



**UNIVERSITI KUALA LUMPUR
Malaysia France Institute**

**FINAL EXAMINATION
JANUARY 2010 SESSION**

SUBJECT CODE : FFD 13101
SUBJECT TITLE : PRODUCTION ORGANIZATION CONCEPT
LEVEL : DIPLOMA
TIME / DURATION : 4.00pm – 6.00pm
(2 HOURS)
DATE : 28 APRIL 2010

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 answer on the answer booklet provided.
4. Answer should be written in blue or black ink except for sketching, graphic and illustration.
5. This questions paper consists of **TWO (2) sections**. Sections A and B. Answer **ALL** questions in section A. For section B, answer **TWO (2) questions** only.
6. Answer all questions in English.

THERE ARE 5 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 60 marks)

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

Question 1

(a) State and explain briefly the functions of the three (3) engineering categories. (8 marks)

(b) A set of positions are found in a Malau Maju Fabrication Company organization as follows:

Production Manager	Sales Manager	Finance Executive
Sales Executive	Quality Assurance Manager	Line Leader
General Manager	Quality Control Inspector	Salesman
Production Supervisor	Engineer	Finance Manager

Fill in the organization chart (Figure 1 on page 7) and arrange those positions accordingly. (12 marks)

(c) There are two types of organization chart structures. Differentiate the advantages of both structures. (12 marks)

Question 2

(a) According to the Manufacturing Organization Chart in Figure 2 on page 2, describe and explain briefly the meaning of manufacturing. (4 marks)

(b) Analyze their essential functions according to Figure 2. (8 marks)

(c) Explain briefly the characteristics of Goods and Service. (12 marks)

(d) Which of the following information does not involve in the Major Department in Manufacturing Engineering?

Marketing Department	Production Department
Finance Department	Quality Control Department
Orthopaedic Department	Human Resource Department
R & D Department	Security Department
Administration Department	Student Affairs Department

(4 marks)

