UNIVERSITY OF JOHANNESBURG

Department of Finance and Investment Management

Financial Management 2B

BSR2B01

LAST ASSESSMENT OPPORTUNITY
3 November 2015

Time: 20 minutes reading time & 180 minutes writing time **Marks: 150**

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INSTRUCTIONS:

- This question paper consists of **18 pages**. Please ensure that you have all pages.
- You are allowed 180 minutes to answer this question paper.
- You are allowed 20 minutes reading time **before the assessment begins** during which you may read the question paper and, if you wish, highlight and/or make notes on the question paper. However, you will **not** be allowed, **under any circumstances**, to open the answer book and start writing or use your calculator during this reading time.
- ALL answers must be written in the answer books provided. Answers or notes written on the question paper will **not** be submitted for marking.
- Silent, non-programmable calculators may be used, unless otherwise instructed.
- **START EACH QUESTION ON A NEW PAGE**
- **HAND IN YOUR QUESTION PAPER**
- **HAND IN ALL ANSWER BOOKS.**
- The answer books will **NOT** be marked if the question paper was not handed in.
- **NO CANDIDATE IS PERMITTED TO LEAVE THE EXAMINATION HALL IN THE LAST FIFTEEN MINUTES OF THE ASSESSMENT OPPORTUNITY PERIOD.**

Section	Marks	Time
Reading time		20 minutes
A	50	60 minutes
B	25	30 minutes
C	75	90 minutes
	150	**200 minutes**

SECTION A [50 marks]

QUESTION 1

REQUIRED:

Select the correct option and colour the block of the corresponding letter of the answer on the scanner sheet provided.

Question 1.1

Tom's Thimbles, a manufacturing company, had 100 products that were partially complete at the beginning of the year. When these items are completed, the costs of the completed items will be transferred to...

A raw materials.
B finished goods.
C work in process.
D cost of goods sold. **(1)**

Question 1.2

A possible causal factor to use when allocating personnel costs would be...

A number of square metres.
B number of direct labour hours.
C number of employees.
D none of the above. **(1)**

Question 1.3

A manufacturing company began the month with raw materials costing R9 000 on hand. Purchases during the month totalled R12 000. If R8 000 of raw materials were remaining at the end of the month, what was the amount used for production during the current month?

A R11 000
B R29 000
C R4 000
D R13 000 **(2)**

The following information refers to Question 1.4, 1.5 and 1.6

Harrison (Pty) Ltd produces two products, AB and XY. Information about the current period's production is as follows:

	AB	XY
Units produced	50 000	65 000
Prime costs (R)	750 000	650 000
Machine hours	30 000	60 000

Harrison uses a plant wide rate of R4 per machine hour to apply overhead to production. Budgeted overhead was R392 000, but actual overhead was R376 000.

Question 1.4

What were Harrison's budgeted machine hours for the period?

A 90 000 hours
B 98 000 hours
C 94 000 hours
D 115 000 hours **(2)**

Question 1.5

How much of Harrison's overhead was applied to product AB?

A R130 000
B R195 000
C R120 000
D R187 000 **(2)**

Question 1.6

What was Harrison's total cost to produce product XY?

A R650 000
B R910 000
C R900 000
D R890 000 **(2)**

Question 1.7

African Designers (Pty) Ltd manufactures women's clothing. The wage and salary expenses for 2014 included the following:

	R
Machine operators	200 000
Quality control supervisors	100 000
Fabric cutters	75 000
Factory janitor	18 000
Managing director	150 000

Calculate the company's total direct labour cost for 2014.

A R275 000
B R75 000
C R375 000
D R543 000 **(2)**

Question 1.8

Diva Creations (Pty) Ltd had the following information available for the month of January:

	Beginning R	R	Ending R
Raw materials inventory	110 000		115 000
Work in process inventory	55 000		58 000
Finished goods inventory	41 000		37 000
Raw materials purchased		121 000	
Direct labour (2 500 hrs @ R12)		30 000	
Manufacturing overhead (applied)		53 000	
Manufacturing overhead (actual)		55 000	

The company's cost of goods completed in January was...

A R196 000
B R199 000
C R254 000
D R364 000 **(2)**

Question 1.9

Gilbert (Pty) Ltd applies overhead based on direct labour cost. It had budgeted manufacturing overhead of R50 000 and budgeted direct labour cost of R25 000. Actual overhead was R52 500 and actual labour cost was R27 000. Overhead was...

A underapplied by R2 000.
B overapplied by R2 000.
C overapplied by R2 500.
D overapplied by R1 500. **(2)**

Question 1.10

New Beginnings Company would like to classify its cost according to cost behaviour. The following data is available about one of its costs:

	Third quarter	Fourth quarter
Sales in units	3 000	3 200
Cost (R)	135 000	144 000

Which one of the following classifications best describes the behaviour of the cost?

