Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY

## **BE - SEMESTER-VII EXAMINATION – WINTER 2015**

	•	Code: 172506 Date:04/12/201	15
Tin	-	Name: Flexible Manufacturing Systems 0:30am to 1:00pm Total Marks:	70
	1.	Attempt all questions.  Make suitable assumptions wherever necessary.	
Q.1	(a)	"Flexible Manufacturing System is far more versatile than Flexible Manufacturing Cell." – Justify	07
	<b>(b)</b>	Explain FMS Implementation with neat sketch.	07
Q.2	(a)	"A normal industrial practice is to adopt hybrid coding combining mono code and ploy code in grouping the parts in Group Technology." – Justify.	07
	<b>(b)</b>	Explain hierarchy of CIM with respect to CIM technology <b>OR</b>	07
	<b>(b)</b>	Automated tool delivery systems add considerably to machining centre overall up-time and performance." – Justify.	07
Q.3	(a)	What geometrical features can be evaluated with coordinate measuring machine (CMM)? Draw the schematic sketch of CMM and explain its working principle.	07
	<b>(b)</b>	State the factors that govern the selection of either batch or in-line type wash stations .Explain any one wash station in detail.	07
0.3	(.)	OR	0.7
Q.3	(a)	Explain the working principle of electro-chemical Deburring, its positive features and process limitations.	07
	<b>(b)</b>	Explain AGV with its Guide path.	07
Q.4	(a)	Explain General Layout, Benefits and Limitation of FMS	07
	<b>(b)</b>	Explain Basic component and benefits of AS/RS in FMS  OR	07
Q.4	(a)	List out the areas of FMS where tool management can be applied smoothly and effectively.	07
	<b>(b)</b>	Explain unattended machining centre	07
Q.5	(a)	Compare Horizontal and Vertical Machining Centre.	07
-	<b>(b)</b>	Describe automated features and capabilities of Turning centre.  OR	07
Q.5	(a)	Explain pallet and part loading in Machining Centre	07
	<b>(b)</b>	Describe automated features and capabilities of Machining centre.	07

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