

# CBCS SCHEME

18CV36



## Third Semester B.E. Degree Examination, Feb./Mar. 2022 Engineering Geology

Max. Marks: 100

**Note:** Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Using diagrams and explanation, describe the Internal Structure and Composition of Earth. (10 Marks)
- b. Write the Physical properties, Chemical composition and uses of Feldspar group of Minerals. (06 Marks)
- c. Differentiate between Rock Forming Mineral and Ore Mineral. (04 Marks)

OR

- 2 a. Discuss the relevance of Geology in Civil Engineering Profession. (08 Marks)
- b. Using appropriate examples from the Mineral Kingdom, describe the physical properties of Minerals. (08 Marks)
- c. Differentiate between Calcite and Magnetite. (04 Marks)

### Module-2

- 3 a. Mention the Mineralogical composition texture, Origin and uses of  
i) Granite ii) Sandstone iii) Marble iv) Shale. (08 Marks)
- b. Explain any three types of Drainage patterns. (06 Marks)
- c. With neat sketch, explain the Soil profile. (06 Marks)

OR

- 4 a. Give a detailed account of Structure of Sedimentary Rocks. (08 Marks)
- b. Explain the types of Metamorphism. (06 Marks)
- c. Explain the types of Physical Weathering. (06 Marks)

### Module-3

- 5 a. Give a detailed classification of folds and their Engineering considerations. (08 Marks)
- b. Differentiate between Horst and Graben. (06 Marks)
- c. List the various Coastline Protection Structures. (06 Marks)

OR

- 6 a. Describe the different types of the joints and mention their Engineering considerations. (08 Marks)
- b. Give the detailed account of types of Unconformities. (06 Marks)
- c. Write short note on Rock Quality Designation. (06 Marks)

### Module-4

- 7 a. Give an account of vertical distribution of groundwater. (06 Marks)
- b. Write short note on Flood Control measures. (06 Marks)
- c. Give the detailed account of types of Aquifers. (08 Marks)

OR

- 8 a. Give an account of the procedure for Seismic Refraction Survey method for Groundwater Exploration. (10 Marks)
- b. Give a detailed account of methods of Artificial Groundwater recharge. (10 Marks)

**Module-5**

- 9 a. Write the causes and effects of Earthquakes. (08 Marks)
- b. Write the short note on Seismic Zones of India. (06 Marks)
- c. Write a Short note on Tsunami. (06 Marks)

**OR**

- 10 a. Explain the application and limitations of Remote Sensing Techniques. (08 Marks)
- b. Explain the components of GIS. (06 Marks)
- c. Enumerate the applications of Global Positioning System. (06 Marks)

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