

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**Diploma Engineering, Mid semester Examination**

**Semester: 4th**  
**Subject Code: 03609285**  
**Subject Name: Material Handling system**

**Date: 23/1/2023**  
**Time: 7:50 to 9:20 am**  
**Total Marks: 40**

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic.

<b>Q.1</b>	<b>Answer any six out of Ten. (2 Marks Each)</b>	<b>(12)</b>	<b>Co/Po Name</b>	<b>Blooms Taxonomy Words</b>
	1. Define Material Handling System?			<b>Knowledge</b>
	2. Describe the needs of Material Handling System?			<b>Understand</b>
	3. Define Hoist.			<b>Knowledge</b>
	4. Define Mobile Crane?			<b>Knowledge</b>
	5. Define full form of AGV and ASRS.			<b>Knowledge</b>
	6. Write down advantages of conveyors			<b>Apply</b>
	7. Write down types of cranes			<b>Apply</b>
	8. Express Why Escalators are used ?			<b>Create</b>
	9. For moving wheat or powder which type of Material handling equipment is used?			<b>Evaluate</b>
	10. Enlist main types of Material handling equipment			<b>Knowledge</b>
<b>Q.2</b>	<b>A) Describe Principles of Material Handling Systems? Explain any one</b>	<b>(03)</b>		<b>Understand</b>
	<b>OR</b>			
	A) Describe classification of load.	<b>(03)</b>		<b>Understand</b>
	B Describe the benefits of Truck mounted crane.	<b>(03)</b>		<b>Apply</b>
	<b>OR</b>			
	B) Explain Winch and write two types of winches	<b>(03)</b>		<b>Analyze</b>
	C) Describe benefits of Hoisting Equipment's	<b>(04)</b>		<b>Understand</b>
	<b>OR</b>			
	C) Write Classification of Material Handling System	<b>(04)</b>		<b>Create</b>
	D) Write down advantages and disadvantages of gravity conveyors	<b>(04)</b>		<b>Create</b>
<b>Q.3</b>	<b>A) Develop drawing of Belt conveyors,</b>	<b>(03)</b>		<b>Create</b>
	<b>OR</b>			
	A) Develop drawing of Chain conveyors,	<b>(03)</b>		<b>Create</b>
	B) Explain Bucket elevators with neat sketch.	<b>(03)</b>		<b>Analyze</b>
	<b>OR</b>			
	B) Sketch Screw conveyor.	<b>(03)</b>		<b>Apply</b>
	C) What are the Objectives of Material Handling System	<b>(04)</b>		<b>Create</b>
	<b>OR</b>			
	C) Make Chain Hoist diagram and explain	<b>(04)</b>		<b>Create</b>
	D) Prepare Sketch of Tower Crane and explain it.	<b>(04)</b>		<b>Create</b>