

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2018****Subject Code: 2172601****Date: 15/11/2018****Subject Name: Rubber Equipment Design-II****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) Give the importance of Parting line in Mold.	03
	(b) Write the factors affecting the design and construction of the mold.	04
	(c) Discuss in detail about “Cryogenic Deflating”.	07
Q.2	(a) “Strength of the cavity is important parameter in mold design” justify the statement.	03
	(b) Write the properties required for Sprue Bush.	04
	(c) Explain the Transfer molding process in detail with diagram and write the advantages of transfer molding over compression molding.	07
	OR	
	(c) Explain in detail about Thermal Consideration for Transfer molding.	07
Q.3	(a) Give the function & importance of Die.	03
	(b) List the important aspects for practical die design.	04
	(c) Write a Short note on “Die Geometry”	07
	OR	
Q.3	(a) “Strength and rigidity is important factors for die design” justify the statement.	03
	(b) Which materials are used for die construction?	04
	(c) Rubber extruder die is essentially a stream lined channel'-Explain the statement.	07
Q.4	(a) Define the term (1) Lead (2) Compression Ratio (3) Starts	03
	(b) Give the difference between Hot feed and Cold feed Extruder.	04
	(c) Explain the Thermal conductivity and Boundary layer affects Extrusion cooling.	07
	OR	
Q.4	(a) Write the importance of Feed Roller in Extruder.	03
	(b) Give the difference between Bimetallic liner and Induction Liner.	04
	(c) Discuss the effects of the Screw & Barrel temperature in detail.	07
Q.5	(a) Define the term (1) Shot capacity (2) Locking Force (3) Sink Mark.	03
	(b) List out and Draw the different design of Runner cross section.	04
	(c) Discuss the factors which influencing mold filling in Injection molding.	07
	OR	
Q.5	(a) Write the disadvantages of Injection Transfer molding.	03
	(b) Give the comparison between Insulated runner systems and Internally heated runner system.	04
	(c) List out the different types of Injection Units and explain any two in detail.	07
