



C14-MNG-602

**4763**

**BOARD DIPLOMA EXAMINATION, (C-14)**

MARCH / APRIL - 2019

**DMNG - VI SEMESTER EXAMINATION**

**ADVANCED OPENCAST MINING METHODS**

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) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1 List the applications of HEMM used in OC mines.
- 2 List the main components of Dragline.
- 3 Define the terms (a) swing factor (b) cycle time.
- 4 Define :
  - (a) Swell factor (b) Swing factor (c) bucket factor
- 5 List the types of transport systems.
- 6 List the application of belt conveyors in OC Mines.
- 7 List the factors influencing the slope stability of a bench.
- 8 Define the term Slope Angle.
- 9 How the depth of the deposit influence while designing the layout of surface mine ?
- 10 Define Ecology and impact on ecology due to OC Mining operations.

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[ Contd...

**PART - B**

**10×5=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 Compare shovel vs Dragline in ten aspects.
- 12 List merits and demerits of surface mines.
- 13 Describe briefly the types of transport systems used in opencast mines.
- 14 Explain working of In-pit crushers.
- 15 List and explain parameters required for slope design.
- 16 (a) State the formula to calculate the factor of safety of bench slope.  
(b) Explain the term “Overall slope of the bench” with sketch.
- 17 Explain and draw the layout of surface miner in opencast mines.
- 18 State the impact on environment due to opencast mining operations.

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