

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, NOVEMBER - 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	Mention any one objective of material handling.	M1.01	R
2	Write any one storage type material handling equipment.	M1.01	R
3	Pallet jack is an example for.....type of material handling system.	M1.02	R
4	Welded chain is an example of.....type of hoisting device.	M2.01	R
5	J hook is an example for.....	M2.02	R
6are used in cranes as a safety mechanism to prevent runaway or uncontrolled movements.	M2.03	R
7	Name any one of the surface transportation equipment used in material handling.	M3.03	R
8	Worm gear mechanism is used in worm gear hoist for reducing.....	M4.02	R
9types of cranes are commonly used in off shore platforms.	M4.03	R

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	Identify any three types of material handling equipment and explain the use of each type.	M1.01	R
2	Explain any three types of unit loads in material handling.	M1.02	U
3	List any three major parts of any hoisting machinery used in material handling.	M2.01	R
4	Explain any two load handling attachments.	M2.02	U
5	Write down any two components of arresting gear used in hoisting devices and explain the function of each.	M2.03	R

6	Describe any two types of brakes used in material handling systems.	M2.04	R
7	Identify the function and applications of surface transportation equipment used in material handling system.	M3.03	U
8	Describe the working principle of an AGV.	M3.03	R
9	List any three components and functions of a lever operated hoist.	M4.02	R
10	Explain the purpose of an industrial lift.	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 different types of movements in material handling. OR	M1.03	U
IV	Briefly explain different principles of material handling.	M1.03	U
V	Explain the major components of welded load chains. OR	M2.01	U
VI	Explain the construction of electromagnetic shoe brake.	M2.04	U
VII	Explain the construction and working of a belt conveyor. OR	M3.01	U
VIII	Briefly explain the working of a screw conveyor.	M3.02	U
IX	Explain the working principle of a bucket conveyor. OR	M3.01	U
X	Explain the working of gravity type conveyor system.	M3.02	U
XI	Briefly explain the construction of a differential hoist. OR	M4.01	U
XII	Explain the working of a rotary crane.	M4.03	U
XIII	Explain the working principle of an industrial stacker. OR	M4.04	U
XIV	Explain the maintenance principles adopted in different hoists.	M4.02	U
