

B.E. Mining Engineering Fifth Semester
MN505 - Mining Machinery-II

P. Pages : 2

Time : Three Hours



GUG/W/18/1655

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 to the right margin.

1. a) State the applicability conditions of coal drill. Discuss the safety features of coal drill. **8**
- b) Explain with neat sketch "Jumbo Drills." **8**

OR

2. a) Compare Electrically operated drill machine and Hydraulically operated drill machine. **6**
- b) Explain with neat sketch Jack-Hammer Drill along with its advantages & limitations. **10**
3. a) State applicability condition of continuous miner along with its constructional features. **10**
- b) Compare the applicability conditions of Shearer and plow. **6**

OR

4. a) Discuss the various factors governing the Selection of Roadway drivage machines. **8**
- b) Compare Raise borer & Shaft borer. **8**
5. a) Explain Gathering Arm Loader along with its advantages and limitations. **8**
- b) Discuss the applicability advantages & disadvantages of the following w.r.t U/G m/c – i) Shuttle car **8**
ii) Scraper

OR

6. a) Explain SDL with neat sketch. State its safety features. **8**
- b) What is Rocker Shovel? Where it is used? Explain with neat sketch also state its limitations. **8**
7. a) Discuss the applicability condition for Dragline with its advantages and limitations. Also draw neat sketch showing different parts of Dragline. **10**
- b) Compare Diesel shovel & Electrical Shovel. **6**

OR

8. a) What are the types of Dozer? State and explain the functions of Dozer in modern surface mining. **10**
- b) Explain with neat sketch the Road Grader and its applications. **6**
9. Discuss the applicability, advantages & disadvantages of BWE. Also discuss the procedure to calculate its hourly capacity. **16**

OR

10. Write short notes on-
- i) Communication System used in U/G mines. **6**
- ii) Dredging Equipment's. **5**
- iii) Spreader **5**
