



C14-MNG-502

**4655**

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

MARCH / APRIL - 2019

**DMNG - V SEMESTER EXAMINATION**

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

- 1 List the major opencast metal mines in India.
- 2 List the different geo-mining situations under which surface mining is adopted.
- 3 List the advantages of opencast mining.
- 4 List the different stages of surface mining.
- 5 Define the term "Box cut".
- 6 State the applicability's of road grader.
- 7 List the blasting tools used in opencast mines.
- 8 List the merits and demerits of incline drilling.
- 9 List various controlled blasting techniques used in opencast mining.
- 10 Write a short note on booster.

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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 Define the terms with suitable sketches :
  - (a) Bench Crust
  - (b) Break even stripping ratio
  - (c) Strip mining
  - (d) Angle of repose
  - (e) Reclamation
- 12 Explain the design and location of haul roads.
- 13 Explain the operation of Ripper with neat sketch.
- 14 Explain the components, functions and operations of Dozer.
- 15 Explain the term sub-grade drilling.
- 16 Explain different factors connected to drilling of blast holes.
- 17 Explain different secondary blasting techniques used in open cast mines.
- 18 Explain deck charging and its applications.