

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI(NEW) – EXAMINATION – SUMMER 2019

Subject Code:2162307

Date:14/05/2019

Subject Name:Testing and Identification of Plastic Materials

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.

		MARKS
<b>Q.1</b>	(a) What is Testing? What is the purpose of testing?	<b>03</b>
	(b) What are long term and short term properties?	<b>04</b>
	(c) Discuss in detail, tensile testing of Plastic Materials	<b>07</b>
<b>Q.2</b>	(a) A plastic film needs to be identified. What are the tests you will perform?	<b>03</b>
	(b) What is Creep?	<b>04</b>
	(c) Discuss MFI test in detail.	<b>07</b>
	<b>OR</b>	
	(c) Discuss Izod Impact and Charpy impact tests.	<b>07</b>
<b>Q.3</b>	(a) What is HDT?	<b>03</b>
	(b) Discuss Cup flow test.	<b>04</b>
	(c) Discuss Dielectric strength test	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) What is a density gradient column?	<b>03</b>
	(b) What is modulus of Elasticity? What is its practical significance.	<b>04</b>
	(c) Discuss ESCR test.	<b>07</b>
<b>Q.4</b>	(a) Define : Flexural strength, MFI, Shear stress	<b>03</b>
	(b) Discuss HDT test	<b>04</b>
	(c) What are optical properties? Discuss test to check haze	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) What is BDV?	<b>03</b>
	(b) Discuss flammability test	<b>04</b>
	(c) Discuss test for Dielectric constant.	<b>07</b>
<b>Q.5</b>	(a) Discuss identification tests	<b>03</b>
	(b) What is the importance of long term tests?	<b>04</b>
	(c) Discuss advantages and disadvantages of testing	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Discuss solubility tests	<b>03</b>
	(b) Discuss tests to work out molecular weight of plastics	<b>04</b>
	(c) Discuss DSC test and state its importance	<b>07</b>

\*\*\*\*\*