

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(AE) (2011 Onwards) (Sem.-7,8)
AUTOMOTIVE ELECTRONICS SYSTEMS
Subject Code : BTAE-703
Paper ID : [A2934]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. **Write briefly :**
 - a. Some broad categories of ITS technologies
 - b. Name vehicle motion control systems.
 - c. What are different components of electronic engine management?
 - d. What are advantages of electronic ignition system?
 - e. Define Traction control system.
 - f. What do you understand by acceleration enrichment?
 - g. How does knock is controlled in engine?
 - h. Define FBC.
 - i. What is Crank angle position sensors?
 - j. Name at least four future automotive electronic systems.

SECTION-B

2. What are the methods for stabilization of vehicle? Explain any one.
3. Discuss about Deceleration leaning control.
4. What does traction control system mean? Explain it.
5. Discuss about intelligent transportation system for Indian cities.
6. The complete Ideal speed control encompasses of three different operational phases. Explain them.

SECTION-C

7. What is roll of onboard diagnosis system in automotive? Discuss about the difference between onboard diagnosis system I and onboard diagnosis system II.
8. What are different types of solid-state ignition systems? Explain them with their principle of operation.
9. Write briefly about following :
 - a. Back-up MPU,
 - b. Collision avoidance radar warning system.