THE ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

FINAL EXAMINATION – JANUARY 2012

(59) MANAGEMENT ACCOUNTING & BUSINESS FINANCE

21-01-2012
Afternoon
[2.00-5.00]

Time: 03 hours

No. of Pages : 06
No. of questions : 07

- **Instructions to candidates:**
  - *(1) This paper consists of two (02) Sections **A** & **B**.*
  - *(2) **All questions should be answered.***
  - *(3) **Answers** should be in **one language**, in the **medium** applied for, in the **booklets** provided.*
  - *(4) Use of calculators is permitted.*
  - *(5) **Submit** all workings and calculations. **State** clearly **assumptions** made by you, if any.*
  - *(6) 100 Marks.*

SECTION A
Management Accounting (75 marks)

01. (A) Differentiate "Apportionment of Overhead Cost" from "Absorption of Overhead Cost". (04 marks)

(B) **ABC PLC** manufactures two products **A** and **B** by using raw materials **P** and **Q** respectively. Direct costs of products **A** and **B** for the month of March 2011 are as follows:

Product A

	Rs.
Raw Material **P** (5 meters)	250
Labour (3 hours)	75
Variable overhead	75
Total	**400**

Product B

	Rs.
Raw Material **Q** (3 meters)	150
Labour (4 hours)	100
Variable overhead	50
Total	**300**

Production overheads for the month of March 2011 are Rs.511,500/- details of which are as follows:

	Rs.
Electricity	115,500
Water	15,000
Depreciation	93,000
Insurance of machineries	46,500
Salaries of administration staff	230,000
Staff welfare	11,500
Total	**511,500**

You are provided with the following additional information extracted from the books of the company for the month of March 2011.

Description	Production Department A	Production Department B	Service Cost Centre I	Service Cost Centre II
No. of indirect Employees	10	5	4	4
Value of the machine (Rs.)	2,250,000	1,750,000	500,000	150,000
Usage of Water (Rs.)	-	-	15,000	-
Usage of Electricity (Kw)	150	90	120	25

The overhead cost of Service Cost Centre I should be apportioned at the rate of 3:2 respectively between the production departments **A** and **B**. Overhead cost of Service Cost Centre II should be apportioned equally between the production departments.

The company had manufactured 1,500 units of product **A** and 1,200 units of product **B** during the month of March 2011.

You are required to calculate,

(a) The total unit cost for products **A** and **B**. (08 marks)

(b) If the pricing policy of the company is to keep 25% margin on its selling price of the products, the selling price of product **B**. (02 marks)

(Total 14 marks)

02. (A) Briefly explain the following terms:

(a) Sunk Cost.

(b) Committed Cost.

(c) Notional Cost. (03 marks)

(B) **P Ltd.** manufactures and sells Product **A**. The selling price and the break-up of cost per unit of Product **A** are as follows:

	Rs.	Rs.
Selling price		160
Direct materials (Rs.5/- per kg)	35	
Direct labour (Rs.9/- per hour)	45	
Variable overhead	10	
Fixed overhead	40	

Total fixed overhead cost is Rs.700,000/- for a year. **P Ltd.** manufactured and sold 17,500 units during the year ended 31st March 2011.

You are required to calculate:

(a) The Break-even sales in units. (02 marks)

(b) Margin of safety in units. (02 marks)

(c) Contribution Sales Ratio. (01 mark)

(d) Number of units of product **A** should be sold to earn a profit of Rs.700,000/-. (02 marks)

(C) The management of **PQR Ltd.** is considering the next year budget. The budgeted cost of a product **P** is as follows:

	Rs.
Direct material	25
Direct labour	12
Variable overhead	8
Fixed overhead	6
Total Cost	**51**

PQR Ltd. expects to produce 14,000 units of this product in the next year. Another company, **ABC Ltd.** producing the same product has agreed to supply the product at a price of Rs.45/- per unit. If the product is purchased from **ABC Ltd.**, **PQR Ltd.** can rent out the factory premises to another company at the rate of Rs.140,000/- per annum.

You are required to:

(a) Determine whether the company should accept the offer made by **ABC Ltd.** or manufacture the product **P**. (03 marks)

(b) Calculate the maximum price that **PQR Ltd.** is willing to pay for product P in the case of a possible price increase by **ABC Ltd.** (03 marks)

(c) List three(03) additional factors you should consider in arriving at the answer for (a) above. (03 marks)

(Total 19 marks)

03. (A) What are the functions of the Budget Officer in a budget Committee? (03 marks)

(B) The following information is extracted from the annual budget of **Z Ltd.** for the quarter ending 31st March 2012.

(1) Estimated sales:

Month	**Units**	**Price per unit (Rs.)**
January	38	225,000
February	41	226,000
March	39	227,000

(2) Variable production cost per unit is as follows:

	Rs.
Direct Material	65,000
Direct Labour	35,000
Variable Overhead	45,000

(3) Fixed production overhead is Rs.2,000,000/- per month which includes Rs.500,000/- for depreciation on assets. Fixed production overhead should be paid in the same month.

(4) Outstanding balance of creditors as at 31st December 2011 was Rs.1,800,000/- and it is for raw material purchases made during the month of December 2011. 60% of the raw material purchases of the company are on credit basis and should be settled in the following month.

(5) Direct labour and variable overheads are paid in the same month.

(6) Bank overdraft balance as at 01st January 2012 is Rs.1,800,000/-.

