



SET A

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

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**FINAL EXAMINATION**  
**JANUARY 2014 SEMESTER**

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**SUBJECT CODE** : FVD 11002  
**SUBJECT TITLE** : AUTOMOTIVE WORKSHOP TECHNOLOGY  
**LEVEL** : DIPLOMA  
**DURATION** : 2 HOURS **12.45pm - 2.45pm**  
**DATE / TIME** : 02 JUN 2014

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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 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. 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**

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

**INSTRUCTION: Answer ALL questions.**  
**Please use the answer booklet provided.**

**Question 1**

- (a) List **FIVE (5)** basic requirements of a good housekeeping? (5 marks)
- (b) Define automotive workshop safety and list its objectives. (5 marks)
- (c) Describe **FIVE (5)** causes which lead to an accident in a workshop. (5 marks)
- (d) Describe **FIVE (5)** general basic rules in automotive workshop (5 marks)

**Question 2**

- (a) Name the tool that is used to turn the tap. (2 mark)
- (b) Referring to a screw thread, explain and indicate by using sketch the following terms:
- (i) **Major diameter:** (3 marks)
- (ii) **Pitch:** (3 marks)
- (iii) **Depth of thread** (3 marks)

- (c) **M 15 X 1.5** is stamped on the shank of tap.
- (i) Explain what does the '**M**' refer to. (3 mark)
  - (ii) Explain what does the '**15**' refer to. (3mark)
  - (iii) Explain what does the '**1.5**' refer to. (3 mark)

### Question 3

- (a) Name the methods that are commonly used for filing. (6 marks)
- (b) State what does hacksaw blades cut 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 6<sup>th</sup> line on the vernier plate was coinciding with one of the main scale division. Explain what does the reading equal to. (Take the least count = 0.02) (2 marks)
- (d) Determine the tap drill size:
- (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) Define what is welding. (3 marks)
- (b) List **FIVE (5)** advantages of welded joints over other joints? (5 marks)
- (c) Sketch and explain the **FOUR (4)** types of joints commonly used in welding. (8 marks)
- (d) Fill in the blanks below.  
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)

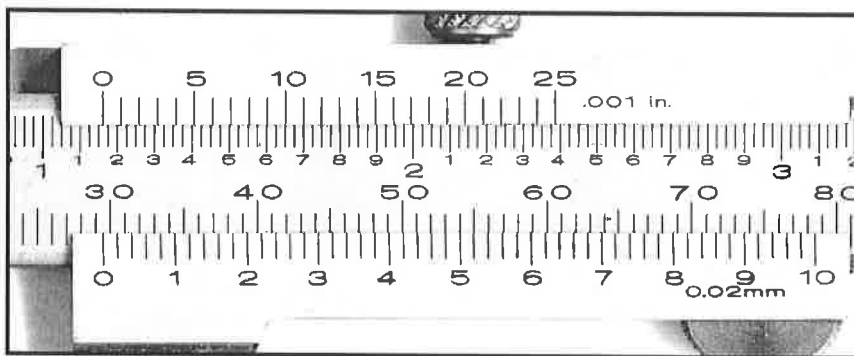
**Question 3**

- (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 governing the safe use of wrenches. (4 marks)
- (c) Describe **FOUR (4)** rules for the safe use of files (4 marks)
- (d) Explain the safe way to lift a heavy object. (7 marks)

**Question 4**

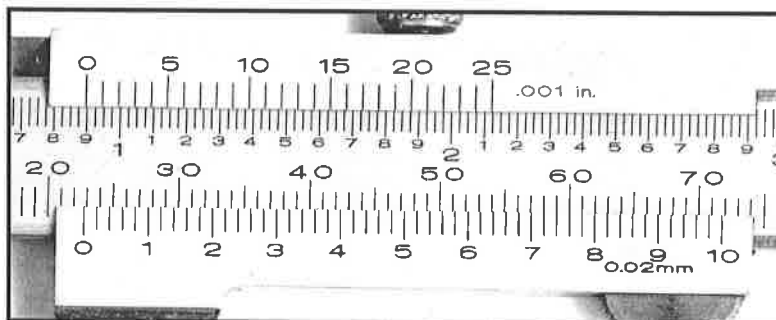
- (a) State the right measurement (in metric) for the reading below **AND** show the step of calculation.

(i)



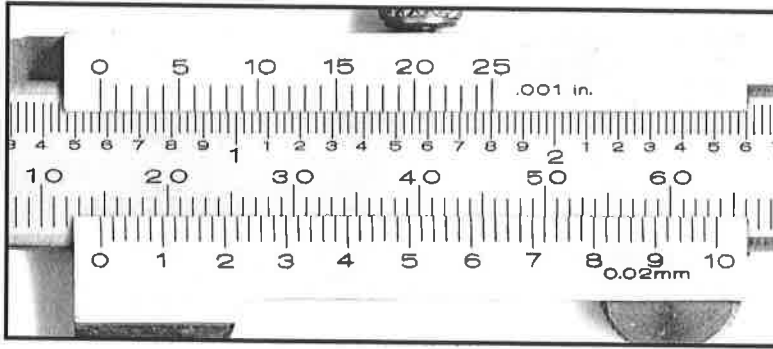
(2 marks)

(ii)



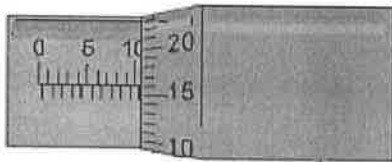
(2 marks)

(iii)



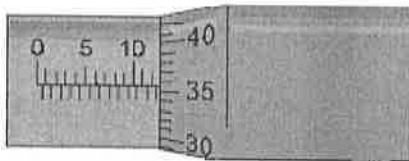
(2 marks)

(iv)



(2 marks)

(v)



(2 marks)

(b) Explain how are measurements read on a Vernier Caliper.

(5 marks)

(c) Explain how are measurements read on a Bore Gauge.

(5 marks)

**END OF QUESTION**