CBCS SCHEME

USN | | | | | | | | | | |

18MN35

Third Semester B.E. Degree Examination, Jan./Feb. 2023
Drilling and Blasting

Time: 3 hrs. Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-1

1 a. Explain the auger drilling for exploration. **(10 Marks)**
b. Explain Order drilling. **(10 Marks)**

OR

2 a. Explain the single tube core barrel. **(10 Marks)**
b. Explain the interpretation of borehole data. **(10 Marks)**

Module-2

3 a. Explain the characteristics tests of percussive drills. **(10 Marks)**
b. Explain the important drilling parameters to be considered in performance analysis. **(10 Marks)**

OR

4 a. Explain the fundamental of rotary drilling. **(10 Marks)**
b. Explain the principle of Water-Jet drilling. **(10 Marks)**

Module-3

5 a. Explain the important properties of explosives. **(10 Marks)**
b. Explain the electrical detonators with a sketch. **(10 Marks)**

OR

6 a. Explain the NOVEL with their applications. **(10 Marks)**
b. Explain the Electronic detonator with a neat sketch. **(10 Marks)**

Module-4

7 a. Explain the mechanics of rock fragmentation. **(10 Marks)**
b. Explain the Kuz-ram fragmentation prediction modeling. **(10 Marks)**

OR

8 a. Explain the important Blast design adopted in blasting of open cast mining. **(10 Marks)**
b. Explain the blast induced ground vibration. **(10 Marks)**

Module-5

9 a. Explain the blasting off solids. **(10 Marks)**
b. Explain the long hole blasting with a neat sketch. **(10 Marks)**

OR

10 a. Explain the blast design for horizontal drivages. **(10 Marks)**
b. Explain the vertical crater retreat blasting. **(10 Marks)**

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