



UNIVERSITI KUALA LUMPUR
Malaysia France Institute

FINAL EXAMINATION
SEPTEMBER 2014 SESSION

SUBJECT CODE : FVD11203
SUBJECT TITLE : AUTOTRONIC 1
LEVEL : DIPLOMA
TIME / DURATION : 12.45 PM – 2.45PM
(2 HOURS)
DATE : 31 DECEMBER 2014

INSTRUCTIONS TO CANDIDATES

1. Please read the instructions given in the question paper CAREFULLY.
 2. This question paper is printed on both sides of the paper.
 3. Please write your answers on the answer booklet provided.
 4. Answer should be written in blue or black ink except for sketching, graphic and illustration.
 5. This question paper consists of TWO sections. Section A and B. Answer ALL questions in Section A. For Section B, answer TWO (2) questions only.
 6. Answer all questions in English.
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THERE ARE 3 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 60 marks)**INSTRUCTION: Answer ALL questions.****Question 1**

- a. Explain the function of each component below.
 - i. Diode (2 marks)
 - ii. Condenser (2 marks)
 - iii. Capacitor (2 marks)
- b. Explain the following term clearly
 - i. Substance (2 marks)
 - ii. Element. (2 marks)

Question 2

- a. List **FIVE (5)** preventive maintenances that are normally needed for battery to extend life span. (5 marks)
- b. List **THREE (3)** causes that can reduce battery life. (6 marks)

Question 3

- a. Explain why alternator is important to the vehicle. Discuss **TWO (2)** of them. (4 marks)
- b. List **THREE (3)** factors that determine the output voltage generated by alternator. (6 marks)

Question 4

- a. Spark timing is very importances for every spark ignition engine. Explain briefly the important of spark timing. (5 marks)
- b. State **TWO (2)** possible cylinder ‘firing order’ of 6 cylinders spark ignition engine. (4 marks)

Question 5

- a. List **FIVE (5)** major components in primary and secondary circuit. Explain the functions of listed components. (10 marks)

Question 6

- a. Construct a complete circuit of ignition system and explain briefly the operation of ignition system (10 marks)

SECTION B (Total: 40 marks)**INSTRUCTION: Answer TWO (2) questions only.****Question 7**

- a. List the consequences if a battery is overcharging. (5 marks)
- b. Differentiate the charging process and discharging process for a battery which is in good condition. (15 marks)

Question 8

- a. Explain the different types of constructed winding inside the ignition coil, and state the differences. (15 marks)
- b. Determine the purposes of ignition system. (5 marks)

Question 9

- a. Describe how to test the functionality of starter motor solenoid. (20 marks)

END OF QUESTION