



C14-MNG-403

**4467**

**BOARD DIPLOMA EXAMINATION, (C-14)  
MARCH/APRIL—2018  
DMNG—FOURTH SEMESTER EXAMINATION  
MECHANIZED METHODS OF COAL MINING**

*Time* : 3 hours ]

[ *Total Marks* : 80

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**PART—A**

3×10=30

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

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1. Define the term 'gate roads'.  
2. Define the term 'pack wall'.  
3. State the merits of long wall method.  
4. Classify the methods of long wall mining.  
5. List the machinery employed on a mechanized long wall face.  
6. List the cutting methods of the shearer in long wall mining.  
7. State the applicabilities of long wall top coal caving (LTCC).  
8. Compare between single unit and double-unit long wall methods.

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9. List the merits of blasting gallery method.
10. State the importance of spacers used in blasting gallery method.

**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.

11. Explain the development of gate roads by drill and blast load by gathering arms loader.
12. Explain the long wall advancing indicating its applicabilities.
13. Calculate the production in 0.5 million/annum producing mine and estimate the machinery and manpower.
14. Explain the layout of mechanized long wall face retreating with caving.
15. Explain the methods of sumping in long wall face extraction.
16. Explain the method of long wall top coal caving (LTCC).
17. Explain drilling and blasting pattern in the blasting gallery method.
18. Explain supporting and loading operations in blasting gallery method.

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