

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023
(Fourth Semester)

Branch – APPLIED ELECTRONICS

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 is not a part of the transmission system?
(i) Clutch (ii) Wheels
(iii) Gear Box (iv) Axles
- 2 In battery ignition system, the primary voltage decreases when engine speed ____
(i) decreases (ii) increases
(iii) increases then decreases (iv) decreases then increases
- 3 Which of the following is the port fuel injection system?
(i) L-MPFI (ii) D-MPFI
(iii) GDI (iv) TBI
- 4 What detects the fault in the anti-lock brake system?
(i) Pump (ii) Valves
(iii) Sensors (iv) ECU
- 5 KWP 2000 is compatible with ____
(i) K-Line (ii) CAN
(iii) both (i) and (ii) (iv) LIN

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Discuss about the evolution of Automotive systems.
OR
b Evaluate about the working of brakes.
- 7 a State the requirements of a starting system.
OR
b Illustrate the working of plug leads.
- 8 a Prepare an overview of programmed ignition.
OR
b State the advantages of fuel injection.

Cont...

- 9 a Explain about the anti-lock brakes.
OR
b Justify the importance of central locking.
- 10 a State CAN protocol.
OR
b Discuss about the Wi-fi protocol.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Construct a 4 – stroke cycle with neat diagrams.
OR
b Elucidate the working of steering system.
- 12 a Classify the types of Ignition systems in detail.
OR
b Enumerate the points on Ignition coil cores.
- 13 a Design the electronics section of carburetion.
OR
b Create the system overview of fuel injection.
- 14 a Interpret about the ABS components used and write a brief note.
OR
b Evaluate the working of electric windows.
- 15 a Compare CAN and LIN protocols.
OR
b Justify which protocol is best in KWP 2000 and J1850.

Z-Z-Z

END