



w.e.f. 2015-16 Admitted Batch (CBCS)
SIR C R REDDY COLLEGE (AUTONOMOUS), ELURU

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

III B.Sc. Degree Examinations - April, 2018

(At the end of VI Semester)

PHYSICS Cluster Paper-8(3)

Electronics Instrumentation

Time : 3 Hrs.

Date: 13-04-2018

Max.Marks: 75

Pass Min: 26

SECTION -A

Answer any FIVE of the following

5×10=50M

1. Explain the construction and working of Permanent Magnetic Moving Coil galvanometer with relevant theory.
2. Explain the functioning of Series and Shunt type Ohmmeters with detail.
3. What is a Multi meter? Explain how Multi meter can be used as AC and DC voltmeter with relevant circuit diagram.
4. Explain the construction of Cathode ray tube (CRT). Explain the working of Cathode ray Oscilloscope (CRO) with the basic block diagram.
5. Explain the working of Function generator with block diagram.
6. What is Distortion? What is Harmonic Distortion? Explain the working of Distortion factor meter with block diagram.
7. How unknown resistance can be measured using Whetstone 's bridge? Give mathematical analysis .What are limitation of Whetstone's bridge?
8. How unknown Capacitance can be measured using Schering's bridge? Give mathematical analysis .What are the limitation of Schering's bridge?

SECTION -B

Answer any FIVE of the following

5X5=25M

9. How basic movement can be converted into DC Ammeter?
 10. Explain the loading effect of voltmeter.
 11. What are the considerations in choosing an analog voltmeter ?
 12. How an analog multi metre is used as micro ammeter?
 13. What are advantages of digital multi metre over analog multi meter?
 14. Write the general specifications of DVM :
 15. How frequency can be measured with CRO?
 16. What are the limitations of Maxwell's bridge?
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