1486

Code : 15AT62T

Register Number | | | | | | | | | | |

VI Semester Diploma Examination, April/May-2019

AUTOMOTIVE ELECTRONICS

Time : 3 Hours] **[Max. Marks : 100**

Instruction : (i) Answer any **six** questions from PART – **A** and each questions carries **5** marks.

(ii) Answer any **seven** questions from PART – **B** and each question carries **10** marks.

PART – A

1. List the application of FET, SCR & IC's. **5**

2. Convert the binary numbers $0110_{(2)}$ into decimal number and decimal number $20_{(10)}$ into equivalent binary number. **5**

3. Draw the sketch of optical type crankshaft position sensor and name its parts. **5**

4. Draw the sketch of combustion knock sensor and name its parts. **5**

5. List the advantages of electronic petrol, injection system over carburettor. **5**

6. Draw the sketch of petrol injector and label the parts. **5**

7. Write a short notes on traction control system. **5**

8. Compare ABS, TCS & ESP. **5**

9. List the advantages of electronic power steering. **5**

PART – B

10. Explain the working of 'OR' and 'NOT' gates with block diagrams and truth table. 10

11. Explain the steps involved in signal conditioning. 10

12. Sketch the block diagram of computer (ECU) with its microprocessor and explain its working in Automobile environment. 10

13. Sketch the block diagram of typical multipoint electronic fuel injection system. 10

14. Explain the construction and working of Hall effect crankshaft position sensor with block diagram. 10

15. Explain the construction and working of exhaust gas oxygen sensor with block diagram. 10

16. Explain the construction and working of potentiometer type ride height sensor with block diagram. 10

17. Explain the construction and working of direct injection system with a block diagram. 10

18. Explain the working of temperature measurement system with a block diagram. 10

19. Explain the construction and working of antilock brake modulator with a sketch. 10
