UNIVERSITY OF JOHANNESBURG

Department of Commercial Accounting

Advanced Marketing Finance and Cost and Financial Management for Non-specialists

CFM44B2 & BGF44B4

Supplementary Assessment Opportunity

December 2017

Time: 3 hours **Marks: 100**

Assessor: Mrs I Baigrie

Internal Moderator: Mr F Hemmings

External Moderator: Mrs SF Kaasjager

INSTRUCTIONS:

- This paper consists of 8 pages (including the cover page).
- Answer all questions **in INK** in the answer books provided.
- Show all calculations and workings clearly.
- Silent, non-programmable calculators may be used.
- Where applicable, round all calculations to the nearest Rand, unless stipulated otherwise.

Question	Topic	Marks	Time
1	Cost Classification	20	36 minutes
2	Inventory Control	10	18 minutes
3	Cost Classification	14	25 minutes
4	Manufacturing Cost Statement	16	29 minutes
5	Budgeting	18	32 minutes
6	Standard Costing	6	11 minutes
7	Capital Investment Decisions	16	29 minutes
		100	**180 minutes**

QUESTION 1 **(20 MARKS)**

Adega Enterprises manufacture planters which they sell to major retail outlets. They have a number of different products and use different cost drivers to allocate their manufacturing overheads to production. They have provided you with the following information relating to their rectangular 60 x 20 planter (RP60) for the period January to June 2017. During this period they produced 50 000 RP60 planters:

Direct materials used	R620 000
Direct labour used	R440 000
Indirect materials allocated to RP60	R 60 000
Indirect labour allocated to RP60	R 40 000
Other manufacturing overheads allocated to RP60 (40% fixed)	R 75 000
Selling costs attributable to RP60 (30% fixed)	R 90 000
Administration costs attributable to RP60 (60% fixed)	R 32 000

Adega Enterprises were advised by their trade union that they need to increase all wages and salaries by 10% with effect from 1 July 2017, which they have done. Their fixed costs and other variable overheads have remained unchanged in the second half of the year. They plan to produce another 60 000 RP60 planters in the second half of 2017.

REQUIRED

1.1 Calculate the total prime costs for product RP60 for the period to 30 June 2017. (2)

1.2 Calculate the total period costs for product RP60 for the period to 30 June 2017. (2)

1.3 Calculate the total product costs for product RP60 for the period to 30 June 2017. (3)

1.4 Calculate the predetermined overhead rate that they should use to allocate their variable manufacturing overheads to product RP60 from 1 July 2017. (3)

1.5 Calculate the variable cost per unit for product RP60 for the period from 1 July 2017. (4)

1.6 Calculate the predetermined overhead rate that they should use to allocate their fixed manufacturing overheads to production for product RP60 from 1 July 2017. (3)

1.7 If Adega Enterprises want to have a mark-up on cost of 25% during the second half of 2017, at what price should they sell the RP60 planters to their customers during this period? (3)

[20]

QUESTION 2 **(10 MARKS)**

Bebezi Traders makes lampshades which they sell to various retail outlets in Gauteng. They use the first-in-first-out (FIFO) method to calculate their cost of sales and closing inventory for all their lower-cost items and the specific identification method for their high cost items. They have provided you with the following information for the month of October 2017 for the raw material BT17 which they use to manufacture their stained glass lampshades:

Opening balance	01/10	14 kg @R30.00 per kg purchased on 28/08/2017
		20 kg @R34.00 per kg purchased on 12/09/2017
Inventory issued	01-10/10	16 kg
	11-22/10	15 kg
	23-31/10	13 kg
Inventory purchased	11/10	10 kg @ R35.00 per kg
	23/10	12 kg @ R36.00 per kg

REQUIRED

2.1 Calculate the value of the closing balance of raw material BT17 as at 31 October 2017, using the first-in-first-out method of inventory valuation. (5)

2.2 Calculate the total value of raw material BT17 issued to production during October 2017 using the first-in-first-out method of inventory valuation. (5)

[10]

QUESTION 3 **(14 MARKS)**

CelSun Traders have provided you with the following information relating to their SunBlok product for the months of August and September 2017:

Month	Total Cost	Units Manufactured	Selling price per unit
August	R30 740	2 400	R30.00
September	R31 250	2 500	R30.00

REQUIRED

3.1 Calculate the variable cost per unit for the SunBlok for the month of August 2017. (2)

3.2 Calculate the total fixed costs for the SunBlok for the month of August 2017. (2)

3.3 Calculate Celsun Traders' mark-up on cost percentage for the month of August 2017. (3)

3.4 Calculate the contribution margin per unit for the SunBlok for the month of August 2017. (2)

3,5 Calculate the break-even point in units for the SunBlok for the month of August 2017. (2)

3.6 Celsun Traders anticipate that their variable costs will remain unchanged from the September amounts for the remainder of the year, but they have calculated that their fixed costs will increase by 20% from 1 October 2017, and that they can continue to produce the SunBlok at the same rate of output. They have told you that they want to achieve a gross profit percentage of 60% from this product from October 2017. Advise Celsun Traders what selling price they will need to sell their SunBlok at in order to achieve this. (3)

[14]

QUESTION 4 **(16 MARKS)**

Didima Manufacturers has asked you to help them prepare a manufacturing costs statement for the period from 1 October 2016 to 30 September 2017, and have provided you with the following information:

