



C14-MNG-506

**4659**

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

MARCH / APRIL - 2019

**DMNG - V SEMESTER EXAMINATION**

**ADVANCED MINE ENVIRONMENTAL ENGINEERING**

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 signs of spontaneous heating.
- 2 State the types of mine fires.
- 3 List the causes of fire damp explosion.
- 4 State the different types of mine explosions.
- 5 State the factors governing the design of dam.
- 6 List the precautions against inundation due to surface water.
- 7 Classify the different methods of gas detection.
- 8 List the advantages of Tele monitoring.
- 9 State the purpose of mine lighting.
- 10 List the methods of improving illumination in underground mines.

4659 ]

1

[ 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 Explain the method of collecting the samples behind the fire seals.
  - 12 List the causes and preventive measures of spontaneous heating.
  - 13 List the causes and preventive measures of coal dust explosions.
  - 14 List the precautions against inundation due to underground water.
  - 15 Sketch and explain the functions of burn side safety boring apparatus.
  - 16 Explain the determination of percent of methane with help of flame safety lamp.
  - 17 Explain the principle of working of multi gas detector and its applications.
  - 18 Explain the principle of working of continuous mine environment monitoring system (Tele-monitoring system).
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