

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII (NEW) - EXAMINATION – SUMMER 2018

Subject Code:2173409

Date:08/05/2018

Subject Name:Plastic mold & Die design(Department Elective - II)

Time:02.30 PM to 05.00 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 mould design principles	03
	(b) What is the role of heat treatment in mold construction?	04
	(c) Classify different types of mold materials and their properties used for mold construction	07
Q.2	(a) Explain air ejection system.	03
	(b) Explain runner and gate balancing system with neat sketches	04
	(c) Explain 3-plate mold with neat sketch	07
OR		
Q.3	(c) Explain collapsible core technique with neat sketch.	07
	(a) What is feed system?	03
	(b) What is gate? Why gate position is important in mold design	04
	(c) Explain different types of ejection systems used in injection molding	07
OR		
Q.3	(a) Explain flash type compression mold	03
	(b) Explain different types of cooling systems used in injection molding with neat diagrams	04
	(c) Explain the working principle of Wire-cut machine	07
Q.4	(a) What is the role of CNC machines in mold fabrication?	03
	(b) What is the working principle of spark erosion machine?	04
	(c) Explain cam track actuation system with neat diagram	07
OR		
Q.4	(a) What are Extrusion process parameters	03
	(b) Explain different types of Runners and their efficiencies.	04
	(c) What is the concept of Hot-runner molds with their advantages and disadvantages	07
Q.5	(a) What are the process variables used in compression molding	03
	(b) Explain the stages in compression molding cycle with neat sketch	04
	(c) Describe extrusion die and its design considerations.	07
OR		
Q.5	(a) What is the process parameters used in transfer molding?	03
	(b) What are the advantages and disadvantages of transfer molding	04
	(c) Explain the considerations for designing of pot used in transfer molding.	07