A Mixed cost
B Variable cost
C Fixed cost
D None of the above **(1)**

Question 1.11

Which definition best describes indirect cost?

A Indirect costs are those costs which are not controlled directly by a manager.
B Indirect costs are those costs which cannot be directly associated with a product or a service.
C Indirect costs are always fixed.
D Indirect costs are always manufacturing overhead costs. **(1)**

Question 1.12

Identify which ONE of the following statements is TRUE, if the variable cost per unit increases while the sales price per unit and total fixed cost remain constant.

A Breakeven point in units increases
B Breakeven point in units decreases
C Breakeven point in units remains the same
D Contribution margin ratio increases

(1)

Question 1.13

Boombox Company employs an absorption costing system. The following information is from the records of the company for the year:

- Total manufacturing costs were R2 500 000
- Cost of goods manufactured was R2 425 000
- Applied factory overheads was 30% of total manufacturing costs
- Factory overheads were applied to production at a rate of 80% of total direct labour costs
- Work in progress inventory at 1 January was 75% of work-in-progress inventory at 31 December.

Boombox Company's total direct labour cost for the year is...

A R909 375
B R937 500
C R750 000
D R600 000

(2)

Question 1.14

Which of the following costs is part of prime cost for a manufacturing company?

A Cost of transporting raw materials from the suppliers premises
B Wages of factory workers engaged in machine maintenance
C Depreciation of truck used for deliveries to customers
D Cost of indirect production materials

(1)

Question 1.15

Reliable Mobile, charges R50 per month and R1 per minute per call.

Calculate how many minutes you used, if your current bill is R250.

A 250 minutes
B 100 minutes
C 200 minutes
D 150 minutes

(2)

Question 1.16

Which of the following is not considered to be a benefit of activity-based costing?

A More accurate product costs
B Reduced complexity of calculating costs
C Inclusion of non-manufacturing costs
D More detailed understanding of what drives cost

(1)

Question 1.17

An activity-based costing system is one that...

A traces cost to activities and then to products.
B traces cost to resources and then to activities.
C uses a single plant-wide rate for allocating overhead cost to products.
D traces activities to cost and then to resources.

(1)

The following information applies to Question 1.18 and Question 1.19

Merriman Company provides the following ABC costing information:

Activities	Total costs	Activity-cost drivers
Account inquiry	R500 000	10 000 hours
Account billing lines	R250 000	5 000 000 lines
Account verification	R100 000	50 000 accounts
Correspondence letters	R50 000	5 000 letters
Total costs	R900 000	

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

	Department A	Department B
Account inquiry	1 000 hours	3 000 hours
Account billing lines	200 000 lines	300 000 lines
Account verification	10 000 accounts	8 000 accounts
Correspondence letters	1 000 letters	1 500 letters

Question 1.18

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

A R10 000
B R50 000
C R150 000
D R500 000

(2)

Question 1.19

How much of the account verification costs will be assigned to Department A?

A R20 000
B R50 000
C R80 000
D R100 000

(2)

Question 1.20

Last month Kallina Company had a R30 000 profit on sales of R250 000. Fixed costs are R60 000 a month. How much would sales have to decrease for Kallina to break even?

A R90 000
B R83 333
C R166 667
D R280 000 **(2)**

Question 1.21

Bench (Pty) Ltd has sales of R300 000, a contribution margin ratio of 30%, and a target profit of R30 000. If 20 000 units were sold, what is the variable cost per unit?

A R15
B R10.50
C R4.50
D R2 **(2)**

Question 1.22

Degree of operating leverage is used to ...

A calculate sales change given profit change.
B calculate profit change given sales change.
C calculate break-even sales given sales change.
D calculate break-even sales given profit change. **(1)**

Question 1.23

When resources are constrained, managers should prioritize products in order to maximize...

A contribution per unit of the constrained resource.
B sales volume.
C opportunity cost.
D fixed cost per unit of constrained resource. **(1)**

Question 1.24

When taking a short term decision, sunk costs are always...

A opportunity costs.
B avoidable.
C relevant.
D irrelevant. **(1)**

Question 1.25

Identify which ONE of the following statements is true when making a decision between two alternatives.

A Variable costs may not be relevant when the decision alternatives have the same activity levels.
B Variable costs are not relevant when the decision alternatives have different activity levels.
C Sunk costs are always relevant.
D Fixed costs are never relevant. **(1)**

Question 1.26

Identify which of the following costs is NOT relevant to a make-or-buy decision.

