



ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

AA3 EXAMINATION - JULY 2017

**(AA32) MANAGEMENT ACCOUNTING AND FINANCE**

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

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

16-07-2017  
Morning  
[8.45 – 12.00]

No. of Pages : 08  
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 will be provided.**
- (8) **100 Marks.**

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**SECTION A**

Four (04) compulsory questions

(Total 20 marks)

**Question 01**

Personal finance is the application of the principles of finance to the monetary decisions of an individual or a family unit. A fundamental aspect of personal finance is keeping records of financial transactions.

**You are required to:**

- (a) **List three(03) advantages of record keeping of personal finance.** (03 marks)
- (b) **State two(02) ways of achieving financial independence.** (02 marks)

(Total 05 marks)

## Question 02

**Pop Ltd.** manufactures **Product X** using two materials. The following information has been extracted from the standard cost card:

Description	Rs. Per Unit
Direct Material A - 2 kg @ Rs.400/- per kg	800
Direct Material B - 3 kg @ Rs.150/- per kg	450

During the month of June 2017, **Pop Ltd.** manufactured and sold 10,000 units of **X** for which 22,000 kg of Direct Material **A** and 28,000 kg of Direct Material **B** were used.

**You are required to:**

**Calculate** the Direct Material Mix Variance. (05 marks)

## Question 03

**Innex Ltd.** is planning to launch a new product, **Product NX**. There is an uncertainty about the exact demand for the **Product NX** and the costs for the first year.

The sales manager expects that the demand for the **Product NX** for the first year is most likely to be 20,000 units with 50% up side variation and 25% down side variation. The company aims to launch the **Product NX** at a fixed selling price of Rs.150/- per unit.

The variable cost is most likely to be Rs.80/- per unit. However, corresponding to the change in demand, the variable cost may vary from Rs.70/- to Rs.100/- per unit. The fixed cost is expected to be Rs.240,000/- per annum.

**You are required to:**

**Prepare** a three tier budget for the **Product NX** for the first year after the launching of the **Product NX**. (05 marks)

## Question 04

The following information has been extracted from **Alpha PLC's** financial statements for the year ended 31<sup>st</sup> March 2017 and 31<sup>st</sup> March 2016:

(Rs.'000)

	31 <sup>st</sup> March 2017	31 <sup>st</sup> March 2016
Trade Receivables	3,107	4,816
Trade Payables	4,137	3,803
Sales	35,850	30,902
Purchases	21,711	19,800

Inventory residence period for the year ended 31<sup>st</sup> March 2017 and 31<sup>st</sup> March 2016 was 53 days and 50 days respectively.

*(Assume 365 days a year and all sales and purchases are on credit basis.)*

**You are required to:**

**Compute** the length of the working capital cycle for the year ended 31<sup>st</sup> March 2017. (05 marks)

\_\_\_\_\_ End of Section A \_\_\_\_\_

## SECTION B

Three (03) compulsory questions

(Total 30 marks)

### Question 05

**Zone Ltd.** is evaluating three new travel packages to be launched in the next year. The demand for the packages depends heavily on the arrival of tourists. The expected profitability of the three packages under different levels of tourist arrivals is given below:

Level of Tourists Arrival	Profit for the year (Rs.)		
	Package A	Package B	Package C
Low	3,500,000	4,000,000	3,200,000
Average	5,000,000	6,500,000	4,000,000
High	10,000,000	7,500,000	11,000,000

Industry experts forecast the probabilities of the tourists arrival as follows:

	Probability
Low	0.1
Average	0.5
High	0.4

Due to operational and funding limitations, **Zone Ltd.** is able to launch only one package. The managing director of the company has requested to obtain the service of a research company in order to obtain the perfect information relating to tourists arrival.

**You are required to:**

- (a) **Assess** which package should be launched based on the expected value without perfect information. (07 marks)
  - (b) **Calculate** the maximum amount that should be paid for the services of the research company. (03 marks)
- (Total 10 marks)

### Question 06

**PX Ltd.** produces and sells product **Q**. The following information has been extracted from the books of **PX Ltd.** for the year ended 31<sup>st</sup> March 2017. Standard Cost and Standard Selling Price per unit are as follows:

	Rs. (Per Unit)	
Selling Price		810
<b>Variable Cost:</b>		
Direct Material (5 kg at Rs.80/- per kg)	400	
Direct Labour (0.6 hours at Rs.250/- per hour)	150	
Variable Overheads (0.6 hours at Rs.140/- per hour)	84	634
<b>Contribution Per Unit</b>		<b>176</b>

Actual information for the year:

	Rs.
Sales Revenue (80,070 units)	64,536,420
Direct Materials (398,500 kg)	32,677,000
Direct Labour (48,900 hours)	10,758,000
Variable Overheads	7,237,200

- Actual production for the year was 80,070 units.
- Variable overheads are charged based on the number of direct labour hours.
- Budgeted production and sales quantity for the year ended 31<sup>st</sup> March 2017 were 80,000 units.

