



ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

AA3 EXAMINATION - JANUARY 2017

(AA32) MANAGEMENT ACCOUNTING AND FINANCE

- **Instructions to candidates** (Please Read Carefully):

(1) **Time Allowed:** Reading : 15 minutes
Writing : 03 hours

22-01-2017
Morning
[8.45 – 12.00]

No. of Pages : 07
No. of Questions : 09

- (2) **All questions should be answered.**
- (3) **Answers should be in one language, in the medium applied for, in the booklets provided.**
- (4) **Submit all workings and calculations. State clearly assumptions made by you, if any.**
- (5) **Use of Non-programmable calculators is only permitted.**
- (6) **Action Verb Check List with definitions is attached. Each question will begin with an action verb. Candidates should answer the questions based on the definition of the verb given in the Action Verb Check List.**
- (7) **Mathematical Tables and Graph Paper will be provided.**
- (8) **100 Marks.**

SECTION A

Four (04) compulsory questions

(Total 20 marks)

Question 01

A good debt is expected to leave the borrower better off in the long term, whilst not having a negative impact on the overall financial position.

You are required to:

- (a) **List two(02) advantages of good debt for a person.** (02 marks)
- (b) **List three(03) implications of bad debt for a person.** (03 marks)

(Total 05 marks)

Question 02

The following information was derived from the financial statements of **Sunil (Pvt) Ltd.** for the year ended 31st March 2016 and 31st March 2015:

	2016	2015
Inventory residence period	65 days	31 days
Trade payables settlement period	73 days	63 days
Average trade receivables (Rs.)	26,548,000	9,074,000
Cost of sales (Rs.)	27,530,000	7,560,000
Sales (Rs.)	114,000,000	72,000,000

Assume 365 days a year and all the sales are on credit basis.

You are required to:

Compute the length of the working capital cycle for the years ended 31st March 2016 and 31st March 2015. (05 marks)

Question 03

Top Fashion, a retail fashion store is in the process of deciding on the pre-order quantity of a particular kids costume for the New Year season.

Costumes can be pre-ordered in either 250, 500 or 750 quantities and costume demand is expected to be either 200, 600 or 800 costumes during the New Year season. Any costumes which are left over after the New Year season could be sold for a significantly lower price compared to the original price and any demand that is not fulfilled with the pre-order quantity could be met with placing last minute orders at a higher cost.

The following payoff table of profits is provided for this scenario:

(Rs. '000)

Decisions (Pre-order quantity)	Demand Conditions		
	200 Costumes	600 Costumes	800 Costumes
250 Costumes	27	17	11
500 Costumes	18	42	36
750 Costumes	10	52	71

You are required to:

(a) **Identify** the maxi-max regret solution. (02 marks)

(b) **Identify** the mini-max regret solution using a Regret Table. (03 marks)

(Total 05 marks)

Question 04

The management of **Mighty (Pvt) Ltd.**, is considering an investment project which has a life span of five years.

(1) The forecasted information of this project has been summarized as follows:

Year	1	2	3	4	5
Revenue (Rs. million)	50	80	100	110	80
Operating cost (Rs. million)	30	40	50	60	40

(2) The capital investment of the project is Rs.180 million and the scrap value at the end of the fifth year is estimated to be Rs.20 million.

(3) The operating cost given above does not include the accounting depreciation calculated based on the straight-line basis.

(Ignore taxation)

You are required to:

Compute the Payback Period.

