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23/4/19

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

B.E/B.Tech (Full Time) - END SEMESTER EXAMINATIONS APRIL/MAY 2019

SIXTH SEMESTER (OPEN ELECTIVE)

EC 7691 AUTOMOTIVE ELECTRONICS

(Regulation 2015)

TIME: 3HOURS MAX.MARKS: 100

ANSWER ALL THE QUESTIONS

PART-A (10x2=20 Marks)

1. Define Automotive, Automobile and Automation
2. Write the applications of Transistor and OP-AMP
3. Differentiate Analog and Digital Computers
4. What are the inputs to controller in EEC System?
5. Compare Hall Sensor and REED Switch
6. Explain about Brushless DC Motor
7. Define Compression Ratio, Swept Volume & Engine Torque
8. Define Telematics its types and uses
9. Explain Onboard Diagnostics and its limitations
10. Explain Alternative Engines and its types

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PART-B (5x13=65 Marks)

11. a) Explain about Major Components of Engine in detail

(or)

b) Draw and explain the Block Diagram of Microprocessor

12. a) Explain about Role of Microcomputer in Control Systems in detail

(or)

b) Draw and Explain in detail about Electronic Fuel Control Systems

13. a) Explain in detail about Basic Measurement System & types of Sensors used in automobiles

(or)

b) Draw and Explain in detail about Ignition System

14. a) Explain in detail about Electronic Suspension Control Systems

(or)

b) Draw and explain the LED & LCD display devices

15. a) Explain in detail about Occupant Protection Systems

(or)

b) Draw and Explain in detail about Collision Avoidance Radar Warning System

PART-C (1x15=15 Marks)

16. What are the Types & Components of Chassis? Explain each in detail