



12. (a) Discuss about the chemical composition, physical properties, origin, varieties and uses of quartz.

Or

- (b) Give a detailed account of the chemical composition, physical properties, origin, varieties and uses of clay minerals.

13. (a) How are rocks classified? Describe the major distinguishing properties of the major rock types.

Or

- (b) List the various engineering properties of rocks and describe the field and laboratory tests to be conducted to determine these properties.

14. (a) Explain how faults and folds affect the choice of locations for dams and tunnels.

Or

- (b) Elaborate on the electrical methods used for sub-surface investigations.

15. (a) Using case studies, give a detailed account of the application of remote sensing in civil engineering.

Or

- (b) Classify landslides and discuss about the causative factors of landslides. Also, add a note on the measures for mitigation of landslides.