

Q-1 Describe the chemical classification of minerals. (14)

OR

Q-1 (a) Inosilicates. (07)

(b) Alkali and soda lime feldspars. (07)

Q-2 Discuss the study of chief mineral families. (14)

OR

Q-2 (a) Olivine mineral family. (07)

(b) Zoisite group of minerals. (07)

Q-3 Explain biaxial interference figures and its optic sign determination. (14)

OR

Q-3 (a) Optic accessories. (07)

(b) Explain how interference colours are produced? (07)

Q-4 Write a note on axial characters, symmetry and typical forms of tourmaline type. (14)

OR

Q-4 (a) Terminology of twinning and types of twinning. (07)

(b) Axial characters and symmetry of albite crystal. (07)

Q-5 Attempt any seven questions out of twelve. (14)

(i) Why silicates are most abundant in the crust?

(ii) State the elemental percentage for O, Si, Al and Fe in the crust.

(iii) Give the mineral examples for tectosilicates.

(iv) Write about thomsonite.

(v) Name the aluminosilicate minerals.

(vi) State the two characteristics of pyroxenes.

(vii) Define optic axis and ether axis.

(viii) Name any four uniaxial minerals.

(ix) What is twinkling? Name the minerals showing twinkling.

(x) Write about clinodome.

(xi) What are etch marks? Give significance of it.

(xii) State the twinning of plagioclase.