



10MN62

Sixth Semester B.E. Degree Examination, Dec.2019/Jan.2020
Mineral Processing

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART - A

- 1 a. Define Mineral Processing. Write the objectives and scope of Mineral Processing. (10 Marks)
b. Explain Radiometric Sorting. (10 Marks)
- 2 a. Define Sampling and write the objectives of sampling. (06 Marks)
b. Explain different types of manual sampling. (06 Marks)
c. Explain Mechanical sorting. (08 Marks)
- 3 a. Explain stages of communication. (10 Marks)
b. Explain Liberation and its concepts. (10 Marks)
- 4 a. What is the principles of crushing and write the difference between primary and secondary crushing. (06 Marks)
b. Explain Cone crusher. (08 Marks)
c. Explain Grinding by Ball Mill. (06 Marks)

PART - B

- 5 a. What are different types of Industrial screens? Explain any one. (06 Marks)
b. Explain Free settling and Hindered settling. (14 Marks)
- 6 a. What is the principles of Gravity concentration and explain jigging. (10 Marks)
b. Explain High Intensity Magnetic separator. (10 Marks)
- 7 a. Write the Physico - Chemical principle of flotation. (10 Marks)
b. Explain Floating Reagents and Floating Machines. (10 Marks)
- 8 a. Explain the principle and techniques in dewatering. (12 Marks)
b. Draw the flowchart for processing of copper ore and explain it. (08 Marks)

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