

- Q.21 Write short note on Electric Vehicles. (CO6)
- Q.22 Write a short note on Lightning system used in Automobiles. (CO5)

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain with neat sketch wiring diagram of a modern car. What are various circuits in wiring diagram.
- Q.24 Explain the term air conditioning in Automobile. Explain with diagram.
- Q.25 Explain with neat sketch magneto Ignition System use in Automobiles? (CO3)

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Roll No. ....

220353A

### 5th Sem / Automobile

**Subject : Auto Electrical System and Electric Vehicales**

Time : 3 Hrs.

M.M. : 60

### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 Thermometer sensor is used for measuring. (CO6)
- a) Pressure                      b) Temperature
  - c) Load                         d) Volume
- Q.2 What is a maintenance -free battery?
- a) A battery having lead antimony plate grid.
  - b) a battery having lead cadcium plate grid.
  - c) A battery does not contain acid.
  - d) A battery does not contain water
- Q.3 The acid used in automobile battery is
- a) Hydrochloric acid    b) Hydrofluoric acid
  - c) Nitric acid             d) Sulphuric acid

- Q.4 With the increase of battery temperature, the specific gravity of electrolyte. (CO2)
- a) Increase                      b) Decrease
- c) Remains the same      d) None of these
- Q.5 The value of Specific gravity of acid when a lead acid battery is fully charged is (CO3)
- a) 1.285                      b) 2.185
- c) 2.385                      d) none of the above
- Q.6 Fuel gauge indicates fuel level in (CO5)
- a) Filter                      b) Carburettor
- c) Tank                      d) Nozzle

### SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 In scooters \_\_\_\_\_ Volt Battery is used (CO1)
- Q.8 Write one method of testing of battery. (CO2)
- Q.9 ABS Stands for \_\_\_\_\_ (CO2)
- Q.10 Electrolyte Used in Lead Acid Battery is \_\_\_\_\_. (CO2)

- Q.11 Write the function of Horn in Automobiles. (CO6)
- Q.12 Define Earthing. (CO1)

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 What is Head lamp? What are various types of Head lamps used in Automobiles? (CO6)
- Q.14 Write short note on Fuel cells used in Automobiles. (CO3)
- Q.15 Write down various specifications of battery. (CO4)
- Q.16 Explain Hydrometer test for Batteries. (CO4)
- Q.17 What are common faults and remedies of Lighting system in Automobiles. (CO5)
- Q.18 Write charging and discharging Equation of Lead Acid battery (CO2)
- Q.19 What are various sensors used in Automobiles? Explain one in detail. (CO5)
- Q.20 What are Hybrid vehicles? Explain hybrid vehicles with diagram. (CO5)