Retake: Managerial Accounting B.Sc. English

ⓘ This is a preview of the draft version of the quiz

Started: 15 Mar at 15:08

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 (22 points)

PostIT Corporation has four operating divisions. The budgeted revenues and expenses for each division for 2021 are as follows:

	Division A	Division B	Division C	Division D
Sales	$504,000	$948,000	$960,000	$1,240,000
Cost of goods sold	$440,000	$930,000	$765,000	$925,000
Selling, general, and administrative expenses	$96,000	$202,500	$144,000	$210,000
Operating income/loss	**$(32,000)**	**$(184,500)**	**$51,000**	**$105,000**

Further analysis of costs reveals the following percentages of variable costs in each division:

	Division A	Divison B	Division C	Division D
Costs of goods sold	90%	80%	90%	85%
Selling, general, and administrative expenses	50%	50%	60%	60%

Closing down any division would result in savings of 40% of the fixed costs of the respective division.

Top management is very concerned about the unprofitable divisions (divisions A and B) and is considering closing them.

Question 1 — 16 pts

Calculate the increase or decrease in operating income if PostIT closes division A. Calculate the increase or decrease in operating income if PostIT closes division B. Which division should be closed and why?

Edit View Insert Format Tools Table

12pt Paragraph

NI of Div. A after closing = (55,200)
NI of Div. B after closing = (172,350)
Closing Div. A would further increase its OI loss by 23,200 which means it would be counterproductive to do so. However, closing Div. B would decrease its OI loss by 12.150 which would hence increase the total OI for the firm.

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Question 2 6 pts

State two factors that the top management of PostIT should consider before making a decision?

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12pt Paragraph B I U A T²

If Division B is necessary for continuation of operations and relationships with suppliers or buyers then closing it would only result in further losses in the long run. Moreover, lack of customer visibility for Division B after its closure could have long-term implications on the other, now more profitable divisions.

1) if DivB provides a more central product to the firm's portfolio.
2) If product provided by DivB could reduce the demand of any other products (complement effect)

p 0 words </>

Case 2 (38 points)

Aqua, Inc. manufactures diving suits. The controller, Sandy Storm, has identified the following preliminary cost estimates for each diving suit:

- Direct material: $200
- Direct labor (2.2 hours, at $25/hours): $55
- Overhead (at $18.27 per machine hour): $40.19

While Storm is quite confident about the values for direct material and direct labor, she is not as certain about the estimated manufacturing overhead costs. The estimate for manufacturing overhead is based on the manufacturing overhead costs that were incurred during the past 6 months as presented in the following schedule.

Month	Labor hours	Manufacturing Overhead costs

January	2,600	50,500
February	2,500	45,200
March	1,800	34,640
April	3,100	60,800
May	2,200	39,900
June	4,000	65,000

The manufacturing overhead estimate of $18.27 per labor hour was determined by dividing the total manufacturing overhead costs for the 6-month period by total labor hours.

Question 3 — 8 pts

Use the high-low method to compute a cost function for the relation between labor hours and manufacturing overhead costs.

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12pt Paragraph

VCu = 30360/2200 = 13.8
FC = 6500 - 13.8*4000
= 9800

p 0 words

Question 4 2 pts

Using the high-low method, predict total manufacturing overhead costs if Aqua, Inc uses 3,500 labor hours.

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12pt Paragraph

TC = 9800 + 13.8(3500) = 58100

p 0 words

Case 2 continued

Sandy Storm is not satisfied with the results and decides to perform a least-squares regression of manufacturing overhead (MOH) on labor hours (LH). The following regression formula was obtained:

MOH = 9,625.34 + 14.71LH

Question 5 9 pts

The overhead rate developed from the least-squares regression is different from Storm's initial estimate and the result obtained in Question 2.1. Briefly explain the differences between the three overhead rates. List one advantage and one disadvantage for each method.

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12pt Paragraph

LSR
+most objective
+based on accurate statistical methods
+uses all points
- takes time to compute & hard if there're many activities (needs linear programming)
HighLow
- ignores all points in the middle
- less objective than e.g., scatter but inaccurate as a whole as it focuses more on anomalies

Estimate (average)
- based on several real figures unlike HL which only uses 2
- unlike LSE doesnt look for relationship between activity and OH

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Question 6 6 pts

Storm has been asked to submit a bid on a package of 500 diving suits. The company has excess capacity to produce these. Calculate the incremental costs that should be considered in a bid submitted on this project. Use the overhead formula based on the least-squares regression.

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12pt Paragraph

(500*2.2)*14.71 + 500*200 + 500*55 = 143681
OC= 0 since excess capacity

p 0 words

Question 7 3 pts

State one further point Storm should consider when submitting a bid?

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12pt Paragraph

CM > 0

p 0 words

Question 8 4 pts

Storm has the feeling that even the regression formula obtained from the simple linear least-squares regression can be further improved. She remembers a lecture about “Learning Curves” and believes that the relationship between labor hours and MOH costs can be best described by a learning curve. That is, while the relationship is nearly linear in the very beginning, the curve gets flatter with each increase in labor hours. Adjust the above general linear regression equation (MOH = Intercept + X*LH) and incorporate the learning curve effect into this linear model (you don't have to use real numbers!).

