



C16-MNG-105

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**5048**

**BOARD DIPLOMA EXAMINATION, (C-16)  
OCTOBER/NOVEMBER-2018  
DMNG-FIRST YEAR EXAMINATION**

**ELEMENTS OF MINING**

Time : 3 Hours ]

[ Total Marks: 80

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**PART-A**

2x15=30

- Instructions :**
1. Answer **any Fifteen** questions.
  2. Each question carries **Two**.
  3. Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. Define the term Gangue.
2. List the various post-mining operations.
3. List the various ancillary mining operations.
4. Define shaft with a neat sketch.
5. Define the term Shaft station.
6. Define the term dip.
7. Define the term Sludge.
8. State the purpose of core recovery.
9. Define the term Booster
10. Define the detonator.
11. List the test that a permitted explosive should pass through.
12. List the types of initiation of explosives.
13. State the composition of surface air.
14. List the Poisonous mine gases.
15. State the physiological effects of lack damp.
16. State the principle of flame safety lamp.
17. List the different stages of shaft sinking.

18. List the factors to be considered for the selection of a shaft as a mode of entry.
19. State the purpose of water garlanding shaft sinking.
20. State conditions under which conditions it is advisable to adopt “pilling system”.

### PART-B

10X5=50

**Instructions :**

1. Answer any **Five** questions.
2. Each question carries **ten** marks.
3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

21. Define the mode of entries with sketches and state the applications of each.
22. List the comparisons between Underground mining and opencast mining.
23. Explain the rotary drilling methods, with a sketch.
24. Explain the characteristics of explosives.
25. (a) Define the term permitted Explosives.  
(b) List the applicabilities of Permitted Explosives.  
(c) Describe the construction of delay detonator.
26. State the Chemical, Physical, and Physiological effects of white damp.
27. State the factor consider for selection of a site for shaft sinking and list different stages of shaft sinking.
28. Explain the Freezing method of shaft sinking.

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