

- Q.31 Explain the working principle of any one starting motor on an automobile.
- Q.32 Explain vertical and side control of lamps.
- Q.33 Described the electric fuel pump in brief.
- Q.34 Explain the function of heavy duty regulators.
- Q.35 Explain the earth return system in an automobile.

SECTION-D

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

- Q.36 Explain the construction and working of Lithium ion battery in detail.
- Q.37 Explain construction and working of fuel gauges in detail.
- Q.38 Explain control of different sub system in modern automobiles using micro controller.

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**6th Sem / Branch : Instrumentation & Control Engg.
Sub. : Auto Electrical**

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Engine dynamo is usually driven by
 a) Chain drive b) Gear drive
 c) Flat belt drive d) V-belt drive
- Q.2 In an automobile the magneto is basically
 a) D.C. generator b) A.C. Generator
 c) Transformer d) Capacitor
- Q.3 The generator trouble are
 a) No charge b) Unsteady charge
 c) Overcharge d) All of the option
- Q.4 The capacity of a battery is usually expressed in terms of
 a) Volts b) Amperes
 c) Weight d) Ampere hours
- Q.5 Magnetic switch consists of _____.
 a) Battery b) Starting motor
 c) Plunger d) All of above

- Q.6 The door lock system functions are _____. (CO2)

 - a) Lock and unlock the door
 - b) Key confine prevention
 - c) Security
 - d) All of the options

Q.7 Tachometer is used in an automobile for _____.
a) Measure the rotation speed
b) Device for counting
c) Both A & B
d) None of the above

Q.8 Which one not used in automobiles?
a) Techometer b) Fuel guage
c) pH meter d) Wattmeter

Q.9 Dynamo in an automobiles is a
a) Shunt generator b) Series generator
c) Either of the above d) None of the options

Q.10 Speed meter is used in an automobile for _____.
a) Measuring the distance
b) Speed of the vehicle
c) Both A and B
d) None of the above

SECTION-B

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

- Q.11 What is the function of rectifiers?
Q.12 The purpose of voltage regulator is to _____.

- Q.13 What is a cut-out in an automobile?
 - Q.14 what is the purpose of separator in battery?
 - Q.15 What is the source of electrical energy in an automobile?
 - Q.16 What is meany by the separator defects?
 - Q.17 What means by the HT?
 - Q.18 What is the function of defroster?
 - Q.19 What is the function of fuse in an automobile?
 - Q.20 is used for measuring the voltage.

SECTION-C

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

- Q.21 What are the main circuits in electrical system of modern automobile?
 - Q.22 Explain the working of an A.C. generator.
 - Q.23 Describe the two unit regulator in brief.
 - Q.24 What is the function of rectifier?
 - Q.25 What is the purpose of cut-out relay?
 - Q.26 Write the construction of heavy duty regulators.
 - Q.27 How does the microprocessor work explain with diagram?
 - Q.28 With the help of a neat sketch, describe a warning light.
 - Q.29 Explain the working of speedometer.
 - Q.30 Write a note on cut out relay.