



**UNIVERSITI KUALA LUMPUR
Malaysia France Institute**

**FINAL EXAMINATION
SEPTEMBER 2014 SESSION**

SUBJECT CODE : FVB30503
SUBJECT TITLE : COLLISION TECHNOLOGY
LEVEL : BACHELOR
TIME / DURATION : 9.00 AM – 11.30 AM
(2.5 HOURS)
DATE : 2 JANUARY 2015

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. Answer **ALL** questions in Section A. For Section B, answer any **THREE (3)** questions.
 6. Answer all questions in English.
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THERE ARE 3 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 40 marks)**INSTRUCTION: Answer ALL questions.****Please use the answer booklet provided.****Question 1**

- a) Define the term ' Estimation Repair Cost'.
(5 marks)
- b) Explain the standard estimation cost flow
(5 marks)
- c) Explain the differences of a body-over-frame and unibody vehicle construction and describe the application for each of them
(10 marks)

Question 2

- a) Describe and sketch **THREE (3)** body sections of a vehicle clearly
(10 marks)
- b) Explain how can a car be considered as total lost?
(5 marks)
- c) Explain the term "First damage in, last damage out," in metal straitening technique.
(5 marks)

SECTION B (Total: 60 marks)**INSTRUCTION: Answer any THREE (3) questions.****Please use the answer booklet provided.****Question 3**

- a) List **FOUR (4)** common types of Original Equipments Manufacturer finishing coating process. (8 marks)
- b) Sketch **TWO (2)** patterns of common layers of finishing. (6 marks)
- c) Explain the reasons why Primer- Surfaces are important in finishing processes. (6 marks)

Question 4

- a) State two functions of a vehicle's paint or finish? (2 marks)
- b) List and explain **THREE (3)** basic types of automotive paints. (8 marks)
- c) Describe the differences between thinner, reducer, and premix? (5 marks)
- d) Explain the sandpaper grit numbering system and how it is used. (5 marks)

Question 5

- a) List **SIX (6)** common types of welding that are used in collision repair
(6 marks)
- b) Describe the advantages and disadvantages of oxy-acetylene welding.
(8 marks)
- c) Explain the steps to prevent heat build-up during welding.
(6 marks)

Question 6

- a) Explain briefly the types of legal vehicle modifications allowed in Malaysia
(8 marks)
- b) List **EIGHT (8)** conditions required when making engine conversions.
(8 marks)
- c) Describe the major disadvantages of modifying the car structure.
(4 marks)

END OF QUESTION