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10MN64

Sixth Semester B.E. Degree Examination, Jan./Feb. 2021
Mine Environmental Engineering – II

Time: 3 hrs.

Max. Marks:100

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

PART – A

- 1 a. Explain the study of atmosphere behind sealed off area, with neat sketch. (10 Marks)
b. Explain the methods to re-opening of sealed off area. (10 Marks)
- 2 a. Explain the factors governing spontaneous heating. (10 Marks)
b. Explain the symptoms, detection and prevention and spontaneous heating. (10 Marks)
- 3 a. What is explosion in mines? What are the different types of explosions in mines? With a neat sketch explain the cowards diagram, the limits of explicability with different percentages of oxygen and methane. (12 Marks)
b. Explain the presentation of coal dust explosives : i) at the face ii) during the transport of coal. (08 Marks)
- 4 a. Explain the method of dewatering in water logged working with neat sketches. (10 Marks)
b. Explain with neat sketch of construction of water dam. (10 Marks)

PART – B

- 5 a. Explain the methods of illuminating underground mines fixed system and mobile systems. (10 Marks)
b. Write short notes on :
i) Illumination
ii) Candle power
iii) Luminous – flux
iv) Lux
v) Reflection. (10 Marks)
- 6 Explain the standards of lighting in an opencast mine. (20 Marks)
- 7 a. Explain self contained breathing apparatus with a sketch. (10 Marks)
b. Explain self rescuer with a neat sketch. (10 Marks)
- 8 a. Explain recovery work in connection with fire. (10 Marks)
b. Explain the fresh air bases. (10 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.