

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2018****Subject Code:2151506****Date:27/11/2018****Subject Name:Design of Facilities Layout****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

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

		MARKS
<b>Q.1</b>	(a) Differentiate between plant location and plant layout.	<b>03</b>
	(b) Explain important objectives of plant layout.	<b>04</b>
	(c) Explain the circumstances when revising and improving the layout become necessary.	<b>07</b>
<b>Q.2</b>	(a) What is meant by Facilities design ?	<b>03</b>
	(b) Explain the importance of Facilities design.	<b>04</b>
	(c) Discuss the locational reasons for the success of ceramic tiles mfg. business in Morbi.	<b>07</b>
	<b>OR</b>	
	(c) In case you want to locate a 'Textile spinning unit', what factors would you consider for taking a location decision ? How would you go about conducting a location study ?	<b>07</b>
<b>Q.3</b>	(a) State the advantages of urban area site location.	<b>03</b>
	(b) Discuss the dynamic nature of the layout of an industrial plant.	<b>04</b>
	(c) Discuss pitfalls in selection of site and the remedies.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) State the advantages of rural area site location	<b>03</b>
	(b) Discuss information to be collected to prepare a plant layout.	<b>04</b>
	(c) Discuss the characteristics of a good plant layout.	<b>07</b>
<b>Q.4</b>	(a) Explain 'Product layout'.	<b>03</b>
	(b) Under what circumstances product layout is useful ?	<b>04</b>
	(c) Which type of plant layout is best suitable for manufacturing of each of the following products : (i) Electric appliances (ii) Fighter Plane (iii) Cement	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Explain 'Process layout'.	<b>03</b>
	(b) Under what circumstances process layout is useful ?	<b>04</b>
	(c) Compare the primary layout objectives for 'Shopping mall' and 'Edible oil mill'. Justify your answer with relevant advantages and disadvantages.	<b>07</b>
<b>Q.5</b>	(a) Explain 'Fixed position layout'.	<b>03</b>
	(b) Discuss safety considerations which must be viewed in a layout.	<b>04</b>
	(c) Write short note on use of 'Travel chart' in plant layout.	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) What is work-station layout?	<b>03</b>
	(b) How would you design the work-station layout?	<b>04</b>
	(c) Discuss quantitative and computer based approaches to facilities layout.	<b>07</b>

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