

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-V EXAMINATION – WINTER 2025****Subject Code:3152312****Date:17-11-2025****Subject Name:Adhesives and Sealants in Plastics****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) Write short notes on adhesive in automobile industry.	03
	(b) Define adhesive with its example.	04
	(c) Differentiate between epoxy resin adhesive with acrylic adhesive.	07
Q.2	(a) Differentiate between sealant and adhesive.	03
	(b) Why silicon material is mostly consider as an adhesive sealants?	04
	(c) Give views on adhesives for industrial applications	07
	OR	
	(c) What is resin based adhesive? Explain any one with its suitable uses.	07
Q.3	(a) Enlist the polymers that are used to make sealant.	03
	(b) How to improve compatibility of adhesive to adherent?	04
	(c) What type of adhesive used for joining of metal with rubber and accordingly what type of surface treatment has been carried out for both different substrates?	07
	OR	
Q.3	(a) Enlist the application of adhesion in various sectors?	03
	(b) Enlist different types of resin based synthetic adhesive.	04
	(c) How solvent bonding of plastic takes place?	07
Q.4	(a) Give application of polyurethane based adhesives	03
	(b) What are pressure sensitive adhesives? Give examples	04
	(c) Discuss in detail about Natural Rubber Adhesives.	07
	OR	
Q.4	(a) Name Adhesives used for wood bonding and packaging	03
	(b) Discuss applications for cyano acrylate adhesives.	04
	(c) Discuss use of SBR in construction industry.	07
Q.5	(a) Give applications of anaerobic adhesives	03
	(b) Discuss in detail about Poly Vinyl Acetate adhesives	04
	(c) Write about adhesives used in electronic industry	07
	OR	
Q.5	(a) Write about binders for abrasive materials.	03
	(b) Short note on book binding adhesives	04
	(c) Discuss in detail, naturally available adhesive materials with examples.	07
