Seat No.:	Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI • EXAMINATION - WINTER • 2014

Su	bject	Code: 162504 Date: 03-12-2014	
Tiı	_	Name: Allied Manufacturing Processes 2:30 pm - 05:00 pm Total Marks: 70	
		Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Describe the essential parts of turret lathe. How does it differs from	07
	(b)	Engine lathe? State the industries where the transfer machines are more useful. Classify and explain the working of any one type transfer machine.	07
Q.2	(a) (b)	Explain the "Hot Rolling" method of gear manufacturing. Explain EDM process in brief. Compare ECM with EDM. OR	07 07
(1	(b)	Explain laser beam machining with neat sketch. Give critical parameters of laser beam machining	07
Q.3	(a) (b)	Sketch and explain extrusion process for plastic. Distinguish between 'Chrome plating' and 'Dull plating' Process. OR	07 07
Q.3	(a)	What is the difference between L.H. thread and R.H. thread? Explain Three wire method for thread inspection.	07
	(b)	Explain the swaging operation in brief and bring out its merits demerits and applications.	07
Q.4	(a) (b)	Discuss compression Molding. Explain any two processes with neat sketch. Discuss the various gear finishing processes. OR	07 07
Q.4	(a) (b)	Discuss various types of self opening die heads. Differentiate between "Transverse thread grinding" and "Plunge Grinding".	07 07
Q.5	(a)	Explain Plasma Arc Machining (PAM) with neat sketch. List characteristics of PAM processes.	07
	(b)	Explain in detail how ceramics and glass coating is carried out. OR	07
Q.5	(a)	With the help of neat diagram, explain the bar feeding mechanism for automatics.	07
	(b)	Explain in which areas, the unconventional manufacturing methods are Superior than conventional manufacturing methods. Also state the demerits.	07
