



C14-MNG-406

4470

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DMNG - IV SEMESTER EXAMINATION

MINE ENVIRONMENTAL ENGINEERING

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 various ventilation system used in mines.
- 2 List the limitation of natural ventilation and define natural ventilating pressure. $1\frac{1}{2} + 1\frac{1}{2} = 3$
- 3 Define the term manometric efficiency.
- 4 Define the laws of mechanical ventilation.
- 5 State the purpose of Air Lock.
- 6 Define the term "Equivalent Orifice".
- 7 List the merits of splitting air.
- 8 List the conditions requiring the use of Booster Fan.
- 9 List the different components of ventilation survey.
- 10 Define the term Katafactor.

4470]

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 Compare Air screw fan with centrifugal fan.
- 12 Explain the principle of working of Air screw fan.
- 13 Explain the mine Air friction and list the factors affecting the mine air friction ?
- 14 (a) List the sources of leakage of air in a mine. **5+5**
(b) List the preventive measures of leakage of air.
- 15 (a) Identify the location of air lock.
(b) Explain the purpose of air lock.
- 16 (a) Define the term Booster fan.
(b) List the conditions requiring the use of Booster fan.
(c) List the factors to be considered for location of Booster Fans.
- 17 Explain the objectives of quantity survey and explain any one method of quantity survey ?
- 18 Explain the objectives of pressure survey.