

# CBCS SCHEME

17MN33

USN

Third Semester B.E. Degree Examination, Dec.2019/Jan.2020

## Mining Geology - I

Time: 3 hrs.

Max. Marks: 100

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

### Module-1

- 1 Answer the following technical terms :
- Focus, magnitude of earthquakes (05 Marks)
  - Define seismology (03 Marks)
  - List out the role of a geologist in the field of mining (07 Marks)
  - In a Richter scale, if the magnitude designating between 5 to 7, 7 to 10, then explain the condition of an earthquake with the effect. (05 Marks)

OR

- 2
- With a neat sketch, explain the geological work of a river. (10 Marks)
  - Define Gossan. Explain the process of supergene enrichment with a neat sketch. (10 Marks)

### Module-2

- 3 Define isotropic mineral. Explain the properties of rock forming minerals.
- Quartz
  - Felspar
  - Biotite Mica
  - Garnet. (20 Marks)

OR

- 4 Define super crustal rocks. If the quartz content of igneous rocks is in alkali state, then, explain the conditions of formation with suitable examples. (20 Marks)

### Module-3

- 5 Define texture of rocks, with a neat sketch, explain the textures of the following :
- Porphyritic texture
  - Psilotic texture
  - Panadiomorphic texture
  - Glassy texture. (20 Marks)

OR

- 6 Explain the properties of the following rocks :
- Basalt
  - Gabbro
  - Conglomerate
  - Obsidian. (20 Marks)

### Module-4

- 7
- Define Catastrophism with a neat sketch, explain the properties of law of order of superposition. (10 Marks)
  - Define correlation. If the rocks from southern India resemble with the rock formation of western Africa then, explain the properties of correlation with suitable dating methods. (10 Marks)

OR

- 8 With a neat sketch, explain the physiographic divisions of India. (20 Marks)

### Module-5

- 9 Define topography. With a neat sketch explain the different types of unconformities. (20 Marks)

OR

- 10 Define folds. With a neat sketch explain the properties of folding. (20 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.

