GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma Engineering - SEMESTER–VI • EXAMINATION – WINTER • 2014

Subject Code: 362302   **Date: 28-11-2014**
Subject Name: Testing and Quality Management
Time: 02:30 pm - 05:00 pm   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **English version is considered to be Authentic.**

Q.1	(a)	1) Give full forms of: ASTM , ISO, BIS (in English with correct spelling)	**03**
		2) Define: a)standard b) creep c) specification d) conditioning	**04**
	(b)	Explain various process control charts.	**07**
Q.2	(a)	Define flexural strength. With sketch of test setup, describe the test procedure for it and discuss factors affecting the test result.	**07**
	(b)	Define HDT. With sketch of test setup, describe the test procedure and factors affecting the test results for HDT.	**07**
		OR	
	(b)	Define VST and explain the ASTM test procedure for it with sketch.	**07**
Q.3	(a)	Define dielectric strength. With sketch of test setup, describe the test procedure and factors affecting the dielectric strength.	**07**
	(b)	Explain the ASTM test procedure for luminous transmittance.	**07**
		OR	
Q.3	(a)	Define MFI. With sketch, expalin the ASTM test procdure to measure MFI. Also discuss the factors affecting test results.	**07**
	(b)	Define surface resistivity and volume resistivity. With sketch, explain the ASTM test procedure for Arc resistance.	**07**
Q.4	(a)	Define ESC. With neat figure, describe the test procdure for ESCR.	**07**
	(b)	Explain tensile strength test procedure with test specimen, procedure, calculation and factors affecting test result.	**07**
		OR	
Q. 4	(a)	Define hardness. Explain Rockwell hardness test procedure	**07**
	(b)	Explain dilute solution viscosity tests.	**07**
Q.5	(a)	Describe various sampling plans for quality control.	**07**
	(b)	Define toughness. Explain various factors affecting impact test.	**07**
		OR	
Q.5	(a)	Explain S.Q.C procedure and state its advantages.	**07**
	(b)	List various failure analysis methods and explain any two in detail.	**07**

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