

Managerial Accounting

⚠ This is a preview of the published version of the quiz

Started: Oct 16 at 1:49pm

Quiz Instructions

The exam consists of **3 parts** (2 cases and Multiple Choice Questions at the end) of which you will have to answer **all 3 parts**. The maximum of points to be reached is **90**.

Make sure to state your calculation path (except for the Multiple Choice Questions)!

Allowed Aids: Non-programmable calculator, dictionary, computer for exam processing

You are not allowed to cooperate with other students. You are also not allowed to use any other aids than the ones mentioned in this exam. Any violation will be treated as a violation of the examination guidelines as well as the Honour Code and will have severe consequences.

We wish you all the best for your examination!

Case 1 (18 points)

The HappyBirthday Company, a producer of specialty cards, has asked you to complete several calculations based upon the following information for 2021:

Income tax rate	30%
Selling price per unit	\$6.60
Variable cost per unit	\$5.28
Total fixed costs	\$46,200.00

Sales in 2020

40,000 cards

Question 1**2 pts**

What is the breakeven point in cards?

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Question 2**4 pts**

What sales volume is needed to earn an after-tax net income of \$13,028.40?

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$$\text{CM Ratio} = (6.60 - 5.28) / 6.60 = 0.2$$

$$\text{After-Tax NI} = 0.7 * \text{Before Tax NI}$$

$$\text{Target NI} = 13028.40 / 0.7 = 18612$$

$$\text{B/E (sales)} = (46200 + 18612) / 0.2 = 324,060 \text{ dollars}$$

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Question 3**3 pts**

How many cards must be sold to earn an after-tax net income of \$18,480?

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BE (units) = $(46200 + 18480/0.7)/(6.60 - 5.28) = 55,000$ ✓

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**Question 4****3 pts**

The sales manager believes that a reduction in the sales price to \$6.12 will result in orders for 10,000 more cards in 2021 than in 2020. What will the break-even point be if the price is changed?






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New BE (units) = $46200 / (6.12 - 5.28) = 55000$ ✓

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Question 5

2 pts

Should the price change discussed in question 1.4) be made? Explain.

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No, price change should not be made.

40,000 cards were sold in 2021. As per prediction, 50,000 will be sold if price change is made. B/E is 55,000 > 50,000.

Therefore, company will make losses as the new B/E will not be attained.

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✕ Question 6

4 pts

State two assumptions that are underlying the cost-volume-profit analysis.

- ① selling price is constant throughout the entire relevant range
- ② Costs are linear over the relevant range
- ③ Constant sales mix in multi-product companies
- ④ units produced = sold (inventories don't change)

Case 2 (22 points)

StandUP Inc. manufactures and sells stand-up paddle boards for \$97.50 per unit. In the first month of operation, 2,000 units were produced and 1,750 units were sold. Actual fixed costs are the same as the amount budgeted for the month. Other information for the month includes:

Variable manufacturing costs	\$22.10 per unit
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Variable marketing costs	\$ 3.90 per unit
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Fixed manufacturing costs \$13.00 per unit

Administrative expenses, all fixed \$19.50 per unit

Ending inventories:

Direct materials -0-

WIP -0-

Finished goods 250 units

Question 7

4 pts

What is cost of goods sold per unit using variable costing? What is cost of goods sold per unit using absorption costing? Explain the difference!

COGS Variable Costing:

$$22.10 + \cancel{3.90} = 26$$

Only the variable costs are considered in the product costs

COGS Absorption Costing:

$$22.10 + \cancel{3.90} + 13.00 + \cancel{19.50} = 58.5 \quad 35.10$$

Fixed costs are unitized and calculated into product costs.

Question 8**2 pts**

What is the total cost of goods sold using variable costing?

COGS Variable Costing:

~~26.00~~ * 1750 = ~~45500~~

22.10

Question 9~~6 pts~~

3

What is the total contribution margin using variable costing?

$$\text{CM} = \text{Revenue} - \text{COGS} = 97.50 * 1750 - 45,500 = \underline{125,125}$$

Question 10**6 pts**

What is the operating income using variable costing?

$$OI = CM - \text{Fixed Costs} = 125,125 - 2000 \cdot (13.00 + 19.5) = 60,125$$

Question 11**4 pts**

Imagine the CEO of StandUP Inc. initiates a large research project that aims to increase the robustness of the stand-up paddle boards. The project costs \$5,000. How does this project cost affect the cost of goods sold? How does it affect the operating income?

The project will lead to a change from variable costing system to absorption costing system.

The COGS will more than double, going up from 45,500 to 102,375. This already includes the manufacturing OH.

