

(CO-4)

- Q.31 What are the basic components of microprocessor block diagram? (CO-4)
- Q.32 Write a note on engine's starter. (CO-5)
- Q.33 Explain the air pressure gauges used in an automobile. (CO-1)
- Q.34 Describe the principle of D.C. generator. (CO-2)
- Q.35 Explain the working of electric door locks. (CO-3)

### Section-D

**Note:** Long answer Questions. Attempt any two Questions out of three Questions. (2x10=20)

- Q.36 Explain the basic electrical system of an automobile with the help of a circuit diagram. (CO-1)
- Q.37 Explain the construction and working of Lithium ion battery. (CO-3)
- Q.38 Describe the construction and working of A.C. generator. (CO-4)

No. of Printed Pages : 4

181563D

Roll No.....

6th Sem,

Branch : Instrumentation and Control Engg.

Subject : Auto Electrical

Time : 3 Hrs.

M.M. : 100

### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory. (10x1=10)

- Q.1 Acid used in automotive battery is \_\_\_\_\_.(CO-1)  
a) Hydrochloric acid b) Hydrofluoric acid  
c) Dilute nitric acid d) Sulphuric acid
- Q.2 Engine dynamo is usually driven by \_\_\_\_\_.(CO-1)  
a) Chain drive b) Gear drive  
c) Flate belt drive d) V-belt drive
- Q.3 Signalling system includes (CO-2)  
a) Tail lamp b) Brake light  
c) Door light d) All of the option
- Q.4 When fully charged, the specific gravity of the acid in a battery is usually \_\_\_\_\_. (CO-2)  
a) 0.74 b) 0.84  
c) 1.28 d) 1.0
- Q.5 Which one is not used in automobiles? (CO-3)  
a) Speedometer b) Voltmeter  
c) Fuel gauge d) Wattmeter
- Q.6 Engine starter motor is (CO-3)  
a) Single phaseA.C. Motor  
b) D.C. Series motor

- c) D.C. Shunt motor  
d) D.C. compound motor
- Q.7** What are the main circuits in an auto electrical system? (CO-5)  
 a) Starting circuit      b) Lighting circuit  
 c) Ignition circuit      e) Generator circuit
- Q.8** In battery ignition system, the voltage across the spark gap is \_\_\_\_\_ (CO-1)  
 a) 12V                  b) 120V  
 c) 1200V                d) 12000V
- Q.9** The door lock system functions are \_\_\_\_\_ (CO-2)  
 a) Lock and unlock the door  
 b) Key confine prevention  
 c) Security  
 d) All of the options
- Q.10** Speedometer is used in an automobile for \_\_\_\_\_ (CO-3)  
 a) Measuring the distance  
 b) Speed of the vehicle  
 c) Both A & B  
 d) None of the above

### Section B

**Note:** Objective types Questions. All Questions are compulsory. (10x1=10)

- Q.11** What is the purpose of direction signal lights? (CO1)  
**Q.12** What is the purpose of the cadmium test?  
**Q.13** What is the source of electrical energy in an automobile? (CO-2)

- Q.14** What is the function of seat adjusters? (CO-3)  
**Q.15** What is mean by the separator defects? (CO-1)  
**Q.16** What is the function of power windows in an automobile? (CO-4)  
**Q.17** What is the purpose of the grid? (CO-1)  
**Q.18** What is the purpose of the voltage regulator? (CO3)  
**Q.19** What mean by the wiring hardness? (CO-5)  
**Q.20** What is the function of defroster? (CO-4)

### Section-C

**Note:** Short answer type Questions. Attempt any twelve Questions out of fifteen Questions. (12x5=60)

- Q.21** What are the various types of earthing in an automobile? (CO-1)  
**Q.22** Name the various types of battery testing. (CO-5)  
**Q.23** Write a simple note on battery defect. (CO-1)  
**Q.24** What is cable colour code in wiring an automobile? (CO-2)  
**Q.25** How does the microprocessor work explain with diagram? (CO-2)  
**Q.26** With the help of a neat sketch, describe a warning light. (CO-4)  
**Q.27** Explain the working principle of any one starting motor and generator of an automobile. (CO-3)  
**Q.28** Explain the working of speedometer. (CO-3)  
**Q.29** Write the various type trouble usually occur in a battery. (CO-5)  
**Q.30** Write the construction of three unit regulators.