

<b>St. Peter's Engineering College (Autonomous)</b> <b>Dullapally (P), Medchal, Hyderabad – 500100.</b> <b>II - Mid Term Examination – JUNE 2024</b>					Dept.	:	CSM	
					Academic Year 2023-24			
Subject Code	:	AS22-2ES01	Subject	:	Basic Electrical Engineering			
Class/Section	:	B. Tech. (A)	Year	:	I	Semester	:	II
Duration	:	120 Min	Max. Marks	:	30	Date:	:	

BLOOMS LEVEL					
Remember	L1	Understand	L2	Apply	L3
Analyze	L4	Evaluate	L5	Create	L6

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**PART – A (10x1M = 10M)****Note: Answer all Questions. Each Question carries equal marks.**

Q. No	Question (s)	Marks	BL	CO
<b>UNIT - IV</b>				
<b>1</b>	a) Define self-induced E.M.F	1M	L1	C124.4
	b) What are the losses in transformer?	1M	L2	C124.4
	c) Define slip in three phase induction motor?	1M	L1	C124.4
	d) What are the main parts of synchronous generator?	1M	L1	C124.4
	<b>UNIT – V</b>			
	e) What is Switch gear?	1M	L1	C124.5
	f) What are different components of Switchgear?	1M	L1	C124.5
	g) What is the necessity of earthing?	1M	L2	C124.5
	h) Define wire and its types?	1M	L1	C124.6
	<b>UNIT – III</b>			
	i) Write down the induced EMF formula for DC Motor?	1M	L2	C124.3
	j) State Fleming's left-hand rule.	1M	L1	C124.3

**PART – B (20M)**

Q. No	Question (s)	Marks	BL	CO
<b>UNIT - IV</b>				
<b>2</b>	a) Explain the working principle of a transformer.	4M	L2	C124.4
	b) Derive the EMF equation of a transformer.	4M	L2	C124.4
<b>OR</b>				

<b>3</b>	<b>a) Explain the construction and working principle of three phase induction motor with applications.</b>	<b>8M</b>	<b>L2</b>	<b>C124.4</b>
<b>UNIT – V</b>				
<b>4</b>	<b>a) Define Cable? List the factors which affecting the selection of the cable?</b>	<b>4M</b>	<b>L2</b>	<b>C124.5</b>
	<b>b)What are the characteristics of batteries for long life?</b>	<b>4M</b>	<b>L2</b>	<b>C124.5</b>
<b>OR</b>				
<b>5</b>	<b>a) Explain the working of Miniature Circuit Breaker (MCB) with different modes of operation?</b>	<b>8M</b>	<b>L2</b>	<b>C124.5</b>
<b>UNIT – III</b>				
<b>6</b>	<b>Classify various DC Motors with neat diagrams and necessary equations.</b>	<b>4M</b>	<b>L2</b>	<b>C124.3</b>
<b>OR</b>				
<b>7</b>	<b>Write down the applications of dc motors</b>	<b>4M</b>	<b>L2</b>	<b>C124.3</b>

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