

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/
COMMERCIAL PRACTICE - NOVEMBER- 2022**

MATERIAL HANDLING

Marks

[Maximum marks: 100]

(Time: 3 Hours)

PART – A

I. Answer all questions in one or two sentences. Each question carries 2 marks

1. Enumerate the principle of material handling.
2. List out the load handling attachments.
3. Recall the application of material handling equipment with examples
4. Compare passenger conveyor and load conveyor.
5. What is hoist. (5 x 2 = 10)

PART – B

II. Answer any *five* of the following questions. Each question carries 6 marks

1. Discuss the factors affecting the choice of material handling equipments.
2. Briefly discuss the classification of hooks.
3. Explain about lifting magnet?
4. Explain the working of lever operated hoist.
5. Explain the functions of surface transport equipment.
6. Explain about the functions of industrial trailers.
7. What is a arresting gear and also mention its applications. (5 x 6= 30)

PART – C

Answer *one full question* from each unit. Each full question carries 15 marks

UNIT –I

- III. (a) Explain the method of stacking at various points (8)
- (b) Explain the different types of unit load (7)

OR

- IV. (a) Explain the economics of material handling system. (8)
(b) Briefly discuss about hoisting mechanism. (7)

UNIT-II

- V. (a) Explain about welded chains and roller chains. (8)
(b) Explain the features of load handling attachments (7)

OR

- VI. (a) Explain the construction of thruster operated shoe brakes . (8)
(b) Briefly discuss the fastening methods of wire and chains. (7)

UNIT-III

- VII. (a) Explain the working of worm geared and spur geared hoist (8)
(b) Explain the working of bridge cranes. (7)

OR

- VIII. (a) Explain mobile crane with a sketch. (8)
(b) Explain the working of stackers. (7)

UNIT-IV

- IX. (a) Explain the working of a bucket elevators. What are its features (9)
(b) Compare hydraulic and pneumatic conveyors (6)

OR

- X. (a) Explain the working of a monorail conveyors. (8)
(b) Explain about gravity type conveyors. (7)
