

Department of Electrical and Electronics Engineering

QUESTION BANK

Electrical Measurements and Sensors (25EE305)

UNIT-I

Introduction to Measuring Instruments

S.No	Questions	BT	CO	PO
Part – A (Short Answer Questions)				
1	Give the main classifications of electrical instruments.	L1	CO1	PO1
2	Give two differences between MC and MI instruments.	L1	CO1	PO1
3	Define the absolute instruments.	L1	CO1	PO1
4	Define the secondary instrument.	L1	CO1	PO1
5	Define the a) Accuracy, b) precision c) resolution?	L1	CO1	PO1
6	What are the different types of secondary instruments?	L1	CO1	PO1
7	What are the errors in PMMC Instrument	L1	CO1	PO1
8	What are the errors in MI Instrument	L1	CO1	PO1
9	List the advantages & disadvantages of PMMC instrument	L1	CO1	PO1
10	List the advantages & disadvantages of MI instrument	L1	CO1	PO1
Part – B (Long Answer Questions)				
11	a) Draw and explain the PMMC instrument construction along with operation b) Draw and explain the MI attraction type instrument construction along with operation.	L2 L2	CO1 CO1	PO1, PO2 PO1, PO2
12	a) Give the main classifications of electrical instruments along with the definitions with relevant examples. b) Derive the torque equation of MI instruments.	L1 L3	CO1 CO1	PO1 PO1, PO2, PO3
13	a) Derive the expression for value of multiplier in the multi-range voltmeter. b) Explain the different methods of producing controlling torque in indicating instruments.	L3 L2	CO1 CO1	PO1, PO2, PO3 PO1, PO2
14	a) Draw and explain the MI repulsion type instrument construction along with operation. b) What are the different damping methods used in indicating instruments?	L2 L1	CO1 CO1	PO1, PO2 PO1
15	a) Explain about the errors in PMMC & MI instruments b) What are the static characteristics of instrument with definition?	L2 L1	CO1 CO1	PO1, PO2 PO1
16	a) Derive the expression for deflection torque equation of PMMC instruments b) What are the essential torques required for the measuring instruments? Explain in detail.	L3 L1	CO1 CO1	PO1, PO2, PO3 PO1