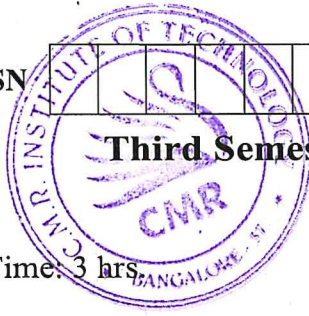


# CBCS SCHEME

USN



17CV/CT35

## Third Semester B.E. Degree Examination, July/August 2021 Engineering Geology

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. Discuss what you know about the internal constitution of Earth as revealed by the seismological evidences. (10 Marks)  
b. Write a critical essay on the "Role of Geological investigations in Civil Engineering practice". (10 Marks)
- 2 a. Give an account of physical properties of minerals. (10 Marks)  
b. Write the Luster, Clearage, Hardness and Chemical composition of i) MILKY QUARTZ ii) ORTHOCLASE iii) GYPSUM and iv) CHALCOPYRITE. (10 Marks)
- 3 a. Classify and describe the different types of joints in a rock. (10 Marks)  
b. Give a detailed classification of Igneous Rocks based on origin. (06 Marks)  
c. Differentiate between Granite and Charnockite. (04 Marks)
- 4 a. Give a detailed classification of sedimentary rocks. (08 Marks)  
b. Explain the types of Metamorphism. (06 Marks)  
c. Differentiate between Gneissose structure and Schistose structure. (06 Marks)
- 5 a. Give a detailed account of types of Weathering. (10 Marks)  
b. Discuss and describe the causes of earthquakes. (10 Marks)
- 6 a. Discuss the geomorphological aspects to be considered in the selection of site for dam. (07 Marks)  
b. What do you understand by landslides? Discuss the conditions that favour them. (07 Marks)  
c. Give an account of types of drainage patterns. (06 Marks)
- 7 a. Explain the components of hydro geological cycle, with neat sketch. (06 Marks)  
b. Explain the types of aquifers, with neat diagram. (10 Marks)  
c. Define i) Porosity ii) Permeability. (04 Marks)
- 8 a. Give a detailed account of Electrical resistivity method for ground water exploration by using Schlumberger configuration. (10 Marks)  
b. Give a detailed account of Ground water recharge method. (10 Marks)
- 9 a. What do you understand by Remote Sensing? Differentiate between Active and Passive Remote sensing. (07 Marks)  
b. Explain the Idealised remote sensing system, with neat sketch. (07 Marks)  
c. Briefly explain the impact of mining and quarrying on environment. (06 Marks)
- 10 a. State the objectives of GIS. (06 Marks)  
b. Write a note on Components of GIS. (06 Marks)  
c. Write the applications of Remote sensing in Civil Engineering field. (08 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.