



VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
 [AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
 Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 80013

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – NOV. / DEC. 2024

Fifth Semester

Electrical and Electronics Engineering

U19EE519 - POWER ELECTRONICS

(Regulation 2019)

Time: Three Hours

Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

PART – A

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	Compare the difference between static and dynamic switch.	2	K2	CO1
2.	Define Holding current and Latching current in SCR.	2	K1	CO1
3.	What is a time ratio control?	2	K1	CO2
4.	Write two applications of SEPIC Converter.	2	K3	CO2
5.	List the functionality of integral body diodes.	2	K1	CO3
6.	Why IGBT is a voltage controlled device?	2	K3	CO3
7.	What are the advantage's of IGCT?	2	K3	CO4
8.	Why diodes should be connected in anti-parallel with the thyristors in inverter circuits?	2	K2	CO4
9.	What is Matrix converter?	2	K2	CO5
10.	A single phase half bridge inverter feeds resistive load of 10 ohm. When supply voltage of 120 V, determine the rms value of the fundamental component of output voltage.	2	K3	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11. a)	Discuss the basic structure and working principle of TRIAC. Sketch its VI characteristics and explain the same.	13	K1	CO1

