

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(Sixth Semester)

Branch – ELECTRONICS

DISCIPLINE SPECIFIC ELECTIVE – II: AUTOMOTIVE ELECTRONICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

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

- 1 Which of the following causes the corrosion of terminals and clamps?
(i) Spilled electrolyte (ii) Increase in temperature
(iii) Decrease in pressure (iv) Due to high current
- 2 Which component in alternator produces a magnetic field?
(i) Frame (ii) Stator (iii) Regulator (iv) Rotor
- 3 Which of the following are examples of sensors?
(i) Tactile sensor (ii) MARG sensor
(iii) Biosensor (iv) All the above
- 4 When the engine is cold, the starting of the engine is usually not _____.
(i) difficult (ii) easy
(iii) all of the mentioned (iv) none of the mentioned
- 5 Which light provide effective illumination during snowfall?
(i) Head light (ii) fog light (iii) parking light (iv) stop light

SECTION - B (15 Marks)

Answer ALL Questions

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

- 6 a Describe about battery testing and maintenance.
OR
b Compare DC and AC generators in detail.
- 7 a Explain the various spark plugs.
OR
b State the concepts of capacitor discharge ignition system.
- 8 a What is Coolant? Explain.
OR
b Summarize the function relay.
- 9 a Explain the concepts of Electronic fuel injection System.
OR
b Write about engine mapping.
- 10 a Discuss about LED lighting system.
OR
b Explain the various types of horns.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Explain the procedure of battery charging characteristics in detail.
OR
b Discuss the principles and construction of starter motor.
- 12 a Explain the merits and demerits of transistor ignition system.
OR
b Discuss in detail about solid state ignition system.
- 13 a Explain the term "Sensor for Speed".
OR
b Discuss about solenoids with diagrams.
- 14 a Explain the Electronic engine control system for automobiles.
OR
b Discuss the Engine control module with neat sketch.
- 15 a Explain the head light and side light cabling system.
OR
b What is multiplexing and de-multiplexing? List out its advantages.

Z-Z-Z

END