

# CBCS SCHEME

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## Fourth Semester B.E. Degree Examination, July/August 2022 Geology for Mining Engineers

Time: 3 hrs.

Max. Marks: 100

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

### Module-1

- 1 a. Define 'Fault'. Explain different types of faults with neat diagrams. (10 Marks)  
b. What are 'Unconformity'? Explain the different type of unconformities. (10 Marks)

OR

- 2 a. What are 'Joints'? Explain the different types of Joints with neat diagrams. (10 Marks)  
b. Write note on 'Topographic Maps'. (10 Marks)

### Module-2

- 3 a. Describe Igneous Rocks. Explain their formation. (10 Marks)  
b. Explain the classification of Igneous Rocks. (10 Marks)

OR

- 4 a. Write short notes on: (i) Dyke (ii) Sill (10 Marks)  
b. Explain Batholith with a neat diagram. (10 Marks)

### Module-3

- 5 a. Write a note on the scope of economic geology in mineral industry. (10 Marks)  
b. Write short notes on: (i) Ore mineral (ii) Gangue mineral (10 Marks)

OR

- 6 a. Explain hydrothermal deposits. (10 Marks)  
b. Describe the origin, occurrence and distribution of iron ores deposits in India. (10 Marks)

### Module-4

- 7 a. Explain different methods of mineral exploration. (10 Marks)  
b. Explain geophysical techniques and drilling technique in mineral exploration. (10 Marks)

OR

- 8 a. Describe the following: (i) Gravity method (ii) Magnetic method (10 Marks)  
b. Define 'sampling'. Explain any two methods in detail. (10 Marks)

### Module-5

- 9 a. Explain physical and chemical properties of coal. (10 Marks)  
b. Explain migration of petroleum and natural gas. (10 Marks)

OR

- 10 a. Write a note on uses of Natural Gas. (10 Marks)  
b. List the major coal fields of India. (10 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.