Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII EXAMINATION - SUMMER 2016

Subje	ect (Code:172305 Date:05/0	5/2016
Subje	ect l	Name:Plastics Testing & Instrumental Analysis (Department El	ective - I)
Time	:02:	30 PM to 05:00 PM Total Ma	arks: 70
Instru	ction	s:	
		Attempt all questions.	
		Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	What is the purpose of Testing? Explain the importance of	07
۷.1	(4)	Specification and Standards for performing the test.	07
	(b)		07
	. ,	strain behavior of various types of plastic material.	
Q.2	(a)	What is Tensile Strength? Explain in details Tensile Test using UTM	07
		machine as per standard requirements.	
	(b)		07
		elasticity (b) Stress (c) Strain (d) Yield point.	
		OR	. –
	(b)	<u> </u>	07
		strength of plastic material? Provide brief steps for performing flexural test.	
Q.3	(a)	What is Impact Strength? List out the various types. Explain Izod	07
Ų.S	(a)	Impact Test	U7
	(b)	•	07
	(6)	Elongation at break	07
		OR	
Q.3	(a)	What do you mean by Dielectric Constant and Explain in details	07
		Dielectric Strength test.	
	(b)	Explain in details HDT test with its test variable & limitation.	07
Q.4	(a)	Define MFI. Explain how this test is carried out for plastics material	07
		along With its significance?	
	(b)	Explain the Term Hardness. List the Hardness Tests used for Plastics.	07
		Explain Rockwell Hardness Test.	
ΩA	(a)	OR Define Thermal Conductivity? How do you determine it for plastics by	07
Q.4	(a)	Guarded hot plate method?	U7
	(b)	•	07
	(6)	along With its significance?	07
Q.5	(a)		07
	, ,	determine Arc Resistance of Plastics with neat sketch	
	(b)	Define Glass transition temperature (Tg) and explain factors affecting	07
		Tg.	
		OR	
Q.5	(a)	Explain about the environment factors which affect Plastic products &	07
	/3 \	remedies for same with example.	0=
	(b)		07
		about the experiments as per IS 4985 test method.	
