AFRICA UNIVERSITY

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*"Investing in Africa's Future"*

# FACULTY OF MANAGEMENT AND ADMINISTRATION

**COURSE TITLE: MAC 501 Financial and Management Accounting**

**SEMESTER 1: Final Examination November 2013**

**LECTURER: Mr S.N. Chuchu**

**TIME: 4 HOURS**

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## *INSTRUCTIONS*

Answer **all five (5)** questions.

Start **each** question on a new page in your answer booklet.

The marks allocated to **each** question are shown at the end of the question.

**Show all your workings.**

Credit will be given for logical, systematic and neat presentations.

**Question 1**

The following trial balance was extracted from the financial records of Libra Limited as at 31 December 2012:

| | $ | $ |
|---|---|---|
| Ordinary share capital, $1 shares | | 74 000 |
| Share premium | | 20 000 |
| 6% Debentures (Issued on 1 January 2012) | | 10 000 |
| Buildings at revaluation | 50 000 | |
| Deferred tax on 1 January 2012 | | 6 000 |
| Delivery vehicles at cost | 14 000 | |
| Office equipment at cost | 30 000 | |
| Accumulated depreciation on delivery vehicles | | 7 000 |
| Accumulated depreciation on office equipment | | 12 500 |
| Rent received | | 3 200 |
| Investment income | | 2 300 |
| Financial assets at fair value through other comprehensive income | 20 000 | |
| Sales | | 134 720 |
| Purchases | 97 468 | |
| Sales returns | 621 | |
| Purchases returns | | 417 |
| Trade receivables | 13 099 | |
| Trade payables | | 8 698 |
| Credit sales losses | 427 | |
| Allowance for credit sales losses on 1 January 2012 | | 621 |
| Motor expenses | 1 127 | |
| Rates – Offices | 1 200 | |
| - Warehouse | 650 | |
| Insurances – Offices | 100 | |
| - Warehouse | 60 | |
| Salaries – Offices | 7 206 | |
| - Warehouse | 4 000 | |
| General administrative expenses | 10 426 | |
| Inventory at 1 January 2012 | 23 846 | |
| Bank | 10 641 | |
| Directors' fees | 5 000 | |
| Retained earnings at 1 January 2012 | | 9 000 |
| Mark-to-market reserve at 1 January 2012 | | 407 |
| Revaluation surplus at 1 January 2012 | | 2 469 |
| Advertising | 1 461 | -------- |
| | 291 332 | 291 332 |

**Additional information:**

1. Inventory at 31 December 2012 was valued at $32 779.

2. Allowance for credit sales losses is to be increased to $685.

3. Debentures interest is payable annually on 31 December. The amount for the current year is to be provided for.

4. Depreciation on office equipment is to be provided at 10% on cost and on delivery vehicles at 25% on cost.

5. Buildings were revalued at $55 000 at 31 December 2012.

6. Fair value of financial assets at fair value through other comprehensive income at 31December 2012 was $26 000.

7. A dividend of 10% on ordinary share capital was proposed by the directors on 31 December 2012.

8. Income tax:

   - Taxable temporary differences (TTD) at 31 December 2012 were $40 000.

   - Total income subject to income tax in terms of the Income Tax Act was $134 920.

   - Allowable deductions for the year ended 31 December 2012 were $120 000.

   - Assume a tax rate of 25%.

**Required:**
Prepare the statement of profit or loss and other comprehensive income for the year ended 31 December 2012. Comparatives and notes are not required. Your answer must comply with the requirements of IFRS. **[20 marks]**

**Question 2**

(a) Scorpio Limited has acquired a patent for $13 000. The patent gives the company sole use of a particular manufacturing process, which will result in cost savings to the company amounting to $2 000 per year for the next five years.

**Required:**
With reference to the recognition criteria of the Conceptual Framework for Financial Reporting, determine whether the expenditure of $13 000 should be capitalized or expensed. **[15 marks]**

(b) Aquarius Limited is a manufacturing company operating in an industry in its growth phase. The company has been expanding its operating activities since its incorporation five years ago. The following is a summary of its financial leverage ratios for the past three years:

| | **2012** | **2011** | **2010** |
|---|---|---|---|
| Solvency ratio | 1.25 times | 1.75 times | 2.50 times |

| | | | |
|---|---|---|---|
| Debt ratio | 80.00% | 57.14% | 40.00% |
| Gearing ratio | 53.83% | 37.42% | 21.67% |
| Debt/Equity ratio | 71.64% | 59.37% | 27.53% |
| Interest coverage ratio | 2.81 times | 4.76 times | 9.15times |

**Required:**
Comment on the above financial leverage ratios from the point of view of a prospective lender. **[5 marks]**

**Question 3**

(a) Pisces Limited manufactures high quality leather coats. The company uses a standard costing system and has set the following standards for material and labour for a coat:

| | $ |
|---|---|
| Leather (2.5 metres @ $20per metre) | 50 |
| Direct labour (2 direct labour hours @ $10 per hour) | 20 |
| Prime cost per coat | 70 |

**Additional information:**

1. Pisces Limited produced 7 000 leather coats during the just ended year.
2. Actual leather purchased was 18 000 metres for $351 000. There was no beginning or ending inventories of leather.
3. Actual direct labour was 14 500 direct labour hours for $152 250.

