

- (b) What is the working principle of digital voltmeter?
Write two advantages of digital voltmeter.
(4,6)
3. (a) What is a CRT? How is CRO superior to ordinary measuring instruments?
(b) What is a sweep generator in CRO? Why it is used?
(4,6)
4. (a) Draw the block diagram and explain the working principle of Digital storage Oscilloscope (DSO).
(b) Write three major advantages of DSO. (7,3)
5. (a) Describe the functioning of a standard signal generator.
(b) Explain the working of basic wave analyzer in detail. Write name of two types of wave analyzer.
(5,5)
6. (a) Draw the block diagram of Q-meter and explain its working.
(b) Explain any ac bridge of your choice and find its balancing condition.
(5,5)
7. (a) What is a multimeter? How it is used as an ammeter?
(b) How is the digital voltmeter different from analog voltmeter?
(5,5)

[This question paper contains 2 printed pages.]

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Your Roll No.

Sr. No. of Question Paper : 1477

Unique Paper Code : 32223904

Name of the Paper : Basic Instrumentation Skills

Name of the Course : B.Sc. Prog. CBCS – SEC

Semester : V

Duration : 3 Hours

Maximum Marks : 50

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
 2. Attempt any **five** questions in all.
 3. **All** questions carry equal marks.
 4. Use of non-programmable scientific calculator is permitted.
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1. (a) Explain the terms accuracy, sensitivity and resolution of an instrument.
(b) Discuss loading effect of a voltmeter with an example. (5,5)
 2. (a) Calculate the absolute error and percentage error of measurement if measured value of a resistor is equal to 20.65Ω and its true value is 20.55Ω .

P.T.O.