(05 marks)

End of Section A

SECTION B

Three (03) compulsory questions

(Total 30 marks)

Question 05

Chemi Ltd. manufactures **chemical X** and sells it to local market. The management accountant has identified the following sales variances for **chemical X** for the last quarter:

- Sales Value Variance - Rs.600,000/- Favourable
- Sales Volume Variance - Rs.360,000/- Adverse
- Sales Margin Variance - Rs.150,000/- Adverse
- Sales Price Margin Variance - Rs.400,000/- Favourable

You are required to:

(a) **Compute** the following:

- (i) Sales Price Variance. (02 marks)
- (ii) Sales Volume Margin Variance. (02 marks)

(b) Assume the Standard Price and Actual Price per unit of **chemical X** are Rs.40/- and Rs.50/- respectively. **Compute** the following:

- (i) Actual sales units. (03 marks)
- (ii) Standard / budgeted sales units. (03 marks)

(Hint: use Sales Price Variance and Sales Volume Variance formulae)

(Total 10 marks)

Question 06

The following information is extracted from the capital structure of **Org PLC** as at 31st March 2016:

- (1) 100 million ordinary shares with a current market price of Rs.50/- per share. Dividend is paid at Rs.5/- per share.
- (2) 25 million redeemable debentures at an interest rate of 14% per annum with a par value of Rs.100/- per debenture. These debentures are redeemable in 8 years at par and are currently trading at Rs.94/- per debenture.

(Ignore Taxation)

You are required to:

- (a) **State** two(02) sources of long term capital other than those given above. (02 marks)
 - (b) **Compute** the cost of ordinary share capital. (02 marks)
 - (c) **Compute** the cost of redeemable debentures. (03 marks)
 - (d) **Compute** the weighted average cost of capital. (03 marks)
- (Total 10 marks)

Question 07

Tea & Spice Ltd. is evaluating purchasing of a new machinery to manufacture its new product. The new machinery will cost Rs.120 million and the expected useful life of the machinery is 4 years.

The following additional information is also available:

- (1) Revenue from the new product for the year 1 would be Rs.64 million and the direct expenses would be Rs.20 million.
- (2) From 2nd year onwards, the revenue and direct expenses will be expected to grow by 5 % per annum.
- (3) Working capital requirement is 5% of the initial investment. It should be kept at the beginning of the project and it will be able to recover at the end of 4th year.
- (4) The company pays taxes at the rate of 28% and the new machinery qualifies for capital allowances at the rate of 33 1/3% for tax purposes. Tax payments are made in the same year.
- (5) The new machinery is depreciated on the straight-line basis over 4 years and the scrap value at the end of 4th year would be Rs.16 million.
- (6) Cost of capital of the company is 12%.

You are required to:

- (a) **Compute** the Net Present Value (NPV) of the new machinery.
- (b) **State** your recommendation based on the answer for part (a). (10 marks)

End of Section B

SECTION C

Two (02) compulsory questions.

(Total 50 marks)

Question 08

XYZ Ltd., manufactures and sells two types of biscuits, **Chips** and **Choco**. The biscuits go through two processes, mixing and packaging using the same machinery. The following information is given for the two types of biscuits:

Per Pack of:	Chips	Choco
Selling Price (Rs.)	100	80
Direct Materials (Rs.)	45	36
Direct Labour (Rs.)	25	21.10
Direct Machine Hours:		
Mixing	5 minutes	4 minutes
Packaging	2 minutes	1 minute
Monthly Demand (No. of packs)	20,000	30,000

The fixed overheads for the month of February 2017 is budgeted to be Rs.450,000/-. Cost of direct machine hours for mixing and packaging are as follows:

	Per hour (Rs.)
Mixing	36
Packaging	30

For the month of February 2017, the available direct machine hours for the mixing and packaging departments will be limited only to 2,800 hours and 1,000 hours respectively. It has been identified that there is a scarcity of the mixing hours and packaging hours in order to meet the full demand. Therefore, the production manager wants to apply the linear programming model to identify the optimal production mix.

You are required to:

- (a) **Compute** the contribution per pack of **Chips** and **Choco**. (05 marks)
 - (b) **Identify** the variables, objective function and the constraints. (07 marks)
 - (c) **Draw** the constraints on a graph paper in order to identify the optimal production mix. (08 marks)
 - (d) **Identify** the optimal production mix using the graphical method. (02 marks)
 - (e) **Compute** the total contribution at the optimal production mix. (03 marks)
- (Total 25 marks)

Question 09

- (A) **Star Ltd.** is a company engaged in the manufacturing and sale of **Product Y**. The company has expected to sell 125,000 units of **Product Y** for the month of December 2016.

