Exam.Code:0906
Sub. Code: 6680

1058

B.E. (Electrical and Electronics Engineering)
Second Semester
EE-E201: Electrical Measurement and Instrumentation

Time allowed: 3 Hours

Max. Marks: 50

NOTE: *Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.*

x-x-x

I. Attempt the following:-

a) Give the difference between pointers and scales?

b) Draw the basic potentiometer circuit?

c) Write the general equation for bridge balancing?

d) Draw and describe B H curve?

e) Write the differences between PT and CT? (5x2)

UNIT – I

II. What is standardization? Explain capacitance standard in detail. (10)

III. Explain the operating principle of dynamometer wattmeter? (10)

IV. Explain a potentiometer for measuring temperature through a thermocouple? (10)

UNIT –II

V. The resistance of various arms of a wheatstone bridge are P=2kΩ, Q= 200 Ω, R= 3000Ω and S = 150 Ω, If the battery emf is 8V and internal resistance is negligible, determine the sensitivity of bridge in terms of deflection pu change in resistance. The galvanometer has current sensitivity of 10mm/μA and internal resistance of 100Ω. (10)

VI. Obtain the expressions for balancing the Anderson bridge. Draw its phasor diagram also. (10)

VII. Write a note on phase angle and ratio angle errors and about their minimization in instrument transformers. (10)

x-x-x