Seat No.: Enrolment No GUJARAT TECHNOLOGICAL UNIVERSITY BE- VI <sup>th</sup> SEMESTER-EXAMINATION – MAY- 2012			
Subject code: 162504Date: 19/05.Subject Name: Allied Manufacturing ProcessesTime: 10:30 am - 01:00 pmTotal MarlInstructions:			
<ol> <li>Attempt all questions.</li> <li>Make suitable assumptions wherever necessary.</li> <li>Figures to the right indicate full marks.</li> </ol>			
Q.1	(a) (b)	In which situations, turret lathe is preferred over capstan lathe? Give the specifications of turret lathe and explain its working. State the industries where the transfer machines are more useful. Classify and explain the working of any one type transfer machine.	07 07
Q.2	(a) (b)	Explain various types of thread standards along with neat sketches and nomenclatures. What is pitch of a thread? How threads can be manufactured by rolling	07 07
	(b)	process? OR Which instruments are useful for thread inspection? How the screw threads can be inspected?	07
Q.3	(a) (b)	Classify the gears. How the gears can be manufactured by powder metallurgy? Explain how gears can be manufactured by form tooth process. OR	07 07
Q.3	(a) (b)	Classify gear finishing processes and explain gear shaving. Why metal coating is required? State various merits and demerits of metal coating.	07 07
Q.4	(a) (b)	Explain in detail how ceramics and glass coating is carried out. Which types of components can be manufactured by injection molding? Explain injection molding process in detail. OR	07 07
Q.4	(a) (b)	Differentiate compression molding and transfer molding with respect to their relative merits, demerits, applications, tooling and working. In which way zinc coating and chrome coating differs? Explain zinc coating process in detail.	07 07
Q.5	(a) (b)	Explain in which areas, the unconventional manufacturing methods are superior than conventional manufacturing methods. Also state the demerits. Explain abrasive jet machining process with its parameters, features, merits, demerits and applications along with neat sketch.	07 07
Q.5	(a) (b)	OR Explain electro chemical machining process with its parameters, features, merits, demerits and applications along with neat sketch. Compare plasma arc machining and laser beam machining with respect to its tools, process, merits, demerits and applications.	07 07

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