The budgeted and the actual results for the month of December 2016 are given below:

	Budgeted	Actual
Sales Quantity (units)	125,000	138,000
Revenue (Rs.)	27,500,000	30,153,000
Direct Materials (Rs.)	(5,750,000)	(6,520,500)
Direct Labour (Rs.)	(7,500,000)	(8,298,400)
Variable Production Overheads (Rs.)	(5,000,000)	(5,752,300)
Fixed Production Overheads (Rs.)	(2,375,000)	(2,450,000)
Variable Distribution Expenses (Rs.)	(1,187,500)	(1,290,300)
Administration Expenses (Rs.)	(1,440,000)	(1,423,000)
Profit (Rs.)	4,247,500	4,418,500

Administration expenses includes a fixed as well as a variable portion. For the month of December 2016, the budgeted and actual fixed administration expenses amounted to Rs.540,000/-.

You are required to:

- (a) **Prepare** an operating statement / budgetary control statement using the marginal costing format for the month of December 2016 based on the flexible budget. (09 marks)
- (b) **Explain** three(03) objectives of a budgetary control system. (06 marks)
- (B) The following additional information has been provided on the performance of **Star Ltd.** for the month of December 2016:

	Budgeted usage per Unit	Total Actual usage
Direct Materials	2kg per unit @ Rs.23/- per kg	289,800 kg
Direct Labour	8 minutes per unit @ Rs.450/- per hour	18,860 Hours

Variance	Rs.	
Direct Material Usage Variance	317,400	Adverse
Direct Material Price Variance	144,900	Favourable
Variable Overhead Efficiency Variance	138,000	Adverse
Variable Overhead Expenditure Variance	94,300	Adverse
Administration Expenditure Variance	110,600	Favourable
Distribution Expenditure Variance	20,700	Favourable

You are required to:

- (a) **Compute** the Direct Labour Rate variance. (02 marks)
- (b) **Compute** the Direct Labour Efficiency Variance. (02 marks)
- (c) **Prepare** the Operating Statement reconciling the budgeted contribution with the actual contribution. (06 marks)

(Total 25 marks)

End of Section C

ACTION VERB CHECK LIST

Knowledge Process	Verb List	Verb Definitions
Level 01 Comprehension Recall & explain important information	Define	Describe exactly the nature, scope, or meaning.
	Draw	Produce (a picture or diagram).
	Identify	Recognize, establish or select after consideration.
	List	Write the connected items one below the other.
	Relate	To establish logical or causal connections.
	State	Express something definitely or clearly.
	Calculate/Compute	Make a mathematical computation
	Discuss	Examine in detail by argument showing different aspects, for the purpose of arriving at a conclusion.
	Explain	Make a clear description in detail revealing relevant facts.
	Interpret	Present in an understandable terms.
	Recognize	To show validity or otherwise, using knowledge or contextual experience.
Record	Enter relevant entries in detail.	
Summarize	Give a brief statement of the main points (in facts or figures).	

Knowledge Process	Verb List	Verb Definitions
Level 02 Application Use knowledge in a setting other than the one in which it was learned / Solve closed-ended problems	Apply	Put to practical use.
	Assess	Determine the value, nature, ability, or quality.
	Demonstrate	Prove, especially with examples.
	Graph	Represent by means of a graph.
	Prepare	Make ready for a particular purpose.
	Prioritize	Arrange or do in order of importance.
	Reconcile	Make consistent with another.
	Solve	To find a solution through calculations and/or explanation.

Knowledge Process	Verb List	Verb Definitions
Level 03 Analysis Draw relations among ideas and compare and contrast / Solve open-ended problems.	Analyze	Examine in detail in order to determine the solution or outcome.
	Compare	Examine for the purpose of discovering similarities.
	Contrast	Examine in order to show unlikeness or differences.
	Differentiate	Constitute a difference that distinguishes something.
	Outline	Make a summary of significant features.