

B.E.(with Credits)-Regular-Semester 2012-Mining Engineering Sem V  
**MN505 - Mining Machinery-II**

P. Pages : 2

Time : Three Hours



**GUG/W/16/3808**

Max. Marks : 80

- Notes :
1. Due credit will be given to neatness and adequate dimensions.
  2. Assume suitable data wherever necessary.
  3. Illustrate your answers wherever necessary with the help of neat sketches.
  4. Marks are indicated in the right margin.

1. a) State the applicability conditions of Blast hole drill and what are the major components of Blast hole drill machine. 6

b) Explain with neat sketch "Wagon Drill". 10

**OR**

2. a) State the applicability conditions of coal drills. Discuss the safety features of coal drill. 8

b) Explain with neat sketch "Jumbo drills". 8

3. a) Explain with neat sketch DERD shearer along with its suitable layout. 10

b) Compare the applicability conditions of shearer and flow. 6

**OR**

4. Write short notes on. 16

i) Shaft borer. ii) Stage loader.

iii) Continuous miner. iv) TBMs.

5. a) What is rocker shovel? Where it is used? Explain with neat sketch Rocker shovel. 8

b) How you will calculate the hourly capacity of L.H.D. (Assume your own conditions). 8

**OR**

6. Discuss the applicability, advantages & disadvantages of the following. 16

a) Shuttle car. b) Scraper.

c) G.A.L. d) L.H.D.

7. a) Compare shovel with wheel loader. 6

b) Explain with neat sketch the walking mechanism of a Dragline. 10

**OR**

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|----|----|--|----|
| 8. | a) | Describe with neat sketch scraper stat its applicability & different steps of scraper operation.                               | 10 |
|    | b) | What type of jobs can be performed by Dozer.   | 6  |
| 9. |    | Discuss the applicability, advantages and disadvantages of B.W.E. Also discuss the procedure to calculate its hourly capacity. | 16 |

**OR**

- |     |                        |  |   |
|-----|------------------------|--|---|
| 10. | Write short notes on : |  |   |
|     | i)                     | Dredging equipment.  | 5 |
|     | ii)                    | Continuous surface miner.                                      | 5 |
|     | iii)                   | Signaling and communication system used in underground mining. | 6 |

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