



UNIVERSITI KUALA LUMPUR
MALAYSIA FRANCE INSTITUTE

FINAL EXAMINATION
JANUARY 2014 SESSION

SUBJECT CODE : FVD 35202
SUBJECT TITLE : ADVANCE DIESEL TECHNOLOGY
LEVEL : DIPLOMA
DURATION : 2 HOUR
DATE / TIME :

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 B. Answer all questions in Section A. For Section B, answer two(2) question only.
 6. Answer all questions in English. .
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THERE ARE 2 PRINTED PAGES OF QUESTIONS EXCLUDING THIS PAGE.

SECTION A (Total: 60 marks)**INSTRUCTION: Answer ALL question in section A****Please use the answer booklet provided.****Question 1**

1. Explained the plunger action during operation in Inline fuel pump system. (5marks)
2. Illustrate **TWO (2)** injection pumps circuit from the low to high pressure system. (4marks)
3. Describe the procedure or process in diagnosing the diesel injector nozzle. (6marks)
4. Write down the main functions of Fuel Injection Pump. (5marks)

Question 2

1. List how many grades does diesel fuel have? (4marks)
2. Explain the basic checking to be applied when there are black smoke and no power on the diesel engine. (6marks)
3. Petrol engine using spark plug to ignite fuel. How about diesel engine? (5marks)
4. Explain why diesel engines get better mileage compared to gasoline engines. (5marks)

Question 3

1. Explain the properties and characteristic of Viscosity and Wax Appearance point and Pour Point Temperature. (6 marks)
2. Describe the difference between inline and distributor pump. (5marks)
3. State **FOUR (4)** fuel injection pump most commonly used in diesel engine? (4marks)
4. List down the gas pollutants that are produce by combustion process in diesel emission. (5marks)

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

1. State the procedure of plunger lifter timing adjustment on distributor fuel pump.
(10marks)
2. Standard adjustment value is 0.97-1.03mm of the DPA pump, state the possible causes if the reading is not to the specification?
(10marks)

Question 2

1. Explain the importances of "Stroke" and "RPM" (revolution per minute) during calibration?
(10marks)
2. Explain why direct injection system is performing very well?
(10marks)

Question 3

1. Adjusting screw in distributor fuel pump will increase and decrease the fuel quantity. Explain how it works.
(10marks)
2. Before engaging the diesel injection pump to calibration machine dragging head, Explain the procedure and process that should be carried out.
(10marks)

END OF QUESTION