



SET A

UNIVERSITI KUALA LUMPUR
MALAYSIA FRANCE INSTITUTE

FINAL EXAMINATION
SEPTEMBER 2013 SEMESTER

SUBJECT CODE : FVB 11402
SUBJECT TITLE : AUTOMOTIVE WORKSHOP TECHNOLOGY
LEVEL : BACHELOR
DURATION : 3 HOURS
DATE / TIME :

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) What are the **FIVE (5)** basic requirements of a good housekeeping? (5 marks)
- (b) What do you understand by automotive workshop safety? What are its objectives (6 marks)
- (c) Give **FIVE (5)** causes which lead to an accident in a workshop. (5 marks)

Question 2

- (a) The tool that is use to turn the tap is called ... (1 mark)
- (b) By referring to a screw thread, explain and indicate by using 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 a tap:
- (i) The '**M**' refers to ... (1 mark)
 - (ii) **15** refers to ... (1 mark)
 - (iii) **1.5** refers to ... (1 mark)

Question 3

- (a) What are the methods commonly used for filing? (6 marks)
- (b) A hacksaw blade cuts on ... (2 marks)
- (c) While reading the vernier caliper it was noticed that the 'zero' mark of the vernier was in between 12 and 13 mm and the 6th line on the vernier plate was coinciding with one of the main scale division. This make the reading equal to ... (Take the least count = 0.02) (2 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 the 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 the calculation as shown in the figures below.

(i)

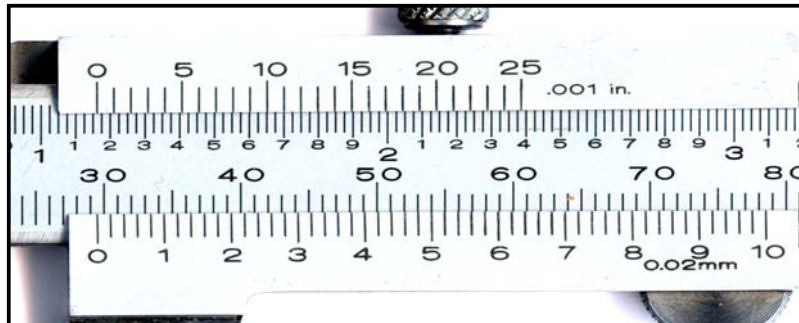


Figure 1

(2 marks)

(ii)

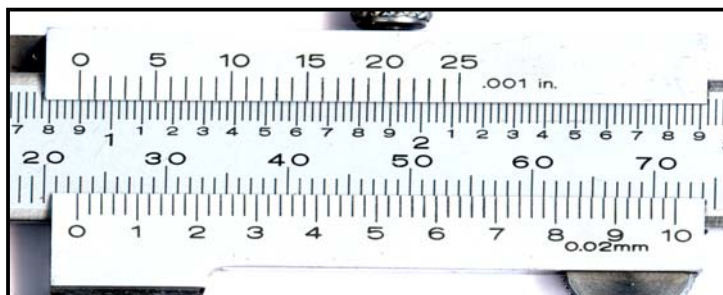


Figure 2

(2 marks)

(iii)

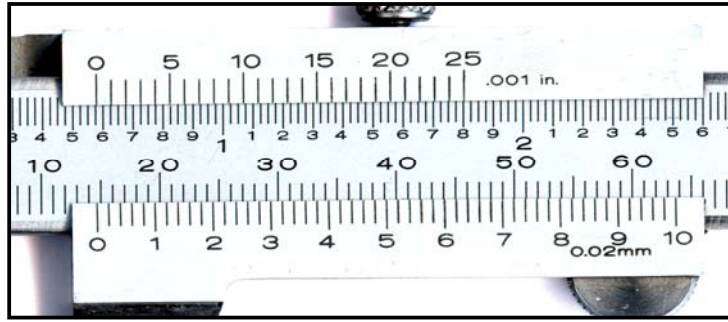


Figure 3

(2 marks)

(iv)

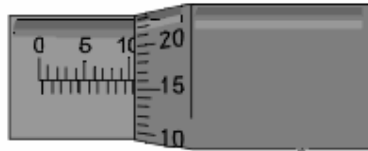


Figure 4

(2 marks)

(v)

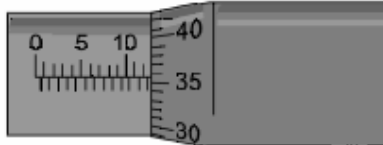


Figure 5

(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