

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

00909 **Term-End Examination**
December, 2014

BIMEE-020 : MATERIALS HANDLING

Time : 3 hours

Maximum Marks : 70

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

1. (a) Write down the importance of material handling in industry. 7
- (b) How is material handling related to plant layout ? Explain. 7
2. (a) Enumerate the various functions of material handling. Describe each of them in brief. 7
- (b) Explain the various principles of material handling. 7
3. (a) Describe in brief the different basic material handling systems, giving specific applications of each. 7
- (b) Write a short note on "Selection of material handling devices". 7

4. (a) What are conveyors ? State their uses. 7
(b) Sketch any two types of conveyors. State their specific uses. 7
5. (a) Under which conditions should the employment of the following devices be considered ? 7
(i) Cranes and hoists
(ii) Power Conveyors and Lift trucks
(b) Sketch and describe any two material handling equipments used in small scale production. 7
6. (a) Describe in brief the connection of material handling with the following : 7
(i) Slides and Chutes
(ii) Mono-rails
(b) Explain the procedural approach to be adopted for analysis of material handling problems and development of low cost material handling system. 7
7. (a) "The best handling is no handling" and if this cannot be achieved "minimum handling should be tried". Justify this statement. 7
(b) Explain how the use of Robots and Automated Guided Vehicles as material handling devices helps in Automation. 7
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