Course Code: **23EE6T10**

BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY & SCIENCE

(AUTONOMOUS)

III-B.Tech II-Semester Regular Examinations (BR23), April/May -2026

ELECTRICAL MEASUREM,ENTS AND INSTRUMENTATION(EEE)

Time: 3 hours Max. Marks: 70

Question Paper consists of Part-A and Part-B

*Answer **ALL** the question in **Part-AandPart-B***

PART–A (10X2 = 20M)

		Marks	CO	BL
1. a)	Define error and correction factor	(2M)	CO1	BL1
b)	Discuss advantages of instrument tranformers	(2M)	CO1	BL2
c)	Write the torque equation in mi type instruments	(2M)	CO2	BL2
d)	What is mean by standardization instruments	(2M)	CO2	BL2
e)	Classify resistances on basis of range?	(2M)	CO3	BL1
f)	Mention the applications of wheat stone bridge	(2M)	CO3	BL2
g)	Classify different kinds of transducers	(2M)	CO4	BL1
h)	Briefly explain about hall effect sensors	(2M)	CO4	BL1
i)	Write the advantages of cro	(2M)	CO5	BL2
j)	Write the applications of digital multimeter	(2M)	CO5	BL2

PART–B (5X10 = 50M)

2a.	Explain the construction and working of PMMC instrumentwith neat diagram	10(M)	CO1	BL2
	(OR)			
3a.	Explain the various methods to extend the range of voltmeter and ammeter	10(M)	CO1	BL2

4a.	Explain the construction and working of dc Crompton potentio meter	10(M)	CO2	BL2
	(OR)			
5a.	Give the constructional details and torque equation for dynamometer	10(M)	CO2	BL2

6a	Describe the method to measure high resistance by using megger and also give the constructional details of megger	10(M)	CO3	BL4
	(OR)			
7a	Give the constructional details of Kelvin double bridge	10(M)	CO3	BL4

8a	Describe the method of measuring of different pressures with inductive transducer	10(M)	CO4	BL2
	(OR)			
9a.	Explain principle and operation of LVDT.	10(M)	CO4	BL4

10a	Explain the operation of succeive approximation type dvm	5(M)	CO5	BL3
10 b.	Explain the operation of digital multimeter	5(M)	CO5	BL3
	(OR)			
11a	Explain the working of ramp type dvm	5(M)	CO5	BL3
11b.	Explain the operation of digital frequency meter	5(M)	CO5	BL3

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