



**UNIVERSITI KUALA LUMPUR
Malaysia France Institute**

**FINAL EXAMINATION
JANUARY 2011 SESSION**

SUBJECT CODE : FCD 10202
SUBJECT TITLE : RAC AND ELECTRICITY
LEVEL : DIPLOMA
TIME / DURATION : 12.30pm - 2.30pm
(2 HOURS)
DATE : 12 MAY 2011

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 (2)** sections. Section A and B. Answer all questions in Section A. For Section B, answer two (2) question only.
6. Answer all questions in English.

THERE ARE 6 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 60 marks)

INSTRUCTION: Answer ALL questions.

Please use the answer booklet provided.

Question 1

- a) Determine whether the statement below is TRUE or FALSE
 - i) For parallel circuit, $V_T = V_1 + V_2 + V_3$ (1 marks)
 - ii) The total resistance for series circuit is $1/R_T = 1/R_1 + 1/R_2 + 1/R_3$ (1 marks)
 - iii) Each voltage drop at parallel resistance is different even the value of current is the same. (1 marks)
 - iv) The unit of resistance is Watt in W (1 marks)

- b) Determine the total resistance for Figure Q1(b) below

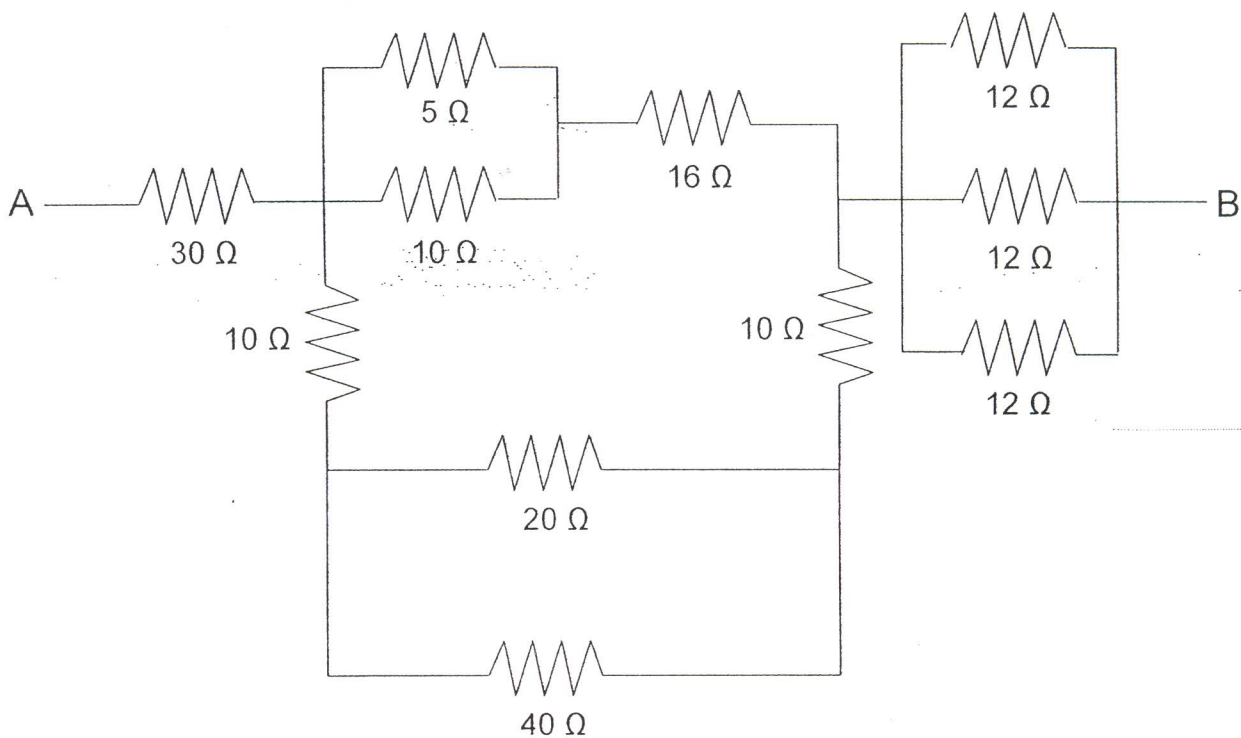


Figure Q1(b): Circuit Diagram for Digital Spedo Meter

(6 marks)

c) Explain Ohm's Law

(2 marks)

d) From Figure Q1(d) below find the value of R_1

(8 marks)

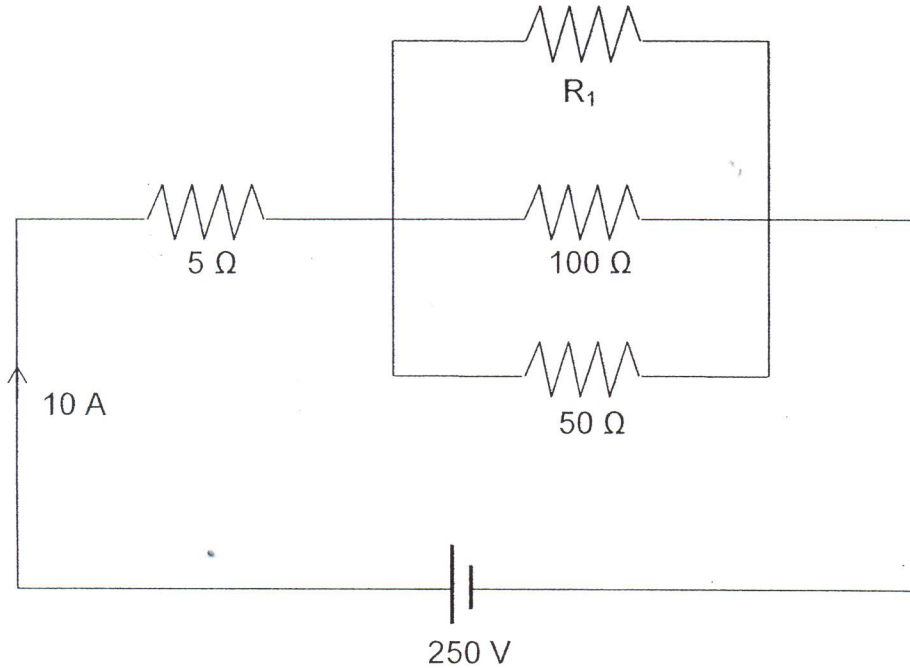


Figure Q1(d): Circuit Diagram for Electric Radio

Question 2

a) Four (4) 3 V buzzer are wired in parallel. Three of these buzzers draw a current of 0.2 A each and the fourth buzzers draw a current of 0.04A. Draw a circuit diagram and determine

i) The resistance of each buzzer in Ω

(4 marks)

ii) The total current drawn by the circuit in A

(1 marks)

iii) The total voltage required for the circuit in V

(1 marks)

iv) Total resistance of the four buzzers in parallel in Ω

(2 marks)

v) Power dissipate at each buzzers in Watt

(2 marks)

