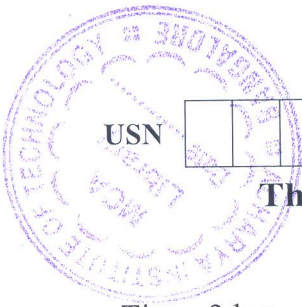


CBCS SCHEME



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18MN35

Third Semester B.E. Degree Examination, June/July 2023 Drilling and Blasting

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Discuss in detail about the exploration drilling. (10 Marks)
b. With neat sketch explain the working principle of Auger drill. (10 Marks)

OR

- 2 a. Explain in detail the stepwise procedure for storage of core samples. (10 Marks)
b. Explain in detail, the care to be taken during preservation of rock core. (10 Marks)

Module-2

- 3 a. Discuss in detail, the principles of drilling. (10 Marks)
b. Discuss in detail, the mechanics of blasting. (10 Marks)

OR

- 4 a. Explain the factors to be considered for selection of drill. (10 Marks)
b. With neat sketch, explain the working principle of water jet drilling. (10 Marks)

Module-3

- 5 a. Explain the procedure for testing the explosives and types of testing. (10 Marks)
b. Explain the various types of accidental firing hazards. (10 Marks)

OR

- 6 a. Discuss in detail about magazine and its types. (10 Marks)
b. Explain in detail about the electric detonator. (10 Marks)

Module-4

- 7 a. Explain the stepwise basic blast hole drilling process. (10 Marks)
b. With neat sketch, explain the square and staggered pattern of drilling. (10 Marks)

OR

- 8 a. Discuss the various problem associated with blasting. (10 Marks)
b. Explain about Crater theory with neat sketch. (10 Marks)

Module-5

- 9 a. Explain the various factors which influence the drilling and blasting pattern in underground coal mines. (10 Marks)
b. Discuss about the ring hole blasting with neat sketch. (10 Marks)

OR

- 10 a. Explain the Blasting Practices in a raise of size 2.3m × 1.2m . (10 Marks)
b. Explain the long hole stoping with neat sketch (10 Marks)

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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.