



C16-MNG-105

5181

BOARD DIPLOMA EXAMINATION, (C-16)
MARCH/APRIL—2018
DMNG—FIRST SEMESTER EXAMINATION
ELEMENTS OF MINING—I

Time : 3 hours]

[Total Marks : 80

PART—A

2×15=30

- Instructions** : (1) Answer *any fifteen* questions.
(2) Each question carries **two** marks.
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

- * 1. Define the terms (a) opencast and (b) underground.
2. Define the terms (a) gangue and (b) mineral deposit.
3. List the various ancillary mining operations.
4. List the various post-mining operations.
5. Define the terms (a) pit bank and (b) shaft station.
6. Define the terms (a) reserve station and (b) face.
7. Define the terms (a) stook and (b) barrier.
8. Define the terms (a) shaft and (b) auxiliary shaft.

/5181

*

1

[Contd...

9. State ^{*} horizon mining.
10. State dredging.
11. List the methods of drilling.
12. Give the classification of drilling methods.
13. List the fields of application of drilling.
14. List the variables affecting the performance of drilling.
15. State the purpose of mud flushing.
16. Define the terms sludge and core.
17. List the different methods of core recovery.
18. State the reasons for deviation of bore holes.
19. State the methods of pit prospecting.
20. Define the term 'Reconnaissance'.

PART—B

10×5=50

- Instructions** : (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

21. (a) State the role of mining engineers in industry.
(b) List the various mining industries in the state and in the country.

- 22.** Explain various mining operations.
- 23.** Give the classification of coal seams based on the thickness, depth, inclination, gassiness and wateriness.
- 24.** Compare underground mining vs. opencast mining.
- 25.** (a) State the novel methods of drilling.
(b) State the applicability of percussive and rotary drilling methods.
- 26.** Describe the hydraulic feed mechanism with sketch.
- 27.** Explain double-tube core barrel with sketch.
- 28.** Explain the principle of prospecting and shaft method of prospecting.
