

B.E. (Mechanical Engineering) Seventh Semester (C.B.S.)
Elective - I : Material Handling System

P. Pages : 2

Time : Three Hours



TKN/KS/16/7560

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.
 8. Due credit will be given to neatness and adequate dimensions.
 9. Assume suitable data whenever necessary.
 10. Diagrams and chemical equations should be given whenever necessary.
 11. Illustrate your answers whenever necessary with the help of neat sketches.
 12. Use of non programmable calculator is permitted.

1. a) Describe the objective and benefits of better material Handling? **7**
b) Describe the principles of material Handling systems? **6**

OR

2. a) Describe the unit load concept of material Handling system? **7**
b) Explain the classification of material Handling equipments? **6**
3. a) Explain the factors affecting the selection of material Handling equipment. **7**
b) Describe the unit load concept? **6**

OR

4. a) Describe the economic analysis for design of components of material handling system? **7**
b) Explain shrink-wrap unitizing with its advantages? **6**
5. a) Explain the Rail Travelling components and mechanisms? **7**
b) Explain electrically driven EOT overhead travelling cranes? **7**

OR

6. a) Explain selecting the motor rating for hoisting mechanism? **7**
b) Explain the types of Bridge cranes? **7**
7. a) Explain the types of ropes used in material Handling system. **7**

b) Explain cranes Grabs and clamps in material Handling system. **6**

OR

8. a) Describe Design consideration for conveyor belts. **7**

b) What are the Applications of load lifting attachments. **7**

9. a) What are different bulk Handling equipments and methods? **7**

b) Explain in detail the Vibratory conveyor? **6**

OR

10. a) Explain the working of Bucket elevators? **7**

b) What is Gravity chutes explain in details? **6**

11. a) Explain the term computerised warehouse planning? **7**

b) Explain the Need and factors for consideration in warehouse automation. **7**

OR

12. a) Explain OSHA safety requirements applied to practical material Handling? **7**

b) Explain the term Levels and means of Mechanization. **7**
