

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- VII (New) EXAMINATION - WINTER 2019

Subject Code: 2172308	Date: 30/11/2019
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Subject Name: Speciality Plastics & applications

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.

plastics. (b) List the structure and properties of ABS. (c) What is sterilization? List methods of sterilization and explain steam sterilization. Q.2 (a) While selecting additives for plastics in medical devices, what care should be taken? (b) List the properties and applications of PTFE. (c) State the advantages of using plastics in medical device applications. OR (c) Explain about the chemical resistance for plastics in medical devices devices Q.3 (a) State the properties and applications of PMMA with its structure. (b) Explain briefly about Liquid Crystal Polymers. (c) Describe about Radiopaque additives. OR Q.3 (a) Define i) Nanoadditives ii) Biocompatibility iii) Medical Device (b) List the properties and applications of PET. (c) State the properties and applications of Epoxy with its structure. Q.4 (a) Explain about plasticizers used as additives in medical devices. (b) Write the structure, properties and applications of PEEK. (c) List methods of joining & welding plastics & explain Ultrasonic Welding. OR Q.4 (a) What is laser marking? (b) What are antimicrobial additives used in medical devices. (c) List the names of plastics and its applications in construction industry. Q.5 (a) Write structure & properties of Polysulphones. (b) List the properties & applications of Nylon 66 with its structure.				MARKS
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(b) Explain about wear resistant and lubricious additives used for plastics in medical devices.		(D)	1	04
		(c)	List the names of plastics and its applications in automotive	07
