Seat N	lo.: _	Enrolment No	
	Sub Tin	GUJARAT TECHNOLOGICAL UNIVERSITY M. E SEMESTER – II • EXAMINATION – SUMMER • 2014 Dject code: 1722402 Date: 18-06-2014 Dject Name: Plastics Mould Manufacturing Technology ne: 02:30 pm - 05:00 pm Total Marks: 70 ructions: 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks.	
Q.1		Explain the following. (i)Cryogenic Heat Treatment (ii) Hard Chrome Plating (iii) Nickel Plating. Describe the various machining processes employed for manufacturing core & cavities in a modern tool room.	07 07
Q.2	(a) (b)	What are the different coordinate systems? Explain with neat sketches. Explain the part programming structure of CNC Milling with examples Write short notes on (i) Part programming (ii) Canned cycle (iii) Machine cycles	07 07
	(b)	OR Why is steel considered to be an ideal material for construction of mould? Explain.	07
Q.3	(a)	What is cutting tool? Explain the different materials used for manufacturing of cutting tools.	07
	(b)	What are the factors to be considered while estimating mould cost? Explain with suitable examples.	07
Q.3	(a) (b)	OR Write in detail about mould polishing techniques Explain Chemical Etching and its applications in mould manufacturing	07 07
Q.4	(a) (b)	Explain the EDM process and its working principle with its applications Write about Hydro Copying and Vacuum Hardening OR	07 07
Q.4 Q.4	(a) (b)	Define Lathe and explain the operations that can be performed in CNC Lathe Explain the following with neat sketch. (i) Stereolithography (ii) Fused Deposition Modeling	07 07
Q.5	(a) (b)	Explain the principle and operation of CMM Explain about tool room measuring instruments and their application in mould making.	07 07

Explain the working principle of NC machine and enumerate its advantages and 07

(a) Explain the part programming structure of CNC Turning with examples.

Q.5

disadvantages.

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