

- Q.30 What are the function of the following accessories:
 a) Mirrors b) Sunvisors
 c) Sliding roof d) Winch
- Q.31 What are the basic components of microprocessor with block diagram?
- Q.32 Explain the function of the active and passive night vision system.
- Q.33 Describe working and principle of DC generator.
- Q.34 Define the following terms:
 a) Power window
 b) Vehicle tracking system
 c) Central locking facilities
- Q.35 Describe briefly, the main features of any concept of solar car.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 With the help of suitable sketches explain and construction working of lead acid battery.
- Q.37 Explain clearly the type of regulation required in case of alternators and describe various type of regulator for the same.
- Q.38 Write a short note on :
 a) Charging system of automobile
 b) Lighting system of automobile

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6th Sem / Branch : IC
Sub.: Auto Electrical

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 What is an automobile?
 a) Self propelled vehicle
 b) Used for carrying passengers and goods on the ground
 c) Contain the power source for its propulsion
 d) All the mention
- Q.2 The unit of brake power is _____
 a) Kilo Newton b) Kilo watt
 c) Kilo pascal d) Kilo Newton meter
- Q.3 The colour of +ve plate of a lead acid battery _____
 a) Brown b) Grey
 c) White d) Black
- Q.4 An alternator frame is made of _____
 a) Cast iron b) Brass watt
 c) Aluminum d) Copper
- Q.5 Automatic starting motors are _____
 a) Series wound b) Series shunt wound
 c) Shunt wound d) Both A & B

- Q.6 The two quantities used for specifying an electric wire are _____

 - The colour and length
 - The length and diameter
 - The diameter and number of strands
 - Colour and diameter

Q.7 The frequency of light per minute flashing in a direction indicator is about _____

 - 8
 - 80
 - 800
 - None of these

Q.8 CAN stands for _____

 - Control area network
 - Control air network
 - Control area network
 - None of these

Q.9 Odometer is an instrument used for measurement of _____

 - Power
 - Fuel consumption
 - Engine RPM
 - Distance

Q.10 The two rows of cylinder in a 'V' type engine are generally arranged at _____

 - 45 degree
 - 60 degree
 - 90 degree
 - 130 degree

SECTION-B

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

- Q.11** What are the function of a frame?
Q.12 What is the electrolyte used in lead acid battery?

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- Q.13 What are the main requirements of the vehicle charging system?
 - Q.14 State the function of a coasting air valve. (CAV)
 - Q.15 How does the fuel injection help to reduce automobile pollution?
 - Q.16 Name different lights used in modern car?
 - Q.17 What is an “Autronic” eye?
 - Q.18 What is temperature gauge?
 - Q.19 Name any two automobile essential accessories?
 - Q.20 Why do we use a relay in the horn circuit?

SECTION-C

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

- Q.21 Define the terms of:

 - a) Plate earthing
 - b) Pipe earthing
 - c) Rod earthing

Q.22 Discuss in detail ‘on board diagnostic’ for automobile.

Q.23 Describe in detail the method of battery charging.

Q.24 What is high discharge test? What is open volt test?

Q.25 Discuss in detail the procedure for trouble shooting in case of an alternator.

Q.26 How is the temperature compensation are achieved in combined vibrating voltage and current regulator.

Q.27 What is the difference between HT and LT.

Q.28 Draw a simplified wiring circuit for the lighting systems of car and discuss the same.

Q.29 Compare the fresh air and recirculating type of a car heaters.

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