UNIVERSITY OF JOHANNESBURG

Department of Commercial Accounting

FINANCIAL PLANNING AND CONTROL 3B
BFA44B4

LAST ASSESSMENT OPPORTUNITY

8 November 2014

Time: 3 hours **Marks: 100**

Assessor: MR K DALY
Internal Moderator: MR R BOERSMA
External Moderator: MR J DE BEER

INSTRUCTIONS:
This paper consists of 6 pages including the cover page, and 1 annexure.

- **Answer all questions**
- Show all calculations, workings and reasoning clearly
- Silent, non-programmable calculators may be used

Question	Topic	Marks	Time
1	Functional Budgets	25	45 minutes
2	Cash Budget	25	45 minutes
3	Flexible Budget	25	45 minutes
4	Capital Budgeting	25	45 minutes
		100	**180 minutes**

Question 1 (25 marks)

Goodstone Tyre Company Ltd's budgeted sales for 2014 are:

Car tyres: 120 000 units
Lorry tyres: 25 000 units

Budgeted selling prices are R650 per tyre for car tyres and R2 000 per tyre for lorry tyres.

The opening finished goods inventories are expected to be:

Car tyres: 5 000 units
Lorry tyres: 2 000 units.

The opening finished goods inventories will have a total cost of R3 264 780.

Required closing finished goods inventories are:

Car tyres: 6 000 units
Lorry tyres: 2 500 units.

The closing finished goods inventories will have a total cost of R4 005 100.
There is no anticipated opening or closing work in progress inventory for either type of tyre.

The standard materials quantities for each type of tyre are as follows:

	Car tyres	Lorry tyres	Purchase prices
Rubber	10 kg	30 kg	R20/kg
Steel belts	1.5 kg	4 kg	R30/kg

The estimated opening inventories for rubber and steel are 60 000 kg and 6 000 kg respectively.
The required closing inventories for rubber and steel are 75 000 kg and 7 500 kg respectively.

The direct labour hours required for each type of tyre are as follows:

	Moulding department	Finishing department
Car tyre	0.10 hrs	0.05 hrs
Lorry tyre	0.25 hrs	0.15 hrs
Direct labour rate per hour	R55/hr	R50/hr

Question 1 (continued)

Budgeted factory overhead costs for 2014 are as follows:

Indirect materials:	R1 985 100
Indirect labour:	R2 132 100
Depreciation:	R1 575 100
Electricity and water:	R1 229 185
Total:	R6 921 485

Factory overheads are absorbed on the basis of direct labour hours.

Required:

Prepare each of the following budgets for Goodstone Tyre Company Ltd for the year ended 31 December 2014:

1.1	The sales budget	(3 marks)
1.2	The production budget	(3 marks)
1.3	Direct material budget	(6 marks)
1.4	Direct labour budget	(5 marks)
1.5	Manufacturing overheads budget (per product, round off to nearest rand)	(3 marks)
1.6	Cost of goods sold budget (in total)	(5 marks)
		(25 marks)

Question 2 (25 marks)

The members of FMG CC have approached you to compile a cash budget for the CC for the first 3 months of 2014. The following information was supplied to:

	January	February	March
	R	R	R
Sales (40% cash)	900 000	950 000	975 000
Purchases (20% cash)	400 000	410 000	420 000
Salaries and wages	160 000	160 000	160 000
Overhead expenses	130 000	130 000	140 000

Additional information:

1. The opening bank balance on 1 January 2014 is expected to be an overdraft of R500 000.
2. Credit sales are collected as follows:
   40% in the month following the month of sale;
   55% in the 2nd month following the month of sale.
   5% will prove to be bad.

Question 2 (continued)

3. Credit sales were R550 000 in November and R600 000 in December 2013.
4. Credit purchases are paid in the month following purchase less a 2% discount.
5. Creditors for purchases at 1 January 2014 are:
   for December 2013 purchases R260 000.
6. Overhead expenses include a monthly depreciation charge of R15 000. Overhead expenses are paid 70% in the month following the month in which they are incurred and 30% in the following month.
7. Creditors for overhead expenses at 1 January 2014 are:
   for November 2013 overheads R30 000 and December 2013 overheads: R110 000.
8. A provisional tax payment of R125 000 must be made at the end of February 2014.
9. New manufacturing equipment will be bought in February 2014 for R300 000. A deposit of R60 000 will be paid in February. Monthly instalments of R6 000 must be paid for 36 months from the end of March 2014.
10. The sale of the old manufacturing equipment in February 2014 will raise R30 000.

Required:

Prepare a cash budget for January, February and March 2014.

(25 marks)

Question 3 (25 marks)

You have just been hired by GD Operations Limited, the manufacturer of a revolutionary new garage door opening device. The CEO has asked you to review the company's costing system and "do whatever you need to in order to help us get better control of our manufacturing overhead costs." You find that the company has never used a flexible budget, and you suggest that preparing such a budget would be a good first step in overhead planning and control.

After much effort and analysis, you are able to determine the following cost formulas for the company's normal operating range of 20 000 to 30 000 machine-hours each month:

Overhead Costs	***Cost Formula***
Utilities	R0.90 per machine-hour
Maintenance	R1.60 per machine-hour plus R40 000 per month
Machine setup	R0.30 per machine-hour
Indirect labour	R0.70 per machine-hour plus R130 000 per month
Depreciation	R70 000 per month

Question 3 (continued)

To show the CEO how the flexible budget concept works, you gathered the following actual manufacturing overhead cost data for the most recent month, September, in which the company worked 26 000 machine-hours and produced 15 000 units:

Utilities	R24 200
Maintenance	78 100
Machine setup	8 400
Indirect labour	149 600
Depreciation	71 500
Total manufacturing overhead cost	R331 800

The only variance in the fixed costs for the month was with depreciation, which increased as a result of purchasing new machinery.

The company had originally planned to work 30 000 machine-hours during September.

Required:

3.1 Prepare a flexible budget for the company in increments of 5 000 hours. (12½ marks)

3.2 Prepare an overhead performance report for the company for September. (12½ marks)

(25 marks)

Question 4 (25 marks)

CeramiTile (Pty) Ltd is a manufacturer of ceramic tiles and has decided to renew outdated production machinery at one of its plants. The current machinery cost R600 000 five years ago and has a current scrap value of R40 000.

The following replacement option is possible:

New Machine:	
Estimated life	6 years
Initial cost (payable immediately)	R1 640 000
Net cash inflows:	
Year 1	R130 000
Year 2	R130 000
Year 3	R380 000
Year 4	R450 000
Year 5	R820 000
Year 6	R1 040 000

Question 4 (continued)

The company's cost of capital is 12%.

Required:

4.1 Calculate:

the payback period; and (3 marks)

the internal rate of return of the replacement machine. (20 marks)

4.2 Assuming that Ceramitile (Pty) Ltd normally requires a payback period of 4 years or less in order to invest in new machinery, advise CeramiTile (Pty) Ltd as to whether they should purchase the new machine or not. Motivate your answer. (2 marks)

(25 marks)

[100 marks]

END OF PAPER