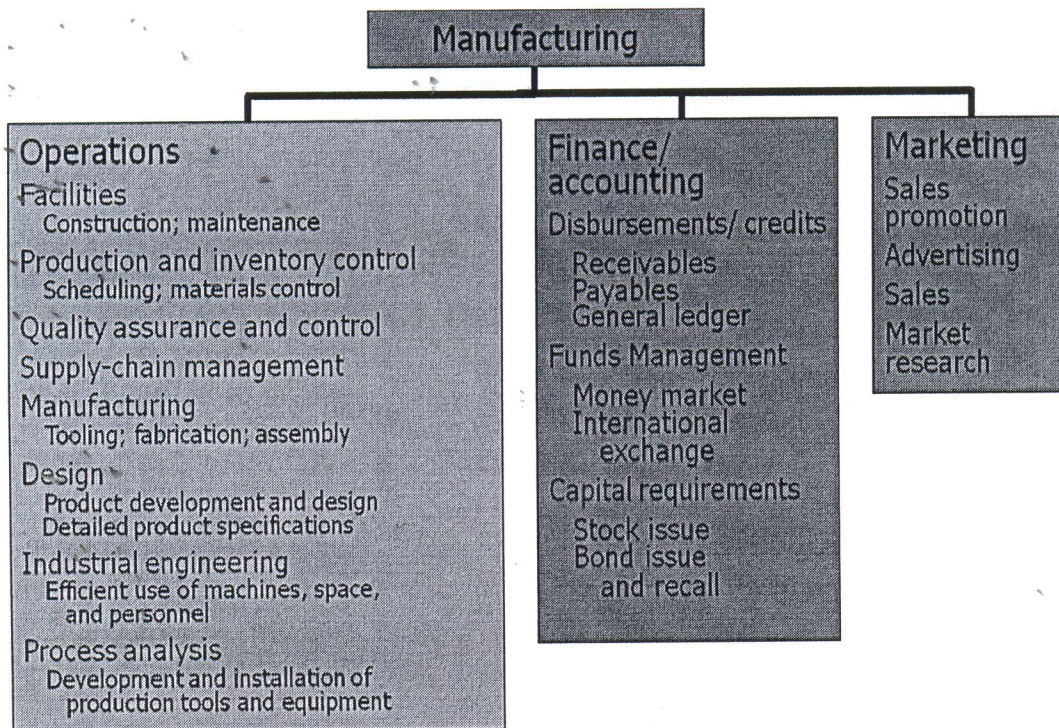


Figure 2 : Manufacturing Organization Chart

SECTION B (Total: 40 marks)

INSTRUCTION: Answer Question 1, and Question 2 OR Question 3.

Please use the answer booklet provided.

Question 1

(a) There are three (3) types of productions. Name all of them.

(3 marks)

(b) Explain briefly one (1) of the types of productions.

(6 marks)

(c) The classifications of quantity for repetitive and non-repetitive products are classified according to their size or series. Choose the following information and put it in the appropriate box in Table 1.

Newspaper

Tools

Rocket Motor

Articles

Pre-Fabrication

Nuclear Power Pumps

Home Appliances

Constructions

	Repetitive	Non-Repetitive
Production Unitary		
Small and Medium Series		
Grand Series		

Table 1

(4 marks)

- (d) One of the Production Department functions is "Work Study". Explain the meaning of "Work Study" and its two (2) main aspects briefly.

(7 marks)

Question 2

- (a) i. There are several tools for Method Analysis and it focuses on how task is performed or accomplished. One of the tools or charting techniques for Method Analysis is Activity Chart, explain it briefly.
- (2 marks)
- ii. Locate the necessary sequence of steps in Figure 3 (Operation Chart).
- (4 marks)
- iii. According to Figure 3 (Operation Chart), analyze the information below:
1. Identify the method used in this process?
(1 mark)
 2. What actually happens on the left-hand while the right-hand is reaching and grasping washer?
(2 marks)
 3. What is the total activity of the left-hand?
(2 marks)
 4. Why does the left-hand activity need to hold a bolt?
(4 marks)
 5. This activity needs lots of handling with the left-hand or the right-hand?
(4 marks)
 6. What is the distance to "Move bolt"?
(1 mark)

