

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI(NEW) – EXAMINATION – SUMMER 2019

Subject Code:2162308

Date:16/05/2019

Subject Name:Advance Plastics Processing

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) Which are the advantages and limitations of RIM process?	03
	(b) Explain calendar roll arrangement with diagram.	04
	(c) Explain the process steps of Reaction Injection molding Technique.	07
Q.2	(a) What is open cell and closed cell foam? Discuss.	03
	(b) Differentiate between extrusion blow molding and injection blow molding techniques.	04
	(c) Write a note on: Parison Programming.	07
OR		
	(c) Write a note on: Electroplating.	07
Q.3	(a) Define: K factor, Nip gap, Cellular Plastics.	03
	(b) What is Color concentrates for thermoplastics? Discuss.	04
	(c) What is structural foam molding? Give advantages and limitations of structural foam molding.	07
OR		
Q.3	(a) Discuss flexographic printing process for plastic film.	03
	(b) Explain encapsulation process and give its applications.	04
	(c) With neat diagram explain calendaring process along with its applications.	07
Q.4	(a) What is the function of blowing agent? Discuss various blowing agents used in foam.	03
	(b) Explain Hot foil stamping process along with its applications.	04
	(c) Explain the vacuum metalizing process with a neat sketch along with its applications.	07
OR		
Q.4	(a) Explain In- mold decoration technique for plastics.	03
	(b) Discuss (i) Cellular PE foam (ii) Crosslinked PE (XLPE) foam.	04
	(c) How PU foam is prepared? Explain its process and give its applications.	07
Q.5	(a) Give any three molding defect, causes and remedies for Calendaring process.	03
	(b) Explain the steps in rotational molding process.	04
	(c) What is Casting? List various Plastic materials that can be cast. Explain PMMA sheet preparation by casting.	07
OR		
Q.5	(a) List various heating systems for Calendar rolls. Explain any one heating system for calendar rolls.	03
	(b) List various printing techniques on Plastics. Explain Rotogravure printing process for plastic films.	04
	(c) Explain (i) Fluidized bed and (ii) Electrostatic fluidized fluidized coating technique.	07
