



C20-MNG-503

**7663**

**BOARD DIPLOMA EXAMINATION, (C-20)**

**OCTOBER / NOVEMBER—2023**

**DMNG - FIFTH SEMESTER EXAMINATION**

**MINE HAZARDS AND RESCUE**

*Time : 3 Hours ]*

*[ Total Marks : 80*

**PART—A**

3×10=30

**Instructions :** (1) Answer **all** questions.

(2) Each question carries **three** marks.

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

1. List the different methods of re-opening of sealed off areas.
2. List the causes of underground mine fires.
3. List any three precautions to be taken while approaching water logged area.
4. List the different types of dams and state the applicability of each.
5. State the precautions against lead poisoning.
6. List any three causes of siderosis.
7. Define the term resuscitation.
8. State the purpose of rescue station.
9. List the methods of carbon monoxide detection.
10. State any three principle on which the detectors are developed or designed.

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

**11.** (a) Explain the different methods of dealing with fires and state their applicability.

**(OR)**

(b) Explain the method of collecting samples behind the fire seals.

**12.** (a) Describe the constructional details of sump with a sketch.

**(OR)**

(b) State the causes and preventive measures of fire damp and coal dust explosions.

**13.** (a) Explain about the control of various pollutions due to mining operations.

**(OR)**

(b) State the causes, symptoms and precautions of silicosis.

**14.** (a) Explain briefly the functions of self rescuer.

**(OR)**

(b) Describe the constructional details of gas mask and state the purpose of it.

**15.** (a) Explain the method of detection of Methane.

**(OR)**

(b) Explain the multi gas detector and mention its uses.

**PART—C**

10×1=10

- Instructions :** (1) Answer the following question.  
(2) The question carries **ten** marks.  
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 16.** Describe the different types of water dams in mines and state their purpose and applicability.

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