

# GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject Code:2163602

Date:18/05/2019

Subject Name:Compounding & Processing of Plastics & Rubbers

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) What do you mean by compounding?	03
	(b) Explain procedure for compound development.	04
	(c) Differentiate single screw and double screw extruder.	07
Q.2	(a) Define: (a) Short shot (b) Shut height (c) Warpage	03
	(b) Explain various selection criteria for Compounding Ingredients.	04
	(c) Write a short note on Extrusion process.	07
	<b>OR</b>	
	(c) Explain in detail about rubber processing.	07
Q.3	(a) Function of die and breaker plate in extruder.	03
	(b) Write in brief about various methods of incorporation of additives.	04
	(c) With neat sketch explain compression molding.	07
	<b>OR</b>	
Q.3	(a) List out various zones in extruder.	03
	(b) Give the difference between compression molding and transfer molding.	04
	(c) What do you mean by cold and hot runners.	07
Q.4	(a) What do you understand by Mastication.	03
	(b) What are the defects that can occur in transfer molding.	04
	(c) Explain reaction injection molding.	07
	<b>OR</b>	
Q.4	(a) What are the different types of pressures utilized to open a transfer mould?	03
	(b) Give the name of products and application of injection molding.	04
	(c) Write in detail about different types of additives used in polymer industries. .	07
Q.5	(a) Describe various types of raw material used for plastic profile.	03
	(b) Write down advantages and disadvantages of blow molding.	04
	(c) Explain in detail the process of plunger type injection molding with neat figure.	07
	<b>OR</b>	
Q.5	(a) Write the importance of fillers in compounding.	03
	(b) Explain in brief about Water assisted injection moulding along with its advantages.	04
	(c) Explain in detail the process of Pulltrusion with neat figure.	07

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