

End Semester/ Reappear (Semester V) Examination December, 2024

Programme: Diploma (MiE)
Course: Mine Environmental Engineering
Course Code: 8D.331
Enrolment no. _____

Full Marks: 70
Time: 3 Hrs.

Section I

1. Short Answer type questions. Answer any four.

4 x 5 = 20

- a. What is the time interval to be tested percentage of carbon-mono-oxide gas and analysis of graham's ratio according standard of [CMR2017] with their regulation name & number?
- b. Illustrate the lower limit and upper limit of explosibility of firedamp, white damp, hydrogen sulphide and hydrogen.
- c. Differentiate ignition temperature and lag on ignition.
- d. Discuss the rescue apparatus gas mask.
- e. What is stone dust? Write the desirable qualities of stone dust.
- f. Explain about the different class of fire. Enlist all of them.

Section II

Long Answer type questions. Answer any three.

3 x 10 = 30

2. What are the different types of stopping used for sealing a fire? Discuss about the explosion proof stopping with its specification. Draw suitable diagram.
3. Enumerate the fittings of fire stopping and draw its diagram.
4. Enumerate the preventive measures to be taken at face to prevent from coal dust explosion.
5. Brief the precautions which are to be taken when approaching old water-logged working.
6. Suggest the various preventive measures you will take to control underground mine fire.

Section III

Application based questions. Answer any one.

1 x 20 = 20

7. Give the case study of inundation accidents of Chasnala and Mahabir Colliery of Indian mines.
8. Suppose you are manager of underground coal mine, what steps you will take if there is chance of explosion.
9. If there are chances of explosion in any coal mine, how will you prepare explosion proof stopping to safeguard mine? Discuss about temporary stopping, its purpose and various types.
