

Code No: 135CM**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year I Semester Examinations, May/June - 2019****INTRODUCTION TO MINING TECHNOLOGY****(Civil Engineering)****Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**(25 Marks)**

- 1.a) What is the India's coal production for the last two years? [2]
- b) What are the different Ranks of Coal? [3]
- c) What are the advantages of wire line drilling? [2]
- d) What is mean by borehole deviation? [3]
- e) What is in-the-seam Mining? [2]
- f) What are the main features of Pit-bottom? [3]
- g) What is a Booster explosive? [2]
- h) What are permitted explosives? [3]
- i) What is the need of permanent lining? [2]
- j) What are the conditions suitable for freezing method? [3]

PART - B**(50 Marks)**

2. Mining contributes civilization. Justify and discuss. [10]
OR
3. Discuss the role of mining in improving the national Economy. [10]
- 4.a) What are the conditions suitable for opening of deposits by Audits?
b) What are the advantages and disadvantages of Audits? [5+5]
OR
5. Explain the factors to be considered while selecting the site of a shaft. [10]
6. Explain principle and operation of rotary drilling. [10]
OR
- 7.a) What do you mean by core recovery?
b) What are the advantages and disadvantages of rotary drilling? [5+5]
- 8.a) What are the types of permitted explosives?
b) Explain the tests for permitted explosives. [5+5]
OR
- 9.a) What are the advantages of Emulsion explosives over slurry explosives?
b) What are the precautions to be taken while storage and handling of explosives? [5+5]

10.a) What are the special methods of shaft sinking?

b) Explain freezing method of sinking method.

[5+5]

OR

11.a) What is the need of shaft lining?

b) Explain the procedure of drilling and blasting during shaft sinking.

[5+5]

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