

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Automobile Engineering) (Sem.-4)
AUTOMOTIVE ELECTRICAL AND ELECTRONICS SYSTEMS

Subject Code : BTAE-404-18

M.Code : 77530

Date of Examination : 12-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS 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) What is reserve capacity of a battery?
- b) Write the chemical reaction taking place during the discharging of lead acid battery.
- c) What is meant by ignition timing?
- d) What is the use of hydro meter test?
- e) What is the purpose of ballast resistor?
- f) State the function of bridge rectifier.
- g) What are the advantages of solenoid switch?
- h) What do you mean by aiming of head light?
- i) Mention the significance of colour codes in an automobile.
- j) What is the function of dynamo and alternator?

SECTION-B

2. With a neat sketch explain the working of any two types of horns.
3. Explain working of Cut-out relay.
4. Mention the advantages of magneto ignition system over battery coil ignition system.
5. Explain the operation and principle of fuel level indicator.
6. Write the working of Mass Air Flow (MAF) sensor.

SECTION-C

7. With a neat sketch, explain the construction of a lead acid battery.
8. Explain the construction and working of three phase induction motor.
9. Explain with diagram setting and adjustment of sealed beam head lamp assembly.

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