



UNIVERSITI KUALA LUMPUR
MALAYSIA FRANCE INSTITUTE

FINAL EXAMINATION
JULY 2010 SEMESTER

SUBJECT CODE : FWB 32503
SUBJECT TITLE : ADVANCE WELDING PROCESSES
LEVEL : BACHELOR
TIME / DURATION : 9.00 am – 12.00 noon
(3 HOURS)
DATE : 21 NOVEMBER 2010

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 Sections 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 2 PAGES OF QUESTIONS, EXCLUDING THIS PAGE

SECTION A (Total: 40 marks)**INSTRUCTION: Answer ALL questions****Please use the answer booklet provided.**

Q1. A butt weld has to be performed on short lengths of sheet metal (thin gage). It could be done by *Plasma Arc Welding (PAW)*, by *Electron Beam Welding (EBW)* or by *Laser Beam Welding (LBW)*.

You should mention in your answer the followings:

1. Which is the most preferred process?
2. Detailed explanation comparing each of the welding processes.
3. Their advantages and limitations.

(40 marks)

SECTION B (Total: 60 marks)**INSTRUCTION: Answer TWO (2) questions only.****Please use the answer booklet provided.**

Q1. Explain in detail when should *Alternatives to Welding* be considered and why?

(30 marks)

Q2. Explain in detail about *Ultrasonic Welding*.

You should mention in your answer the followings:

1. The principal operations;
2. The power supply;
3. The benefits.

(30 marks)

Q3. What is *Friction welding*? Explain in detail about this welding process mentioning the followings:

1. Historical background;
2. The equipment;
3. The principal operations;
4. The advantages and limitations.

(30 marks)

END OF QUESTION