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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(AE) (2012 to 2017) (Sem.-4)
AUTOMOTIVE ELECTRICAL SYSTEMS
Subject Code : BTAE-404
M.Code : 54125

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. Answer briefly :**

- a) Brief about fusing of circuits.
- b) Distributors are used for what purpose?
- c) In which vehicles 6-volt system is attached?
- d) Illustrate about power requirements in starting vehicles.
- e) Write about auxiliary lighting-engine.
- f) What is role of compensated voltage regulator?
- g) What is electronic ignition system?
- h) List the types of motors used in electric vehicles.
- i) Brief about magneto.
- j) What is safety mechanism for starting systems?

SECTION-B

2. Illustrate the effect of temperature on capacity of battery.
3. Explain the two types of fuel cells.
4. Write short notes on following :
 - a) power window winding
 - b) heaters and defrosters.
5. Explain the working of starter motor.
6. Explain the construction of alternator.

SECTION-C

7. Discuss in detail about automobile illumination.
8. Illustrate in detail about driving arrangement in hybrid vehicles.
9. Write in detail about following :
 - a) Plug fouling
 - b) Engine rpm meter
 - c) Contact breaker point and
 - d) Characteristics of series motor.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.