No. of Printed Pages : 4 220932
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3rd Sem / Electrical

Subject:- Electrical Measurement & Instrumentation

Time : 3Hrs. M.M. : 60

SECTION-A

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

Q.1 R in CRO stands for (CO3)

a) Radiation b) Resistance

c) Ray d) Ready

Q.2 Thermocouple is used for (CO5)

a) Temperature measurement

b) Length measurement

c) Resistivity measurement

d) Voltage measurement

Q.3 Piezoelectric transducer consists of (CO4)

a) Copper wire b) Quartz Crystal

c) Aluminum wire d) Silicon

Q.4 LVDT is used to measure (CO4)

a) Pressure b) Force

c) Displacement d) Weight

Q.5 MDI stands for (CO2)

a) Maximum Dimension Indicator

b) Maximum Demand indicator

c) Maximum demand inductor

d) None of the above

Q.6 Moving Iron Instrument used on (CO1)

a) A.C. only b) D.C. only

c) A.C & D.C. both d) None of these

SECTION-B

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

Q.7 Give an example of indicating instruments. (CO1)

Q.8 Expand DSO. (CO4)

Q.9 Define LCR meter. (CO2)

Q.10 Define Megger. (CO3)

Q.11 Expand MDI. (CO3)

Q.12 What is Thermocouple?

SECTION-C

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

Q.13 Write short note on Bourdon Tube. (CO5)

Q.14 What are thermistors? Explain their construction and application. (CO5)

Q.15 State the difference between active and passive transducers. (CO4)

Q.16 List the advantages and disadvantages of LVDTs. (CO4)

Q.17 Draw block diagram of CRO. (CO3)

Q.18 Difference between Ammeter and voltmeter. (CO3)

Q.19 Draw the block diagram of digital energy meter. (CO2)

Q.20 Explain working principle of moving iron instruments. (CO1)

Q.21 What is the basic principle of dynamometer type wattmeter? (CO2)

Q.22 Discuss the methods of providing the controlling torque. (CO1)

SECTION-D

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

Q.23 With the help of neat diagram explain the construction, working and principle of PMMC instruments. (CO1)

Q.24 Explain in detail two wattmeter methods to measure power in three phase circuit (Balanced load). (CO3)

Q.25 Write a short note on any two-

a) Energy meter (CO2)

b) Synchroscope (CO3)

c) pH meter (CO5)

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