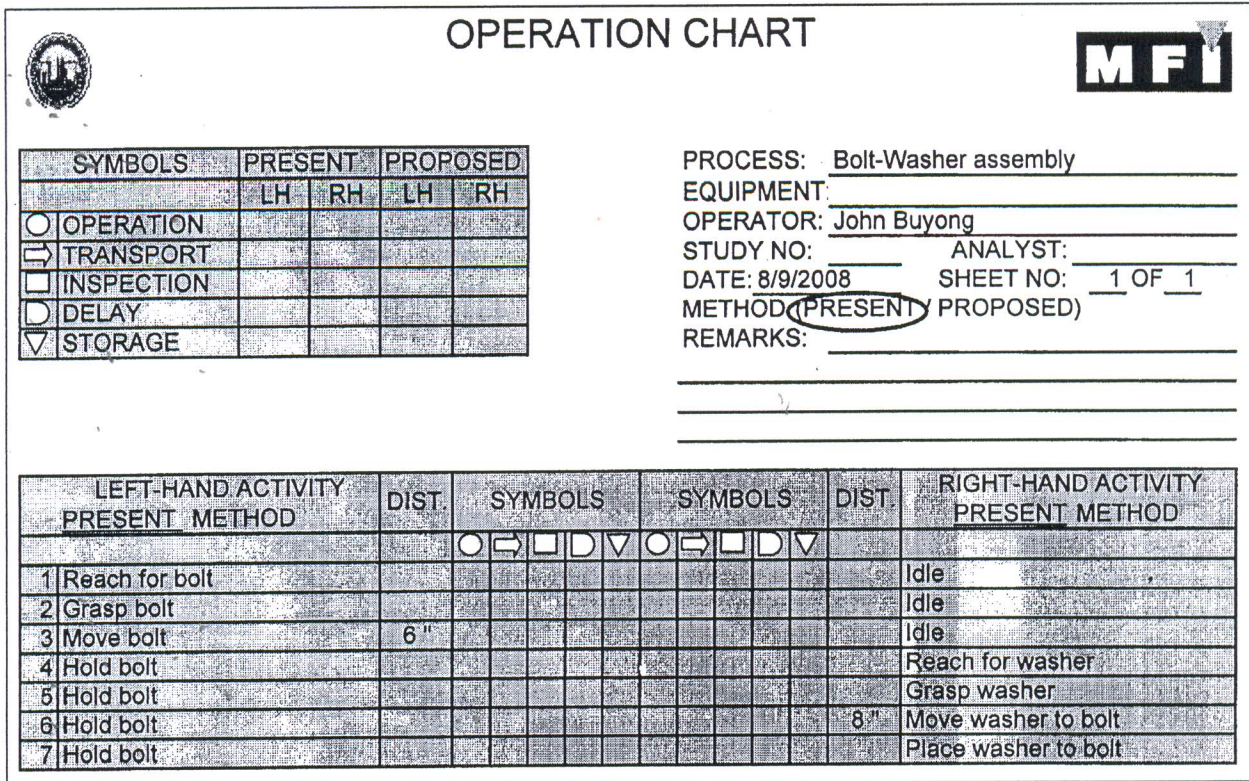


Figure 3: Operation Chart

Question 3

Questions (a) – (c) refer to Figure 4 (page 8).

There are several tools for method analysis; one of the tools is the Process Chart.

- (a) Explain briefly the Process Chart. (3 marks)
- (b) Locate the necessary sequence of steps and the necessary information of the Process Chart in Figure 4 (page 8). (9 marks)
- (c) Analyze the information below:
 - i. Calculate the total distance for this process? (2 marks)
 - ii. Calculate the total time available for this process? (2 marks)

- iii. How many pieces to "Bend all parts"?
(1 mark)
- iv. What is the distance from the 'shearing machine' to 'press brake bending machine' through 'sanding machine'?
(3 marks)

