

Final Exam Managerial Accounting Winter 2009 SOLUTION ADM2341 All Sections

STUDENT NAME:

STUDENT NUMBER:

Section	Time	Professor	Check <input type="checkbox"/> your section
M	Mon–Wed: 16:00-17:30, 14:30-16:00	Rhonda Pyper	
N	Tues-Thurs: 10:00 - 11:30, 830-10:00	Ronald Eden	
P	Mon-Wed: 13:00-14:30, 11:30-13:00	Ronald Eden	
Q	Tues: 13:00-14:30, 11:30-13:00	Sheldon Weatherstone	
R	Wed: 19:00 - 22:00	Marc Tassé	

Instructions:

1. Answer all questions in this booklet. Booklet is **not** to be removed from the examination room. You may separate the pages but ensure that you put them back together and staple before handing in.
2. Please limit your answer to the space provided. Please indicate if you use the back of a page.
3. The use of standard abbreviations (O/H for Overhead and CM% for Contribution Margin Percentage) is quite acceptable.
4. Budget your time wisely. Please do **not** ask the invigilators questions. Make reasonable assumptions where necessary.
5. Language dictionaries are allowed.

	Question	Max Grades
Short Answer	Qs 1 to 6	38
Exercises and Problems	Q.7	10
	Q.8	10
	Q.9	20
	Q.10	12
	Q.11	10
	Total	100

Budget about 1.8 minutes per grade.

Statement of Academic Integrity

The Telfer School of Management does not condone academic fraud, an act by a student that may result in a false academic evaluation of that student or of another student. Without limiting the generality of this definition, academic fraud occurs when a student commits any of the following offences: plagiarism or cheating of any kind, use of books, notes, mathematical tables, dictionaries or other study aid unless an explicit written note to the contrary appears on the exam, to have in his/her possession cameras, radios (radios with head sets), tape recorders, pagers, cell phones, or any other communication device which has not been previously authorized in writing.

Statement to be signed by the student:

I have read the text on academic integrity and I pledge not to have committed or attempted to commit academic fraud in this examination.

Signed: _____

Note: an examination without this signed statement will not be graded and will receive an exam grade of zero.

Number in brackets () is the grade or the question

All grading will use the calculations carried forward ie the student is not penalized twice for an error

Short Questions

Q.1 (6)

The Ring Around the Collar Company makes shirts. Indicate whether each of the following items is a direct (**D**) or indirect (**I**), cost with respect to shirts, and whether it is a product (**Pr**) or a period (**Pe**) cost. Check \checkmark the appropriate letter. Indicate, very briefly, the reasons for your choices.

Example: Hand soap in the shirt factory washrooms.

D ___ or I \checkmark ; Pr \checkmark or Pe ___ (0 or .5)

Cost can't be traced to shirts. Inventory cost* Means contributes to making of the shirts. (0 or .5).....

1. Utility costs incurred at company headquarters

D ___ or I \checkmark ; Pr ___ or Pe \checkmark (0 or .5)

Cost can't be traced to product. Not an inventory cost. (0 or .5).....

2. Cost of company labels attached to shirts.

D ___ or I \checkmark ; Pr \checkmark or Pe ___ (0 or .5)

Too costly to trace. Inventory cost. (0 or .5)

3. Insurance premiums on raw materials warehouses

D ___ or I \checkmark ; Pr \checkmark or Pe ___ (0 or .5)

Can't be traced to units. Inventory cost.. (0 or .5).....

4. Cost of cotton cloth to make shirts

D \checkmark or I ___ ; Pr \checkmark or Pe ___ (0 or .5)

Traceable cost. Inventory cost. (0 or .5).....

5. Wages of forklift operators who move material along the production line.

D ___ or I \checkmark ; Pr \checkmark or Pe ___ (0 or .5)

Cost not traceable to shirts. Inventory cost. (0 or .5).....

6. Rent on the finished goods warehouse.

D ___ or I \checkmark ; Pr ___ or Pe \checkmark

Not traceable to shirts. Not an inventory cost.....

Q. 6 (10)

The Arts & Crafts Emporium makes carved wooden mallard hens and ducklings. Currently the sales mix is 33% hens and 67% ducklings. The following are the company's revenues and costs:

	HENS	DUCKLINGS
Selling price	\$12	\$6
Variable cost	(4)	(4)
Contribution margin	<u>\$ 8</u>	<u>\$2</u>

Monthly fixed costs are \$12,000. You have just inherited this firm and have decided that you need to focus on the following issues.