However, the OI (excluding cost of this project) will increase by $250 \times (19.00 + 13.5) = 8,125$ as the OH utilized for unsold units is not calculated here, but inventoried. This makes absorption costing more robust and accurate.

(No effect on COGS
but OI increases by 5000)

Multiple Choice Questions (50 Points)

Question 12**2 pts**

Managers use management accounting information to _____.

- ☒ communicate, develop, and implement strategies.
- ☐ ensure that financial statements are consistent with the SEC rules.
- ☐ communicate a firm's financial position to investors, banks, regulators, and other outside parties.
- ☐ help external users such as investors, banks, regulators, and suppliers.

Question 13**1 pts**

An actual cost is _____.

- ☐ anything for which a cost measurement is desired
- ☐ the collection of cost data in some organized way by means of an accounting system
- ☐ a predicted or forecasted cost
- ☒ the cost incurred

Question 14**2 pts**

Classifying a cost as either direct or indirect depends upon _____.

- ☐ whether a cost is fixed or variable
- ☒ whether the cost can be easily traced with the cost object
- ☐ the behavior of the cost in response to volume changes
- ☐ whether the cost is expensed in the period in which it is incurred

Question 15**4 pts**

The Angle Company manufactures several different products. Unit costs associated with Product PR5 are as follows:

Direct materials	\$70
Direct manufacturing labor	10
Variable manufacturing overhead	15
Fixed manufacturing overhead	10

Sales commissions (2% of sales)	10
Administrative salaries	<u>35</u>
Total	<u>\$150</u>

What is the percentage of the total fixed costs per unit associated with Product PR5 with respect to total cost?

☒ 30%

☐ 28%

☐ 32%

☐ 26%

Question 16

5 pts

HaveFun Enterprises manufactures digital video equipment. For each unit, \$3,000 of direct material is used, and there is \$2,000 of direct manufacturing labor at \$20 per hour. Manufacturing overhead is applied at \$25 per direct manufacturing labor hour.

Calculate the profit earned on 45 units if each unit sells for \$9,500.

☐ \$65,000

☐ \$80,000

☐ \$75,000

☒ \$90,000**Question 17****4 pts**

Torjan and Burk Law Office employs 12 full-time attorneys and 10 paraprofessionals. Direct and indirect costs are applied on a professional labor hour basis that includes both attorney and paraprofessional hours. Following is information for 2021:

	<u>Budget</u>	<u>Actual</u>
Indirect costs	\$270,000	\$300,000
Annual salary of each attorney	\$100,000	\$110,000
Annual salary of each paraprofessional	\$ 29,000	\$ 30,000
Total professional labor hours	50,000 dlh	60,000 dlh

What are the actual direct-cost rate and the actual indirect-cost rate, respectively, per professional labor hour?

☐ \$27.00; \$4.17☐ \$27.00; \$5.00☐ \$32.40; \$5.00☒ \$29.80; \$5.40

Question 18**2 pts**

The advantage of using standard costing instead of actual costing is _____.

- ☐ the job cost is more accurate under standard costing
- ☒ indirect costs are assigned to a job on a timely basis
- ☐ standard costing provides a higher gross profit margin
- ☐ indirect costs are assigned at the end of the year when they are known

Question 19**2 pts**

An unfavorable variance indicates that _____.

- ☐ the budgeted contribution margin is equal to the actual amount
- ☐ the actual costs are less than the budgeted costs
- ☒ the actual units sold are less than the budgeted units
- ☐ the actual revenues exceed the budgeted revenues

Question 20**4 pts**

MakelEasy Corporation used the following data to evaluate its current operating system. The company sells items for \$20 each and used a budgeted selling price of \$21 per unit.

	<u>Actual</u>	<u>Budgeted</u>
Units sold	180,000 units	185,000 units
Variable costs	\$1,080,000	\$1,295,000
Fixed costs	\$ 800,000	\$ 775,000

What is the static-budget variance of revenues?

- ☐ \$55,000 unfavorable
- ☐ \$220,000 favorable
- ☒ \$285,000 unfavorable
- ☐ \$55,000 favorable

Question 21**1 pts**

In _____, fixed manufacturing costs are included as inventoriable costs.

- ☐ variable costing

- ☐ activity-based costing
- ☐ throughput costing
- ☒ absorption costing

Question 22**4 pts**

Unile Auto produces and sells an auto part for \$60.00 per unit. In 2015, 100,000 parts were produced and 75,000 units were sold. Other information for the year includes:

Direct material	\$20.00 per unit
Direct manufacturing labor	\$ 4.00 per unit
Variable manufacturing costs	\$ 1.00 per unit
Sales commissions	\$ 6.00 per part
Fixed manufacturing costs	\$750,000 per year
Administrative expenses, all fixed	\$270,000 per year

What is the inventoriable cost per unit using variable costing?

