Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## **BE - SEMESTER-IV EXAMINATION - WINTER 2015**

Sı	ıbjec	t Code: 141901 Date:30/12/2015	
Sı	ıbjec	t Name: Mechanical Measurement and Metrology	
Ti	ime:	02:30pm to 05:00pm Total Marks: 70	
In	struc	etions:	
	2	<ul><li>Attempt all questions.</li><li>Make suitable assumptions wherever necessary.</li><li>Figures to the right indicate full marks.</li></ul>	
	•	. Tigures to the right indicate run marks.	
Q.1	(a) (b)	Distinguish between precision and accuracy with neat sketch, in detail.  Describe wave length standard with its advantages.	07 07
Q.2	(a)	State the types of Micrometers. Describe with neat sketch construction and working of Micrometer.	07
	<b>(b)</b>	Describe Telescopic gauge in detail, with neat sketch.	07
		OR	
	<b>(b)</b>	Sketch and describe optical comparator with its industrial advantage.	07
Q.3	(a)	Describe with neat sketch principle, construction and working of Auto-collimator.	07
	<b>(b)</b>	Explain how small angle of work piece is measured with Angle dekkor.	07
		OR	
Q.3	(a) (b)	Explain pitch measurement of internal screw threads with instrument.  Describe measurement of effective diameter by TWO wire method, in screw thread.	07 07
Q.4	(a) (b)	Write short note on the Parkinson gear tester. Explain, with neat sketch Gear tooth vernier caliper.	07 07
		OR	
Q.4	(a) (b)	State working principle of Thermo couple .State its materials use in it. Explain Proving ring in brief, with neat sketch.	07 07
Q.5	(a)	Describe working and construction of Tomlinson surface tester for surface measurement.	07
	<b>(b)</b>	Describe construction and working of Optical pyrometer.	07
		OR	
Q.5	(a)	Write short note on Thermistor.	07
	<b>(b)</b>	Explain the construction and working of LVDT with application.	07

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