

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2026
(Fourth Semester)

Branch- ELECTRONICS

POWER ELECTRONICS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Duty cycle of a chopper is _____ a) Ton/Toff b) Toff x Ton c) Ton/T d) T/Ton	K1	CO1
	2	An SCR is turned off by _____. a) Reverse biasing the gate b) Reducing gate voltage to zero c) Reducing anode voltage to zero d) None of the above	K2	CO1
2	3	In resistance welding _____ a) Heat is produced by passing arc b) Filler metal is used c) Heat is produce by arc d) None of the above	K1	CO2
	4	Dielectric heating apparatus consists of _____ a) No Insulating material b) 4 plates c) Elemental strip d) 4 electrodes	K2	CO2
3	5	At resonance _____ waves produced using piezo electric oscillator a) square b) sawtooth c) RF d) ultrasonic	K1	CO1
	6	Electromagnetic flow meter is based on _____ a) Ohms law b) Law of electromagnetic induction c) Newton's law d) Kirchhoff	K2	CO3
4	7	Tension is measured in _____ a) PSI b) A c) PLI d) Cd	K1	CO3
	8	Humidification in textile mills is essential to eliminate the trouble from _____ electric charges. a) Dynamic b) Eddy current c) Induction d) Static	K2	CO3
5	9	_____ layers does a PCB have. a) Single b) Double c) Multiple d) All Mentioned Above	K1	CO4
	10	Solder is not used to make the _____ contact. a) Mechanical b) Electrical c) Chemical d) insulation	K2	CO4

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Briefly explain Cyclo converter chopper circuit.	K2	CO2
		(OR)		
	11.b.	What do you mean by DC Switches? Explain it.		
2	12.a.	Explain ignitron contactor circuit	K3	CO3
		(OR)		
	12.b.	Discuss about energy storage welding systems		
3	13.a.	Explain the resistive method for level measurements	K4	CO3
		(OR)		
	13.b.	Identify how electromagnetic flow meter works? describe it.		
4	14.a.	Explain the control of quench oil temperature using thermistor.	K4	CO4
		(OR)		
	14.b.	Discuss in detail about warehouse humidity controller		
5	15.a.	Briefly write about Ferric Chloride, Cupric Chloride and Component mounting.	K4	CO4
		(OR)		
	15.b.	Explain the etching process in PCBs		

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Discuss in detail of how to control the Fan using TRIAC	K4	CO3
2	17	Explain working detail of Electronic control Resistance welding.	K4	CO3
3	18	What are the methods are used to generate of ultrasonic waves.? Explain it.	K5	CO4
4	19	How to control relative humidity in textile moistening process? Describe it.	K5	CO4
5	20	List out the different types of PCBs and its layout preparation. Explain it.	K4	CO4

Z-Z-Z

END