

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2024
(Fifth Semester)
Branch – ELECTRONICS
INDUSTRIAL & 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 turned off by
(i) Reducing anode voltage to zero (ii) Reducing gate voltage to zero
(iii) Reverse biasing the gate (iv) None of the above
- 2 In resistance welding
(i) Heat is produce by arc (ii) Filler metal is used
(iii) Heat is produced by passing arc (iv) None of the above
- 3 When is ultrasonic waves produced using piezo electric oscillator?
(i) At constant temperature (ii) At resonance
(iii) At constant pressure (iv) At constant voltage
- 4 load cell are used for the measurement of
(i) Stress (ii) weight
(iii) Strain (iv) Velocity
- 5 How many layers does a PCB have?
(i) Single (ii) Double
(iii) Multiple (iv) All Mentioned Above

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Write a note on Battery charging circuit.
OR
b Describe the over current protection in Thyristor.
- 7 a Explain synchronous weld timer.
OR
b List out the differences between synchronous and non-synchronous weld timers.
- 8 a State the X-ray production method.
OR
b What are the non-electrical quantities measurement?
9. a Discuss in details about pressure control system.
OR
b Write about humidity controller.

Cont...

10. a Explain in details about PCB types.

OR

b What is the roll of Drilling in PCB?

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11 a Briefly explain Cyclo converter circuit.

OR

b Discuss in detail about DC Switches.

12 a Explain ignitron contactor circuit.

OR

b What are the applications of dielectric heating? Discuss any of them in detail.

13 a Explain the methods of generation of ultrasonic waves.

OR

b. How electro magnetic flow meter working ? Explain it.

14 a Explain the control of quench oil temperature using thermistor.

OR

b How to control relative humidity in textile moistening process? Explain it.

15 a How to help in artwork design the ink drawing on white cardboard sheet?

OR

b Write about Ferric Chloride, Cupric Chloride and Component mounting.

Z-Z-Z

END