

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VIII(NEW) EXAMINATION – SUMMER 2019****Subject Code:2182313****Date:13/05/2019****Subject Name:Mold Manufacturing Technology****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) Explain about Role and Responsibility of mold designer.	03
	(b) List the reasons for non-metallic materials used for mold.	04
	(c) Explain the components of CNC machines.	07
Q.2	(a) List the non ferrous metals employed in the mold making. Explain about Zinc alloys.	03
	(b) List the basic materials used polishing for the mold.	04
	(c) Explain about elastomeric mold materials.	07
	<b>OR</b>	
	(c) List the properties of steel should possess for the mold construction.	07
Q.3	(a) List the work holding device used for Lathe. Explain any one.	03
	(b) Short note: Cryogenic Heat treatment.	04
	(c) Explain part programming structure of CNC milling with examples.	07
	<b>OR</b>	
Q.3	(a) List the common alloying elements in the steel.	03
	(b) Draw the line diagram of optimistic job planning for mold making.	04
	(c) Compare: CNC machines with conventional machines.	07
Q.4	(a) List the basic process steps of proto typing.	03
	(b) What is Rapid proto typing? List the various methods of Rapid prototyping.	04
	(c) What is cutting tools? List the characteristic of ideal cutting tools.	07
	<b>OR</b>	
Q.4	(a) Short Note: CMM(Coordinate measuring machines)	03
	(b) In modern tool room which type of machining operation employed for making core and cavities?	04
	(c) Explain About EDM process and its working principle with neat sketch.	07
Q.5	(a) Define Milling. Give the classification of Milling operation.	03
	(b) Explain Vacuum Hardening Process.	04
	(c) Explain mold assembly procedure in detail.	07
	<b>OR</b>	
Q.5	(a) Define Lathe. Explain in brief about Turning operation of Lathe.	03
	(b) Define Heat Treatment. Explain about carburizing in brief.	04
	(c) What is Chemical Etching? what is the application of it in mold manufacturing?	07

\*\*\*\*\*