Q.26 Describe the working of cutout relay. (CO6)
Q.27 Explain construction and working of Ni-fe Alkaline battery (CO6)
Q.28 Give the construction detail of double filament head lamp. (CO6)
Q.29 Explain the working of wind screen wiper. (CO5)
Q.30 Explain Indicators and warning lights in Automobiles. (CO6)
Q.31 Write construction and working of battery charger. (CO2)
Q.32 Compare Lead Acid Battery with Alkaline Battery. (CO2)
Q.33 What is the difference between sensors and Actuator used in Automobiles. (CO7)
Q.34 Explain the testing of circuit of breaker point ignition system. (CO4)
Q.35 Explain the concept of low maintenance battery. (CO2)

SECTION-D

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

Q.36 Explain the various battery charging methods.(CO6)
Q.37 Describe faults and rectification of various electrical assessories of automotive electrical system. Explain each in detail. (CO5)
Q.38 Explain the construction & working of Alternator. (CO6)

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5th Sem / Auto
Subject:- Auto Electrical and Electronics Systems

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 The battery is made of lead, water and_____ (CO6)
a) paint b) battery fluid
c) gasoline d) sulfuric acid

Q.2 Where does the current go when the ignition key is turned on? (CO5)
a) to the battery b) to the starter
c) to the brakes d) to the alternator

Q.3 The positive plate of lead acid battery has (CO2)
a) Lead peroxide (PbO_2)
b) Spongy lead (pb)
c) Lead sulphate ($pbSO_4$)
d) Sulphuric acid (H_2SO_4)

Q.4 The temperature indicating instrument in vehicles indicates the temp. of (CO6)
a) engine piston b) engine cylinder
c) lubricating oil d) jacket cooling water

Q.5 Sulphation is- (CO6)

a) charging method b) Battery test
c) Battery defect d) Battery type

Q.6 Which of the following is the advantage of Alkaline battery (CO6)

a) High energy density
b) Good discharge characteristics over a wide range of temperature
c) The specific gravity of electrolyte remains the same
d) Cheap raw materials are used

Q.7 ECU stands for (CO4)

a) Electronic control unit
b) Electric control unit
c) Both A and B
d) None of the above

Q.8 When a lead acid battery is in fully charged condition the colour of its positive plate is (CO6)

a) Dark Green b) Brown
c) Dark brown d) None of the above

Q.9 Electric charging stations are used to charge batteries of (CO7)

a) Pure EV b) Plug-in Hybrid EV
c) Both (a) & (b) d) None of these

Q.10 Cells are connected in series in order to (CO6)

a) Increase in voltage rating
b) Increase in current rating
c) Increase the life of the cell
d) None of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 In small cars _____ volt battery is used. (CO6)

Q.12 What is the purpose of dynamo in Automobiles? (CO6)

Q.13 Name the type of battery used in EV. (CO7)

Q.14 Give the function of fog light. (CO6)

Q.15 Write full form of ORVM. (CO4)

Q.16 Define Wiring harness. (CO6)

Q.17 In an alkaline battery electrolyte used is_____ (CO6)

Q.18 Symbol of motor used in Automobiles is _____ (CO6)

Q.19 Write one Fault of Lighting system in automobiles (CO6)

Q.20 Symbol of Zener diode is_____ (CO6)

SECTION-C

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

Q.21 Describe any five battery defects. (CO6)

Q.22 What is ECU and what are components of ECU used in Automobiles. (CO4)

Q.23 What is the difference between Electric vehicles and Hybrid Vehicles (CO7)

Q.24 What is multiplex wiring system? (CO6)

Q.25 Define Odometer used in Automobile. Describe its construction and working (CO5)