A R10 000 of direct labour used to manufacture the parts
B R30 000 of depreciation on the plant used to manufacture the parts
C The supervisor's salary of R25 000 that will be avoided if the part is purchased from an outside supplier
D R15 000 in rent from leasing the production space to another company if the part is purchased from an outside supplier **(1)**

The following information refers to Question 1.27 and 1.28:

GoodLuck (Pty) Ltd manufactures 40 000 components per year. The manufacturing cost of the components was determined as follows:

	R
Direct materials	75 000
Direct labour	120 000
Variable manufacturing overhead	45 000
Fixed manufacturing overhead	60 000
Total	300 000

An outside supplier has offered to sell the component for R12.75.

Question 1.27

Refer to the information above. Determine what the effect on income would be if GoodLuck purchases the component from the outside supplier.

A R270 000 decrease
B R270 000 increase
C R30 000 decrease
D R30 000 increase **(2)**

Question 1.28

Refer to the information above. Assume the company can earn R45 000 rental income from facilities which will become available if the company decides to outsource. Determine what the effect on income would be if GoodLuck purchases the component from the outside supplier.

A R225 000 decrease
B R195 000 increase
C R165 000 decrease
D R135 000 increase **(2)**

The following information relates to question 1.29 and 1.30:

FF TYRES sells car tyres. A partial income statement for a typical month is given below.

	R
Sales (10 000 tyres)	1 000 000
Direct materials	200 000
Direct labour	160 000
Overhead (50% variable)	200 000
Gross profit	**440 000**

A local car dealer has offered to buy 500 tyres for an upcoming promotion to launch a line of sports cars. While the normal selling price is R100 per tyre, the dealer has offered R80 each, citing the large volume of the order as the reason for cutting the price. There is no change in fixed costs.

Question 1.29

Calculate the effect on the company's income if they accept this order, assuming regular sales are unaffected.

A R10 000 decrease
B R17 000 increase
C R23 000 decrease
D R22 000 increase **(2)**

Question 1.30

The fixed overhead per tyre ...

A is irrelevant in making the decision because the total fixed costs are unaffected.
B is relevant in making the decision because the fixed costs per unit are unaffected.
C will increase to above R10 per tire if the order is accepted.
D will increase to above R10 per tire if the order is not accepted. **(1)**

The following information applies to question 1.31 and 1.32:

Print4U makes advertising hangers that are placed on doorknobs. The selling price of a hanger is R30 per unit with variable costs of R21 per unit. Total fixed costs per month amount to R2 250. The company made a profit of R1 260 in the month of May.

Question 1.31

The number of hangers sold in May was...

A 585
B 375
C 780
D 390 **(2)**

Question 1.32

Suppose the company decides to lower its selling price to R27 per unit in the month of June. How many hangers must they sell in June in order to achieve the same profit as May?

A 585
B 375
C 780
D 390 **(2)**

End of Section A

SECTION B [25 marks]

QUESTION 2 (10 marks)

UP IN THE CLOUDS is a new low cost airline flying both local and international routes. The airline has been approached by a travel agency about a specially arranged round-trip flight service from Singapore to Beijing. The travel agency has offered to pay R150 000 for the flight.

UP IN THE CLOUDS usually receive R250 000 in revenue from this route. The airline has two aircrafts that are idle and could be used to fly on the proposed Singapore to Beijing route. The company has no plans to add any other new routes. UP IN THE CLOUDS will save R5 000 in reservation and ticketing expenses if the offer is accepted.

The following relates to the revenue and cost information of a typical flight service on the proposed route between Singapore and Beijing:

Revenue:		
Passenger	R 250 000	
Cargo	30 000	
Total		R 280 000
Expenses:		
Variable expenses	90 000	
Allocated fixed expenses	100 000	
Total		190 000
Profit		90 000

REQUIRED:

2.1 Advise whether UP IN THE CLOUDS should accept the travel agency's offer. Show all calculations. **(4)**

2.2 Suppose that the two idle airplanes are not technically suitable for the route and that UP IN THE CLOUDS will have to cut its least profitable route, that currently makes a contribution margin of R70 000 in order to add the route.

Advise whether UP IN THE CLOUDS should still accept the travel agency's offer. Show all calculations. **(4)**

2.3 Define opportunity cost and name one example of opportunity cost in the above question. **(2)**

QUESTION 3 **(15 marks)**

Three grams of musk oil is required for each bottle of Mink Caress, a very popular perfume made by a small company situated in the Western Cape. The cost of the musk oil is R0.15 per gram.

Budgeted production of Mink Caress is given below by quarters for Year 2 and for the first quarter of Year 3:

	Year 2				Year 3
	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1
Budgeted production (in bottles)	60 000	90 000	150 000	100 000	70 000

Musk oil has become so popular as a perfume base that it has become necessary to carry large inventories as a precaution against stock-outs. For this reason, the stock of musk oil at the end of a quarter must be equal to 20% of the following quarter's production needs. 36 000 grams of musk oil will be on hand to start the first quarter of Year 2.

