



SET A

**UNIVERSITI KUALA LUMPUR**  
**MALAYSIA FRANCE INSTITUTE**

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**FINAL EXAMINATION**  
**JANUARY 2011 SESSION**

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**SUBJECT CODE** : FVB 11003  
**SUBJECT TITLE** : ENGINE TECHNOLOGY 1  
**LEVEL** : BACHELOR  
**DURATION** : 8.00pm – 11.00pm  
( 3 HOURS )  
**DATE / TIME** : 03 MAY 2011

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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 one side 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.
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**THERE ARE 2 PRINTED PAGES OF QUESTIONS, EXCLUDING THIS PAGE.**

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**SECTION A (Total: 60 marks)****INSTRUCTION: Answer ALL questions.****Please use the answer booklet provided.****Question 1**

- (a) What are the major differences in each stroke when comparing a diesel engine with a gasoline engine? (5 marks)
- (b) Describe the meanings of square engine and what are the criteria of square engine? (10 marks)
- (c) What are the meanings of SOHC and DOHC? What are the differences between SOHC and DOHC? List **FIVE (5)** of it. (5 marks)

**Question 2**

- (a) What are some effects of engine over heating? List **THREE (3)** (10 mark)
- (b) What are some effects of over cooling? (5 mark)
- (c) What are the causes of radiator fan is malfunction? List **FIVE(5)** (5 mark)

**Question 3**

- (a) What is a carburetor? (5 marks)
- (b) What is carburetion? (5 marks)
- (c) Name the factors which influence the process of carburetion? (10 mark)

**SECTION B (Total: 40 marks)**

**INSTRUCTION: Answer TWO (2) question only**

**Please use the answer booklet provided.**

**Question 4**

a. What is spark plug?

( 10marks)

b. What is the function of spark plug?

( 5marks)

c. What is requirement to be fulfilled by spark plug.

( 5marks)

**Question 5**

a. Name two types of forced induction system and describe them briefly.

( 10 marks)

b. What are the difference between supercharger and Turbocharger? List **FIVE (5)**.

(5 mark)

c. What are the functions of Blow Off?

(5 marks)

**Question 6**

a. Explain how does a diesel engine operates?

(10 marks)

b. What are the major differences of cylinder block of a petrol engine and a diesel engine?

(5 marks)

c. What are the effects of the diesel fuel system that had bubbles in the fuel line? What are the actions need to be taken?

(5 marks)

**END OF QUESTION**