## GUJARAT TECHNOLOGICAL UNIVERSITY M. E. - SEMESTER – I • EXAMINATION – SUMMER • 2014

Su	oject	code: /15006N Date: 26-06-2014		
Subject Name: Flexible Competitive Manufacturing System				
Tir	ne: 02	2:30 pm - 05:00 pm Total Marks: 70	wherever necessary. full marks.  veen Flexible manufacturing cell and Flexible 07 s and application of FMS. 07 rming groups in GT. Explain the OPITZ coding 07 erm "Group technology"? Explain the merits and for implementing GT. OR the types of FMS layouts with neat sketch. 07 erformed by computers in FMS. Briefly explain elements used in FMS. tible Inspection System. 07 OR ehicle and list the advantages over conventional 07 pply concepts in FMS, also explain the most or stry. and Retrieval Systems in detail with their 07 tion Software in FMS. 07 COR tion and coding systems. Discuss the Production 07 Explain different types of KANBAN system in 07 in details with their limitations. 07 in details with their limitations. 07 in details with their limitations. 07	
Ins	struc	tions:		
		Attempt all questions.		
		Make suitable assumptions wherever necessary.		
		Figures to the right indicate full marks.		
Q.1	(a)	Explain the difference between Flexible manufacturing cell and Flexible manufacturing system.	07	
	<b>(b)</b>	List the advantages, limitations and application of FMS.	07	
Q.2	(a)	List the methods used for forming groups in GT. Explain the OPITZ coding system in GT.	07	
	(b)	What do you understand by term "Group technology"? Explain the merits and demerits of GT and guidelines for implementing GT.  OR	07	
	<b>(b)</b>	What is FMS layout? Explain the types of FMS layouts with neat sketch.	07	
Q.3	(a)	List the general functions performed by computers in FMS. Briefly explain about the computer hardware elements used in FMS.	07	
	<b>(b)</b>	Describe the features of a Flexible Inspection System.	07	
Q.3	(a)	What is Automated guided vehicle and list the advantages over conventional material handling system.		
	<b>(b)</b>	Discuss the various tool supply concepts in FMS, also explain the most practiced principal in the industry.	07	
Q.4	(a)	Explain Automatic Storage and Retrieval Systems in detail with their applications.	07	
	<b>(b)</b>	Discuss the purpose of Simulation Software in FMS.  OR	07	
Q.4	(a)	Explain the types of classification and coding systems. Discuss the Production flow analysis.	07	
	(b)	What is KANBAN system? Explain different types of KANBAN system in Manufacturing.	07	
Q.5	(a) (b)	What is Just in Time? Explain in details with their limitations. Discuss the types of flexibilities in FMS.		
	(3)	OR	0 /	
Q.5	(a)	Write the short note on "Role of Preventive Maintenance in FMS".	07	
	(b)	Discuss different types of material handling and storage systems in FMS.	07	

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