Reg. No. : | | | | | | | | | | |

Question Paper Code: 93306

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Third Semester

Electrical and Electronics Engineering

19UEE306 – ELECTRICAL MEASUREMENTS AND INSTRUMENTATION

(Regulation 2019)

Duration: One hour Maximum: 30Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. The difference between the upper and lower limit in instrument range is CO1- R

   (a) Span (b) Drift (c) Range (d) Sensitivity

2. An ammeter of 0-25 A range has a guaranteed accuracy of 1% of full scale reading. The current measured is 5 A. The limiting error is CO1- R

   (a) 2.5% (b) 2% (c) 4% (d) 5%

3. The PMMC instruments is used for _____ measurement CO2-R

   (a) DC (b) AC (c) Both (a) & (b) (d) None of the above

4. The instrument used for measurement of energy is called ___ CO2-R

   (a) Watt meter (b) PMMC (c) Energy meter (d) Moving iron

5. When a potentiometer is used for measurement of voltage of an unknown source, the power consumed in the circuit of the unknown source under null condition CO3- R

   (a) is very high (b) is high (c) is small (d) is ideally zero

6. Frequency can be measured by using CO3- R

   (a) Maxwell's bridge (b) Schering bridge

   (c) Heavy side cambell bridge (d) Wien's bridge

7. Pulse duration modulation uses which technique for recording the data? CO4- R

   (a) PWM (b) TDM (c) FM modulation (d) None of the above

8. In LED the power consumes rate is _____ than LCD CO4- R

   (a) More (b) Less (c) Equal (d) Moderate

9. Resistance thermometer is also called as_____ CO5- R

   (a) LVDT (b) RTD (c) PWM (d) Thermocouple

10. Thermocouple works on the principle _____ CO5- R

(a) Piezo-electric effect (b) Hall effect

(c) Seeback effect (d) None of the above

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11.	Explain in details about different types of Calibration Procedure.	CO1- U	(8)
12.	Classify the types for determination of B-H curve with a neat sketch.	CO2- U	(8)
13.	Illustrate the construction and working of laboratory type DC potentiometer with a neat sketch.	CO3- U	(8)
14.	Outline the basic block diagram of a digital data logger system.	CO4- U	(8)
15.	Explain the construction and working of LVDT with a neat sketch	CO5- U	(8)