Inventory on 1 October 2016:	
Raw materials	50 200
Work-in-process	25 550
Finished goods	45 320
Consumable stores	10 200
Purchases for the period ended 30 September 2017:	
Raw materials	480 000
Consumable stores	43 300
Other indirect materials	18 200
Raw materials returned to suppliers	12 800
Carriage on purchases	14 400
Salaries and wages for the period ended 30 September 2017:	
Productive wages	168 000
Salary - Factory foreman	72 000
Indirect factory wages	18 000
Salary – Sales personnel	240 000
Salary – Administration personnel	280 000
Wages paid to factory security guards	48 000
Depreciation for the period ended 30 September 2017:	
Machinery	30 000
Office equipment	16 000
Sales vehicle	18 000
Other expenses for the period ended 30 September 2017:	
Insurance	22 000
Rent	384 000
Inventory on 30 September 2017:	
Raw materials	48 400
Work-in-process	29 000
Finished goods	49 400
Consumable stores	8 800

Additional Information:

- The consumable stores amount relates to items used in the factory only.
- Floor area is used to apportion rent and insurance between the factory and the administration offices. The factory occupies 80% of the total floor space.

REQUIRED

4.1 Prepare the manufacturing cost statement for Didima Manufacturers for the period to 30 September 2017. (16)

[16]

QUESTION 5 **(18 MARKS)**

Echo Enterprises have asked you to prepare their cash budget for the first two months of 2018, and have provided you with the following information:

Actual Sales (40% cash)		**Actual Credit Purchases**	
September 2017	R 480 000	September 2017	R 288 000
October 2017	R 440 000	October 2017	R 269 000
Estimated Sales (40% cash)		**Estimated Credit Purchases**	
November 2017	R 460 000	November 2017	R 270 000
December 2017	R 500 000	December 2017	R 180 000
January 2018	R 480 000	January 2018	R 220 000
February 2018	R 500 000	February 2018	R 220 000

- Salaries and wages are R124 000 a month and staff are given a bonus in December each year of 70% of their monthly salary or wage. Echo Enterprises gives all employees a 10% salary increase from January each year.
- Echo Enterprises pay R40 000 to InvestBond on the bond over their factory on the first day of every month.
- Echo Enterprises let out a section of their factory to a small manufacturing entity at R8 000 a month.
- Echo Enterprises were concerned that they would not have sufficient liquidity at the end of December 2017 to pay their staff their December Bonuses, so the Director agreed to lend the entity R90 000 on 30 November 2017, which will be repaid plus interest in five equal monthly installments of R19 080 each, commencing on 31 January 2018.
- Monthly petty cash payments are estimated to be R2 200.
- Echo Enterprises have sixty days to pay on all their purchases, which they utilize.
- Their debtors history shows that 50% of their debtors pay in the month following purchase, 30% pay in the second month following purchase, and 15% pay in the third month following purchase, with the balance considered to be irrecoverable.
- They anticipate that their opening bank balance on 1 January 2018 will be R48 400.

REQUIRED

5.1 Prepare the cash budget for Echo Enterprises for the months of January and February 2018, showing the receivables collection schedule separately. (18)

[18]

QUESTION 6 **(6 MARKS)**

Fuma Products has given you the following information in relation to their production of Wheelie Back Packs during September 2017. There was no opening or closing inventory of raw material WBP10 which is the canvas used in the manufacturing process:

	Standard price / meter	Actual price / meter	Standard quantity per item	Normal Production	Actual Production	Volume WPB10 used
DP66	R 28.00	R 26.80	1.5 m	400 units	440 units	650 m

REQUIRED

Calculate the following variances for raw material WPB10 for September 2017, indicating if the variance is favourable or unfavourable:

6.1 Total direct materials cost variance (2)

6.2 Direct materials price variance (2)

6.3 Direct materials usage variance (2)

[6]

QUESTION 7 **(16 MARKS)**

Gwede Products is a manufacturing company that produces various products for the automotive industry. Gwede Products is in the process of acquiring new manufacturing equipment. The following estimated information is available:

Economic life	5 years
Purchase cost of equipment	R1 200 000
Annual profit net of depreciation:	
Year 1	R260 000
Year 2	R280 000
Year 3	R300 000
Year 4	R340 000
Year 5	R380 000
Residual value at the end of 5 years	10% of purchase cost

Additional information:

- Assume that the equipment will be sold for its residual value at the end of year 5. The profit/loss on the proposed sale has not yet been included in the profit for year 5.
- Depreciation is calculated at 20% per annum, using the straight line method.
- The entity's cost of capital is 12%.
- The entity's targeted accounting rate of return is 24%.
- Ignore tax and inflation.

REQUIRED

7.1 Using the formula: ARR = average annual profit / average investment, calculate the accounting rate of return (ARR) on the new equipment for Gwede Products. (5)

7.2 Use the present value factors below to calculate the net present value (NPV) of the new investment for Gwede Products. (9)

Period (n)	0	1	2	3	4	5	6
Rate 12%	1.000	0.893	0.797	0.712	0.636	0.567	0.507

7.3 Indicate if, in your opinion, Gwede Products should purchase the new equipment, providing at least two reasons for your answer based on your calculations. (2)

[16]

TOTAL = 100 MARKS