(7) 40% of the sales are on credit basis and should be settled in the following month. There were no debtors as at 31st December 2011.

(8) The company planned to obtain a bank loan of Rs.6,000,000/- in the month of January 2012. This loan should be settled in monthly fixed instalments of Rs.150,000/- each for a period of 5 years commencing from February 2012.

(9) Assume that units produced are sold in the same month.

You are required to prepare a cash budget for the first quarter of year 2012 on a monthly basis. (10 marks)

(Total 13 marks)

04. (A) Briefly explain the following terms in Process Costing:

(i) Normal Loss.

(ii) Abnormal Loss. (02 marks)

(B) **Quality Products** Company manufactures a detergent which uses three raw materials, **Alpha, Beta** and **Theta**. The company has contracted with suppliers to buy these raw materials at the prices given below:

Alpha	-	Rs.192/- per kg
Beta	-	Rs.120/- per kg
Theta	-	Rs.96/- per kg

There was no work-in-Progress at the beginning of the month and during the month of November the raw materials input to the process were as follows:

Alpha	-	3,200 kg
Beta	-	4,800 kg
Theta	-	9,600 kg

The company works 24 days a month and a worker is paid Rs.941/- per day. There were 40 workers who had been allocated to work during the month of November on the process. Production overheads are charged on the basis of 50% of labour cost. The output was 13,760 kg. You may assume that there were no losses in the process.

The degree of Work-in-Progress at the end of the month is as follows:

- Materials 100%
- Labour and overheads - $\frac{1}{4}$ of work-in-progress are 60% complete while the remainder is only 25% complete.

You are required to prepare,

(i) Production cost evaluation statement.

(ii) Process Account. (13 marks)

(Total 15 marks)

05. **Wimbledon Sports Company** which adopts the standard costing system manufactures a high quality component which is used in manufacturing Tennis Rackets. In November 2011, the budgeted production / sales were 19,000 components at Rs.178/- per component and the standard cost card was as follows:

	Rs.
Materials (2 cubic centimeters at Rs.10/- each)	20
Labour (3 hours at Rs.24/- per hour)	72
Variable overhead (Rs.8/- per labour hour)	24
Fixed overhead (Rs.6/- per labour hour)	18
Total cost	**134**

In November 2011, 40,000 cubic centimeters of material were purchased at a cost of Rs.392,000/- and 19,200 components were produced. No inventory balance of materials is held at the beginning and end of the period. The workers were paid a total of Rs.1,388,000/- for 62,000 hours but they actually worked only for 61,500 hours. Rs.576,000/- was incurred as variable overheads. Budgeted fixed overhead for the period was Rs.342,000/- while actual fixed overhead cost was Rs.361,000/-.

The sales price was reduced to Rs.130/- to protect the sales levels but only 18,000 components could be sold.

You are required to, Calculate the following variances,

(a) Sales price and volume.

(b) Direct material price and usage.

(c) Direct labour rate, efficiency and idle time.

(d) Variable overhead expenditure and efficiency.

(e) Fixed overhead expenditure, volume and efficiency. (14 marks)

SECTION B

Business Finance (25 marks)

06. (A) List two limitations of Dividend Growth model used in calculating Cost of Capital. (02 marks)

(B) You are given the following information of **Rupee PLC**.

	Rs.'000
Stated Capital - ordinary shares (Rs.10/- per share)	100,000
15% Debentures (maturing in five years)	25,000

- The current market price of an ordinary share is Rs.25/- The company paid a dividend of Rs.2/- per share in the last year. It is an expected to grow by 5% per annum.
- A debenture of Rs.100/- is sold at Rs.95/- in the market.
- Ignore taxation.

You are required to calculate,

(a) Cost of Equity Capital. (02 marks)

(b) Cost of Debt. (03 marks)

(c) Weighted average cost of capital based on market value. (03 marks)

(Total 10 marks)

07. **Chatni Food Products** Company is planning to introduce a new canned food item which is expected to remain in the market for the next 5 years. Following estimates have been made by the Management Accountant for the project.

New Canned Food Project
(All amounts are in Rs.'000)

Year →	**1**	**2**	**3**	**4**	**5**
Income:					
Sales	700	980	1,064	1,148	1,064
Expenditures:					
Materials	107	150	180	210	180
Labour	214	300	360	420	360
Production overheads	100	200	200	250	250
Other Direct Expenses	90	80	70	60	50
Depreciation	180	180	180	180	180

(1) The company expects to invest Rs.900,000/- on a new machinery which has to be paid immediately.

(2) Machinery can be used for five years with no residual value.

(3) 40% of the production overheads represents allocation of common costs incurred at head office while the balance 60% is incremental upon the new product.

(4) The cost of capital of the company is 12%.

(5) The company has executed a feasibility study on this product in last year. The cost of the feasibility study was Rs.25,000/- which is included in the other direct expenses of year 1.

(6) Ignore taxation.

You are required to:

(a) Calculate the net cash flows from years 1 to 5. (06 marks)

(b) Calculate the Net Present Value and decide whether the company should undertake to produce the new canned food. (03 marks)

(c) Calculate the pay-back period, (03 marks)

(d) What are the drawbacks of pay-back period as a project evaluation criterion?

(03 marks)
(Total 15 marks)

Discounting factor at 12% is as follows:

Year	**Discounting Factor**
1	.893
2	.797
3	.712
4	.636
5	.567
6	.507

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