

**B.Tech. – VIEP – MECHANICAL ENGINEERING
(BTMEVI)**

Term-End Examination

December, 2016

BIMEE-020 : MATERIAL HANDLING

Time : 3 hours

Maximum Marks : 70

Note : Attempt any *five* questions. All questions carry equal marks.

1. (a) Describe various functions of material handling. 7
- (b) What are the general principles of Cargo-handling ? Explain in detail. 7
2. (a) Describe the unit load concept of material handling. How does it help in designing a material handling system ? Explain. 7
- (b) Explain the procedural approach to be adopted for analysis of material handling problems and development of a low cost material handling system. 7

3. (a) Explain the working of mobile lifting frame with neat sketch. 7
- (b) What is integrated support ? How can it be applied in material handling ? Elaborate. 7
4. (a) Describe the "care and safety" considerations in material handling. 7
- (b) Discuss on line restricted material handling equipments. 7
5. (a) Discuss how the plant layout influences the selection of material handling method. Use suitable example to explain. 7
- (b) What is a crane ? Explain the working of JB cranes for transferring the materials. 7
6. (a) What are the equipments required for assembling and securing loads ? Explain in detail. 7
- (b) "Mechanical handling of materials improves the quality and quantity of manufacture." Comment. 7

7. Write short notes on the following :

$$4 \times 3 \frac{1}{2} = 14$$

- (a) Engineering and Economic Factors**
 - (b) Power Strokers**
 - (c) Warehouse Layouts**
 - (d) Material Handling Cost**
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