



C14-MNG-503

4656

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DMNG - V SEMESTER EXAMINATION

MODERN COAL MINING TECHNOLOGY

Time : 3 Hours]

[Total Marks : 80

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 applicable conditions of coal plough.
- 2 List the cutting methods of thin seams by plough.
- 3 List the difficulties in working thick seams.
- 4 State the principles of working of thick seams.
- 5 List the merits of sub-level caving.
- 6 List the applicability conditions of hydraulic mining of coal.
- 7 List the merits of hydraulic mining of coal.
- 8 Write the composition of synthetic gas produced in gasification of coal.
- 9 List the applicable conditions of underground gasification of coal.
- 10 State the demerits of underground gasification of coal.

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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 List the different types of coal ploughs. Explain base plough with neat sketch.
- 12 Explain the method of bi-directional over pass ploughing.
- 13 Explain the method of inclined slicing with caving.
- 14 Explain the horizontal slicing in ascending order with stowing.
- 15 Explain room and pillar method of mining with a neat sketch.
- 16 Explain layout of hydraulic mining in moderately thick seams.
- 17 Explain hydraulic breaking of coal.
- 18 Explain the principle and process of underground gasification of coal.
