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17MN52

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020
Mine Mechanization – II

Time: 3 hrs.   Max. Marks: 100

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

Module-1

1 a. What are the preventive methods to control inflow of water into mine? **(10 Marks)**
  b. Explain constructional details and working principles of centrifugal pump. **(10 Marks)**

OR

2 a. Explain reciprocating pump with well labeled neat sketch. **(10 Marks)**
  b. Draw a flow chart of various pumps and draw a layout of underground pumping station. **(10 Marks)**

Module-2

3 a. Describe road header's construction and applications. **(10 Marks)**
  b. Explain coal plough machine with specifications and neat sketch. **(10 Marks)**

OR

4 a. Describe coal cutting machine with well labeled neat sketch. **(10 Marks)**
  b. Explain double drum shearer with neat sketch. **(10 Marks)**

Module-3

5 a. Describe the basic principles of drilling operation. **(10 Marks)**
  b. Explain constructional details of chokeshield support. **(10 Marks)**

OR

6 a. Explain Armoured Face Conveyer (AFC) with neat sketch. **(10 Marks)**
  b. Describe various types of hydraulic props with neat sketch. **(10 Marks)**

Module-4

7 a. Explain scraper with its construction, application, merits and demerits. **(10 Marks)**
  b. Explain LHD with well labeled neat sketch. **(10 Marks)**

OR

8 a. Explain LPDT with its selection criteria and construction. **(10 Marks)**
  b. Explain rocker shovel with neat sketch. **(10 Marks)**

Module-5

9 a. Describe various preventive maintenance for mine machinerie. **(10 Marks)**
  b. Explain various applications of computer for maintenance. **(10 Marks)**

OR

10 a. Explain scheduled maintenance for mine machineries. **(10 Marks)**
   b. Describe maintenance management system for mine machineries. **(10 Marks)**

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