PART – A
(Answer all questions, each question carries 2 marks)

1. Enumerate the principles of material handling
2. Recall the applications of material handling equipments with example
3. Identify the difficulties in Manual handling
4. Define Arresting gear. Mention its applications
5. Draw the schematic sketch of a wall mounted jib crane and show the motions.
6. Enumerate the principle components of a belt conveyor
7. Recall two special type of belt conveyor and its application
8. Compare a passenger conveyor and load conveyor
9. Sketch a bucket elevator
10. List the features of chute and its application

PART – B
(Answer any one full question from each module, each question carries 20 marks)

MODULE - 1

11. a) Explain the modern trends in Material handling
    b) Illustrate the features of load handling attachments

12. a) Describe the factors considered for selecting a material handling system
    b) Explain working of an Electric Hoist

MODULE – 2

13. a) Explain the luffing mechanism of a tower crane
    b) Illustrate the gain of force in lifting tackle pulley

14. a) Explain the travelling mechanism of EOT cranes.
    b) Explain the working of any two types of braking systems used in cranes
MODULE - 3

15. a) Illustrate Flight conveyor and its application
   b) Discuss the tractive elements in a belt conveyor

16. a) Discuss the safety issues and measures of a passenger lift
   b) Compare Hydraulic and pneumatic conveyors

MODULE - 4

17. a) Illustrate the working of an overhead conveyor. What are its features
   b) Explain the working of a screw feeder with neat sketch

18. a) Explain the working of a bucket elevators. What are its features?
   b) Explain load carrying car conveyor with neat sketch.

   $4 \times 20 = 80$