

No. of Printed Pages : 4

Roll No.

120355/030355

5th Sem. / Auto Engg

Subject : Auto Electrical & Electronics Systems

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1
- a) What is the function of dimmer switch?
 - b) Write the function of startor motor.
 - c) Define battery efficiency.
 - d) Define terminal voltage.
 - e) Define plate decay.
 - f) Give any one use of lithium ion battery.
 - g) Name any two alkaline batteries.
 - h) Give the use of cut-out relay.
 - i) Write any one disadvantage of dynamo.

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- j) Write the types of starter switches.
- k) Why starting system is required?
- l) What is the purpose of fog light?
- m) How many indicator light lamps are generally used in a car?
- n) Write HT cable.
- o) Write full form of ECU.
- p) Give the function of a sensor.
- q) What is the function of tachometer?
- r) Define window actuation.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) Make a list of various electrical. systems of an automobile.
 - ii) Write the charging and discharging equations of lead acid battery.

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- iii) Describe high discharge test.
- iv) Explain the construction of lead acid battery.
- v) Give the working principle of fuel cell.
- vi) Write the concept of maintenance free battery.
- vii) Explain the working of dynamo.
- viii) Describe the working of a regulator.
- ix) Explain the construction of starter switch.
- x) How would you specify HT and LT cables?
- xi) Enlist various sensors used in a vehicle.
- xii) Explain the working of horn relay.
- xiii) Write cable colour codes.
- xiv) How does windscreen wiper work?
- xv) Describe trickle charging method.

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Explain the various battery defects.
- Q.4 Explain the construction and working of alternator.
- Q.5 Explain the working of a starter drive with neat sketch.
- Q.6 Write the types of head lamps. Give the constructional details of any one.
- Q.7 Explain the working of Auto air conditioner.