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10MN62

**Sixth Semester B.E. Degree Examination, Dec.2018/Jan.2019**  
**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. Explain the Pretreatment of ores. (10 Marks)  
b. Explain the sorting process by manual, mechanical sorting on pretreatment of ores. (10 Marks)
- 2 a. Define sampling and explain on different sampling methods. (10 Marks)  
b. With a neat sketch, explain the mechanical sampler. (10 Marks)
- 3 a. Write notes on principles of comminution. (10 Marks)  
b. Explain on different stages of comminution. (10 Marks)
- 4 a. Explain with flow diagram the primary crushing and secondary crushing. (10 Marks)  
b. Write notes on closed circuit and open circuit grinding of ore. (10 Marks)

**PART – B**

- 5 a. Write notes on sizing and laboratory sizing. (10 Marks)  
b. Write notes on laminar flow and turbulent flow. (10 Marks)
- 6 a. Write notes on principles of flow film concentration. (10 Marks)  
b. Write a detailed note on high tension separation. (10 Marks)
- 7 a. Explain on physio-chemical principles of flotation separation. (10 Marks)  
b. Explain with a neat sketch, the working of flotation machine. (10 Marks)
- 8 a. Write notes on thickening and drying techniques with sketches. (12 Marks)  
b. Draw the flow sheet diagram for copper extraction. (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.