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221021

2nd Sem./ ECE, ECE (For Speech and Hearing Impaired)

Subject : Electronic Instruments and Measurement

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 A simple instrument used to detect logic state of a node in digital circuit is known as _____.(CO5)

a) Logic pulser b) Logic analyser
c) Logic probe d) Logic comparator

Q.2 Random errors in a measuring system are due to (CO1)

a) Environmental changes
b) Use of uncalibrated instrument
c) Poor cabling Practices
d) Unpredictable effects

Q.3 Inductance is measured by which one of the following? (CO4)

a) Wheat stone bridge b) Schering bridge
c) De Sauty's bridge d) Maxwell's bridge

Q.4 The wave shape generated by time base circuit of a CRO is (CO3)

a) Triangular wave b) Square wave
c) Saw tooth wave d) Sine wave

Q.5 DSO digitises the _____ form of input signal. (CO3)

a) Digital b) Analog
c) Saw tooth d) None of the above

Q.6 A moving iron instrument can be used for

a) AC only b) DC only
c) Both AC and DC d) None of the above

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 The band width of a CPO is measured in _____. (CO3)

Q.8 List any two advantages of Digital multimeter. (CO5)

Q.9 The input resistance of an ideal voltmeter is infinite. (True/False) (CO2)

Q.10 Errors may occur due to environmental conditions surrounding the instruments. (True/False) (CO1)

Q.11 RF stands for_____. (CO4)

Q.12 Name the instrument used to generate Sine waves with variable frequency and amplitude _____. (CO4)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Differentiate between precision and accuracy. (CO1)

Q.14 Describe De Sauty's bridge. (CO4)

Q.15 Describe Standard. (CO1)

Q.16 Define sensitivity. (CO1)

Q.17 What is the effect of higher frequencies on measurement using multimeter. (CO2)

Q.18 Explain duty cycle of a pulse signal. (CO4)

Q.19 Elaborate the parts of a CRT with the aid of a diagram. (CO3)

Q.20 What is loading effect? (CO2)

Q.21 Compare analog and digital instruments. (CO5)

Q.22 Explain the working principle of Q meter. (CO4)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Draw the circut diagram of Wheat stone bridge and explain its working. (CO5)

Q.24 Explain the working principle and construction of PMMC type of instrument. (CO2)

Q.25 Explain the construction and working of a Function generator with the help of block diagram in detail. (CO4)