 (Q.1) Compulsory**. Each question carries **equal** marks.

1. Explain :
 - (a) Melting and crystallisation of magma. **7**
 - (b) Magma and magmatic process. **7**
2. (a) Give a detailed note on continuous and discontinuous Bowen's reaction series. **7**
(b) Write a note on extrusive igneous bodies. **7**
3. (a) Write a note on structures of igneous rocks. **7**
(b) Explain the Phase rule and concept of phase diagram. **7**
4. (a) Explain the Concept of metamorphism. **7**
(b) Explain Agents of metamorphism. **7**
5. (a) The process and factors influencing geneses of sediments. **7**
(b) Structures of sedimentary rocks. **7**
6. (a) Write a note on intrusive bodies. **10**
(b) Classification of igneous rocks. **4**
7. (a) Discuss the facies of metamorphism. **7**
(b) Note on sedimentary structures. **7**
8. Answer the following :
 - (a) Define a volcano and explain the types of volcanoes. **5**
 - (b) Phase rules and phase diagrams. **4**
 - (c) Explain the metamorphic textures. **5**

