Enrollment No:-_____ Exam Seat No:-_____

C.U.SHAH UNIVERSITY

Summer-2015

Subject Code: 4TE03ELM1 **Subject Name: Electronics Measurement**

Course Name:B.Tech (EC) Date: 8/5/2015

Semester:III Marks : 70

Time:02:30 TO 05:30

Instructions:

1) Attempt all Questions of both sections in same answer book/Supplementary.
2) Use of Programmable calculator & any other electronic instrument prohibited.
3) Instructions written on main answer book are strictly to be obeyed.
4) Draw neat diagrams & figures (if necessary) at right places.
5) Assume suitable & perfect data if needed.

SECTION-I

Q-1	a) What are the various configurations used in a DAS?	**2**
	b) Define transducer.	**2**
	c) Define the terms. (i) Accuracy (ii)Resolution.	**2**
	d) How low level multiplexing is achieved?	**1**
Q-2		
	a) Explain Static Characteristics of an instrument in brief.	**5**
	b) Explain electrodynamometer.	**5**
	c) Explain Arithmetic mean and average deviations .	**4**
	OR	
Q-2		
	a) Explain systematic error in brief.	**5**
	b) Explain practical PMMC movement.	**5**
	c) Describe Simple CRO with help of sketch.	**4**
Q-3		
	a) Explain liquid crystal display (LCD) with help of sketch.	**5**
	b) Explain segmental displays using LEDs.	**5**
	c) Explain Dot-Matrix printer.	**4**
	OR	
Q-3		
	a) Explain Gas discharge plasma displays	**5**
	b) Explain basic principle of oscilloscope with the help of diagram.	**5**
	c) Explain horizontal deflecting system.	**4**

SECTION-II

Q-4	a) What is RTD? Where it is used?	**2**
	b) What is the criteria for balance of Wheastone bridge?	**2**
	c) State the applications of solar cell.	**2**
	d) What are the major components of a CRT?	**1**
Q-5		
	a) Explain Dual Trace Oscilloscope.	**5**
	b) Explain spectrum analyzer.	**5**
	c) Explain basic working of function generator.	**4**
	OR	
Q-5		
	a) How to measure frequency by lissajous method? Explain in brief.	**5**
	b) Explain heterodyne wave analyzer in brief.	**5**
	c) Explain Wheatstone's bridge with necessary diagrams.	**4**
Q-6		
	a) Explain Kelvin's bridge with necessary diagrams.	**5**
	b) Explain LVDT.	**5**
	c) What is single channel data acquisition system? Explain in brief.	**4**
	OR	
Q-6		
	a) Explain Maxwell bridge with the help of diagram.	**5**
	b) Explain Thermistor.	**5**
	c) Explain ladder type D/A converter.	**4**