



**UNIVERSITI KUALA LUMPUR
Malaysia France Institute**

**FINAL EXAMINATION
SEPTEMBER 2013 SESSION**

SUBJECT CODE	:	FVD11203
SUBJECT TITLE	:	AUTOTRONIC 1
LEVEL	:	DIPLOMA
TIME / DURATION	:	/ 2 HOUR
DATE	:	

INSTRUCTIONS TO CANDIDATES

1. Please read the instructions given in the question paper **CAREFULLY**.
 2. This question paper is printed on one sides of the paper.
 3. Please write your answers in 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 (2)** sections. Section A and B. Answer all question in section A. For section B, answer **TWO (2)** questions only.
 6. Answer all questions in English.
-

THERE ARE 4 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A: (Total: 60 Marks)**INSTRUCTION: Answer ALL questions.****Please use the answer booklet provided.****QUESTION 1**

Explain the function of :

- a) Diode
- b) Capacitor
- c) Transistor

(6 marks)

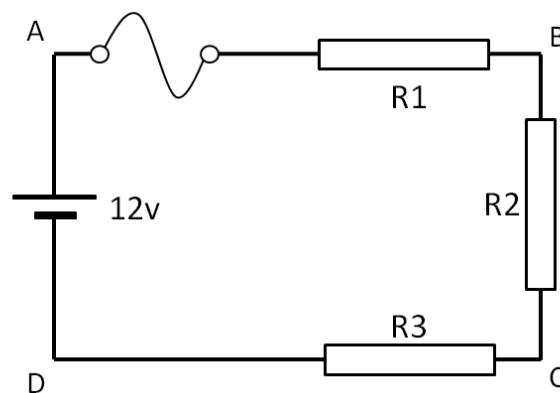
QUESTION 2

Figure 1:

By referring of figure 1, answer the following question.

If R_1 , R_2 and R_3 are equal to 10Ω , 14Ω and 22Ω , calculate;

- a) Total resistance

(3 marks)

- b) Total current

(2 marks)

- c) Voltage between "A" and "B"

(2 marks)

- d) Voltage between "B" and "D"

(3 marks)

- e) Total power

(3 marks)

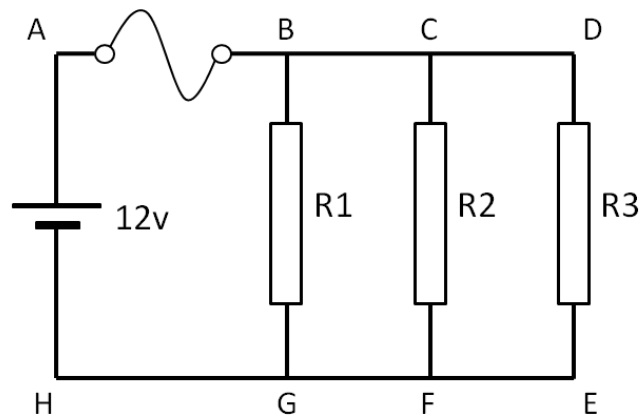
QUESTION 3

Figure 2:

By referring of figure 2, answer the following question.

If R1, R2 and R3 is equal to 4Ω , 16Ω and 24Ω , calculate;

a) Voltage between "B" and "G"

(2 marks)

b) Voltage between "D" and "H"

(2 marks)

c) Total current

(4 marks)

d) Total resistance

(2 marks)

e) Total power

(3 marks)

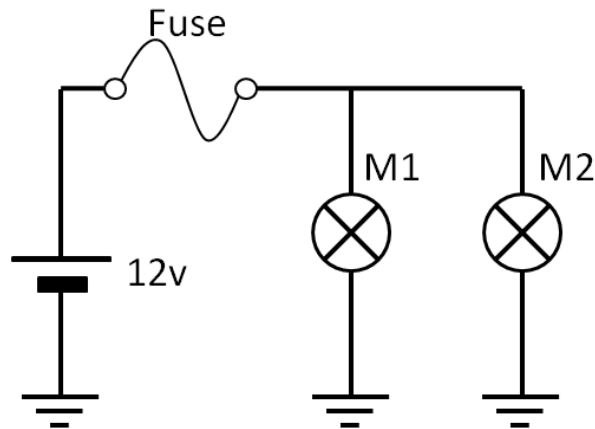
QUESTION 4

Figure 3:

By referring of figure 3, answer the following question.

Which fuse should be installed in the circuit if M1 and M2 are 40W and 66W?

(5 marks)

QUESTION 5

With aid of diagram give the definition of wiring problem for:

- a) Open circuit
- b) Short circuit
- c) Grounded

(9 marks)

QUESTION 6

- a) What is the function of ballast resistor which is used in Ignition system?

(4 marks)

- b) List down THREE main factors to increase alternator output?

(6 marks)

QUESTION 7

Describe the definition of dwell angle (ignition system)?

(4 marks)

SECTION B (Total: 40 Marks)

INSTRUCTION: Answer TWO questions only.

Please use the answer booklet provided.

QUESTION 1

Name and explain with the aid of a diagram the different types of stator winding inside the alternator, and state the differences.

(20 marks)

QUESTION 2

Name and explain how are you going to test the functionality of starter motor solenoid?

(20 marks)

QUESTION 3

Draw the complete wiring circuit of starting system that use relay.

(20 marks)

END OF QUESTION