



**UNIVERSITI KUALA LUMPUR  
Malaysia France Institute**

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**FINAL EXAMINATION  
JULY 2010 SESSION**

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**SUBJECT CODE** : FEB 10202  
**SUBJECT TITLE** : ELECTRICAL PRINCIPLES  
**LEVEL** : BACHELOR  
**TIME / DURATION** : 9.00am – 11.30am  
( 2.5 HOURS )  
**DATE** : 09 NOVEMBER 2010

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**INSTRUCTIONS TO CANDIDATES**

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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 three (3) questions only.
6. Answer all questions in English.

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**THERE ARE 7 PAGES OF QUESTIONS AND 1 PAGE OF FORMULA, EXCLUDING THIS PAGE.**

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SECTION A (Total: 40 marks)

INSTRUCTION: Answer ALL questions.

Please use the answer booklet provided.

Question 1

(a) State the definition of:

- i. Voltage
- ii. Current
- iii. Resistance

(3 marks)

(b) If a resistor with a current of 2A through it converts 1000J of electrical energy into heat energy in 15s, what is the voltage across the resistor?

(4 marks)

(c) Determine the resistance and tolerance of each of the following 4-band resistors:

- i. Brown, gray, red, silver
- ii. Red, violet, orange, gold

(4 marks)

(d) Refer to Figure 1, by given total resistance,  $R_T = 773 \Omega$ , determine:

- i. The  $V_s$ .
- ii. The value of each resistor.
- iii. The total power delivered to the circuit.

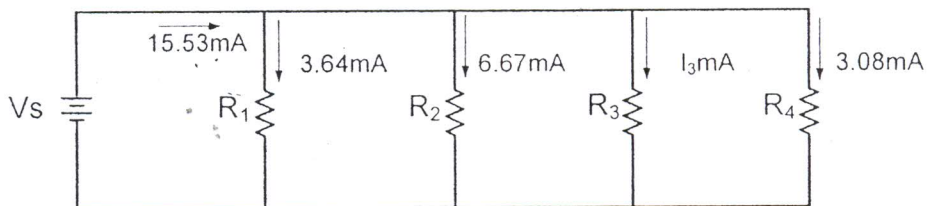


Figure 1

(9 marks)

