Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V • EXAMINATION – SUMMER • 2015

Subject code: 151503 **Date: 07/05/2015**

Subject Name: Facility Layout & Material Handling Systems

Time: 02.30pm-05.00pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Why plant layout and material handling system must be designed simultaneously? Explain.	**07**
	(b)	Define Plant layout. Discuss product layout with suitable example.	**07**
Q.2	**(a)**	List out various principles of plant layout. Explain the following principles: (a) cubic space (b) unit load.	**07**
	(b)	Discuss the factors to be considered while selection of location and territory.	**07**
		OR	
	(b)	Why most of the ceramic industries in India are located in Morbi, India. Discuss.	**07**
Q.3	**(a)**	What do you meant by flow pattern? Explain flow pattern for assembly and production line with suitable sketch.	**07**
	(b)	Write note: Symptoms of poor layout.	**07**
		OR	
Q.3	**(a)**	What are the common pit-falls in selection of sites and what care will you take to avoid them?	**07**
	(b)	Explain work station layout with example.	**07**
Q.4	**(a)**	Discuss how productivity can be improved with the help of excellent material handling system design.	**07**
	(b)	Write note: Layout and productivity.	**07**
		OR	
Q.4	**(a)**	Suggest suitable site for any POTETO WAFER manufacturing industry in India with justifications.	**07**
Q.4	**(b)**	"Material handling activity is non productive activity" Criticize the statement.	**07**
Q.5	**(a)**	Define material handling. Explain various principles of MH system.	**07**
	(b)	Write note: Various conveyors.	**07**
		OR	
Q.5	**(a)**	Give (in chart) material handling equipments used in various industries. Explain fork lift tuck with its applications.	**07**
	(b)	Explain, how will you start material handling equipment selection process in any industry?	**07**

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