



CBCS SCHEME

18MN62

Sixth Semester B.E. Degree Examination, Jan./Feb. 2023 Mine Environmental Engineering

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain the cases and prevention of mine fire. (10 Marks)
b. Explain the factors governing spontaneous heating. (10 Marks)

OR

- 2 a. Explain the procedure involved in re-opening of sealed off areas. (10 Marks)
b. Explain the prevention of spontaneous heating. (10 Marks)

Module-2

- 3 a. Explain the causes and prevention of firedam of explosion. (10 Marks)
b. Explain the causes and prevention of coal dust explosion. (10 Marks)

OR

- 4 a. Explain the characteristics of coal dust explosion. (10 Marks)
b. Explain the polish type of stone dust barriers considering technical aspects in construction. (10 Marks)

Module-3

- 5 a. Explain the causes and prevention of mine inundation. (10 Marks)
b. Explain the procedure adopted in approaching old water logged area. (10 Marks)

OR

- 6 a. Explain the different types of water dams and their technical aspects in construction. (10 Marks)
b. Describe with a neat sketch of safety boring tube. (10 Marks)

Module-4

- 7 a. Explain the need of rescue station with technical considerations. (10 Marks)
b. Explain the process of resuscitation. (10 Marks)

OR

- 8 a. Explain the duties and responsibility of team leader for a reuses operation. (10 Marks)
b. Explain the need of fresh air bags with references to technical consideration. (10 Marks)

Module-5

- 9 a. Explain the generation at airborne dust in underground coal mines. (10 Marks)
b. Explain the measurement at airborne test by OSHA. (10 Marks)

OR

- 10 a. Describe the standards of mine lighting in underground coal mines with reference to technical considerations. (10 Marks)
b. Describe the method of conducting illumination survey. (10 Marks)

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.