TED (21) 5023B
(Revision-2021)

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Reg.No.....
Signature.....

# DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, APRIL - 2025

## MATERIAL HANDLING

[Maximum marks: 75] [Time: 3 Hours]

## PART A

**I. Answer all the following questions in one word or one sentence. Each question carries 1 mark**

**(9 x 1 = 9 Marks)**

| | | Module outcome | Cognitive level |
|---|---|---|---|
| 1 | List any two types of material handling equipment used in industry. | M1.01 | R |
| 2 | What is a unit load? | M1.02 | R |
| 3 | List any two load handling attachments. | M2.02 | R |
| 4 | What are monorail conveyors? | M2.02 | R |
| 5 | What is a chain conveyor? | M3.01 | R |
| 6 | What is the function of an escalators? | M3.01 | U |
| 7 | List any two applications of trackless material handling equipment. | M3.02 | R |
| 8 | What is a hoist? | M4.01 | R |
| 9 | What is a cable crane? | M4.03 | U |

## PART B

**II. Answer any eight questions from the following. Each question carries 3 marks.**

**(8 x 3 = 24 Marks)**

| | | Module outcome | Cognitive level |
|---|---|---|---|
| 1 | List the various types of movements in material handling. | M1.01 | R |
| 2 | Describe the methods of stacking. | M1.02 | R |
| 3 | Explain the construction of hemp ropes. | M2.01 | U |
| 4 | Describe the working principle of electric lifting magnets. | M2.02 | R |
| 5 | Explain the construction of a belt conveyer. | M3.01 | U |
| 6 | What are the functions of a pneumatic conveyor? | M3.02 | R |
| 7 | Explain the use of industrial trailers. | M3.03 | U |
| 8 | List the different types of hoists. | M4.02 | R |
| 9 | List the different types of cranes. | M4.03 | R |
| 10 | What are the functions of an industrial lifts? | M4.04 | U |

## PART C

**Answer all questions. Each question carries seven marks**

**(6 x 7 = 42 Marks)**

| | | Module outcome | Cognitive level |
|---|---|---|---|
| III | Explain the factors affecting the choice of material handling equipment. | M1.03 | U |
| | **OR** | | |
| IV | Explain different maintenance procedures adopted in material handling industry. | M1.04 | U |
| V | Explain the construction and working of an arresting gear. | M2.03 | U |
| | **OR** | | |
| VI | Explain various methods for starting and stopping of motion in a hoisting mechanism. | M2.04 | U |
| VII | Explain the principle and working of roller type conveyor. | M3.01 | U |
| | **OR** | | |
| VIII | Explain the working of Oscillating type conveyor. | M3.02 | U |
| IX | Explain the construction and working of gravity type conveyor. | M3.02 | U |
| | **OR** | | |
| X | Explain the working principle of automated guided vehicle. | M3.03 | U |
| XI | Explain the construction and working of lever operated hoist. | M4.01 | U |
| | **OR** | | |
| XII | Explain construction and working of differential hoist. | M4.02 | U |
| XIII | Explain the construction and working of bridge crane. | M4.03 | U |
| | **OR** | | |
| XIV | Explain the safety principles in material handling. | M4.04 | U |

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