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Fifth Semester B.E. Degree Examination, Dec.2018/Jan.2019
Automotive Electronics

Time: 3 hrs.

Max. Marks:100

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

PART – A

- 1 a. Classify IC engines. Explain 4 stroke diesel engine cycles with neat diagram. (10 Marks)
- b. With the neat sketch, explain construction and working of starting system. (10 Marks)
- 2 a. Explain the air fuel handling system with neat sketch. (08 Marks)
- b. Elucidate construction and working of lambda sensor. (06 Marks)
- c. With the neat sketch explain the construction and working of hall-effect sensor. (06 Marks)
- 3 a. What do you mean by fuel metering? Explain with neat sketch the fuel metering actuator. (10 Marks)
- b. With the block diagram explain construction and working of EGR. (10 Marks)
- 4 a. Define the following : (08 Marks)
 - i) Power
 - ii) BSFC
 - iii) Torque
 - iv) Thermal efficiency.
- b. With the neat sketch explain the electronic fuel control system. (08 Marks)
- c. Write a short note on idle speed control. (04 Marks)

PART – B

- 5 a. Mention the types of BUS system and explain any one. (10 Marks)
- b. What do you mean by GPS? Explain the working operation of GPS. (10 Marks)
- 6 a. With the neat sketch explain Anti-lock braking system. (10 Marks)
- b. Explain electronic suspension system with neat diagram. (10 Marks)
- 7 a. What do you mean by sampling? Explain working operation of the same. (10 Marks)
- b. Explain the working operation of fuel quantity measurement. (10 Marks)
- 8 a. Explain the working of collision avoidance radar warning system with the block diagram. (10 Marks)
- b. Write a short note on off-board diagnosis. (10 Marks)

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