



SET B

UNIVERSITI KUALA LUMPUR
MALAYSIA FRANCE INSTITUTE

FINAL EXAMINATION
JULY 2010 SESSION

SUBJECT CODE : FVB 10503
SUBJECT TITLE : AUTOMOTIVE WORKSHOP TECHNOLOGY
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 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 THREE (3) question only.
 6. Answer all questions in English.
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THERE ARE 5 PRINTED PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 40 marks)

INSTRUCTION: Answer ALL questions.

Please use the answer booklet provided.

Question 1

- (a) Give **THREE (3)** common causes which lead to an accident in a workshop. (3 marks)
- (b) Give **TWO (2)** objectives of the automotive workshop safety that you understand? (4 marks)
- (c) Give **FIVE (5)** general safety precautions that you know. (5 marks)
- (d) Give **FOUR (4)** basic equipments for oxy-acetylene gas welding (2 marks)

Question 2

- (a) Use a flare nut wrench when working on ... (1 mark)
- (b) Referring to a screw thread, explain and indicate by drawing a sketch for the following terms:
 - (i) **Major diameter:** (2 marks)
 - (ii) **Pitch:** (2 marks)
 - (iii) **Depth of thread** (2 marks)

- (c) **M 15 X 1.5** is stamped on the shank of tap:
- (i) The '**M**' refers to ... (1 mark)
 - (ii) **15** refers to ... (1 mark)
 - (iii) **1.5** refers to ... (1 mark)
- (d) How to obtain the least count of the vernier caliper mathematically? (2 marks)

Question 3

- (a) Give a step on how to use a torque wrench type preset? (6 marks)
- (b) A locking device in which consists of the hexagonal portion with a cylindrical upper part is slotted in line with the centre of each face is called ... (1 mark)
- (c) Give **THREE (3)** advantages using power tools (3 marks)
- (d) Find the tap drill size of:
- (i) **M 10 X 1.25 thread** (2 marks)
 - (ii) **M 24 X 3 thread** (2 marks)

SECTION B (Total: 60 marks)**INSTRUCTION: Answer THREE (3) questions only.****Please use the answer booklet provided.****Question 1**

- (a) What is welding? (3 marks)
- (b) Give **FIVE (5)** advantages of welded joints over other joints? (5 marks)
- (c) Sketch and explain **FOUR** types of joints commonly used in welding. (8 marks)
- (d) A neutral flame is obtained by _____. The maximum flame temperature occurs at _____. (4 marks)

Question 2

- (a) In a turning operation on a lathe machine, define;
- (i) Cutting speed (2 marks)
 - (ii) Feed (2 marks)
 - (iii) Depth of cut (2 marks)
- (b) Name **SIX (6)** common operations prefer on a lathe machining. (6 marks)
- (c) Name **FIVE (5)** common operations prefer on milling machining. (5 marks)
- (d) Name the **THREE (3)** major parts of lathe machine (3 marks)

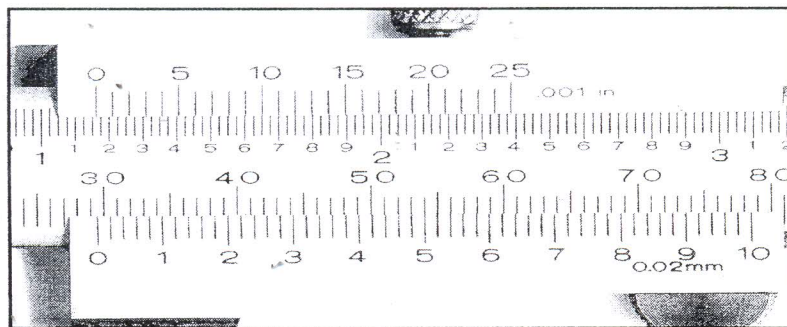
Question 3

- (a) Describe **FIVE (5)** major hazards that are due to faulty work habits of the employees or unsafe working conditions (5 marks)
- (b) Describe **FOUR (4)** rules govern the safe use of wrenches (4 marks)
- (c) Describe **FOUR (4)** rules for the safe use of files (4 marks)
- (d) What is the safe way to lift a heavy object? (7 marks)

Question 4

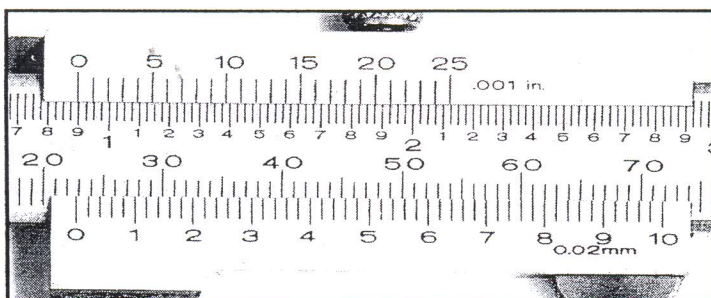
- (a) Give the right measurement (in metric) for the reading below **AND** show the step of calculation.

(i)



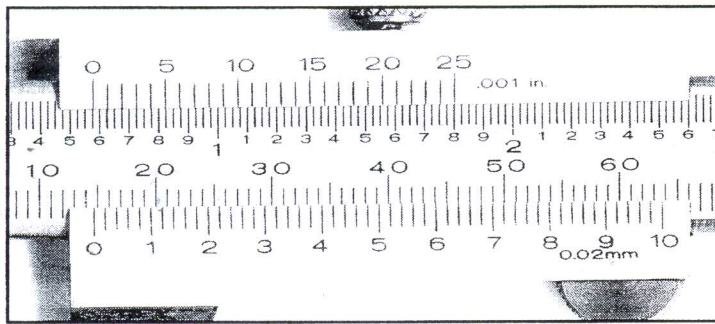
(2 marks)

(ii)



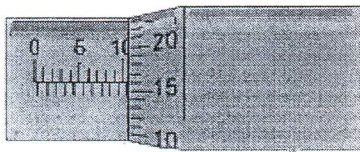
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(iii)



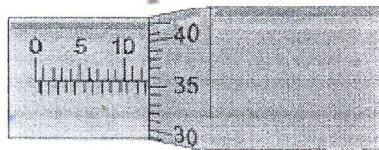
(2 marks)

(iv)



(2 marks)

(v)



(2 marks)

(b) Explain how are measurements are read on a vernier caliper

(5 marks)

(c) Explain how are measurements are read on a bore gauge

(5 marks)

END OF QUESTION