- ☐ \$24.00
- ☐ \$20.00
- ☐ \$31.00

☒ \$25.00

Question 23**2 pts**

The cost components of a heater include \$30 for the compressor, \$10 for the sheet molded compound frame, and \$75 per unit for assembly. The factory machines and tools cost is \$60,000. The company expects to produce 1,000 heaters in the coming year.

What cost function best represents these costs?

☐ $y = 1,000 + 60,000X$

☒ $y = 60,000 + 115X$

☐ $y = 60,000 + 1,000X$

☐ $y = 1,000 + 115X$

Question 24**1 pts**

For decision making, a listing of the relevant costs _____.

☒ will help the decision maker concentrate on the pertinent data

- ☐ will only include costs that are the same among alternatives
- ☐ will only include historical costs
- ☐ will include both sunk costs and opportunity costs

Question 25**2 pts**

Which of the following is true of transfer pricing?

- ☐ It creates costs for the selling subunit.
- ☐ It makes managers' information-processing and decision-making tasks difficult.
- ☐ It creates revenues for the buying subunit.
- ☒ It helps top managers evaluate the performance of individual subunits.

Question 26**2 pts**

Relevant costs for target pricing are _____.

- ☒ all future costs, both variable and fixed

- ☐ variable manufacturing costs
- ☐ variable manufacturing and variable nonmanufacturing costs
- ☐ all fixed costs

Question 27**2 pts**

Managers use cost-volume-profit (CVP) analysis to _____.

- ☐ analyse a firm's profitability and help to decide wealth distribution among its stakeholders
- ☐ forecast the cost of capital for a given period of time
- ☐ estimate the risks associated with a given job
- ☒ study the behavior of and relationship among the elements such as total revenues, total costs, and income

Question 28**3 pts**

MakeMoney Company is a worldwide operating financial organization. Marissa Cash starts an internship at MakeMoney. As a first task, she receives the following ABC costing information:

<u>Activities</u>	<u>Total Costs</u>	<u>Activity-cost drivers</u>
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Account inquiry	\$200,000	10,000	hours	●
Account billing	\$140,000	4,000,000	lines	
Account verification accounts	\$75,000	40,000	accounts	
Correspondence letters	<u>\$ 25,000</u>	4,000	letters	
Total costs	<u>\$440,000</u>			

The above activities are used by Departments A and B as follows:

	<u>Department A</u>	<u>Department B</u>
Account inquiry hours	2,500 hours	4,000 hours
Account billing lines	400,000 lines	250,000 lines
Account verification accounts	10,000 accounts	8,000 accounts
Correspondence letters	1,200 letters	1,600 letters

How much of the account inquiry cost will be assigned to Department A?

☐ \$45,000

☒ \$50,000

☐ \$31,000

☐ \$52,000

Question 29**3 pts**

(Same scenario as above) MakeMoney Company is a worldwide operating financial organization. Marissa Cash starts an internship at MakeMoney. As a first task, she receives the following ABC costing information:

<u>Activities</u>	<u>Total Costs</u>	<u>Activity-cost drivers</u>	
Account inquiry	\$200,000	10,000	hours
Account billing	\$140,000	4,000,000	lines
Account verification accounts	\$75,000	40,000	accounts
Correspondence letters	<u>\$ 25,000</u>	4,000	letters
Total costs	<u>\$440,000</u>		

The above activities are used by Departments A and B as follows:

	<u>Department A</u>	<u>Department B</u>
Account inquiry hours	2,500 hours	4,000 hours
Account billing lines	400,000 lines	250,000 lines
Account verification accounts	10,000 accounts	8,000 accounts
Correspondence letters	1,200 letters	1,600 letters

How much of the account billing cost will be assigned to Department B?

☒ \$8,750

☐ \$15,000

☐ \$9,500

☐ \$11,500

Question 30

4 pts

Peach Inc. has identified three cost pools to allocate overhead costs. The following estimates are provided for the upcoming year:

<u>Cost Pool</u>	<u>Overhead Costs</u>	<u>Cost Driver</u>	<u>Activity Level</u>
Supervision of direct labor	\$326,000	Direct labor hours	900,000
Machine maintenance	\$132,000	Machine hours	960,000
Facility rent	\$217,000	Square feet of area	100,000
Total overhead costs	<u>\$675,000</u>		

The accounting records show the job for the customer Tree consumed the following resources:

<u>Cost Driver</u>	<u>Actual Level</u>
Direct labor hours	200
Machine hours	1,500

Square feet of area 70

Under ABC, what is the amount of machine maintenance costs allocated to the “Tree” Job?

☐ \$1,054.69

☐ \$206.50

☒ \$206.25

☐ \$206.75

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