

ADVANCED DIPLOMA IN APPAREL STUDIES AND MERCHANDISING

Examination Paper

1ST Term 2014

Module Name: Apparel Production and Management

Module Code: 750

Date: 22 Feb 2014

Time Allowed: 3 hours

Reading Time: 15 minutes

Examination Time: 2:45pm – 5:45pm

This question paper has 3 pages (including this page).

INSTRUCTION TO CANDIDATES:

- This paper has **EDIGHT (8)** questions.
 - Answer any **FIVE (5)** questions
 - All questions carry equal marks.
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The following tools with an asterisk (*) are **NOT ALLOWED** in the examination:

- Paperback Dictionary *
- Electronic Dictionary *
- Open Book Examination Material *
- Programmable Calculator *

DO NOT TURN OVER THE PAGE UNTIL YOU ARE TOLD TO DO SO

Question 1

State and explain any 5 (Five) factors affecting fabric utilization in cutting room. (100%)

Question 2

(a) List 7 (Seven) factors being considered in purchasing machinery and equipment in apparel manufacturing? Explain your answer in detail. (70%)

(b) What is “Preventive Maintenance”? (30%)

Question 3

The table below shows the data from a time study office that is taken over a number of cycles for an operation consisting of 8 (Eight) elements.

Element Number	Average observed time	Average Rating	Frequency/cycle	Percentage allowance	Relaxation
1	0.30	90	1/6	12.5	
2	0.21	85	1/1	12.5	
3	1.04	100	1/1	12.5	
4	0.66	105	1/1	12.5	
5	0.63	110	1/1	12.5	
6	0.70	90	1/1	12.5	
7	0.78	100	1/1	12.5	
8	0.30	110	1/6	12.5	

(a) Calculated the standard time per unit of the above operation. (30%)

(b) Calculate the output per operator in 40 hours a week at standard performance. (30%)

(c) How many operators are required to produce 90,000 units output in 40 hours, assuming that they can meet the standard performance. (40%)

Question 4

Describe the following cutting equipment with their advantages, disadvantages & their main applications.

(a) Band knife (50%)

(b) Die cutter (50%)

Question 5

- (a) Briefly describe the principle of “progressive bundle system” & “conventional bundle system”. (50%)
- (b) Compare their advantages & disadvantages based on their applications & characteristics. (50%)

Question 6

Refer to the following information data provided, answer the following question.

Product: Shirt

Production target: 960 shirts per day.

Operative works at 8 hours per day.

Operation	Standard Minutes per Garment
1. Set pocket	1.5
2. Join shoulder	0.48
3. Sew collar	0.96
4. Make sleeve	0.51
5. Set in sleeve & close side seam	1.2
6. Set in collar	1
7. Hem bottom	0.46
8. Button holing	0.52
9. Button sewing	0.44

- (a) How many operatives should be assigned to each operation for producing 960 shirts per working day? (40%)
- (b) Explain how you would balance the production line? (40%)
- (c) Calculate the product “cycle time” above. (20%)

Question 7

- (a) Describe 3(Three) basic components of a material handling system in garment manufacturing. Explain your answer in detail. (60%)
- (b) Discuss 4(Four) factors that may contribute to the choice of a proper material handling system. (40%)

Question 8

Discuss the factors that may govern the extent of “Operation Breakdown” in sewing operations. (100%)