



12. (a) List the physical properties of minerals and describe each property with examples from the mineral kingdom.

Or

- (b) Describe the composition, properties, varieties and uses of Gypsum, Quartz, and Feldspar.
13. (a) What are the engineering properties of rocks to be tested for constructions of dams and tunnels and how will you determine the engineering properties of rocks at site and laboratory?

Or

- (b) Write briefly about the classification of rocks? Describe the origin, texture, structure and occurrence of granite, dolerite, marble and sandstone rocks.
14. (a) Explain folding in rocks and describe the various types of folds.

Or

- (b) Explain how the geophysical methods help in knowing about sub-surface features during civil engineering investigations.
15. (a) What are landslides? How do they occur? Describe the types of landslides with a sketch and enumerate the geological investigation required for mitigation of landslides.

Or

- (b) Explain in detail the various causes and effects of sea erosion. Add a detailed note on coastal protection measures.

PART C — (1 × 15 = 15 marks)

16. (a) Using case study write a detailed account of the application of remote sensing in civil engineering?

Or

- (b) Write the geological considerations to be taken into account during tunneling.
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