



C16-MNG-105

5048-A

**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 Define the term mineral.
- 2 List any six major mining industries in Telangana.
- 3 List the pre-mining operations.
- 4 Define the term shaft with a sketch.
- 5 Define the terms cross cut and rest station.
- 6 Define the term barrier.
- 7 Give the classification of drilling methods.
- 8 Define the term mud flushing.
- 9 State the composition of low explosive.
- 10 Write the classification of detonators.
- 11 Define the term high explosive.
- 12 Classify the permitted explosives.

5048-A]

1

[Contd...

- 13 List any two detectors used for detection of CO.
- 14 Compare the composition of surface air vs mine air.
- 15 List the six parts of flame safety lamp.
- 16 Write the names of two inflammable gases occurred in the coal mines.
- 17 List any four factors to be considered for selection of shaft as mode of entry.
- 18 Define the term thawing.
- 19 List the different stages of shaft sinking.
- 20 Write a short note on shaft sinking bucket with sketch.

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 Distinguish between shaft, incline in any ten aspects.
- 22 Give classification of coal seams based on thickness, depth, inclination, gassiness. **3+3+4**
- 23 Explain rotary method of drilling with sketch.
- 24 Explain characteristics of explosives.
- 25 Write the properties and applicable conditions of low explosives, high explosives.
- 26 State the occurrence and physiological effects of carbon monoxide.
- 27 Explain permanent supporting of shaft sides by German tubbing.
- 28 Explain the shaft sinking by freezing method.