

- Q.26 Describe the working of Li-ion battery. (CO6)
 Q.27 Explain working of ECU in a vehicle. (CO4)
 Q.28 Describe trickle charging. (CO2)
 Q.29 Explain earthing system in an automobile. (CO1)
 Q.30 Explain hybrid vehicle. (CO7)
 Q.31 Describe cut out relay. (CO7)
 Q.32 Give the functions of defogger and defroster. (CO5)
 Q.33 Draw and label circuit of Wiper. (CO7)
 Q.34 Explain High rate discharge test. (CO1)
 Q.35 Write the significance of colour coding. (CO7)

Section-D

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

- Q.36 Explain construction and working of Lead acid battery with neat sketch. (CO2)
 Q.37 What are the four main circuits in electrical system of an automobile. Explain with neat sketch. (CO3)
 Q.38 Explain the concepts of various types of Electrical vehicles. (CO7)

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5th Sem., Branch : Auto Subject : Auto Electrical & Electronics Systems

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

- Q.1 Which vehicle produce zero emission (CO7)
 a) Petrol b) Diesel
 c) Electric d) Hybrid
 Q.2 In lead acid battery separators are provided to (CO1)
 a) Reduce tendency for polarization
 b) Facilitate flow of current
 c) Reduce internal resistance
 d) Avoid internal short circuit
 Q.3 Value of specific gravity of fully charged battery (CO3)
 a) 1.285 b) 2.185
 c) 2.385 d) 2.585
 Q.4 Fuel cell uses _____ as fuel. (CO6)
 a) Hydrogen b) Oxygen
 c) Both A & B d) Neither A & B

- Q.5 The power factor of alternator depends on (CO2)
 a) Speed of rotor b) Load
 c) Core Loss d) Armature Loss
- Q.6 Which of the following accessories shows _____ RPM. (CO5)
 a) Odometer b) Rectifier
 c) Tachometer d) Wiper
- Q.7 Thermocouple sensor is used for measure. (CO1)
 a) Pressure b) Temperature
 c) Load d) Volume
- Q.8 Undercharging (CO2)
 a) Reduces specific gravity of the electrolyte
 b) Increases specific gravity of the electrolyte
 c) Produces excessive gassing
 d) Increases the temperature
- Q.9 In three core cable colour of Neutral is (CO4)
 a) Red b) Yellow
 c) Blue d) Grey
- Q.10 Field coils are made of (CO6)
 a) C.I. b) Copper
 c) Steel d) Carbon

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Section-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Define temperature sensor. (CO4)
 Q.12 Define overcharged battery. (CO3)
 Q.13 Hydrometer is used for _____. (CO2)
 Q.14 Give the function of a regulator? (CO5)
 Q.15 Define wire harness. (CO6)
 Q.16 LED stands for . (CO4)
 Q.17 Describe need of heater in a car. (CO6)
 Q.18 Define horn in a vehicle. (CO3)
 Q.19 What is the function of parking light in a car? (CO2)
 Q.20 Name two types of battery. (CO1)

Section-C

- Note:** Short answer type Question. Attempt any twelve questions out of fifteen Questions. (12x5=60)
- Q.21 Explain role of electricity in a vehicle. (CO6)
 Q.22 Explain maintenance free battery. (CO2)
 Q.23 Write advantages of alternator over dynamo. (CO3)
 Q.24 Explain starting motor principle. (CO5)
 Q.25 Explain constructional details of seated beam headlamp. (CO6)

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