DEPARTMENT OF ELECTRNICS & COMMUNICATION ENGINEERING, KITSW

COURSE: **U14EI 205 - BASIC ELECTRONICS ENGINEERING**	ECE-I, Semester-II, 2015-16

ASSIGNMENT-8

Topic	Assignment Posted On	Submission Due On
Measurement Systems, CRO	25.04.2016	**09.05.2016**

Note:

- *Write the answers legibly and neatly.*
- *Use a different color pen for writing questions and draw a horizontal line at the end of each answer*
- *Leave left margin on each page*
- *Write only on one side of the page. This will facilitate you to use the other side to add extra notes or to incorporate any corrections to your solutions after verifying them with the solutions posted on course web page.*
- *Your objective of writing assignments is not for the sake of submitting, only to get assignment marks. Writing assignments is a part of learning process, after listening to class lectures. After all, You will be referring to class notes and assignment notes for MSEs and ESE.*
- *Make an honest effort to solve the assignment problems. In case of difficulty, discuss with friends / Teacher and refer to solutions as a last resort. Finally, rework the solutions on your own for submission*
- *You will be graded based on the quality of your work. Please do not let your efforts go in vain*
- *Class notes and Assignment will keep you in comfortable position in MSEs and ESE*

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Read the questions carefully, and answer them in detail

1. A DC ammeter has a PMMC coil resistance and shunt resistance in the ratio 99:1. If the full scale deflection (fsd) is given as 0.1mA, determine the current passing through the ammeter at (i) fsd (ii) 0.5 fsd and (iii) 0.25 fsd.

2. Discuss briefly about voltmeter loading effect.

3. Explain with a diagram the operation of series type ohmmeter. Show how the scale is marked. What is the significance of half-scale deflection (hsd) and derive expression for unknown resistance at hsd.

4. Explain with a diagram the operation of shunt type ohmmeter. Show how the scale is marked. What is the significance of half-scale deflection (hsd) and derive expression for unknown resistance at hsd

5. Draw the block diagram of a digital multimeter and explain the function of each block.

6. Explain the construction and working principle of a Cathode Ray Tube (CRT) by deriving an expression for deflection sensitivity of CRT.

7. Draw the block diagram of a Cathode Ray Oscilloscope (CRO) and explain the function of each block.

8. Write short notes on CRT screens.

9. Explain various applications of a CRO.

Instruction: Submit the solutions during the lunch break on or before due date @ Room No: B-I-208

Faculty: *K. Ashoka Reddy, Room #: BI-208*