

No. of Printed Pages : 4
Roll No.

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Eltx., Mechatronics, Med. Eltx.
Subject:- Electronic Instr. & Measurement

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Gross error occurs due to human mistakes. (CO1)
a) True b) False
- Q.2 _____ is the ratio of change in magnitude of output signal to the change in magnitude of input signal. (CO1)
a) Resolution b) Accuracy
c) Sensitivity d) Quality
- Q.3 Harmonic distortion in amplifier is caused by :(CO5)
a) Presence of noise
b) Positive of noise
c) Non-linear characteristics of active device
d) None of these
- Q.4 Analog instruments have more accuracy than digital instruments. (CO6)
a) True b) False
- Q.5 ACRO uses : (CO2)
a) Electrostatic focussing

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- b) Electromagnetic focussing
c) Both
d) None of above

- Q.6 Low resistance is measured by : (CO4)
a) Maxwell's bridge b) Desauty's bridge
c) kelvin double bridge d) Wein bridge
- Q.7 Signal generators is also known as: (CO6)
a) Oscillator b) Amplifier
c) Attenuator d) None of these
- Q.8 The basic principle of D Arsonavol instrument is the same as the principle of. (CO1)
a) Moving iron instrument
b) PMMC instrument
c) Induction instrument
d) Moving coil instrument
- Q.9 Which of the following is used for extending the range of an a.c ammeter. (CO3)
a) Capacitor b) Shunt
c) Inductor d) Current Transformer
- Q.10 CRO can be used for measuring: (CO3)
a) Ac voltage only b) DC voltage only
c) frequency d) None of above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Define measurand. (CO1)

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- Q.12 Explain damping torque. (CO2)
- Q.13 Name the deflection plates used in CRT. (CO2)
- Q.14 Define Instrumentation amplifier. (CO8)
- Q.15 The quality factor of a coil is : $Q = \underline{\hspace{2cm}}$ (CO9)
- Q.16 A logic probe is used to check $\underline{\hspace{2cm}}$ states in digital circuits. (CO11)
- Q.17 Write full form of DSO. (CO2)
- Q.18 CRO can be used to measure voltage. (True/False) (CO3)
- Q.19 What is Aquadag? (CO3)
- Q.20 Write any two advantages of Wheat Stone bridge. (CO4)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What is error? What are the types of errors? (CO1)
- Q.22 What are advantages of moving iron instruments? (CO2)
- Q.23 What is the difference between analog and digital multimeter? (CO6)
- Q.24 Explain in brief spectrum analyzer. (CO5)
- Q.25 What is the need of blanking during flyback in CRO? (CO6)
- Q.26 What are different front panel controls in CRO? (CO6)

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- Q.27 Draw the block diagram of a function generator. (CO7)
- Q.28 Explain working of ramp type digital voltmeter. (CO6)
- Q.29 Explain, How RLC bridge is used? (CO10)
- Q.30 Explain working of Wheat Stone bridge. (CO10)
- Q.31 What is difference between voltmeter and ammeter? (CO5)
- Q.32 Draw block diagram of multimeter. (CO6)
- Q.33 Write short note on PMMC instruments. (CO3)
- Q.34 Write specifications of CRO. (CO5)
- Q.35 What are different methods of measurement? (CO1)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 What is the principle of Moving coil type instrument? Explain its construction and working with neat diagram. (CO2)
- Q.37 Draw and explain block diagram of CRO. (CO3)
- Q.38 Explain how Q meter is used for the measurement of Quality factor of a coil. (Co9)

(**Note:** Course outcome/CO is for office use only)

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