Q.24 Define damping torque? Discuss any one method of providing this torque.

Q.25 Give any five application of RTD.

Q.26 Explain the method of providing controlling torque in instruments.

Q.27 Explain the working of CT.

Q.28 Explain the extension of range of a voltmeter.

Q.29 Draw and label the each component of block diagram of CRO.

Q.30 Compare Ammeter and voltmeter.

Q.31 Explain the principle of working of a dynamometer type wattmeter.

Q.32 Explain the application of LCR meter.

Q.33 Explain the different types of errors.

Q.34 Describe the integrating type instruments.

Q.35 Explain the working principle of phase sequence indicator.

SECTION-D

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

Q.36 Explain two wattmeter methods to measure power in a three phase circuit (unbalanced load)

Q.37 Explain the various errors with remedies that takes place in induction type energy meter.

Q.38 Explain the principle, construction and working of Frequency meter.

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Roll No. .....

3rd Sem / Branch : Electrical Engineering
Subject:- Electrical measurements & Measuring Instruments

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 The deflecting toque can be produced

a) Gravity control b) Spring control
c) Air Friction d) None of these

Q.2 Permanent Magnet Moving coil instruments can be used at_____.

a) DC only
b) AC only
c) Both A & B

Q.3 Synchroscope is a_____.

a) Moving iron instrument
b) Moving coil instrument
c) Dynamometer type instrument
d) None of these

Q.4 Unit of Real power is

a) Watt b) VA
c) VAR d) None of these

Q.5 CT is basically a _____.

a) Step down transformer
b) Step up transformer
c) Booster
d) Distribution transformer.

Q.6 Two holes in the disc of energy meter are drilled at the opposite sides of the spindle to
a) Improve its ventilation
b) Eliminate creeping at no load
c) Increase its deflecting torque
d) Increase its braking torque

Q.7 The range of a voltmeter can be increased by connecting.....in series.
a) Low resistance
b) High resistance
c) Both A & B

Q.8 Thermocouples are
a) Active transducer
b) Passive transducer
c) Strain gauge
d) Type of bourden gauge

Q.9 The signal to be observed on the screen of CRO is applied across
a) X-plate b) Y-plate
c) Accelerating anode d) Focusing anode

Q.10 The holes in the disc of energy meter are drilled at the opposite sides of the spindle to
a) Improve its ventilation

b) Eliminate creeping at no load
c) Increase its deflecting torque
d) Increase its braking torque

SECTION-B

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

Q.11 In a three phase Delta connected system. I_p=_____I_l

Q.12 Expand LVDT=_____.

Q.13 Define secondary instruments.

Q.14 The scale of the instruments using gravity control is non uniform (T/F)

Q.15 Current coil of wattmeter is made of thin wire with large no. of turns as compared to voltage coil (T/F)

Q.16 Earth tester is used to measure high value of inductance. (T/F)

Q.17 Write name of any two metals used in thermocouple.

Q.18 MDI stands for_____.

Q.19 Name any one transducer that can be used to measure flow.

Q.20 Give one application of synchroscope.

SECTION-C

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

Q.21 Describe the errors occurs in Moving iron instruments.

Q.22 Explain the Application of CRO.

Q.23 Explain working of Earth megger.