

THE HONG KONG POLYTECHNIC UNIVERSITY
HONG KONG COMMUNITY COLLEGE

Subject Title : Cost Accounting

Subject Code : CCN2111

Session : Semester One, 2017/18

Numerical Answers

Question B1

Part I

(a)		January	February	March	April
	Required production in units	<u>29,000</u>	<u>45,000</u>	<u>61,000</u>	<u>43,000</u>

(b) The materials purchase budget (based on the above production budget) would be as follows:

	January	February	March	Total
Required purchases	<u>101,400</u>	<u>149,400</u>	<u>166,800</u>	<u>417,600</u>

Question B2

Part I

- (a) Wait time = 17.6 days
- (b) Process time = 1.9 days
- (c) Inspection time = 0.8 days

Part II

- (a) Dollar sales for a segment to break even = \$134,247
- (b) Dollar sales for a segment to break even = \$233,333
- (c) Dollar sales to break even = \$499,907
- (d) Net operating loss = \$91,520

Question B3

Part II

Costs to be accounted for:	
Cost of beginning work in process inventory	\$20,000
Costs added to production during the month	<u>238,000</u>
Total cost to be accounted for	<u>\$258,000</u>
Costs accounted for as follows:	
Cost of ending work in process inventory	\$14,000
Cost of units transferred out	<u>244,000</u>
Total cost accounted for	<u>\$258,000</u>

Question B4

Part I

- (a)
- | | | |
|------------------|------------------|------------------|
| | Make | Buy |
| Total cost | <u>\$276,000</u> | <u>\$299,800</u> |
- (b) The total cost of the make alternative is lower by \$23,800.

Part II

(a)	Computation of activity rates:				
	Activity Cost Pools				Activity Rate
	Labor-related				\$12.03 per DLH
	Machine setups				\$92.03 per setup
	General factory				\$81.40 per MH
(b)	Computation of the overhead cost per unit under activity-based costing.		Product L7		Product O3
	Activity Cost Pools and Activity Rates				
	Overhead cost per unit (a) ÷ (b)		\$856.11		\$359.17
(c)	Computation of unit product costs under activity-based costing.	Product L7	Product O3		
	Unit product cost	<u>\$1,207.41</u>	<u>\$709.87</u>		

Question B5

Part I

Incremental net operating income..... \$71,400

Part II

Change in net operating income	<u>\$17,400</u>
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Question B6

Part I

- | | WP | PG | LC |
|--|---------|---------|---------|
| (a) Contribution margin per unit of the constrained resource | \$13.80 | \$11.40 | \$13.50 |
| Ranking | 1 | 3 | 2 |
- (b) The company should be willing to pay up to \$11.40 per minute

Part II

- (a) Materials quantity variance = \$12,320 U
- (b) Materials price variance = \$6,780 F
- (c) Labor efficiency variance = \$1,900 U
- (d) Labor rate variance = \$2,412 U
- (e) Variable overhead efficiency variance = \$700 U
- (f) Variable overhead rate variance = \$536 F