KNT/KW/16/5089

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. Give an account of the following :

(A) Nicol Prism

(B) Isotropism and Anisotropism

OR

Give an account of the following :

(C) Abbe Refractometer

(D) Interference colours.

2. Describe the optical properties of the following :

(A) Olivine

(B) Augite

(C) Kyanite

(D) Muscovite.

OR

Describe the optical properties of the following :

(E) Garnet

(F) Labradorite

(G) Microcline

(H) Hypersthene.

3. Give an account of axial ; symmetry elements, and forms present in Galena type. Name any two Minerals other than galena which crystallize in this type.

OR

Give an account of axial and symmetry elements and forms present in Zircon type. Name any two minerals other than Zircon which crystallize in this type.

4. Describe the following :
   (A) Hexagonal prism and pyramid
   (B) Basal and side pinacoids.

OR

   (C) Give an account of axial and symmetry elements of Axinite type symmetry. Describe its forms with Miller's indices.

5. Write on the following in not more than **two** sentences (Solve any **ten**) :
   (A) Oblique extinction.
   (B) Ordinary light.
   (C) Name any two Anisotropic Minerals.
   (D) Name any two Mineral with straight extinction.
   (E) Cleavage in calcite.
   (F) Extinction in quartz.
   (G) Zones.
   (H) Interfacial angle.
   (I) Edges.
   (J) Symmetry elements of Gypsum type.
   (K) Orthopinacoid.
   (L) Clinopinacoid.