Se	at No.	: Enrolment No	
	GUJARAT TECHNOLOGICAL UNIVERSITY M.E -II st SEMESTER-EXAMINATION – JULY- 2012		
St	ubjec	t code: 1722402 Date: 09/07/	2012
Sı	ubjec	t Name: Plastics Mould Manufacturing Technology	
\mathbf{T}	ime:	10:30 am – 13:00 pm Total Mark	ks: 7(
Ir	ıstru	ctions:	
		Attempt all questions.	
		Make suitable assumptions wherever necessary.	
	3. I	Figures to the right indicate full marks.	
Q.1	(a)	Explain the mould design and mould making requirements.	07
	(b)	What is heat treatment? Explain different surface treatment processes.	07
Q.2	(a)	Explain any two taper turning methods.	07
	(b)	Explain the principle and operation of CMM. OR	07
	(b)	Write short notes about the alloys of	07
	(2)	(i) Zinc (ii) Aluminium (iii) Copper	0.
Q.3	(a)	Write short notes about (i) Annealing (ii) Normalizing (iii) Tempering	07
	(b)	Explain about the use of nonmetallic materials in mould construction.	07
Q.3	(a)	OR Explain different milling operations used for producing core and cavities.	07
Ų.J	(b)	Define Lathe and explain the operations that can be performed in CNC Lathe.	07
	(2)	Define Laure and explain the operations that can be performed in error Laurer	0.
Q.4	(a)	Explain the thread cutting operation in lathe.	07
	(b)	What is milling? Explain the role of CNC Milling in mould manufacturing.	07
0.4	(-)	OR	07
Q.4	(a) (b)	Explain different milling cutters with neat sketches. Explain the following with neat sketch.	07 07
	(0)	(i) Selective Laser Sintering (ii) 3D Printing	U1
Q.5	(a)	Explain about tool room measuring instruments and their application in mould	07
	<i>a</i> >	making.	0=
	(b)	Explain the procedure for estimating mould cost. OR	07
Q.5	(a)	Write about the inspection and quality control of moulds.	07
٧.٠	(b)	Explain the preventive maintenance and maintenance to be carried out for	07
	(~)	injection moulds.	~ ·
