Q.P. Code: 19EE2103 **R19**

Reg. No: | | | | | | | | | | |

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

M.Tech I Year I Semester Regular Examinations January 2020

ADVANCED POWER ELECTRONIC CIRCUITS

(Power Electronics)

Time: 3 hours Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1		Draw and explain the operation of 1-ϕ capacitor commutated CSI with R-load.	**12M**
		OR	
2		Draw and explain the operation of three-phase series-inverter.	**12M**
		UNIT-II	
3		Explain the operation of three phase boost type APFC switched mode rectifier.	**12M**
		OR	
4		Explain about DC-clamped switched mode rectifier.	**12M**
		UNIT-III	
5		Explain the principle and operation of the Buck-Boost converter.	**12M**
		OR	
6		Classify the converters based on various aspects.	**12M**
		UNIT-IV	
7	**a**	Explain the circuit diagram of a double ended forward converter.	**6M**
	b	Compare fly back converter and forward converter.	**6M**
		OR	
8		Explain the modes of operation of full-bridge converter.	**12M**
		UNIT-V	
9	**a**	Explain the L-type ZCS resonant converter with various modes of operations and wave forms.	**6M**
	b	Compare ZCS and ZVS resonant converters.	**6M**
		OR	
10		Explain the operation of ZVS resonant converter with the help of circuit diagram.	**12M**

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