



C16-MNG-105

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BOARD DIPLOMA SUPPLEMENTARY (INSTANT)

EXAMINATION, (C-16)

JUNE - 2019

DMNG - FIRST YEAR EXAMINATION

ELEMENTS OF MINING

Time : 3 Hours]

[Total Marks : 80

PART - A

2×15=30

- Instructions :**
- (1) Answer any 15 questions.
 - (2) Each question carries 2 marks.
 - (3) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1 State the ancillary mining operations.
- 2 Define the term mineral.
- 3 List the various mining operations.
- 4 List the various mining industries in the country.
- 5 Define the term Out Crop.
- 6 Define the term Rest Station.
- 7 Define the term sludge.
- 8 State the purpose of core recovery.
- 9 Define the term 'Low Explosive'.
- 10 Define the term detonator.
- 11 Define the term Non-cap sensitive explosives.
- 12 Define the term 'Permitted explosive'.

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- 13 List the poisonous mine gases.
- 14 List the inflammable gases.
- 15 List the methods of detection of CO.
- 16 State the purpose of flame safety lamp.
- 17 List the different stages of shaft sinking.
- 18 List the modern techniques used in shaft sinking.
- 19 List the methods of permanent supporting the shaft sides.
- 20 Classify the special methods of shaft sinking.

PART - B

10×5=50

Instructions : (1) Answer any **FIVE** questions.
(2) Each question carries **TEN** marks.
(3) Answer should be comprehensive and criterion for valuation is the content but not the length of the answer.

- 21 Explain the different stages of mining operations.
- 22 Give the classification of coal seams based on the thickness, depth, inclination and gassiness.
- 23 (a) Explain the rotary drilling methods with neat sketch. **6+4**
(b) State the purpose of mud flushing.
- 24 Explain the characteristics of explosives.
- 25 (a) Define the term Permitted Explosives. **2+4+4**
(b) Classify Permitted Explosives
(c) List the applications of Permitted Explosives.
- 26 (a) List the properties and occurrence of the Black damp. **5+5**
(b) Explain the physiological effects of Black damp.
- 27 Explain the permanent supporting of the shaft sides by brick walling with a sketch.
- 28 Explain the different stages of sinking through normal strata.