

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
Q.1	(a) Differentiate between plant location and plant layout.	03
	(b) Explain important objectives of plant layout.	04
	(c) Explain the circumstances when revising and improving the layout become necessary.	07
Q.2	(a) What is meant by Facilities design ?	03
	(b) Explain the importance of Facilities design.	04
	(c) Discuss the locational reasons for the success of ceramic tiles mfg. business in Morbi.	07
OR		
	(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 ?	07
Q.3	(a) State the advantages of urban area site location.	03
	(b) Discuss the dynamic nature of the layout of an industrial plant.	04
	(c) Discuss pitfalls in selection of site and the remedies.	07
OR		
Q.3	(a) State the advantages of rural area site location	03
	(b) Discuss information to be collected to prepare a plant layout.	04
	(c) Discuss the characteristics of a good plant layout.	07
Q.4	(a) Explain 'Product layout'.	03
	(b) Under what circumstances product layout is useful ?	04
	(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	07
OR		
Q.4	(a) Explain 'Process layout'.	03
	(b) Under what circumstances process layout is useful ?	04
	(c) Compare the primary layout objectives for 'Shopping mall' and 'Edible oil mill'. Justify your answer with relevant advantages and disadvantages.	07
Q.5	(a) Explain 'Fixed position layout'.	03
	(b) Discuss safety considerations which must be viewed in a layout.	04
	(c) Write short note on use of 'Travel chart' in plant layout.	07
OR		
Q.5	(a) What is work-station layout?	03
	(b) How would you design the work-station layout?	04
	(c) Discuss quantitative and computer based approaches to facilities layout.	07
