DUE DATE: SEMESTER 1: 30 March 2016

UNIQUE NUMBER: 735610

Assignment 2/2016 FIRST SEMESTER

QUESTION 1

Electrix Ltd is a manufacturer of electrical appliances for the household market. The company has two divisions managed by independent management teams. The Laundry Division, which manufactures and sells washing and dishwasher machines and the Kitchen Division, which manufactures and sells stoves. The following extracts were taken from the trial balances of the divisions for the month ended 28 February 2016:

	Laundry Division R	**Kitchen Division R**
Sales	800 000	460 000
Variable costs	470 000	360 000
Controllable fixed costs (including depreciation)	210 000	73 000
Allocated corporate expenses	30 000	21 000

The company's controllable investment as at 28 February was R13 000 000.

Additional information:

1. The company's cost of capital is 15%.
2. The Laundry Division's controllable investment comprises of 88% of the group's total.
3. The Kitchen Division's controllable investment amounts to R1 560 000.

Divisional budgets for March 2016 are as follows:

LAUNDRY DIVISION

	Selling price per unit	**Variable cost per unit**
Washing machine	R3 200	R1 888
Dishwasher	R2 800	R2 184
Sales mix	2	1

The management of Electrix Ltd wants to take advantage of the current economic climate to increase the division's profit. To achieve this, the Laundry Division will invest in a new machine at a cost of R200 000.

The machine has an estimated useful life of 4 years. The machine will be financed by a loan from C Bank. The loan bears a fixed interest amount of R1 800 per month for 4 years. Monthly insurance costs for the machine will be R2 000.

KITCHEN DIVISION

The company wants to increase the division's controllable profit from the current R27 000 to R50 000. To achieve this, variable costs will amount to R1 800 per unit and fixed costs will increase by R15 000 per month from the previous month. The budgeted number of stoves to be sold for the month is 300.

Allocated corporate expenses will remain the same.

REQUIRED:

(a)	Determine the annualised return on investment (ROI) for both divisions based on the month of February 2016.	(5)
(b)	Briefly comment on the performance of the divisions using ROI data in **(a)** above.	(4)
(c)	Determine the annualised residual income (RI) for both divisions based on the month of February 2016.	(6)
(d)	Determine the number of units that the Laundry Division should sell in order to breakeven for the month of March 2016. **Note:** Allocated corporate expenses should also be covered.	(15)
(e)	Prepare a budget for the Laundry Division using the number of units in **(d)** above for the month of March 2016.	(5)
(f)	Prepare a budget for the Kitchen Division for the month of March 2016.	(10)
(g)	Define the Controllability principle. Make use of the Kitchen Division as an example.	(2)
(h)	Define operating leverage and calculate the **degree of operating leverage** for the Kitchen Division for the month of March 2016.	(3)
	Total	**[50]**

Please note that for budgets as required above the following format should be used:

	R
Sales	
Less: Variable costs	
Contribution	
Less: Controllable fixed costs	
Controllable income	
Less: Allocated corporate expenses	
Divisional net profit before tax	**R**

QUESTION 2

STANDARD TISSUE PAPER

Zungu Zeng Ltd is a manufacturer of toilet tissue making paper. The company manufactures 1 Ply and 2 Ply tissue making paper which it sells to large toilet tissue paper suppliers, who converts this to toilet tissue rolls, who then sell these to wholesalers around the country. The company uses a standard direct costing system for planning and control purposes.

The standard per unit is as follows:

		1 Ply	2 Ply
		R	R
Selling price		5 000	7 500
Direct raw material	(R15 per kg)	1 500	2 400
Labour	(R100 per direct labour hour)	2 000	3 000
Total overheads	(R50 per direct labour hour)	1 000	1 500

The total monthly budgeted sales units are 8 000 for 1 Ply and 5 000 for 2 Ply.

Total budgeted fixed manufacturing overheads amounts to R9 300 000 per month.

The raw material used in the manufacturing process is available in limited supply. The company can only access 1 500 000 kilograms per month.

The **actual results** for March 2016 were as follows:

	1 Ply	2 Ply
Production and sales (units)	7 500	4 500
Selling price per unit	R5 200	R7 200
Raw material used per unit.	110 kg	150 kg

Labour rate and hours per unit were as per standards for the month.

Variable overheads per unit were as per standards for the month.

Total raw material purchased and issued to production for the month were 1 500 000 kilograms amounting to R24 000 000 in total.

Total actual fixed manufacturing overheads for March 2016 were R9 000 000.

SPECIAL ORDER

Spuur Chicken Ranches Ltd recently approached Zungu Zeng Ltd with a request to manufacture and deliver 5 000 boxes of sealed wet wipe serviettes for its restaurants across the country, over the next twelve months. It is the first time that the company will manufacture such an order. The following information is available:

1. The company will invest in an automated machine at a cost of R400 000. The machine has an estimated useful life of 4 years. The cost of the machine will be funded by a loan from Abza Bank. The loan is repayable in four equal installments over two years and it has a fixed interest rate of 11% per annum.

2. In addition to the machine above, the company will purchase a special printer at a cost of R75 000 to print the name of Spuur on the covers of the serviettes. The special printer has an estimated useful life of 1 year with no resale value.

3. The company will employ 4 new employees for the special order at a salary of R5 500 each per month. These employees will undergo training on how to operate the machine and printer mentioned above at the company's premises at a total cost of R20 000.

4. Direct raw material for the manufacture of the serviettes will be R2 600 per box. In addition to this the company will purchase a special scent for the serviette at a cost of R5 per litre. Each box requires 3 litres of this special scent.

5. Variable manufacturing overheads will be R200 per box.

6. The total monthly fixed manufacturing overheads for the company will increase by 10% if the order is accepted based on the actuals for March 2016.

7. The company policy is to add a 10% mark-up on the total relevant costs to arrive at a suggested selling price.

REQUIRED:

(a)	Determine the optimum product mixture that will maximise the profit of Zungu Zeng Ltd.	(15)
(b)	Calculate the following variances for Zungu Zeng Ltd for the month of March 2016:	
	(i) Total sales margin price variance for each product type.	(6)
	(ii) Sales mix variance for each product type and the total. For the purposes of these variances round your percentages to a single decimal.	(6)
	(iii) Total raw material purchase price variance.	(2)
	(iv) Fixed manufacturing overheads expenditure variance.	(2)
(c)	Determine the price that Zungu Zeng Ltd should charge for the special order. Give reasons for inclusion or exclusion of amounts in your calculations.	(14)
(d)	Briefly discuss five non-financial factors that Zungu Zeng Ltd should consider before accepting the request from Spuur Chicken Ranches Ltd.	(5)
	Total	**[50]**
	Total for question 1 and 2	**[100]**

Round all your workings to two decimals, unless specifically indicated otherwise.