



**UNIVERSITI KUALA LUMPUR
Malaysia France Institute**

**FINAL EXAMINATION
SEPTEMBER 2013 SESSION**

SUBJECT CODE : FVD 12503
SUBJECT TITLE : AUTOTRONIC 2
LEVEL : DIPLOMA
TIME / DURATION : 2 HOURS
DATE :

INSTRUCTIONS TO CANDIDATES

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 Section B. Answer all questions.
6. Answer all questions in English.

THERE ARE 4 PAGES OF QUESTIONS, INCLUDING THIS PAGE.

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

Draw a wiring diagram of conventional ignition system and name all the component.

*(10 marks)***Question 2**

Define the dwell angle.

*(2 marks)***Question 3**

Describe the effect to the engine performance if dwell is too big

*(4 marks)***Question 4**List **THREE** functions of condenser in conventional ignition system.*(6 marks)***Question 5**

- a. Define the multiplexing (automotive) *(2 marks)*
- b. Name the types of network in the multiplexing system. *(3 marks)*
- c. Define the meaning of BSI and name three (3) of its functions? *(8 marks)*
- d. Name three (3) components for the **VAN** and **CAN** network system. *(6 marks)*

Question 6

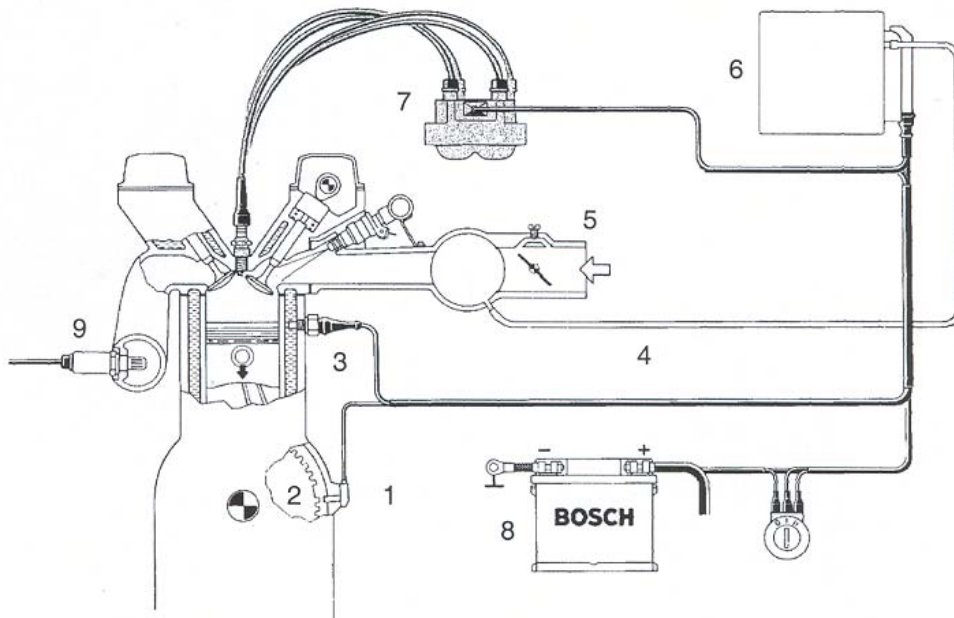
- a. Draw a wiring diagram for breaker triggered transistorized ignition system (TI-B) integrated with Darlington Ignition Amplifier and name all the major parts.
(15 marks)
- b. State **TWO** essential advantages of breaker triggered transistorized ignition system over conventional ignition system.
(4 marks)

SECTION B (Total: 40 marks)**INSTRUCTION: Answer TWO (2) question only****Please use the answer booklet provided.****Question 1**

- a. Draw a wiring diagram of Transistorised Ignition system with Inductive Sensor and name all the related component. (10 marks)
- b. Explain the operation of Inductive sensor. (4 marks)
- c. What are the **THREE** differences between Transistorized Breaker Triggered Ignition system and Transistorized Ignition system with Inductive sensor? (6 marks)

Question 2

Bellow is Fully Electronic Ignition System diagram



Name all the components (1 - 9) with the function of each component

(20 marks)

Question 3

Name two types of network in the Multiplexing system and list down the component that controls each type of network.

(20 marks)

END OF QUESTION