Required:

- a) If the company wants to earn \$8,000 in profit per month, how many hens and how many ducklings must it sell?
- b) The company believes that the mix will change to 20% Hens and 80% ducklings next year. How many hens and how many ducklings must it sell to make \$8,000 per month next year?
- c) Explain briefly the reason for the difference between part a and b.

a) CM Average = $.33 * \$8 + .67 * \$2 = \$3.98$
 Target Sales = $(\$12,000 + 8,000) / \$3.98 = 5025$ (0 or 2)
 Hens = $.33 * 5025 = 1658$
 Ducks = $.67 * 5025 = 3367$ (0 or 2)

Or $\$8x + \$2 * 2x = \$20,000$
 $x = \text{Hens} = \$20,000 / \$12 = 1667$
 $2x = \text{Ducks} = 3333$
 Slightly different because .33 and .67 is not exactly 1 to 2

b) CM Average = $.2 * \$8 + .8 * \$2 = \$3.20$
 Target Sales = $(\$12,000 + 8,000) / \$3.20 = 6250$ (0 or 2)
 Hens = $.20 * 6250 = 1250$
 Ducks $.80 * 6250 = 5000$ (0 or 2)

Or $\$8x + \$2 * 4x = \$20,000$
 $x = \text{Hens} = \$20,000 / \$16 = 1250$
 $4x = \text{Ducks} = 5,000$

Same because .20 and .80 is exactly 1 to 4

- c) Sales switch to lower CM Ducks(67% to 80%) lowered the average CM, so target sales had to increase to reach \$20,000 CM (0 or 2).....

Q. 9. (20)

Patio Solutions manufactures picnic table kits that are sold in various large discount department stores. The standard cost card indicates the following costs are incurred to produce a single picnic table kit:

60 feet of pine lumber @ \$.90 per foot	\$54
2 frame units @ \$9 per unit	18
.5 hours of direct labor at \$14 per hour	7
Variable factory overhead: .2 hours @ \$20 per machine hour	4
Fixed factory overhead at \$15 per machine hour*	<u>3</u>
Total	\$86

*Based on budgeted annual FOH of \$30,000 and expected annual capacity of 2,000 machine hours.

During 2009 the firm had the following actual data related to the production of 11,000 picnic kits:

PURCHASE AND USAGE OF MATERIAL

Lumber	Purchased 700,000 feet at \$.85 per foot. Used 690,000 feet
Frame units	Purchased and used 22,250 frame units at \$9.10 per unit

DIRECT LABOR USED

5,600 hours at \$14.20 per hour

FACTORY OVERHEAD COSTS

Actual machine hours recorded	2,000
Actual variable factory overhead incurred	\$38,000
Actual fixed factory overhead incurred	\$32,300

Required: Calculate the appropriate variances for material, labor, variable and fixed overhead. Indicate whether the variances are favorable or unfavorable and explain each briefly

	AQ*AP	Variance	AQ*SP	Variance	SQA*SP
Lumber	700,000* \$.85 \$595,000		700,000*\$.90 = 630,000	On usage	
		\$35,000 (1) F(1) On Purchases	690,000*\$.90 = 621,000		11,000*60*\$.90 = 660,000*\$.90 = 594,000
		AP < SP \$.85 < .90		\$27,000 (1) U(1) On usage	
				AQ > SQA 690,000 > 660,000	
Frames	22,250* \$9.10 \$202,475		22,250*\$9.00 = 200,250		11,000*2*\$9.00 = 22,000*\$9.00 = 198,000
		2225 (1) U (1)		2250 (1) U (1)	
		AP > SP, \$9.10 > 9		AQ > SQA 22,250 > 22,000	
Labor	5,600* \$14.20 \$79,520		5,600*\$14.00 = 78,400		11,000*.5*\$14.00 = 5500*14.00 = 77,000
		1120 (1) U (1) AP > SP 14.20 > 14.00		1400 (1) U (1) AQ > SQA 5600 > 5500	
VOH	\$38,000		2,000 *\$20 = \$40,000		11,000*.2 * \$20 = 2200*\$20 \$44,000
		2000 F Spent less than allowed for 2000 MHs		4,000 F AQ < SQA 2,000 < 2200	

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