

PSG POLYTECHNIC COLLEGE, COIMBATORE - 641 004
DIPLOMA ODD SEMESTER EXAMINATIONS – NOV 2014
B12502 AUTOMOBILE ELECTRICAL EQUIPMENTS
MODEL QUESTION PAPER

Time : 3 Hours

Max.Marks: 100

Instructions:

1. **Group A** and **Group B** questions should be answered in the Main Answer book.
2. Answer any **TEN** questions in **Group A**. Each question carries three marks.
3. Answer **ALL** questions either **(a)** subdivision or **(b)** subdivision in **Group B**. Each question carries 14 marks.

Group – A**Marks: 10 x3=30**

1. What are the purposes of battery in an automobile?
2. List out the methods used to charge the battery.
3. Write the cause and remedies of sulphation in battery.
4. What is the principle of generator?
5. Enumerate the advantages of Alternator over D.C.Generator.
6. What is meant by compensated voltage regulator?
7. Explain the need of drive mechanism in a starting motor.
8. Why starter motor need solenoid switch?
9. List the types of driving mechanism used in a starter motor.
10. Explain the function of ignition coil with sketch.
11. Describe contact breaker point mechanism.
12. List the types of spark plug and state its function.
13. Discuss the purpose of lighting system in an automobile.
14. Write short notes on horn tuning.
15. What is meant by (i) Dip switch (ii) single pole (iii) Circuit Breakers

Group– B**Marks: 5 x 14 = 70**

16. (a) Explain Lead acid battery construction and the component details with sketch.
(OR)
(b) What are the methods used to test a battery? Explain them with simple sketch.
17. (a) Enumerate the construction and working principle of an alternator with sketch.
(OR)
(b) Draw a neat circuit diagram and explain the working principle of Compensated voltage regulator.
18. (a) Describe the construction and working principle of Starting motor with a neat sketch.
(OR)
(b) Explain the construction and working of Bendix drive mechanism with a neat sketch.

19. (a) Describe the working principal of battery coil ignition system with a neat circuit.

(OR)

(b) With a neat circuit diagram and explain the electronic ignition system.

20. (a) Briefly explain the electric horn circuit with horn relay.

(OR)

(b) Explain the following with neat circuit.

(i) Fuel gauge

(7)

(ii) Oil pressure gauge.

(7)