



**PRACTICE SET**

**End Semester Examination, December, 2025**

**Program: DIPLOMA**

**Subject: INTRODUCTION TO MINING**

**Semester: III**

**Subject Code: 8DPCCMiE203**

**UNIT I**

**SECTION A (5 marks)**

1. Write abbreviations of the following term :
  - A. IBM
  - B. DGMS
  - C. CMPDI
  - D. CIMFR
  - E. MECL
2. What do you understand by mining and briefly describe methods of mining.
3. List different types of coal found in India.

**SECTION B (10 marks)**

4. State the uses of following minerals-
  - a) Coal
  - b) gold
  - c) Iron
  - d) Copper
  - e) Aluminum
5. Describe in brief the metallic mineral resources in India.
6. Describe in brief the different types of underground mining methods.
7. Comparison between underground and surface mining.
8. What do you understand by the term ‘mining’, and how mining plays a key role in Indian economy?

**SECTION C (20 marks)**

9. Describe the role and functions of important organizations like DGMS, CIL, CIMFR, MECL, IBM etc.
10. “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.

**UNIT II**

**SECTION A (5 marks)**

11. Define the terms with diagram:
  - A. Incline



- B. Fault
  - C. Gallery
  - D. Dip
  - E. Rise
12. Describe Development, Stope and Stopping in metal mining.
13. State Level, cross cut, drift, vein, level interval in metal mining.

**SECTION B (10 marks)**

14. Define the terms:
- A. Stripping ratio
  - B. Overall pit slope angle
  - C. Bench width
  - D. Bank width
  - E. Crest and Toe
15. Differentiate between shaft and Incline in details with proper sketch.
16. Describe terms raise, winze, ore pass and draw point in metal mining.
17. Define natural support and artificial support. Explain different types of artificial support used in belowground mines with sketch.
18. a) Define coal seam. And explain thin seam, moderately thick coal seam, thick coal seam and very thick coal seam.
- b) Flat, inclined, steep, very steep coal seam/strata.

**SECTION C (20 marks)**

19. Explain the standard of ventilation according to CMR 2017 and describe different types of gases found in belowground mines.
20. You have visited opencast mine, describe the basic elements of an open cast mine, with a neat sketch.

**UNIT III**

**SECTION A (5 Marks)**

21. Differentiate between high explosive and low explosive used in mines with examples.
22. Write the velocity of detonation of the following explosive
- a. ANFO
  - b. Slurry explosive
  - c. Emulsion explosive
  - d. Nonel
  - e. Lox
23. Write the short firing tools required during blasting.
24. Describe about the delay detonator with a sketch.



25. Define the following term

- a. Detonator
- b. Booster
- c. Safety fuse
- d. Detonating fuse

**SECTION B (10 Marks)**

26. What is permitted explosive? What are the different types of permitted explosives and where it is required to be used?
27. Describe the different types of explosives used in opencast mines.
28. Describe the different types of detonators. State the advantages of delay detonators.
29. Explain low tension electric detonator, high tension electric detonator and delay detonator.
30. Compare between ordinary electric detonator & delay detonator with diagram.
31. What do you understand by safety fuse and detonating relays? Differentiate both of them.

**SECTION C (20 marks)**

32. Explain the term explosive also write the properties and composition of explosive.

**UNIT IV**

**SECTION A (5 marks)**

33. Define the terms:

- A. Main gate
- B. Tail gate
- C. Power pack
- D. Goaf
- E. Stable

34. State in brief the factors influencing choice of coal mining methods.
35. Write down the conditions favoring the adoption of open cast mining.

**SECTION B (10 marks)**

36. Mention the basic methods of coal mining. State in brief the Bord and Pillar as well as Longwall methods of underground coal mining.
37. Describe about longwall mining method with a neat layout.
  - a) State disadvantages of Longwall Retreating methods of underground coal mining.
  - b) State advantages of Longwall Advancing methods of underground coal mining.
38. State the advantages and disadvantages of Bord and Pillar System of coal mining.
39. Describe about Bord & pillar method with a neat sketch.

**SECTION C (20 marks)**

40. State in brief the applicability conditions and advantages, disadvantages of Bord and Pillar as well as Longwall methods of Underground coal mining.



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Disclaimer: - This is a Practice set. The Question in End term examination will differ from the Practice set. This Practice set is meant for practice only.