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**Time : 2 Hours****AUTO ELECTRICALS****Subject Code**

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**Total No. of Questions : 5****(Printed Pages : 3)****Maximum Marks : 50**

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- INSTRUCTIONS :**
- (i) Answer each question on fresh page.
  - (ii) Write the main question numbers and sub question numbers clearly.
  - (iii) Figures to the right indicate full marks.
  - (iv) All questions are compulsory.
  - (v) Illustrate your answers with neat labelled diagram wherever necessary.

1. (A) Answer the following questions in *one* sentence each :

- (1) Name the component which is known as power source of an electrical system. 1
- (2) Write down the chemical reaction which takes place during the discharge of lead acid battery. 1
- (3) What is the function of heat sink in an alternator ? 1
- (4) Explain the role of "Regulator Rectifier" unit in two wheeler. 1
- (5) In a micro spark plug word "W175Z1" is punched on the shell of the spark plug. What does "175" stand for ? 1
- (6) Why is Charging coil used in an "Electronic Ignition System ?" 1

- (B) How will you Inspect the magneto visually and test the magneto for its A.C. output by using multimeter ? 4
2. (A) Answer the following questions in short :
- (1) Explain the procedure to charge the lead acid battery by using “constant voltage charging method.” 2
- (2) Explain the working of coil type voltage regulator used in charging system. 2
- (3) Draw a neat labelled diagram of “Hydrometer.” 2
- (B) How will you test the following components of an Ignition system by using multimeter : 4
- (a) High tension coil.
- (b) Capacitor.
3. (A) Answer the following questions in short :
- (1) What are the requirements of good Ignition system ? 2
- (2) State the *four* advantages of “Sealed beam head light” over the conventional head light. 2
- (3) Draw a neat labelled diagram of ‘Armature of Generator.’ 2
- (B) Write the functioning of the following units :
- (a) Neutral switch. 2
- (b) Solenoid switch. 2
4. (A) State *four* causes and suggest remedies for the following troubles :
- (1) Low output from Alternator. 2
- (2) Starter armature fails to rotate or rotates slowly. 2
- (3) “Engine fails to start”, due to faulty Ignition system. 2

- (B) With the help of neat labelled diagram, explain the working of “Standard Bendix drive.” 4
5. (A) Answer the following questions in short :
- (1) Draw a neat labelled circuit diagram of “delta-connected stator in alternator with six diodes.” 2
- (2) Explain the working of, “central locking system” in a car. 2
- (3) How does horn relay play an important role in double horn ? 2
- (B) With the help of neat labelled circuit diagram explain the working of “Balancing coil type of oil pressure gauge.” 4