



C14-MNG-504

4657

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DMNG - V SEMESTER EXAMINATION

ROCK MECHANICS AND STRATA CONTROL

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 areas of applications of rock mechanics in Mining.
- 2 Define the term stress-field.
- 3 List determinable rock properties.
- 4 State the classification of RQD.
- 5 State deformability of rock.
- 6 Define the term coal bumps.
- 7 State the strata conditions after mining operations.
- 8 List any three effects of subsidence.
- 9 Classify the types of supporting systems.
- 10 State the application conditions of roof stitching.

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[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 Hydro static and litho static states of rock.
 - 12 Explain tensile and compressive strength of Rocks.
 - 13 Explain porosity and Anisotropy of rocks.
 - 14 Define the term rock burst and list the preventive measures against rock burst.
 - 15 Explain Rziha's theory.
 - 16 List the effects of subsidence and list the protective measures on surface and u/g.
 - 17 Describe the constructional details of friction prop.
 - 18 Explain the methods of supporting at road way junction.
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