

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

Programme: Diploma (MiE)
Course: Introduction to Mining
Course Code: 8D.204
Enrolment no. _____

Full Marks: 70
Time: 3 Hrs.

Section I

1. **Short Answer type questions. Answer any four.** **4 x 5 = 20**
- What do you understand by mining and briefly describe methods of mining.
 - Describe Development, Stope and Stopping in metal mining.
 - Differentiate between high explosive and low explosive used in mines with examples.
 - State in brief the factors influencing choice of coal mining methods.
 - State Level, cross cut, drift, vein, level interval in metal mining.
 - Describe about the delay detonator with a sketch.

Section II

- Long Answer type questions. Answer any three.** **3 x 10 = 30**
- Comparison between underground and surface mining.
 - Define natural support and artificial support. Explain different types of artificial support used in belowground mines with sketch.
 - Compare between Low Tension electric detonator & high-tension electric detonator.
 - Describe about Bord & pillar method with a neat sketch.
 - What is permitted explosive? What are the different types of permitted explosives and where it is required to be used?

Section III

- Application based questions. Answer any one.** **1 x 20 = 20**
- “Mining is the backbone of Indian economy”, do you agree with this line? If yes then describe about it and if not then submit the reason(s). (Evaluate)
 - Explain the standard of ventilation according to CMR 2017 and describe different types of gases found in belowground mines.
 - Explain Underground and Opencast mining method. Assume and draw layout of board & pillar method and opencast schematic diagram with neat sketch.
