

M.Tech. Mechanical Engineering Design (CBCS Pattern) Semester-II
MED24(C) - Design of Mechanical Handling System

P. Pages : 1

Time : Three Hours



GUG/W/24/14198

Max. Marks : 70

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- Notes :
1. Solve **any five** questions.
 2. All questions carry equal marks.
 3. Due credit will be given to neatness and adequate dimensions.
 4. Assume suitable data wherever necessary.
 5. Illustrate your answers wherever necessary with the help of neat sketches.
 6. Use of Drawing instruments, Non programmable electronic calculator is allowed.

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| 1. | a) | What is a unit load? Describe various Unit Load systems in detail? | 7 |
| | b) | Discuss Packaging for Materials Handling in case of unit loading. | 7 |
| 2. | a) | Explain the types of bridge crane in brief. | 7 |
| | b) | Explain in brief the working of elevators bucket. | 7 |
| 3. | a) | Describe the general characteristics of cable conveyors. | 7 |
| | b) | Discuss in detail the Components of a Cable Conveyor. | 7 |
| 4. | a) | Define belt conveyors and its general characteristics. | 7 |
| | b) | Explain types of vehicle's and AGV application. | 7 |
| 5. | a) | Explain the classifications of material handling equipment in brief. | 7 |
| | b) | Discuss in a brief the application of load lifting attachments? | 7 |
| 6. | | Write short notes on- | 14 |
| | i) | Classification of Materials Handling Equipment. | |
| | ii) | Specifications of forklift truck. | |
| 7. | | Discuss in detail the aspects of roller conveyor design. | 14 |
| 8. | | Explain with suitable application pressure drop calculation in pneumatic conveying system. | 14 |
