PASS MOCK EXAM – FOR PRACTICE ONLY

Course: BUSI 1002 C Facilitator: Richard Coffin
Dates and locations of mock exam take-up: April 16/17, 12:00-2:00 pm, ME 4342

IMPORTANT:

It is **most beneficial** to you to write this mock midterm **UNDER EXAM CONDITIONS**. This means:

- Complete the midterm in 3 hour(s).
- Work on your own.
- Keep your notes and textbook closed.
- Attempt every question.

After the time limit, go back over your work with a different colour or on a separate piece of paper and try to do the questions you are unsure of. Record your ideas in the margins to remind yourself of what you were thinking when you take it up at PASS.

The purpose of this mock exam is to give you practice answering questions in a timed setting and to help you to gauge which aspects of the course content you know well and which are in need of further development and review. Use this mock exam as a *learning tool* in preparing for the actual exam.

Please note:

- Come to the PASS session with your mock exam complete. There, you can work with other students to review your work.
- Often, there is not enough time to review the entire exam in the PASS session. Decide which questions you most want to review – the facilitator may ask students to vote on which questions they want to discuss.
- Facilitators do not bring copies of the mock exam to the session. Please print out and complete the exam before you attend.
- Facilitators do not produce or distribute an answer key for mock exams. Facilitators help students to work together to compare and assess the answers they have. If you are not able to attend the PASS session, you can work alone or with others in the class.

Part A: Multiple Choice

1) A company purchases glue, a material it will use to produce its finished good. Glue is an example of:
   i. Direct Material
   ii. Indirect Material
   iii. Variable Manufacturing Overhead
   iv. Fixed Manufacturing Overhead

   a. ii,
   b. i, iii
   c. ii, iii
   d. i, iv

Use the following information for questions 2-3.

A company has the following information:

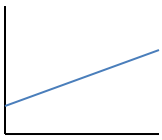
Month	July	August	September
Activity	10,000	12,500	15,000
Cost	$33,000	$38,000	$47,000

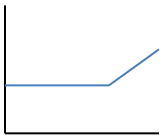
2) What is the company's fixed cost, per month?
   a. $30,000
   b. $10,000
   c. $5,000
   d. $2,500

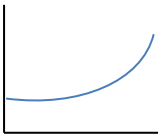
3) Refer to question 1. If activity in October is expected to be 20,000 units, how much will the cost be?
   a. $61,000
   b. $58,500
   c. $56,000
   d. $50,000

4) A company realizes that they have over applied their overhead. What journal entry would correct this error? Assume the balance is material related.
   a. Dr. Manufacturing Overhead, Cr. Cost of Goods Sold
   b. Dr. Cost of Goods Sold, Cr. Manufacturing Overhead
   c. Dr. Manufacturing Overhead, Cr. WIP, Finished Good, & Cost of Goods Sold
   d. Dr. WIP, Finished Good, & Cost of Goods Sold, Cr. Manufacturing Overhead

5) Rogers offers a contract to cell phone users where customers pay a fixed amount each month for their cell phone service. If individuals start using more data than their contract allows, however, then Rogers begins to charge an "over capacity" rate. Which of the following graphs properly display this cost behaviour?

a. 

b. 

c. 

d. 

6) A restaurant calls in a new waiter for every 5 costumers that enter the building. This is an example of which cost behaviour?
    a. Variable cost
    b. Variable overhead cost
    c. Step variable cost
    d. Step fixed cost

Use the following information for questions 7-9.

A company budgets its manufacturing overhead at $4,500,000 and has the following information:

	Product A	**Product B**
Production	24,000	30,000
Purchases	15,000	10,000
Machine Hours	12,000	15,000
Setups	400	600

Activity	**Cost Driver**	**Budgeted Cost**
Purchasing	# of Purchase Orders	$2,000,000
Setups	# of Setups	$1,000,000
Machine Hours	# of Machine Hours	$1,500,000

7) If the company uses machine hours as its traditional cost driver, what is the Predetermined Overhead Rate (POR)?
    a. $45 / machine hour
    b. $2 / machine hour
    c. $50 / machine hour
    d. $167 / machine hour

8) If the company uses machine hours as its traditional cost driver, what is the manufacturing overhead cost of product A (per unit)?
    a. $100
    b. $167
    c. $333
    d. $83.5

9) If the company decided to switch to activity based costing, what would the manufacturing overhead cost of product A be (per unit)?
    a. $1,627.04
    b. $94.60
    c. $150.00
    d. $99.77

Use the following information for questions 10-11.

