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Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech.(AE) (2011 Onwards) (Sem.-7,8)**  
**VEHICLE MAINTENANCE AND DIAGNOSTICS**  
Subject Code : BTAE-702  
Paper ID : [A2933]

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 has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

**SECTION-A****Q1. Answer briefly :**

- (a) What is the full name of PDI?
- (b) Define breakdown maintenance.
- (c) Instead of air which gas we can use to inflate the tiers?
- (d) Define cambe.
- (e) What is the reason for carbon depletion on the spark plug?
- (f) Explain MAP sensor.
- (g) What is the use of catalytic convertor?
- (h) Which valve is bigger in area out of inlet or exhaust valve?
- (i) What are the different components of emission gas?
- (j) Name any four non-standard tools.

### SECTION-B

- Q2. What are the different functions and duties of service advisor?
- Q3. Explain in detail the reliability centered maintenance.
- Q4. What do you mean by differential, where it is used and how it works explain with the help of a suitable diagram?
- Q5. Explain the complete process of ignition timing setting.
- Q6. Explain MPFI and CRDI. Also give four differences between these two.

### SECTION-C

- Q7. Explain the complete step by step procedure of engine overhauling.
- Q8. Explain in detail any five types of vehicle maintenance tools with their neat sketch.
- Q9. Write short notes on :
  - a) Tachometer
  - b) Cam-dwell angle
  - c) Ignition timing setting
  - d) Fuel vapour canister