

No. of Printed Pages : 4 181036/171036/121036  
Roll No. .... /031036

**3rd Sem / Eltx, EI, Med. Eltx, Mechatronics (6th Sem),  
GE (4th Sem), Power Eltx, Elect. & Eltx. Engg.**

## **Subject:- Electronic Instruments and Measurement**

Time : 3Hrs. M.M. : 100

## **SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Full form of AC

  - a) Analog Coil
  - b) Alternating Current
  - c) Alternate Cycle
  - d) None of the above

Q.2 Measurement methods are of \_\_\_\_\_ types.

  - a) 4
  - b) 5
  - c) 2
  - d) 1

Q.3 What are types of measuring instruments?

  - a) Primary and Secondary Instrument
  - b) Type 1 and type 2 Instrument
  - c) Absolute and Secondary Instrument
  - d) Absolute and Primary Instrument

Q.4 What is the full form of CRO

  - a) Common Ray Oscillator
  - b) Combined Ratio Oscilloscope

- c) Cathode Ray Oscilloscope  
d) None of these

Q.5 Multimeter is used to measure \_\_\_\_\_ quantity.

a) Single                    b) Double  
c) Multiple                d) Tripple

Q.6 Which among the following is a part of the cathode Ray Tube?

a) Control Electrode    b) Electron Gun  
c) Focusing System      d) All of the above

Q.7 Function generator can generate

a) Sin wave                b) Square wave  
c) Triangular wave        d) All of these

Q.8 In the simplest form, an AC bridge consists of \_\_\_\_\_

a) arms, source and a detector  
b) arms and source  
c) source and detector  
d) arms and detector

Q.9 A quantity having discrete numerical value is called

a) An analog quantity    b) Digital quantity  
c) Octal quantity          d) Natural quantity

Q.10 Logic probe is used to check

a) Logic state of analog circuit  
b) Logic state of digital circuit  
c) Logic state of analog and digital circuit  
d) All the above

(1) 181036/171036/121036  
/031036

(2) 181036/171036/121036  
                  /031036

## **SECTION-B**

**Note:** Objective type questions. All questions are compulsory.  $(10 \times 1 = 10)$

- Q.11 What is Accuracy.  
Q.12 What is Deflecting Torque.  
Q.13 Expand PMMC.  
Q.14 Write the full form of CRT.  
Q.15 What is Duty Cycle.  
Q.16 Which bridge is used to measure DC quantity?  
Q.17 AN instrument having continuous output is called \_\_\_\_\_ instrument.  
Q.18 What is Distortion Factor Meter.  
Q.19 What is Aquadag.  
Q.20 Expand DVM.

## **SECTION-C**

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions.  $(12 \times 5 = 60)$

- Q.21 Write any five difference between Accuracy and precision.  
Q.22 Describe the working principle of Function Generator.  
Q.23 Draw and Explain the block diagram of Q meter.  
Q.24 Explain the working of Digital Multimeter.  
Q.25 Enlist the various types of Error in measurement.

(3) 181036/171036/121036  
/031036

- Q.26 Explain the working principle of Dual Slope Type Digital Voltmeter.  
Q.27 Write five advantages of Digital instrument over Analog instrument.  
Q.28 Explain working principle of pulse Generator.  
Q.29 Explain different types of instruments.  
Q.30 Explain any five front panel controls of CRO.  
Q.31 Explain Signature Analyzer.  
Q.32 Explain De-Sauty's bridge.  
Q.33 Explain Logic Probe.  
Q.34 What is standard and explain its different types.  
Q.35 How amplitude of waveform is measured using CRO.

## **SECTION-D**

**Note:** Long answer type questions. Attempt any two questions out of three questions.  $(2 \times 10 = 20)$

- Q.36 Draw and explain block diagram of CRO in detail.  
Q.37 Explain Moving Iron type instrument with diagram.  
Q.38 Write short note on following:  
a) Cathode Ray Tube  
b) Logic Pulser

(1080)

(4) 181036/171036/121036  
/031036