



UNIVERSITI KUALA LUMPUR
Malaysia France Institute

FINAL EXAMINATION
JANUARY 2010 SESSION

SUBJECT CODE : FVD 10003
SUBJECT TITLE : AUTOMOTIVE WORKSHOP TECHNOLOGY
LEVEL : DIPLOMA
TIME / DURATION : 2 ½ HOURS
DATE :

INSTRUCTIONS TO CANDIDATES

1. Please read the instructions given in the question paper CAREFULLY.
 2. This question paper is printed on one 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. 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 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. (4 marks)
- (c) Give **FIVE (5)** precautions of general safety. (5 marks)
- (d) Give **FOUR (4)** basic components for oxy-acetylene gas welding (2 marks)

Question 2

- (a) A flare nut wrench is used for ... (1 mark)
- (b) With the aid of a screw thread drawing, indicate and define 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 calculate the least count of the vernier caliper?

(2 marks)

Question 3

(a) What are the methods that are commonly used for filing?

(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 marks)

(c) Give **THREE (3)** advantages of 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.

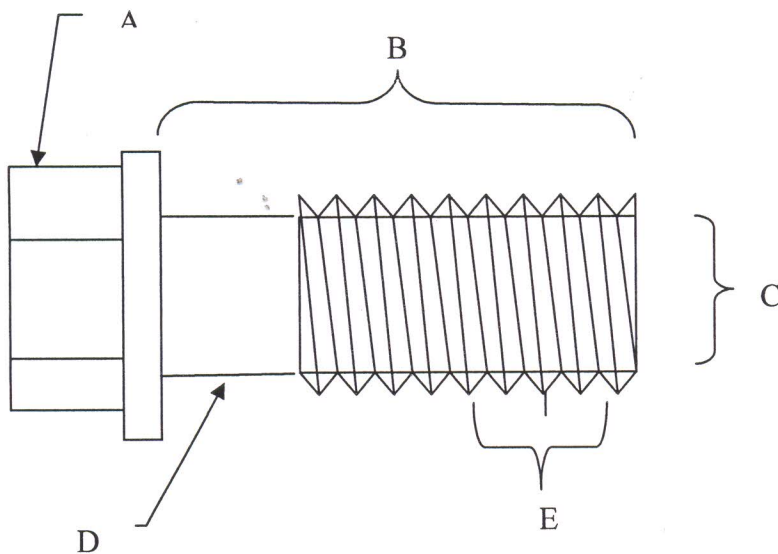
Please use the answer booklet provided.

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 that are commonly used in welding. (8 marks)
- (d) A neutral flame is obtained by _____. The maximum flame temperature occurs at _____. (4 marks)

Question 2

- (a) Explain how to use the torque wrench type preset (10 marks)
- (b) Names of the areas that are labelled by alphabet (A, B, C, D and E).



(5 marks)

- (c) Differentiate between adjustable wrench and combination wrench. (5 marks)

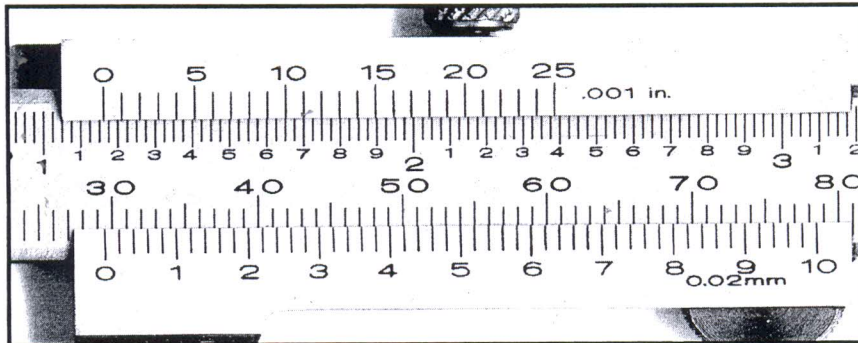
Question 3

- (a) Describe **FIVE (5)** major hazards due to faulty work habits of the employees or unsafe working conditions (5 marks)
- (b) Describe **FOUR (4)** rules that 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

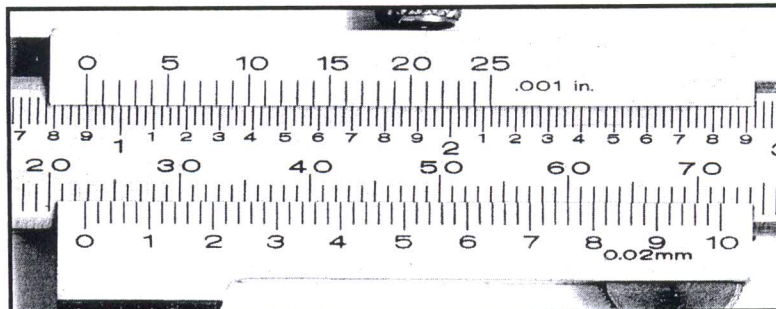
- (a) Give the right measurement (in metric) for the reading below **AND** show the step of calculation.

(i)



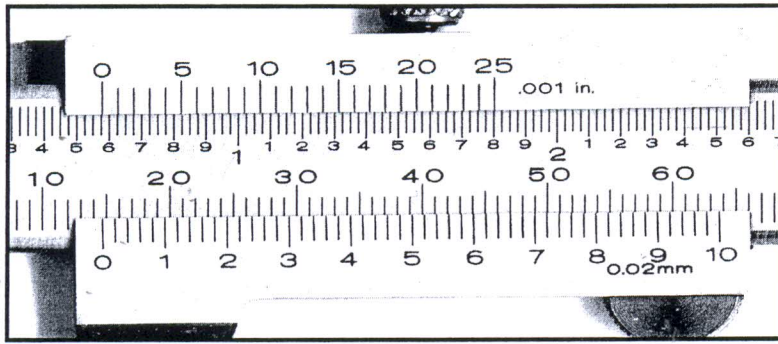
(2 marks)

(ii)



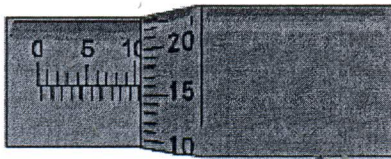
(2 marks)

(iii)



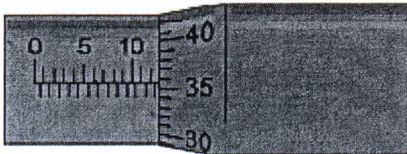
(2 marks)

(iv)



(2 marks)

(v)



(2 marks)

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

(5 marks)

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

(5 marks)