Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2151506 **Date: 05/05/2017**

Subject Name: Design of Facilities Layout

Time: 02:30 PM to 05:00 PM **Total Marks: 70**

Instructions:

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

			MARKS
Q.1		**Short Questions**	**14**
	1	Define combination layout.	
	2	What is work-station layout?	
	3	Define Plant layout.	
	4	What is meant by facilities design?	
	5	If all the processing equipment and machines are arranged according to the sequence of operations of a product the layout is known as _____.	
	6	Give name any two factors influencing Plant Layout.	
	7	In ship manufacturing, the type of layout preferred is___.	
	8	Give name any two principles of Plant Layout.	
	9	Give any two symptoms of bad layout.	
	10	Define 'line balancing'.	
	11	Give any two advantages of scientific layout.	
	12	Give name of factors affecting plant location.	
	13	Define Plant Location.	
	14	What is site selection?	
Q.2	**(a)**	Give disadvantages the selection of site in an urban area.	**03**
	(b)	Explain the objectives of facilities design.	**04**
	(c)	Write note: Symptoms of an excellent layout.	**07**
		OR	
	(c)	Write short note on Rank Order Clustering.	**07**
Q.3	**(a)**	Discuss different stages for site selection.	**03**
	(b)	Why line balancing is important in a manufacturing concern?	**04**
	(c)	Write note: Selection of location and territory.	**07**
		OR	
Q.3	**(a)**	How assignment techniques used for plant layout.	**03**
	(b)	Discuss various charts used in preparing a plant layout.	**04**
	(c)	Write note: Fix position layout.	**07**
Q.4	**(a)**	Give advantages the selection of site in a rural area.	**03**
	(b)	Give any five factors determining the Location of Plant.	**04**
	(c)	How will you plan for maintenance system in plant layout?	**07**
		OR	
Q.4	**(a)**	Give the advantages & disadvantages of fixed position layout.	**03**
	(b)	Discuss the main objectives of Plant Layout.	**04**
	(c)	Write note on production flow systems.	**07**
Q.5	**(a)**	Give the characteristics of good layout.	**03**
	(b)	Discuss interrelations between plant layout and labour productivity.	**04**

	(c)	How facilities layout is affected by equipment repair or replacement decision?	**07**

OR

Q.5	**(a)**	List out various principles of plant layout.	**03**
	(b)	Discuss ‘Product layout’ and ‘Process layout’.	**04**
	(c)	Discuss “Automation and computer aids in ware housing operation”.	**07**

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