A manufacturing company's sales revenue for the year 2010 was $1,000,000, their variable expenses were $500,000, their fixed expenses were $350,000, and they produced and sold 100,000 units.

10) What is the company's break-even point*, in units*?
    a. 70,000 units
    b. 75,000 units
    c. 80,000 units
    d. 85,000 units

11) If the tax rate were 40% and the company wanted an after tax income of $200,000, how many units must they sell?
    a. 200,000
    b. 136,667
    c. 100,000
    d. 66,667

Use the following information for questions 12-13.

A company's production for the year 2010 was equal to 30,000 units, and they sold 40,000 units. Their total fixed manufacturing cost for the year was $150,000.

12) The company's net income would be higher under:
    a. Variable Costing
    b. Absorption Costing
    c. Activity Based Costing
    d. Standard Costing

13) If the company's variable costing net income is equal to $150,000, what would the company's net income be under absorption costing?
    a. $100,000
    b. $120,000
    c. $150,000
    d. $200,000

14) If Degree of Operating Leverage were equal to 5, a 5% increase in sales would lead to a:
    a. 25% increase in operating income
    b. 25% decrease in operating income
    c. 5.25% increase in operating income
    d. 5% increase in operating income

15) If sales for product A, product B, and product C were 2,000, 2,500, and 2,800 respectively (in units), and their contribution margins (per unit) were $20, $18, and $23 respectively, what is the bundled contribution margin?
    a. $19.00
    b. $20.50
    c. $21.00
    d. $22.50

16) Why might it be harmful for a company to use absorption costing?
    a. Absorption costing is not accepted in the public stock exchange market as a viable costing system
    b. Absorption costing will always overstate the operating income as the inventory essentially "hides" the company's costs
    c. If managers are evaluated based on operating income, they may inflate production, even if this will lead to future losses
    d. Absorption costing is not harmful in anyway

17) What is the proper order of the following budgets within the master budget?
    a. Sales Budget > Cash Budget > Production Budget
    b. Direct Materials Budget > Direct Labour Budget > Overhead Budget > Cash Collections Budget
    c. Cash Disbursement Budget > Cash Collection Budget > Cash Budget > Sales Budget
    d. Sales Budget > Production Budget > Cash Budget

Use the following information for questions 18 and 19.

A company uses the following collection pattern for its credit sales: 60% collected in the month of sale, 30% in the following month, and 5% in the month after that (assume 5% uncollectable). The company has the following sales projections:

Month	Cash Sales	Credit Sales
January	$20,000	$55,000
February	$22,000	$51,000
March	$23,500	$53,500

18) What are the company's cash collections for the month of March?
    a. $23,500
    b. $50,150
    c. $73,650
    d. $77,000

19) If the company has a minimum cash requirement of $20,000 and annual cash disbursements of $70,000, what would the company's financing be in the month of March? Assume starting cash balance is equal to $10,000.
    a. $6,350
    b. $6,250
    c. $3,000
    d. $0

20) A company uses direct labour hours (which is expected to be 25,000 hours for the year) as its cost driver and budgets its fixed overhead at $500,000. If actual hours total 26,000, what is the fixed overhead volume variance?
    a. 1,000 F
    b. 1,000 U
    c. $20,000 F
    d. $20,000 U

21) If a company's Turnover is 1.5, it's ROI is 25%, and it's sales is $750,000, what is the company's operating income?
    a. $281,250
    b. $187,500
    c. $150,000
    d. $125,000

22) Which of the following will **NOT** increase a company's residual income?
    a. Increasing average operating assets
    b. Decreasing the mother company's divisional income expectation
    c. Increasing operating income
    d. Decreasing divisional risk

23) Which of these is not a management decision:
    a. Special Order
    b. Limited Resources
    c. Make or Buy
    d. Join or Split

Use the following information for questions 24-25.

