GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI(NEW) – EXAMINATION – SUMMER 2019

Subject Code:2162507   **Date:18/05/2019**

Subject Name:Allied Manufacturing Technique

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)**	List some tool holding devices used in capstan turret lathes.	**03**
	(b)	Differentiate between an automatic and a semi-automatic lathe.	**04**
	(c)	Classify the non-traditional machining processes.	**07**
Q.2	**(a)**	Name various work holding devices used in capstan turret lathes.	**03**
	(b)	Discuss some of the applications of capstan and turret lathes.	**04**
	(c)	Describe various types of multi-spindle automatics.	**07**

OR

	(c)	Describe various rules which must be followed while laying out the sequence of operations on a turret lathe.	**07**
Q.3	**(a)**	List the advantages of thread rolling process.	**03**
	(b)	Mention the characteristics of thread milling.	**04**
	(c)	Discuss the thread chasing process of cutting threads.	**07**

OR

Q.3	**(a)**	Write a brief note on tapping of threads.	**03**
	(b)	Discuss the casting method for producing threads.	**04**
	(c)	Describe the thread grinding process in detail.	**07**
Q.4	**(a)**	Write a brief note on gear materials.	**03**
	(b)	Distinguish between forming and generating.	**04**
	(c)	Explain in detail the method of cutting gears by milling.	**07**

OR

Q.4	**(a)**	Write a short note on gear finishing processes.	**03**
	(b)	List the advantages and disadvantages of casting gears.	**04**
	(c)	Discuss the 'Roll forming' method of gear manufacturing with its advantages.	**07**
Q.5	**(a)**	List some of the common abrasive powders used in USM.	**03**
	(b)	Describe the principle of Abrasive Jet Machining (AJM).	**04**
	(c)	Explain working of ECM with process parameters in detail.	**07**

OR

Q.5	**(a)**	Name die-electric fluids used in EDM and mention its function.	**03**
	(b)	Differentiate LBM and EBM.	**04**
	(c)	Explain working principle of PAM with process parameters in detail.	**07**

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