



\*4268\*

C-14-MNG-303

**4268**

**BOARD DIPLOMA EXAMINATION, (C-14)  
OCTOBER/NOVEMBER-2018  
DMNG – THIRD SEMESTER EXAMINATION**

**CONVENTIONAL METHODS OF COAL MINING**

*Time : 3 Hours ]*

[ Total Marks: 80

**PART-A**

3X10=30

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

1. Define the term Pre Silicatization.
2. List the factors to be considered for the selection of a shaft as a mode of entry.
3. List precautions to be taken before and after blasting.
4. Define the terms (a) Blown – out shot (b) Socket.
5. Define the term Bord and Pillar.
6. List the factors influencing the size of the panel.
7. List the different factors governing the selection of development method.
8. Define the terms caving and stowing.
9. Define the terms (a) Split and (b) Rib
10. Explain the term ‘Air Blast’

\*

**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

11. (a) Sketch and describe a permanent lining of shaft sides by brick walling.  
(b) What purposes does it serve?
12. Sketch and explain freezing method of shaft sinking.
13. Explain direct and inverse initiation with sketches.
14. Explain the method of development of Bord and Pillar system with side discharge loader with a neat sketch.
15. An underground panel in a coal mine is being developed on Bord and Pillar system. The pillar size is 36m centre to centre and the adjacent galleries are 4.8m wide. Calculate the percentage of extraction during development.
16. Explain the mechanized method of pillar extraction with chain conveyor/belt conveyor
17. (a) Discuss the methods of inducing local falls.  
(b) Explain the phenomenon of air blast in coal mines.
18. Explain preparatory arrangements before commencement of depillaring operation.

\*\*\*\*\*