**Bachelor of Science (B.Sc.) Semester–II (C.B.S.) Examination**

**GEOLOGY (Optical Mineralogy and Crystallography)**

**Compulsory Paper–2**

Time : Three Hours] [Maximum Marks : 50

**N.B. :—** (1) **All** questions are compulsory and carry equal marks.

(2) Draw neat sketches wherever necessary.

1. Describe the following :

Pleochroism and Extinction.

**OR**

Describe the following :

Isotropism and anisotropism; and Twinning.

2. Describe with neat diagrams optical characters of :

Olivine; Garnet; Hypersthene and Microcline.

**OR**

Describe with neat diagrams optical characters of :

Labradorite; Kyanite; Tourmaline and Actinolite.

3. Give axial and symmetry elements of Galena class and describe its forms with Millerian indices.

**OR**

Give axial and symmetry elements of Zircon class and describe its forms with Millerian indices.

4. Give axial and symmetry elements of Gypsum class and describe its forms with Miller's indices.

**OR**

Give axial and symmetry elements of Axinite class and describe its forms with Millerian indices.

5. Write on the following in not more than **two** sentences (attempt any **ten**) :

(A) Twinkling

(B) Birefringence

(C) Becke line

(D) Name any two minerals showing high relief

(E) Name any two dignostic optical characters of calcite

(F) Name any two minerals showing oblique extinction

(G) Weiss parameters

(H) Crystal

(I) Centre of symmetry

(J) Hexagonal prism

(K) Symmetry elements of Barytes

(L) Basalpinacoid.