

Reg.No. \_\_\_\_\_



# Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)  
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

## End Semester Examination – Nov/Dec – 2016

Code : 12EE101  
Sub. Name : Basic Electrical Engineering

Semester : 2016-17 ODD  
Duration : 3hrs  
Max. marks : 100

### ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	State Kirchoff's Laws & Illustrate the use of Kirchoff's Laws in a circuit.	CO1	10
	b.	Derive an expression of star to delta and delta to star transformation.	CO1	10
(OR)				
2.	a.	Explain about two resistance in parallel and current division technique.	CO1	10
	b.	List out the classification of circuit elements.	CO1	10
3.	a.	Compare magnetic circuit and electric circuit.	CO1	14
	b.	Define the following parameters: Magnetic Flux Density, Reluctance, Permeance	CO1	6
(OR)				
4.	a.	Discuss about mutual inductance in detail.	CO1	10
	b.	Derive the coupling coefficient between two magnetically coupled circuits.	CO1	10
5.	a.	With a neat sketch describe the operation of Nuclear Power Station.	CO2	14
	b.	Mention the hydro power generation plants implemented in India.	CO2	6
(OR)				
6.	a.	How electricity is generated in Thermal Power Station, explain in detail with neat diagram.	CO2	14
	b.	Briefly describe the concept of Transmission of electricity.	CO2	6
7.	a.	Derive the e.m.f. equation of a D.C. Generator.	CO2	10
	b.	Explain the operation of D.C. motor with a neat sketch.	CO2	10
(OR)				
8.	a.	Discuss about Resistance – Start and Capacitor – Start Single Phase Induction Motor with neat diagrams.	CO3	14
	b.	List out the applications of Induction Motor.	CO3	6
<b><u>Compulsory:</u></b>				
9.	a.	Draw the diagram of PMMC Instrument & explain its operation.	CO3	10
	b.	Analyze the two methods of providing controlling torque used in Indicating type instruments..	CO3	10

ALL THE BEST