

Q.33 What is voltage regulator? Describe principle construction and working of voltage regulator.

(Co4)

Q.34 What are Various sensors used In Automobiles? Explain one in detail. (CO5)

Q.35 Explain wiring diagram of a two wheeler. (CO3)

SECTION-D

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

Q.36 What is Lead Acid Battery? Explain working principle, construction and working of Lead Acid Battery with Diagram. (CO5)

Q.37 Explain following: (CO6)

- a) ECU
- b) Stepper Motor
- c) ABS system in automobiles

Q.38 What do you understand by testing of ignition system? What are methods of testing of ignition system? (CO4)

None : The word Co like Co1, Co4 etc. Are for office use only.

(700)

(4)

180355/170355/
120355/030355

No. of Printed Pages : 4

Roll No.

180355/170355/

120355/030355

**5th Sem / Branch : Automobile Engineering
Sub.: Auto Electrical & Electronics Systems**

Time : 3Hrs.

M.M. : 100

SECTION-A

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

Q.1 What part of a car holds electricity? (CO2)

- a) Alternator
- b) Battery
- c) Generator
- d) Solenoid

Q.2 What part of the electrical system keeps the battery charged? (CO4)

- a) The engine
- b) The brakes
- c) The alternator
- d) The starter

Q.3 The capacity of a battery is usually expressed in terms of (CO2)

- a) Volts
- b) Amperes
- c) Weights
- d) Ampere Hours

Q.4 The connecting rod connects the piston and the (CO3)

- a) Crankshaft
- b) Cylinder block
- c) Camshaft
- d) Cylinder head

Q.5 The negative plates of a lead acid battery has _____ electrolyte? (CO2)

- a) Lead peroxide (PbO_2)
- b) Spongy lead (pb)
- c) Lead sulphate ($PbSO_4$)
- d) Sulphuric acid (H_2SO_4)

(1)

180355/170355/
120355/030355

- Q.6 The cause of Defective wiper may be (CO4)
 a) Wire disconnected b) Loose connection
 c) Blown d) Dirty switch contact
- Q.7 Thermocouple sensor is used for measuring (CO6)
 a) Pressure b) Temperature
 c) Load d) Volume
- Q.8 The value of specific gravity of acid when a lead acid battery is fully charged (CO3)
 a) 1.285 b) 2.185
 c) 2.238 d) None of the above
- Q.9 Fuel gauge indicates fuel level in (CO5)
 a) Filter b) Carburettor
 c) Tank d) Nozzle
- Q.10 Dynamo is an Automobile is a (CO3)
 a) Series generator b) Shunt generator
 c) Both A & B d) None of the above

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 In buses _____ Volt Battery is used. (CO1)
- Q.12 What is the purpose of Odometer in an Automobile? (CO5)
- Q.13 Write one method of testing of battery. (CO2)
- Q.14 ECU stand for (CO6)
- Q.15 Electrolyte used in Alkaline Battery is _____. (CO2)
- Q.16 Write the function of Heater in Automobiles. (CO6)
- Q.17 Define horn relay. (CO1)
- Q.18 Meaning of overheating is _____. (CO4)
- Q.19 In automobiles Red colour wire indicates _____ wire. (CO5)

(2)

180355/170355/
120355/030355

- Q.20 Symbol of Exhaust Fan used in Automobiles is _____ . (CO5)

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Write a short note on Alkaline battery and its types. (CO2)
- Q.22 Write short note on Fuel cells used in Automobiles. (Co3)
- Q.23 Whats are starting requirements of S.I. Engine. (Co3)
- Q.24 Explain Hydrometer test for Batteries. (CO4)
- Q.25 Differentiate between bendix-drive and overrunning clutch drive. (CO3)
- Q.26 How can the condenser be checked in automobiles? (Co2)
- Q.27 What are common faults and remedies of Lighting system in Automobiles. (CO5)
- Q.28 Write short note on Electric Vehicles. (CO6)
- Q.29 What are Hybrid vehicles? Explain hybrid vehicles with diagram. (CO5)
- Q.30 What is the difference between battery and magneto ignition system? (CO4)
- Q.31 Explain construction and working of electrical feed pump. (CO3)
- Q.32 What is Starter Driver? What are types of starter dries in Automobiles? (CO3)

(3)

180355/170355/
120355/030355