**Required:**

(i) Compute the actual cost per metre of leather and the actual cost per direct labour hour. **[2 marks]**
(ii) Compute the quantities of leather and direct labour hours that should have been utilized in the production of 7 000 leather coats. **[2 marks]**
(iii) Compute the direct material purchase price and usage variances. **[4 marks]**
(iv) Compute the direct labour rate and efficiency variances. **[4 marks]**

(b) Aries Limited's projected statement of profit or loss for the coming year is as follows:

| | **Total** | **Per unit** |
|---|---|---|
| | **$** | **$** |
| Sales | 800 000 | 80 |
| Variable costs | (480 000) | (48) |
| Contribution margin | 320 000 | 32 |
| Fixed costs | (256 000) | |
| Operating profit | 64 000 | |

**Required:**

(i) Compute the break-even point in units. **[2 mark]**
(ii) For the projected level of sales, compute the margin of safety in units. **[3 marks]**
(iii) How many units must be sold to earn a profit of $90 000? **[3 marks]**

**Question 4**

The summarized financial statements of Cancer Limited are as follows:

Statement of financial position as at 31 December 2012

| | **2012** | **2011** |
|---|---|---|
| | **$** | **$** |
| **ASSETS** | | |
| **Non-current assets** | 121 000 | 61 000 |
| Property, plant and equipment | 68 000 | 41 000 |
| Intangible asset | 30 000 | 20 000 |
| Financial assets at cost | 23 000 | -------- |
| **Current assets** | 39 500 | 30 500 |
| Inventories | 20 000 | 11 000 |
| Trade receivables | 19 500 | 7 500 |
| Bank | ------- | 12 000 |
| Total assets | 160 500 | 91 500 |
| **EQUITY AND LIABILITIES** | | |
| **Equity** | 78 500 | 54 500 |
| Ordinary shares of $1 each | 35 000 | 25 000 |
| Revaluation surplus | 6 000 | ------ |
| Retained earnings | 37 500 | 29 500 |
| **Non-current liabilities** | 42 000 | 10 000 |
| 10% debentures | 40 000 | 10 000 |
| Deferred tax | 2 000 | ------- |
| **Current liabilities** | 40 000 | 27 000 |
| Trade payables | 21 000 | 16 000 |
| Current tax payable | 8 000 | 11 000 |
| Bank | 11 000 | ------ |
| Total equity and liabilities | 160 500 | 91 500 |

**Statement of profit or loss and other comprehensive income for the year ended 31 December 2012**

| | **2012** | **2011** |
|---|---|---|
| | **$** | **$** |
| Revenue | 270 000 | 182 000 |
| Cost of sales | (189 000) | (109 200) |
| Gross profit | 81 000 | 72 800 |

| | | |
|---|---|---|
| Distribution costs | (23 000) | (13 000) |
| Administrative expenses | (34 500) | (20 000) |
| Finance costs | (4 000) | (500) |
| Profit before tax | 19 500 | 39 300 |
| Income tax expense | (6 000) | (11 300) |
| Profit for the year | 13 500 | 28 000 |
| Other comprehensive income | 6 000 | ------- |
| Property revaluation gain arising during the year | 8 000 | ------- |
| Tax expense | (2 000) | ------- |
| Total comprehensive income for the year | 19 500 | 28 000 |

**Additional information:**

1. Depreciation/amortization charges for the year ended 31 December 2012 were:

| | $ |
|---|---|
| Property, plant and equipment | 11 500 |
| Intangible asset | 2 500 |

2. There were no sales of non-current assets during 2012. However, property was revalued.
3. Dividends paid during the year amounted to $5 500.

**Required:**

Prepare the statement of cash flows for the year ended 31 December 2012. Use the indirect method in accordance with IAS 7. Notes and comparatives are not required.

**[20 marks]**

**Question 5**

(a) Taurus Limited manufactures Product M. The budgeted information for the year ending 31 December 2014 is as follows:

| | |
|---|---|
| Budgeted sales volume in units | 5 000 |
| Expected opening inventory of finished goods in units | 300 |
| Expected opening inventory of direct material | 2 000 kg |
| Budgeted closing inventory of finished goods in units | 600 |
| Budgeted closing inventory of direct material | 1 000 kg |
| Standard cost of production per unit of finished goods | $50 |
| Standard selling price per unit of finished goods | $75 |

**Required:**

Prepare the production budget for the year ending 31 December 2012. **[6 marks]**

(b) Virgo Limited is a manufacturer of three products, P, Q and R. The statement of profit or loss for the period ended 30 June 2013 is as follows:

| | **Product P** | **Product Q** | **Product R** | **Total** |
|---|---|---|---|---|
| | **$** | **$** | **$** | **$** |

| | | | | |
|---|---|---|---|---|
| Sales | 50 000 | 40 000 | 60 000 | 150 000 |
| Variable cost | (30 000) | (25 000) | (35 000) | (90 000) |
| Contribution margin | 20 000 | 15 000 | 25 000 | 60 000 |
| Fixed costs | (17 000) | (18 000) | (20 000) | (55 000) |
| Profit/(loss) | 3 000 | (3 000) | 5 000 | 5 000 |

Management is concerned about the poor performance of Product Q. Of the total fixed costs of Product Q, $5 000 are direct fixed costs.

Virgo Limited is considering replacing Product Q with Product S, which will use the facilities being currently used by Product Q. The sales of Product S would be $50 000 and the product would incur variable costs amounting to $30 000 and direct fixed costs amounting to $6 000 per period. The switch from Product Q to Product S would not affect the sales of products P and R.

**Required:**
Apply relevant costing to determine whether Product Q should be replaced with Product S. **[14 marks]**