

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2021****Subject Code:3172314****Date:15/12/2021****Subject Name: Secondary Plastics Processing Techniques****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) What is surface treatment? List various surface treatment methods for plastics.	03
	(b) With a neat sketch explain the hot gas welding technique.	04
	(c) Write a short note on the Fluidized Bed Coating technique.	07
Q.2	(a) Explain the electrostatic spraying technique for powdered plastic coating.	03
	(b) With a neat sketch explain the corona discharge technique.	04
	(c) Write a short note on the Ultrasonic welding technique.	07
OR		
Q.3	(c) Write a short note on Spin or Friction welding technique.	07
	(a) What is Flame treatment technique for plastics?	03
	(b) What is adhesive bonding? List the six basic categories of adhesives. State the reasons for using adhesives for all types of parts and materials.	04
	(c) With a neat sketch explain the hot plate welding technique	07
OR		
Q.3	(a) What is Labelling?	03
	(b) Write a short note on Pad Printing process.	04
	(c) Write a short note on the Electrostatic Fluidized Bed coating technique.	07
Q.4	(a) Explain briefly about Water transfer process.	03
	(b) List and explain the principal property considerations for machining of plastics.	04
	(c) Explain with a neat sketch, the Flexographic printing technique.	07
OR		
Q.4	(a) What is the purpose of finishing & machining operation? Explain briefly the Tumbling operation for Finishing of plastics.	03
	(b) Explain about In mold decoration technique	04
	(c) Write a Short Note on the Hot Stamping process.	07
Q.5	(a) Explain briefly the Laser machining technique.	03
	(b) What is Flocking? Explain it briefly.	04
	(c) Explain the Vacuum metalizing technique with a neat sketch.	07
OR		
Q.5	(a) List the general rules to be observed for cementing of plastics.	03
	(b) Explain the Electrolytic plating technique.	04
	(c) Explain with a neat sketch the screen printing technique	07
