

Code No: 56088

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech III Year II Semester Examinations, April - 2018****MINE ENVIRONMENTAL ENGINEERING-II****(Mining Engineering)****Time: 3 hours****Max. Marks: 75****Answer any five questions
All questions carry equal marks**

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- 1.a) Explain the various methods adopted to combat fires along with their advantages and disadvantages.
- b) What are the different methods of detecting spontaneous heating? Compare them. Also explain the limitations of each of the method. [7+8]
- 2.a) Discuss the merits, demerits, fields of application and limitations of foam plug method of fire fighting.
- b) State the Composition of air in a sealed off district. [7+8]
- 3.a) What is the relevance of Coward's diagram for methane explosions?
- b) Explain under what general conditions a firedamp explosion is liable to occur in a mine. [7+8]
- 4.a) Explain the method of treating the Coal Dust?
- b) What are the principal dangers likely to be encountered in exploring and restoring underground workings after an Coal Dust explosion? [7+8]
- 5.a) List the precautions against inundation due to Underground water.
- b) Explain the function and the use of burn side safety boring apparatus. [7+8]
- 6.a) A jack hammer operates at a corner of a square field of side 50m. At the diagonally opposite corner, the SPL sensed is 82.3 dB, Calculate the SPL at any of the other two corners of the field in dB
- b) Explain the caution and preventive measures of Ground Vibrations. [7+8]
- 7.a) On a flat terrain noise received from a source 100m away is 82 dBA. If the receiver is 160 m away from source, calculate the Noise level in dBA?
- b) Describe with neat sketch, a modern layout for 2000 cap-lamp self servicing installation, with provision for servicing oil lamps. [7+8]
- 8.a) Describe with sketch about Self rescuer.
- b) State and explain the methods of artificial ventilation or respiration. [7+8]