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12pt Paragraph

MOH = Intercept + LH**X

p 0 words

Question 9 6 pts

Storm wants to learn more about least square regressions and calls a controller of a retail company that sells the diving suits in different stores. The controller tells Storm that she uses a linear least-square regression model to estimate the relationship between store sales and the number of customers entering a store. She further includes the age of a store into the model. The controller says that the estimation reveals an intercept of 1200, a positive coefficient of customers entering the store of 0.7 and a coefficient for the age of the store of -0.05. At first, state the regression equation using these variables. What is the predicted sales of a store with 2500 customers that is 15 years old?

Edit View Insert Format Tools Table

12pt Paragraph

model = 1200 + 0.7C - 0.05A
= 2949.25

p 0 words

Kwiatkowski Florists, Inc

Kwiatkowski Florists, Inc. produces standard flower bouquets for businesses. The costs of producing a bouquet amount to $15 for the flowers used; the florists who spend 15 min. on one bouquet receive $20 per hour. Kwiatkowski Florists, Inc. uses an activity-based costing system to compute the cost of making bouquets. The company's managers and supervisors earn $180,000 in total ("wages and salaries"); other company overhead is expected to total $70,000. These costs are allocated as follows:

	Bouquet Production	Delivery	Other
Wages and salaries	60%	30%	10%
Other overhead	50%	35%	15%

Kwiatkowski anticipates making 20,000 bouquets and 4,000 deliveries in the upcoming year.

Question 10 — 4 pts

Concerning Kwiatkowski Florists, Inc.: What is the total amount of overhead allocated to bouquet production?

- $ 275,000.
- $ 150,000.
- $ 143,000
- $ 250,000.

Question 11 — 4 pts

Concerning Kwiatkowski Florists, Inc.: Calculate total product cost per bouquet

- $ 7.15
- $ 20.00
- $ 27.15
- $ 30.00

Question 12 — 4 pts

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

Cost Pool	Overhead

	Costs
Supervision of direct labor	$326,000
Machine maintenance	$132,000
Facility rent	$217,000
Total overhead costs	**$675,000**

Cost Driver	**Activity Level**
Direct labor hours	900,000
Machine hours	960,000
Square feet of area	100,000

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

Cost Driver	**Actual Level**
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 “Mossman” Job?

- $206.50
- $206.75
- $206.25
- $1,054.69

Question 13 — 1 pts

Which cost type is relevant for the following decisions?

Deciding on commuting by train or by car

- Marginal costs
- Fixed costs
- Differential costs
- Sunk costs

Question 14 — 1 pts

Which cost type is relevant for the following decisions?

Admitting an additional student to a class

- Average costs
- Opportunity costs
- Sunk costs
- Marginal costs

Question 15 — 4 pts

Consider the following information for the year ended

- Budgeted manufacturing overhead $1,300,000
- Actual manufacturing overhead $1,160,000
- Budgeted machine hours 40,000 hrs
- Actual machine hours 50,000 hrs
- Budgeted selling and administrative overhead $500,000
- Actual selling and administrative overhead $480,000

What is the pre-determined overhead rate (POHR) using machine hours (MH)?

- $ 32,5 per MH
- $ 26 per MH
- $ 45 per MH
- $ 23,2 per MH

Question 16 — 2 pts

Which of the following is (are) a key feature of target costing?

- A focus on market research data.
- All of the answers are correct.
- A focus on product design.
- A focus on the customer.

Question 17 — 1 pts

Which of the following is not a broad, cost classification category typically used in activity-based costing?

- Management level.
- Facility level.
- Unit level.
- Product-sustaining level.

Question 18 — 2 pts

Podolski Corporation's customers differ greatly with respect to number of required sales contacts (e.g., phone calls and sales visits), account payment patterns, and design/engineering change orders. Which of the following choices likely denotes an ideal customer from Podolski's perspective?

	Required Sales Contacts	Account Payment Patterns	Design/Engineering Change Orders
A.	Many	Slow	Many
B.	Many	Rapid	Many
C.	Few	Slow	Many
D.	Few	Rapid	Few

- A
- B
- D
- C

Question 19 — 2 pts

If the relative benefit share (importance) of a component is higher than the cost

share of a component, product developers should think about…

- choosing a more expensive version of this component
- decreasing the costs of the entire product
- choosing a cheaper version of this component
- increasing the selling price of the product

Question 20 — 2 pts

Which of the following situations would cause variable-costing income to be lower than absorption-costing income?

- Units sold and units produced were both 42,000.
- Units sold equalled 55,000 and units produced equalled 49,000.
- Units sold equalled 39,000 and units produced equalled 42,000.
- Sales prices decreased by $7 per unit during the accounting period.

Question 21 — 3 pts

Sombrero Distillery, Inc. produces high-quality Tequila. At a volume of 20,000 bottles (units), the company reported sales revenues of $1,000,000, variable costs of $300,000, and fixed costs of $260,000. The company's break-even point in units is:

- 9,286 (rounded).
- 7,429 (rounded).
- 7,027 (rounded).
- 8,667 (rounded).

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