



12. (a) Using appropriate examples from the mineral kingdom, describe the physical properties of minerals.

Or

- (b) Describe in detail, the properties, composition and uses of Feldspar and Calcite.

13. (a) Outline the various engineering properties of rocks, and give a detailed account of the laboratory and field tests to be carried out to estimate such properties.

Or

- (b) Write detailed notes on the mineral composition, texture, origin, engineering properties and uses of (i) Granite (ii) Dolerite, (iii) Sandstone and (iv) Marble.

14. (a) Write in detail about the types of faults and their influence on dams and tunnels.

Or

- (b) Discuss the operating principle of the seismic methods of subsurface investigation.

15. (a) What are the effects of the action of sea waves on the coastal zones? Add a note on the various coastal protection structures.

Or

- (b) List the causes of landslides. Also, classify landslides and give a detailed account of the methods of preventing them.

PART C — (1 × 15 = 15 marks)

16. (a) Using case studies of structural failures, discuss the importance of geological investigations for the design and construction of large civil structures.

Or

- (b) Natural disasters in India can be understood better and controlled well, if geology is understood well. Give your opinion about this statement using appropriate case studies.