

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2022****Subject Code:3162603****Date:01/06/2022****Subject Name:Rubber Equipment Design****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.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS
Q.1	(a) Give the importance of crosslinking factor in compression molding.	03
	(b) What is Anisotropy? List out the factors affecting anisotropy.	04
	(c) Discuss in detail about the cryogenic deflashing.	07
Q.2	(a) Give the importance of Bolster in Injection molding.	03
	(b) List out the different Ejectors used in Injection molding. Explain any two in brief.	04
	(c) Discuss in details about the Effect of injection molding machine processing variables.	07
OR		
	(c) Draw and explain the different types of Injection unit used in rubber industry.	07
Q.3	(a) Write the basic requirement used for Die Design.	03
	(b) List out the different components and its function for Extruder machine.	04
	(c) Short note on “Iddon High Intensity Mixing Screw”.	07
OR		
Q.3	(a) Write the classification of Die.	03
	(b) Give the difference between Hot feed extruder and Cold feed extruder.	04
	(c) Discuss the Effects of the Screw and Barrel Temperatures in detail.	07
Q.4	(a) List out the classification of Press.	03
	(b) Write the properties required for mold design.	04
	(c) Explain in detail about different types of roll configuration for Calendar.	07
OR		
Q.4	(a) Give the importance of Chrome Plating in mold design.	03
	(b) List out the factors affecting design of mold.	04
	(c) Discuss the construction and working of Roll cross axis device.	07
Q.5	(a) Write the advantages of Internal mixer.	03
	(b) Give the comparison between drop door and old type shielding door for internal mixer.	04
	(c) Discuss in details about the different rotor shaft seals used in internal mixer.	07
OR		
Q.5	(a) List out the factors on which batch size of mixing mill depends.	03
	(b) Write the causes and remedies when the stocks temperature rise too quickly in internal mixer.	04
	(c) Explain in detail about heat transfer in Internal mixer.	07
