

ANURAG Engineering College

(An Autonomous Institution)

III B.Tech II Semester Supplementary Examinations, Dec-2023/Jan-2024

ELECTRONIC MEASURING INSTRUMENTS**(ELECTRONICS AND COMMUNICATION ENGINEERING)****Time: 3 Hours****Max.Marks:75****Section – A (Short Answer type questions)****(25 Marks)****Answer All Questions**

	Course Outcome	B.T Level	Marks
1. Define precision of an instrument.	CO1	L1	2M
2. What are the basic elements of a generalized measurement system?	CO1	L2	3M
3. What is a sweep frequency generator?	CO2	L1	2M
4. Give the functions of an attenuator in a signal generator.	CO2	L2	3M
5. Define deflection sensitivity of a CRT.	CO3	L1	2M
6. Give a classification of voltmeters.	CO3	L1	3M
7. What is the use of recorder?	CO4	L2	2M
8. Classify different types of recorders.	CO4	L2	3M
9. Define active and passive transducer.	CO5	L1	2M
10. What is the principle of thermometer?	CO5	L1	3M

Section B (Essay Questions)**Answer all questions, each question carries equal marks.****(5 x 10M = 50M)**

11. A) Define and explain with examples the different types of possible Errors in Measurement.	CO1	L3	10M
OR			
B) Explain the following terms in detail: i) Repeatability ii) Reproducibility	CO1	L3	10M
12. A) Describe the working of AF Signal generator.	CO2	L3	10M
OR			
B) Discuss square wave and pulse generator with neat block diagrams.	CO2	L3	10M
13. A) Draw the circuit for D.C current meter and explain its working.	CO3	L3	10M
OR			
B) Explain the internal structure of CRT with neat block diagram.	CO3	L3	10M
14. A) What are the different components of a strip chart recorder? Briefly discuss those.	CO4	L3	10M
OR			
B) Explain about X-Y recorder with a neat block diagram.	CO4	L3	10M
15. A) Explain the principle of operation of strain gauges with the help of neat diagrams.	CO5	L3	10M
OR			
B) i) Illustrate and explain the working of LVDT. ii) Describe the hotwire anemometer and explain.	CO5	L3	5M 5M