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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(AE) (2011 onwards) (Sem.-4)
AUTOMOTIVE ELECTRICAL SYSTEM

Subject Code : BTAE-404

Paper ID : [A1164]

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**1. Write briefly :**

- (a) What is reserve capacity of a battery?
 - (b) What is the purpose of ballast resistor?
 - (c) List the factor affecting the establishment of arc across the spark plug air gap.
 - (d) What is the function of a pulse generator?
 - (e) What do you mean by aiming of head light?
 - (f) Applications of DC Motors.
 - (g) Define battery capacity.
 - (h) What is the advantage of sealed beam headlight?
 - (i) What is the use of fog lamp?
 - (j) What is the principle of Magneto?
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SECTION-B

2. Write short notes on colour code in Automobile electrical wiring.
3. Discuss positive and negative earth systems.
4. Describe principle, construction and working of alternators.
5. Write briefly transistorized ignition systems.
6. Explain in detail Automatic illumination system.

SECTION-C

7. With neat sketch explain the Squirrel Cage Induction motor. Also explain various components and working of fuel cell.
8. Explain the construction of head lamp with a sketch. Also explain the head lamp beam setting and adjustments.
9. Write short notes on following :
 - (a) Electrically Operated Horn
 - (b) Starting Motor
 - (c) Plug fouling