

M.Sc. I Semester Degree Examination, April/May - 2024**APPLIED GEOLOGY****Mineralogy****(NEP)**

Time : 3 Hours

Maximum Marks : 70

Note : Answer any five of the following questions with question No.1(Q1) Compulsory, each question carries equal marks.

1. Answer the following : **14**
 - (a) Explain the types of crystal systems and habits.
 - (b) Discuss the elements of crystals and symmetries.
2. Answer the following : **14**
 - (a) Describe the physical properties of minerals.
 - (b) Discuss the preparation of material for thin section.
3. Answer the following : **14**
 - (a) Describe accessory minerals present in igneous, metamorphic and sedimentary rocks.
 - (b) Give an account on feldspar group of minerals.
4. Answer the following : **14**
 - (a) Explain isotropic and anisotropic minerals.
 - (b) Discuss the behaviour of minerals in plane polarized cross polarized microscope.
5. Add a note on : **14**
 - (a) Raman spectroscopy
 - (b) Scanning Electron Microscope (SEM).
6. Answer the following : **14**
 - (a) Describe the electrical properties of minerals.
 - (b) Discuss the classification of minerals.
7. Answer the following : **14**
 - (a) Give a detailed account on silicate structures with neat diagram.
 - (b) Describe the carbonate group of minerals.
8. Write a short note on : **14**
 - (a) Uniaxial and biaxial minerals
 - (b) Halides and oxides
 - (c) Pleochroism