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**5th Sem. / Mechanical Engg.**  
**Subject : Plant Maintenance & Material Handling**

Time : 3 Hrs. M.M. : 60

**SECTION-A**

**Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)**

Q.1 A \_\_\_\_\_ crane in lifting machine generally equipped with a wire rope drum that can be used to lift and lower materials and move them horizontally.

- a) Crane
- b) Elevator
- c) Hoists
- d) Conveyors

Q.2 \_\_\_\_\_ is a phenomenon in which friction between moving surface is reduced by thin a layer of substance is called lubricant.

- a) Lubrication
- b) Friction
- c) Force
- d) None of the above

Q.3 \_\_\_\_\_ is the process of critical examination of the performance of an item.

- a) Repair
- b) Testing
- c) Maintenance
- d) None of the above

Q.4 If all the processing equipment and machines are arranged according to the sequence of operations of a product the layout is known as \_\_\_\_\_.

- a) Product layout
- b) Process layout
- c) Fixed position layout
- d) Combination layout

Q.5 Principle of 'Unit Load' states that

- a) Material should be moved in lots
- b) One unit should be moved at a time
- c) Both A & B
- d) None of the above

Q.6 Periodic lubrication charts are used to \_\_\_\_\_.

- a) Keep the record of maintenance of machine
- b) Keep the record of repair of machine
- c) Keep the record of lubricant of machine
- d) None of the above

**SECTION-B**

**Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)**

Q.7 Name different types of foundation bolts.

Q.8 Define mechanical handling equipment.

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Q.9 Name common instrument required for testing.

Q.10 What is corrective maintenance?

Q.11 Define plant layout.

Q.12 Define cannibalism.

### SECTION-C

**Note: Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)**

Q.13 Write four advantages of unit load.

Q.14 Explain thick film lubrication with a neat sketch.

Q.15 Give the classification of spares. Explain briefly.

Q.16 Define maintainability and reliability.

Q.17 Write four advantages of a machine history card.

Q.18 Write a short note on noise resistance test.

Q.19 Write four objective of material management.

Q.20 Write the procedure for re-calibration of vernier calipers.

Q.21 Explain pump system of lubrication.

Q.22 Write any four necessity of testing, repair and maintenance.

### SECTION-D

**Note: Long answer questions. Attempt any two question out of three Questions. (2x8=16)**

Q.23 Write the causes of failure of seal, packing and gaskets and their remedial measures.

Q.24 Explain different types of plant layout with their neat sketch.

Q.25 Explain the principles of economic material handling.