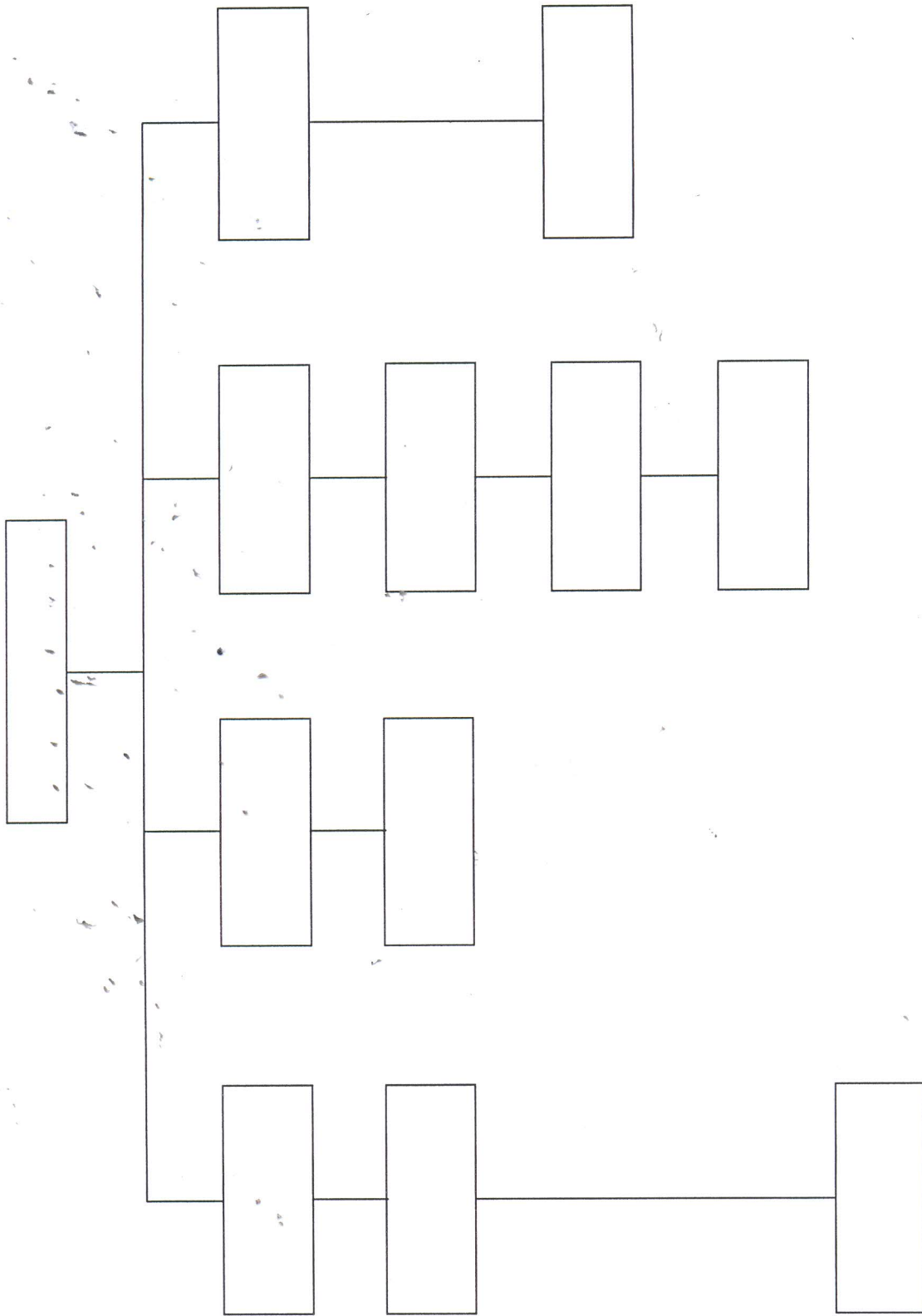



Figure 1

Present Method <input checked="" type="checkbox"/>		PROCESS CHART						
Proposed Method <input type="checkbox"/>								
SUBJECT CHARTED <u>Boiler Mixer</u>			DATE _____					
DEPARTMENT <u>Metal Fabrication Technology</u>			CHART BY _____					
			CHART NO. _____					
			SHEET NO. <u>1</u> OF <u>1</u>					
DIST. IN METER	TIME IN MINS.	CHART SYMBOLS					PROCESS DESCRIPTION	REMARKS
		○	⇒	□	D	▽		
25							Move the plate to the workshop	Qty = 1 pc.
3							Put the plate onto wood block	
	30						Mark the plate	
	20						Check the dimensions	
30							Move to Shearing Machine	
	15						Operation at Shearing Machine	Qty = 5 pcs.
10							Move to Sanding Machine	
	20						Trimming and reburring	Qty = 5 pcs.
35							Move to Press Brake Bending Machine	
	18						Add data into Bending Machine	
	45						Bend all parts	Qty = 5 pcs.
50							Move to assembly area	
	30						Assemble the parts	Qty = 1 unit
	25						Welding all joints	Qty = 1 unit
	60						Inspect all joints and dimensions	Qty = 1 unit
20							Move to painting	
	45						Paint	Qty = 1 unit
10							Send to QC area	
	60						Check according to client's wants	Qty = 1 unit
15							Move to store	
							TOTAL	

○ = operation; ⇒ = transportation; □ = inspection; D = delay; ▽ = storage;

Figure 4: Process Chart

END OF QUESTION