



M.Tech. I Semester Degree Examination, April/May - 2024

MINERAL PROCESSING

Mineralogy

(NEP)

Time : 3 Hours

Maximum Marks : 70

- Instructions :**
1. Answer **any five** of the following questions.
 2. Each question carries **equal** marks.
 3. Question **number 1 is compulsory**.

1. (a) Explain the classification of crystals. **7**
(b) Write a note on twinning and its types. **7**
2. (a) Write a note on types of luster and diaphinity. **7**
(b) Difference between crystalline and amorphous states. **7**
3. Determination of specific gravity by Jolly's spring balance and Walker's steel yard. **14**
4. (a) Explain the classifications of Silicate structures. **7**
(b) Write a note on Pyroxene group of minerals. **7**
5. (a) Write a note on petrological microscope. **7**
(b) Nicole prism and its construction. **7**
6. (a) Write a note on opalescence and phosphorescence. **7**
(b) Write a note on isotropism, polymorphism and pseudomorphism. **7**
7. (a) Write a note on Silica group of minerals. **7**
(b) Write a note on carbonates. **7**
8. (a) Discuss the properties based on heat and magnetism. **5**
(b) Write a note on non silicate group of minerals. **5**
(c) Discuss Interference colours and Birefringence. **4**

