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10MT55

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020
Automotive Electronics

Time: 3 hrs. Max. Marks:100

Note: ***Answer any FIVE full questions, selecting at least TWO full questions from each part.***

PART – A

1 a. Explain the working operation of Ignition System, with neat diagram. **(10 Marks)**

b. Write a short notes on:
i) Drive train
ii) Battery. **(10 Marks)**

2 a. Explain the working operation of Air Intake System, with neat diagram. **(10 Marks)**

b. Explain the working operation of Hall effect position sensor, with neat diagram. **(10 Marks)**

3 a. Explain the working operation of Fuel injector, with neat diagram. **(10 Marks)**

b. Explain Evaporative Emission System, with neat diagram. **(10 Marks)**

4 a. Explain the working operation of Electronic Fuel Control System, with neat diagram. **(10 Marks)**

b. Write a short note on:
i) Engine parameters
ii) Engine performance terms. **(10 Marks)**

PART – B

5 a. Explain the architecture of CAN Controller with data transmission with voltage level diagram. **(10 Marks)**

b. Write a short note on:
i) Remote Keyless Entry
ii) GPS. **(10 Marks)**

6 a. Explain the working operation of Power Steering, with neat diagram. **(10 Marks)**

b. Discuss the working operation of Electronically Controlled Suspension, with neat diagram. **(10 Marks)**

7 a. Define Automotive instrumentation. Explain the operation of Computer based instrumentation system, with neat block diagram. **(10 Marks)**

b. Discuss the working operation of Electronic HVAC system, with neat diagram. **(10 Marks)**

8 a. Write a short note on:
i) Engine Analyzer
ii) Expert system **(10 Marks)**

b. Explain the working operation of Low Tire Pressure Warning System, with neat diagram. **(10 Marks)**

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