Source: Adapted from Management Accounting (5th edition) by Seal, Rohde, Garrison & Noreen

REQUIRED:

3.1 Prepare a materials purchases budget for musk oil, by quarter, for Year 2. Also show the amount of purchases in Rand for each quarter at the bottom of your budget. **(10)**

3.2 Explain the advantages of budgeting. **(5)**

End of Section B

SECTION C [75 marks]

QUESTION 4 (25 marks)

Akasia Kodakus (Pty) Ltd manufactures one standard picture frame (the Boxer), which is sold to retail outlets. The following information was extracted from the accounting records of Akasia for the year ended 28 February 2014 and their 2015 budget:

	Actual 2014	**Budget 2015**
Opening inventory (Finished goods) (valued using the absorption costing method)	R85 300	?
Total manufacturing cost per unit	R15.20	?
Completed units at the beginning of the year	4 000	8 000
Units manufactured during the year	35 000	36 000
Sales for the year	R900 000	42 000 units
Fixed cost		
Production	?	R225 000
Selling and administrative	R140 000	R158 000
Variable cost per unit		
Production	R10.20	R11.00
Selling and administrative	R1.25	R1.40

Budgeted Statement of Comprehensive Income for the year ended 28 February 2015:

	R	**R**
Sales		1 050 000
Cost of production		(708 100)
Opening inventory	121 600	
Cost of goods manufactured	621 000	
Closing inventory	(34 500)	
Gross profit		341 900
Selling and administration cost		(216 800)
Net profit before tax		125 100

Fixed production overheads information for 2014:

Budgeted number of units for 2014	34 000
Budgeted fixed manufacturing overhead rate per unit	R5
Actual fixed manufacturing overheads 2014	R180 000

REQUIRED:

4.1 Prepare the actual 2014 Statement of comprehensive income using absorption costing. **(10)**

4.2 Prepare the budgeted 2015 Statement of Comprehensive income using variable costing. **(10)**

4.3 Explain the differences between variable and absorption costing. **(5)**

QUESTION 5 **(25 marks)**

Tammy Button, a friend of yours, has recently set up a small business making curtains. She has supplied you with the following figures, and has asked your advice on a number of issues:

Costs per month	**R**
Materials	4 100
Labour	5 000
Production overheads	2 000
Selling and distribution overheads	1 000
Administration overheads	500
TOTAL	**12 600**

The above costs are based on producing and selling 120 sets of curtains per month at a selling price of R150 per set.

80% of labour costs are fixed, as are 75% of production overheads, 60% of selling and distribution overheads, and 100% of administration overheads. All other costs vary directly with output.

Tammy wants to know:

5.1 How much profit she will make at the proposed production level and selling price? **(2)**

5.2 How many sets of curtains she needs to sell to break even at this price? **(8)**

5.3 What her current margin of safety in number of sets is? **(2)**

5.4 If sales are slower than expected, by how much can she reduce her selling price in order to maintain the budgeted level of sales, without making a loss? **(5)**

5.5 If Tammy bought another machine, she could increase her production capacity to 250 sets of curtains. Repayments on the machine would be R700 per month, and she would need an extra member of staff, costing R1 000 per month. She would also have to pay a bonus to all staff of R5 per set of curtains, over and above their current wages, and variable production overheads would increase by R3 per set of curtains.

In order to increase sales to 250 sets of curtains, she would have to reduce the price to R120 per set.

Would the acquisition of the new machine be advisable?
Also take break-even analysis into consideration as part of your answer. **(8)**

REQUIRED:

Advise Tammy on each of the above points (5.1-5.5), showing your calculations for each.

QUESTION 6 **(25 marks)**

Soccerball (Pty) Ltd manufactures and sells a single type of soccer ball for which the standard cost is as follows:

		R per unit
Direct materials	4 kg @ R12 per kg	48
Direct labour	5 hours @ R7 per hour	35
Variable manufacturing overheads	5 hours @ R2 per hour	10
Fixed manufacturing overheads	5 hours @ R10 per hour	50

The variable manufacturing overhead is deemed to vary with the hours worked.

Overheads are absorbed into production on the basis of standard hours of production and the normal volume of production for the period just ended was 20 000 units (100 000 standard hours of production).

For the period under consideration, the actual results were:

Production of soccer ball	**18 000 units**
	R
Direct material used – 76 000 kg	836 000
Direct labour cost incurred – 84 000 hours worked	604 800
Variable production overhead incurred	172 000
Fixed production overhead incurred	1 030 000

REQUIRED:

6.1 Calculate the standard cost for the actual output for the period. **(3)**

6.2 Calculate the following variances for the period:
- 7.2.1 Direct material price and quantity variance **(6)**
- 7.2.2 Direct labour rate and efficiency variance **(6)**
- 7.2.3 Variable manufacturing overhead spending and efficiency variance **(6)**

6.3 List the potential problems with using standard costing. **(4)**

End of Section C

End of Question Paper