

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

Term-End Examination

June, 2013

BIMEE-020 : MATERIALS HANDLING

Time : 3 hours

Maximum Marks : 70

*Note : Attempt **any five** questions. Each question carries equal marks.*

1. (a) What do you understand by materials handling? Explain the principles of material handling in detail. 7+7
(b) Explain the procedure for the selection of material handling equipments.
2. (a) What is a counter balance track? Distinguish between power stockers and order pickers. 7+7
(b) What are straddle carriers? Explain its working with application.
3. (a) Explain the working of hand pallet tracks. 7+7
(b) Sketch and explain the working of air cushion handling frames.
4. (a) What types of material handling systems are used in automated environment? Explain with suitable examples. 7+7

- (b) Explain different types of conveyers in material handling.
5. (a) What is a trolley ? Explain different types of railmounted trolley's. 7+7
- (b) Explain the working of automatic guided vehicles. What are their advantages ?
6. (a) What is a crane ? Explain the working of JCB cranes for transferring materials. 7+7
- (b) What is the difference between free standing and fixed robots ? Explain the working of fixed industrial robots.
7. (a) Explain the functions of Warehousing. 7+7
- (b) Briefly describe the equipments for assembling and securing loads.
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