

**1041****Code : 15MC63B**Register  
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**VI Semester Diploma Examination, Nov./Dec.-2018****AUTOMOTIVE ELECTRONICS****Time : 3 Hours ]****[ Max. Marks : 100**

- Note :**
- (i) Answer any **six** full questions from Part A.
  - (ii) Answer any **seven** full questions from Part B.

**Published By:****PART – A**

1. Explain the simplified vehicle system block diagram.

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2. Explain the working of mechanical regulator.

3. Differentiate the open and closed loop systems in automobiles.

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4. Explain the starter system general layout.

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5. Explain the significance of the fuel consumption and exhaust emissions.

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6. Explain the operation of closed loop lambda control.

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7. Explain the requirements of ABS.

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8. Explain the block diagram of Traction Control System.

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9. Explain the Simple Alarm Circuit.

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## PART – B

10. (a) Explain the CAN signal format. 5  
(b) Explain power management system. 5
11. (a) Explain pre-engaged starter & motor. 5  
(b) Explain the features of electronic starter control. 5
12. (a) Explain the block diagram of CDI system. 5  
(b) Explain the block diagram of distributorless ignition system. 5
13. (a) Compare the ESA over conventional mechanical advance with respect to detonation. 5  
(b) Explain the typical control layout for a fuel injection system. 5
14. (a) Differentiate between single point and multi-point fuel injection system. 5  
(b) Explain the main issues of engine management system. 5
15. Explain the block diagram of complete vehicle control system. 10
16. (a) Explain the process of catalytic conversion in emission control. 5  
(b) Explain car navigation system. 5
17. Explain the ECAT system. 10
18. (a) Explain the operation of electric seat adjustment. 5  
(b) Explain the operation of active Electronic Power Steering System. 5
19. (a) Explain the operation of Electric Window System. 5  
(b) Explain the operation of belt tensioners. 5