

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 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. An SCR is a solid-state equivalent of _____
i) Triode ii) Pentode iii) Gas-filled triode iv) Tetrode
2. Which kind of resistance is experienced in upset butt welding?
i) Electric resistance ii) Magnetic resistance
iii) Thermal resistance iv) Air resistance
3. Basically sound waves are _____
i) Voltage signals ii) Pressure waves
iii) Current iv) Radiation
4. In electromagnetic based transduction measurand is _____
i) converted into mechanical force ii) converted into electromotive force
iii) converted into chemical force iv) converted into physical force
5. Which among the below stated soldering methods is also renowned as 'High Frequency Resistance Soldering'?
i) Iron Soldering ii) Furnace Soldering
iii) Torch Soldering iv) Electrical Soldering

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Explain about UPS.
OR
b Discuss about static AC switch.
- 7 a Describe the function about heat control.
OR
b State the function about Dielectric heating.
- 8 a Write a short note on Ultrasonic waves.
OR
b Illustrate the function of Flow meter.
- 9 a Classify the function of thermistor.
OR
b Discuss the function about Warehouse humidity controller.
- 10 a Explain about layout preparation.
OR
b Justify the term Drilling.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Draw and explain the characteristics of cycloconverter.
OR
b Classify the functions of SCR.
- 12 a Describe the details about various types of resistance welding.
OR
b Design the circuit of Energy storage welding system and explain in details.
- 13 a Analyze the applications of Ultrasonic waves.
OR
b Explain about Electromagnetic flow meter.
- 14 a Discuss about strip tension control.
OR
b Explain about Textile moistening process.
- 15 a Design the circuit of Artwork preparation and explain.
OR
b Compare and explain the various types of soldering techniques.

Z-Z-Z

END