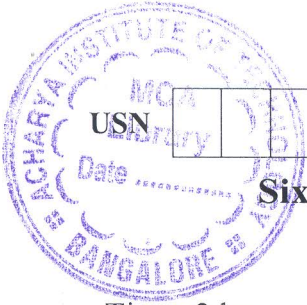


# CBCS SCHEME

18MN63



## Sixth Semester B.E. Degree Examination, Jan./Feb. 2023 Mineral Processing and Fuel Technology

Time: 3 hrs.

Max. Marks: 100

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

### Module-1

- 1 a. Discuss the various sequence of operation in mineral processing. (10 Marks)  
b. With neat sketch, explain the principles of Comminution. (10 Marks)

OR

- 2 a. Discuss the various theories of Comminution. (10 Marks)  
b. With neat sketch, explain the working principle of gyratory crusher. (10 Marks)

### Module-2

- 3 a. With neat sketch, explain the sieving procedure and data analysis in the lab. (10 Marks)  
b. With neat sketch, explain the working principle of trammels screen. (10 Marks)

OR

- 4 a. Distinguish between Free settling and Hindered settling with neat sketches. (10 Marks)  
b. With neat sketch, explain the working principle of spiral classifier. (10 Marks)

### Module-3

- 5 a. With neat sketch, explain the working principle of Jigging. (10 Marks)  
b. With neat sketch, explain the working principle of flowing film concentration. (10 Marks)

OR

- 6 a. Explain the physio – chemical properties of flotation. (10 Marks)  
b. Explain in detail the working principle of dry magnetic separator. (10 Marks)

### Module-4

- 7 a. Discuss in detail the purpose and procedure for washing of coal. (10 Marks)  
b. With neat graph, explain the washability curve. (10 Marks)

OR

- 8 a. With neat sketch, explain the working principle of thickening. (10 Marks)  
b. Explain the process of extraction of copper ore in processing plant with neat flow sheet. (10 Marks)

### Module-5

- 9 a. Explain in detail about Anthracite. (10 Marks)  
b. Explain in detail about the proximate analysis. (10 Marks)

OR

- 10 a. Explain in detail about the natural gas. (10 Marks)  
b. Explain in detail about the high temperature carbonization along with neat sketch. (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.