



UNIVERSITI KUALA LUMPUR
MALAYSIA FRANCE INSTITUTE

FINAL EXAMINATION
APRIL 2010 SEMESTER

SUBJECT CODE : FVD30004
SUBJECT TITLE : AUTO ASSESSEMENT
LEVEL : DIPLOMA
DURATION : 6 hours
DATE / TIME : APRIL 2010

INSTRUCTIONS TO CANDIDATES

PRACTICAL

1. Answer all questions
-

THERE IS 1 PRINTED PAGE OF QUESTIONS, EXCLUDING THIS PAGE.

ENGINE TOP AND BOTTOM OVERHAUL

You are given: -

1. engine on stand
2. necessary Special Service Tool (SST)
3. necessary measuring tools
4. tightening tools

You are asked to: -

1. remove one set of engine valves
2. remove one set of connecting rod and piston assembly
3. answer all the questions asked by the examiner
4. write a report about the components that was measured

It is required that:

1. all the procedures made according to the safety rules
2. all the explanation is clear and correct
3. the report about the components is correct



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AUTOMOTIVE MAINTENANCE TECHNOLOGY

FVD30004

AUTO ASSESSMENT & PERFORMANCE TEST

PRACTICAL

APRIL 2010

ANSWER PAPER
DURATION: 6 HRS.

Instruction:

All exams submitted must be students' own effort. Any plagiarism/copying will result in an instant failing of the examination.

Student Name _____

Student ID _____

Date _____

Time Start / Finished _____

Student Signature

Examiner's Name & Signature

MARKING SCHEME
STUDENT ID : _____

No	Assessment criteria	Marks		
		0	1	2
1	Read and understand the question			
2	Select appropriate tools.			
3	Prepare the work place (table, tray etc.)			
4	Check engine oil			
5	Check coolant level			
6	Start the engine			
7	Drain the engine coolant			
8	Completely drain the coolant from the engine by opening the drain plug at engine block – below the exhaust manifold			
9	Drain engine oil into proper container			
10	Remove intake manifold assembly			
11	Remove the distributor unit, fuel pump and all necessary wiring and piping system			
12	Remove exhaust pipe and exhaust manifold			
13	Remove and put carburetor vertically.			
14	Remove necessary belting, timing cover			
15	Loose the cam shaft bolt before remove the timing belt assembly			
16	Remove rocker cover and rocker arm assembly			
17	Loose the cylinder head bolt – outside in			
18	Able to remove the cylinder head and the engine valves			
19	Remove the oil pan and conrod piston assembly			
20	Put all the engine component into the suitable container / tray			
21	Clean all the necessary parts before fixed back to the engine			
22	Lubricate all the necessary parts			
23	Able to install the valve assembly correctly and check the condition – knock with the mallet			
24	Able to set the piston ring position correctly			
25	Able to install the piston and conrod assembly correctly			
26	Tight the conrod cap using torque wrench with the suitable tightening specification – 20 - 30 N/M			
27	Check the connecting rod bearing condition by rotating the crank shaft			
28	Able to install the oil pan correctly			

29	Oil pan bolt must be tight using the torque wrench – 8 N/M			
30	Never break the oil pan gasket			
31	Install the cylinder head and tighten the bolt with correct sequence			
32	Head bolts are tighten according to the specification			
33	Torque the cylinder head bolts in 3 stages			
34	Able to install the rocker arm assembly correctly, and bolts are tighten according specification – 30 N/M			
35	Set the timing mark at cam pulley and crank pulley			
36	Able to install the timing belt correctly			
37	Able to set the timing belt tension correctly			
38	Able to install all the necessary parts correctly			
39	Able to set & use torque wrench			
40	Set the timing mark			
41	Install the timing belt accordingly			
42	Double check the marking once complete			
43	All bolts and nuts are tight appropriately			
44	All connector & hose are connected			
45	No leaking			
46	Engine run smoothly			
47	Able to use timing light			
48	Able to adjust the advance timing			
49	Follow the safety			
50	House-keeping			
51	Answer the examiner question.			
TOTAL				
GRAND TOTAL		/102		

❖ **Critical Point**

Engine Valve Timing to be correctly set.

- ❖ **IF CRITICAL POINT IS NOT FOLLOWED BY THE STUDENT, DEDUCTION OF 30 % OF THE TOTAL MARKS SHOULD BE PENALISED.**