

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2024
(Fourth Semester)

Branch – ELECTRONICS

POWER ELECTRONICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. _____ is used in the rotating type UPS system to supply the mains.
 - a) DC motor
 - b) Self excited DC generator
 - c) Alternator
 - d) Battery bank
2. Which of the following can be easily be welded from flash butt welding process?
 - a) Tin
 - b) Lead
 - c) Cast irons
 - d) Carbon steel
3. Which of the following is the most popular method for measuring low resistance?
 - a) ducer ohmmeter method
 - b) kelvin double bridge method
 - c) ammeter-voltmeter method
 - d) potentiometer method
4. Inductive transduction involves _____.
 - a) change in self inductance
 - b) change in capacitance
 - c) change in mutual inductance
 - d) change in resistance
5. Which type of PCB requires minimum soldering on component side in order to avoid replacement oriented difficulties?
 - a) Single-sided PCB
 - b) Double-sided PCB
 - c) Both a and b
 - d) None of the above

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a Explain about Circuit breaker.
OR
b Discuss about static DC switch
- 7 a Describe the function about Resistance welding.
OR
b State the function about Sequence timer.
- 8 a Write a short note about application Ultrasonic waves.
OR
b Illustrate the function of Turbine.
- 9 a Classify the function of thermistor.
OR
b Discuss the function about Warehouse.
- 10 a Explain about Ink drawing.
OR
b Justify the term Etching.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

- 11 a Draw & explain the characteristics of Static switches.
OR
b Classify the function of TRIAC.
- 12 a Describe the function of Ignitron contactor.
OR
b Design the circuit of Dielectric heating system and explain in details.
- 13 a Discuss about generation of Ultrasonic waves.
OR
b Explain about pressure gauge mamometer.
- 15 a Design the circuit of Layout preparation and explain.
OR
b Write a note on component mounting

Z-Z-Z

END