



UNIVERSITI KUALA LUMPUR
Malaysia France Institute

FINAL EXAMINATION
JANUARY 2010 SESSION

SUBJECT CODE	:	FWB 32602
SUBJECT TITLE	:	WELDING RECLAMATION
LEVEL	:	BACHELOR
TIME / DURATION	:	12.30pm – 2.30pm (2 HOURS)
DATE	:	28 APRIL 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 questions paper consists of **FIVE(5)** questions. Answer **FOUR (4)** questions only.
6. Answer **ALL** questions in English.

THERE ARE 2 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 100 marks)**INSTRUCTION: Answer FOUR (4) questions only****Please use the answer booklet provided.****Question 1**

- a) What are three (3) benefits and limitation of thermal spray coatings?

(18 marks)

- b) One of the materials that resist wear is carbide. Give the elements contain in carbide and what is it used for?

(7 marks)

Question 2

- a) List the cost involved in buying of a new part.

(5 marks)

- b) A drive sprocket on a tractor normally wearout within 3 months of use. Using the comparison data given below, calculate the cost of buying new screw component.

Information provided:	NEW	REPAIR
Product price	= 1500	500
Shipping	= 250/trip	0
Packaging	= 80	0
Lorry	= 70	0
Taxes	= 150	0
Fitter rate	= 35/hr x 1.50	35/hr x 1.50
Installation time	= 4 hours	4 hours
Insurance warranty	= 150	50
Bank rate	= 7% flat	0
Loan duration	= 3 years	0

(15 marks)

- c) What would you propose to minimize the expenses of purchasing a new part?

(5 marks)

Question 3

- a) Name three (3) types of cast iron and specify usage of each type cast iron answered.
(9 marks)
- b) During welding of the cast iron, why do we need to preheat the area next to the weld area?
(10 marks)
- c) Name the application for cast iron welding or braze welding?
(6 marks)

Question 4

- a) Name the three (3) main types of hardfacing applications carried out in industry.
(9 marks)
- b) Describe three (3) advantages of hardfacing
(9 marks)
- c) Define the characteristic of the Austenitic Manganese Steel?
(7 marks)

Question 5

- a) Name three major groups of copper alloy.
(5 marks)
- b) Copper alloys are susceptible to hot cracking at solidification temperatures. Outline three (3) ways to minimized hot cracking in these alloys.
(10 marks)
- c) Welding of copper can be done by several welding processes. Describe three (3) main causes of defects in braze welding.
(10 marks)

END OF QUESTION