

R09

Code No: 56087

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, December - 2018

UNDERGROUND METAL MINING TECHNOLOGY

(Mining Engineering)

Time: 3 hours

Max. Marks: 75

**Answer any five questions
All questions carry equal marks**

- 1.a) Write about the principles and limitations of underground metal mining.
- b) Explain the term "shaft station". [8+7]
- 2.a) Name the different types of "Entries" used for Opening Underground Metal mines.
- b) Classify deposits on the basis of their thickness. [7+8]
- 3.a) Classify various stoping methods.
- b) Explain the factors affect the choice of method of stopping in metal ferrous mines.[7+8]
4. Describe about the Cut and Fill method of Stopping with neat sketches. [15]
- 5.a) Discuss the conditions of applicability of the Block caving method.
- b) Discuss the conditions suitable for adopting SUB-LEVEL CAVING. [7+8]
- 6.a) Explain the extraction of the Shaft pillars and contiguous reefs, their supporting system.
- b) Discuss the special precaution during extraction of Contiguous reefs. [7+8]
7. Write about the Stopping methods adopted for extraction of deep deposits. What are the various problems associated with deep mining? [15]
8. Explain the Principles of in-situ leaching, scope and limitation of in-situ leaching. [15]

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