



C14-MNG-304

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**BOARD DIPLOMA EXAMINATION, (C-14)**  
**MARCH/APRIL—2018**  
**DMNG—THIRD SEMESTER EXAMINATION**  
**MINING MACHINERY—I**

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.

1. State the composition of material of wire ropes.
2. List the causes of deterioration of wire ropes.
3. Define the terms capping and recapping.
4. State the purpose of splicing of wire ropes.
5. List the advantages of direct rope haulage.
6. List the disadvantages of main and tall rope haulage.
7. State the merits of belt conveyer.

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8. List the applicability of monocable aerial rope.
9. Define the following terms : 1½+1½=3  
(a) Total static head  
(b) Static discharge head
10. List the characteristic curve of pumps.

**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. Classify wire ropes basing on place of application and construction.
12. Explain the stages of manufacturing of wires of ropes.
13. Describe the method of white metal capping.
14. Give comprehensive classification of transportation systems in mines.
15. In a direct rope haulage system, the length of rope is 200 m, diameter of rope used is 30 mm. Calculate the mass and strength.
16. State merits, demerits and applicability of diesel locomotive system.
17. Describe the construction and working of bi-cable aerial rope way.
18. Explain constructional details of centrifugal pump.

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