



### Midterm Exam SOLUTION

ADM2341 Managerial Accounting Winter 2013

Your Professor: Check one ✓ Adjaoud Eden Tasse

150 minutes

STUDENT NAME: Solution!!!!!!!!!!!!!!!

STUDENT NUMBER: .....

You may separate the pages but ensure that you put them back together and staple before handing in.

1. Please limit your answer to the space provided. Please indicate if you use the back of a page.
2. The use of standard abbreviations (O/H for Overhead and CM% for Contribution Margin Percentage) is quite acceptable.
3. Budget your time wisely.
4. Please do not ask the invigilators questions. Make reasonable assumptions where necessary.
5. Language dictionaries and calculators are allowed.
6. **You must show calculations.**

<u>Questions</u>	<u>Max Grade</u>
Q.1	20
Q.2	20
Q.3	20
Q.4	20
Q.5	20
<b>Total</b>	<b>100</b>

#### **You must sign the following Statement of Academic Integrity**

The 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 headsets), 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.**

**QUESTION 1 (20 points)**

*For each of the following questions, circle the best answer and report your choice on the Scan Sheet.*

- 1 C
- 2 B
- 3 D
- 4 D
- 5 B
- 6 D
- 7 D
- 8 B
- 9 A
- 10 C

**QUESTION 2 (20 POINTS)**

1. Compute the production of finished goods in units in year 2012.(4)

$$BI + PRODUCTION - SALES = EI$$

$$PRODUCTION = EI + SALES - BI$$

$$PRODUCTION = 4,000 + 400,000/40 = 14,000 \text{ UNITS (1,2,1)}$$

2. Prepare a Schedule of Cost of Goods Manufactured for 2012. Compute all missing values.(8)

**SCHEDULE OF COGM**

<u>DM USED</u>		<b>152000</b>	<b>1</b>
BI	14000		
PURCHASES	<b>153000</b>		<b>1</b>
EI	15000		
DL		100000	
<b>MOH</b>		<b>100000</b>	<b>4X0.5=2</b>
DEPR-FACTORY	40000		
DEPR-EQUIP	30000		
SUPPLIES-FACT	16000		
PROPR-TAXES	14000		
total		<b>352000</b>	<b>1</b>
BIWIP		8000	
EIWIP		<u>10000</u>	
COGM		<b>350000</b>	<b>1</b>
PRODUCTION		<b>14000</b>	<b>1</b>
COGM UNIT		<b>25</b>	<b>1</b>

3. Prepare an income statement for 2012 .(8)

**INCOME STATEMENT**

SALES		400000	
<b>COGS</b>		<b>250000</b>	<b>1</b>
BI	0		<b>1</b>
COGM	<b>350000</b>		<b>1</b>
EI	<b>100000</b>		<b>1,1</b>
GM		<b>150000</b>	<b>1</b>
OFF. SALARIES	30000		
ADVERTISING	60000		
COMMISSIONS	20000	<b><u>110000</u></b>	<b>1</b>
<b>NI</b>		<b>40000</b>	<b>1</b>

**QUESTION 3 (20 points)****Income statement for parts 1 to 5**

	Current		New			
	Burgers		Burgers	Subs		Total
Sales	\$100,000		\$150,000	15,000*\$6	\$90,000	\$240,000(1)
VC	40,000?		(40%)60,000	15,000*3.60	54,000	114,000(1)
CM	60,000?		(60%)90,000		(40%)36,000	126,000(1)
FC	42,000				Add \$16,000	\$58,000(1)
Income	\$18,000					\$68,000

1. (4)

$$\text{CM}\% = 60/100 = 60\%(2), \text{ So BEP } \$42,000/.60 = \$70,000(2)$$

2. (4)

**See above**

3. (4)

$$\text{CM}\% = 126/240 = 52.5\%, \text{ SO BEP } = \$58,000/.525 = \$110,476 (2)$$

$$\text{Sales of Burgers} = 150/240 * \$110,476 = \$69,047.5 (1)$$

$$\text{Sales of Subs} = 90/240 * 110,476 = \$41,428.5 (1)$$

4. (5)

$$\text{New Average CM}\% = (35\% * 60\%)\text{Burgers} + (65\%*40\%)\text{Subs} = 47\% (2)$$

$$\text{Or, Total CM at } \$240,000 = (35\%*\$240,000)*60\% + (65%*240,000)40\% = \$112,800;$$

$$\text{CM}\% 112,800/\$240,000 = 47\%$$

$$\text{BEP\$} = \$58,000/47\% = \$123,404(1)$$

BEP Up because Average CM % is down with the shift to the lower CM% Subs. (2)

5. What would be the total target sales in dollars in part 2 if the target profit is \$36,000?(3)

$$\text{TSS\$s} = (\text{FC} + \text{TP})/\text{CM}\% = (\$58,000 + 36,000) (2)/.525(1) = \$179,047$$

**QUESTION 4 (20 points)**

1. (8)

COGS = MIXED COST			
	$710000 - 550000 / 70000 - 50000 = 8$		1
	FC = 150000		1
OE = MIXED COST			
	$190000 - 150000 / 70000 - 50000 = 2$		1
	FC = 50000		1
Sales		960000	
TVC			
COGS	480000		
OE	<u>120000</u>	<u>600000</u>	1,1
CM		360000	
TFC			
COGS	150000		
OE	<u>50000</u>	<u>200000</u>	1,1
NI		160000	

2. (4)

Sales units		72000	
Sales		1152000	1
TVC			
COGS	576000		1
OE	144000	<u>720000</u>	1
CM		432000	
TFC			
COGS	150000		
OE	50000		
Advertising	50000	<u>250000</u>	1
NI		182000	

3. (8)

$$60000P = (8+2)*60000 + (150000+50000) + .30(60000P) \quad 1,2,1,2,$$

$$P = \$19.05 \quad 2$$

**QUESTION 5 - (20 points)**

a. Prepare a schedule of budgeted cash collections from sales budget for January and February 2013. (5)

	January	February	March
Sales	60000	80000	100000
Credit sales	30000	40000	
Cash sales	<b>30000</b>	<b>40000</b>	
Collections credit sales	<b>20000</b>	<b>30000</b>	
Total	<b>50000</b>	<b>70000</b>	
	<b>3</b>	<b>2</b>	

b. Prepare a Merchandise Purchases budget for January and February 2013. (6)

**Purchases budget**

	<b>January</b>	<b>February</b>
EI	48000	60000
COGS	36000	48000
BI	36000	48000
Purchases	48000	60000
	<b>1,1,1</b>	<b>1,1,1</b>

c. Prepare a Purchase disbursements budget for January and February 2013. (4)

	<b>January</b>	<b>February</b>
December Purchases	10000	
January Purchases	24000	24000
February Purchases		30000
Total	34000	54000
	<b>1,1</b>	<b>1,1</b>

d. Prepare a cash budget for January and February 2013. (5)

	<b>January</b>	<b>February</b>	
Beginning cash	10000	5960	
Collections	50000	70000	
Total	<b>60000</b>	<b>75960</b>	
Disbursements			
Purchases	34000	54000	
Salaries	<b>12000</b>	<b>16000</b>	<b>1,1</b>
Other	<b>12000</b>	<b>12000</b>	<b>1,1</b>
Total	58000	82000	
Excess (deficit)	<b>2000</b>	<b>-6040</b>	
Borrowings	<b>4000</b>	<b>12000</b>	<b>1</b>
Interests	<b>-40</b>	<b>-160</b>	
Ending cash	5960	5800	