A division within a company has the following costs.

Direct Materials	$4
Direct Labour	$7
Variable Overhead	$2
Allocated Fixed Overhead	$3
Variable Selling & Admin.	$2
Allocated Fixed Selling & Admin.	$2

24) If another division wished to make a transfer and the production division were within capacity, what would the minimum transfer price be?
    a. $4
    b. $13
    c. $15
    d. $16

25) If the company had a capacity of 3000 units, was currently selling 2800 units, and the transfer was for 1000 units, what would the minimum transfer price be given that the units retail for $17?
    a. $13
    b. $15.5
    c. $16
    d. $16.2

Part B: Short Answer

Answer each of the following questions in the space provided. Show all of your work.

Question 1

Stark Industries produces chemicals ABC and XYZ from the element palladium. The company mines 1,100,000 kilograms of palladium each week at a cost of $384,500. When processed, 34% of the palladium turns into chemical ABC and 66% into XYZ. Chemical ABC has no market value, but can be processed further into a product called Nori, which sells for $90 per 100 kilograms. This process costs an addition $386,000.

Chemical XYZ can be sold for $110 per 100 kilograms, although selling XYZ would require a fixed cost of $179,000 for safety procedures and proper packaging. The company can process chemical XYZ further at a cost of $200,000 and produce two kilograms of another chemical, NOP, for every one kilogram of XYZ, which sells at $90 per 150 kilograms. Assume Stark Industries faces an infinite demand for all of the chemicals.

Produce two relevant cost analyses as to whether Stark Industries should:

i. Process chemical ABC further
ii. Process chemical XYZ further

Hint: Produce a flow chart to organize the information

Question 2

A Nintendo factory has been offered a special order for 4,000 of its Wii consoles. The company currently sells 8,000 consoles a month and has a capacity for 9,250. The buying company, however, would also like a unique feature added to the ordered consoles that would require a $1,300 investment. The consoles retail for $100 in stores, but the company would like to buy the batch at $380,000.

The company currently uses its available capacity to produce replacement parts for its Wii consoles. These parts provide a contribution margin of $10,000 to the company each month. The special order would bypass any selling and administrative costs. The buying company has also agreed to pick up their order directly from the factory. Each Wii requires the following unit costs:

Direct Materials	$30
Direct Labour	$20
Variable Overhead	$10
Allocated Fixed Overhead	$20
Variable Selling Costs	$5
Transportation Costs	$4

Required: Should the company accept the offer? Why or why not? Prepare a relevant cost analysis to support your answer.

Question 3

It's Dec. 31, 2012 and a company is considering changing its business. Currently, the company sells product A at $18 apiece. The product has the following costs:

Direct Materials	$5
Direct Labour	$4
Variable Overhead	$3
Variable Selling and Admin.	$3
Fixed Overhead	$663,000
Fixed Selling and Admin.	$300,000

Last year (2012), the company saw a demand for 350,000 units and expects to see the same demand for some time. Starting 2017, however, demand is expected to fall by 5% each year. On Dec. 31, 2018, the company expects to shut down as the product will become obsolete, at which point all costs and revenues will be terminated. At this point, however, the company will be able to sell its equipment for a total of $100,000.

The company faces an opportunity to pursue a service-based business. This business would require an initial investment of $550,000, followed by $225,000 of fixed operating costs each year. The company is provided additional information about this alternative:

- The company will require a year to set up its service before it can offer it to the public. In other words, the service's first year of operation will be 2014
- On Jan. 1st, 2014, the company will have to develop a web page for its service, costing $2,000
- The company can sell its production-related equipment, which has a book value of $400,000. The market value of the machinery, however, is $330,000
- The service is expected to provide $540,000 of contribution margin each year
- Variable costs for the service are approximately $20 per client. The company expects to have 10,000 clients each year
- The project will have no salvage value at the end of its life on Dec. 31, 2018

Required: Should the company continue producing product A or pursue the service alternative? Provide a relative cost analysis to support you answer. Assume the required rate of return is 12%.