Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: 2021 B.Tech	**School of Technology**	**Department: Electronics**
Course Code: ECE304	**Course Title: Power Electronics**	**Semester :VI**
Day and Date: 08.06.2021,Tuesday	**End Semester Examination**	**Time:2 Hrs. Max Marks:50**

Instructions: 1) All Questions are compulsory.

		Marks	**Bloom's Level**	**CO**
Q.1	**Answer/Solve the following (any Two)**			
a)	Design protection circuits of SCR.	8	L5	CO1
b)	Explain class B commutation of SCR with circuit diagram and waveforms.	8	L2	CO2
c)	Discuss ramp and pedestal firing circuit of SCR.	8	L4	CO2
Q.2	**Answer/Solve the following (any two)**			
a)	**Calculate** the value of Vrms, if a semi-convertor is supplied with a 230V for firing angle 0^0, 60^0, 90^0, 120^0.	8	L3	CO3
b)	**Plot** the waveforms for 3 phase full wave fully- controlled rectifier with resistive load for firing angle equals to 0^0, 45^0, 90^0.	8	L3	CO3
c)	**Draw** and **explain** the circuit diagram and waveforms for 120^0mode of conduction for 3 phase inverter with R load.	8	L2	CO4
Q.3	**Answer/Solve the following (any two)**			
a)	Demonstrate time ratio control and current limit control techniques for control of chopper.	9	L3	CO5
b)	How step-up Chopper works?	9	L1	CO5
c)	Explain block diagram and working of PLC	9	L2	CO6

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