**You are required to:**

(a) **Calculate** the following:

- Sales Price Variance.
- Variable Overhead Expenditure Variance.
- Variable Overhead Efficiency Variance.

(06 marks)

(b) **Prepare** an operating statement reconciling the budgeted contribution with the actual contribution using the following additional information:

Item	Rs.	variance
Direct Material Price Variance	797,000	Adverse
Direct Material Usage Variance	148,000	Favourable
Direct Labour Rate Variance	1,467,000	Favourable
Direct Labour Efficiency Variance	214,500	Adverse
Sales Volume Margin Variance	12,320	Favourable

(04 marks)

(Total 10 marks)

## Question 07

**Teazzy Ltd.** has two divisions, Division **A** and Division **B**. Division **A** specializes in exporting bulk tea leaves while Division **B** specializes in manufacturing and selling innovative tea based products. The following information has been provided for the two divisions for the year ended 31<sup>st</sup> March 2017:

Item	Division A (Rs.)	Division B (Rs.)
Revenue	78,000,000	144,625,000
Gross Profit	9,711,000	38,079,763
Profit Before Interest and Tax	2,558,400	6,497,000
Total Capital / Assets Employed	31,200,000	44,500,000

The managers of Division A and Division B are rewarded based on their respective divisional performance and the company's CEO is rewarded based on the overall performance of the company.

The performance is assessed using the following two benchmarks:

- (1) Return on Capital Employed : 11.5%
- (2) Assets Turnover : 2.8 times

**You are required to:**

**Assess** whether the Division A manager, Division B manager and the Company's CEO will be rewarded for the year ended 31<sup>st</sup> March 2017 with supporting calculations. (10 marks)

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*End of Section B*

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### **SECTION C**

Two (02) compulsory questions.

(Total 50 marks)

#### **Question 08**

- (A) **Insight Ltd.** a tour operator catering to inbound tourists offers two tour packages, Standard and Deluxe. The following budgeted information was extracted for the next quarter:

Item	Standard Package	Deluxe Package
Expected Number of Tourists for the Quarter	800	250
Price of the Package per Tourist (Rs.)	125,000	350,000
Variable Costs per Tourist:		
Accommodation (Rs.)	62,500	195,000
Food and Beverage (Rs.)	28,000	46,500
Entrance Tickets (Rs.)	10,000	18,000
Other Variable Costs (Rs.)	2,000	6,500

Budgeted total fixed cost for the next quarter is Rs.32,510,400/-.

**You are required to:**

- (a) **Calculate** the Combined Profit Volume Ratio. (05 marks)
- (b) **Calculate** the Break Even Levels for Standard and Deluxe Packages separately in Sales Value and in Units. (07 marks)

- (B) **Golden Ltd.**, manufactures and sells three products, namely, **G1**, **G2** and **G3**. The following information was extracted from the budget prepared for the next month:

		<b>G1</b>	<b>G2</b>	<b>G3</b>
Monthly Demand (units)		10,000	9,000	6,000
Selling Price per unit	(Rs.)	580	850	1,500
Direct Material per unit (Rs.60/- per kg)	(Rs.)	120	150	300
Direct Labour per unit (Rs.250/- per hour)	(Rs.)	250	375	625
Variable Overheads per unit	(Rs.)	120	180	300
Monthly Fixed Overheads	(Rs.)	1,425,000		

For the next month, the company can purchase only 70,000 kg of direct material and maximum availability of direct labour hours for the next month is 39,000 hours.

**You are required to:**

- Identify** the limiting factor(s) at **Golden Ltd.'s** production plan for the next month with supporting calculations. (04 marks)
  - Compute** the optimal production mix based on the resource availability. (06 marks)
  - Calculate** the profit for the month at the optimal production level. (03 marks)
- (Total 25 marks)

### Question 09

- (A) **Rex Ltd.'s** Research and Development Department has developed two products **RX1** and **RX2** to be launched in the year 2018 using the existing factory capacity. Due to the financial and other constraints, the company is considering to launch only one product. The following information is estimated for the two products:

**Product RX1:**

Year	Annual Demand (units)	Selling Price per unit (Rs.)	Variable Cost per Unit (Rs.)	Fixed Cost per Annum (Rs.)
1	4,000	2,000	950	4,450,000
2	8,500	2,000	1,045	5,340,000
3	15,000	2,400	1,150	5,874,000
4	25,000	2,400	1,265	6,461,400
5	25,000	2,880	1,392	7,107,540

**Product RX2:**

Year	Annual Demand (units)	Selling Price per unit (Rs.)	Variable Cost per Unit (Rs.)	Fixed Cost per Annum (Rs.)
1	20,000	400	180	3,250,000
2	50,000	448	198	3,575,000
3	55,000	502	218	3,932,500
4	60,000	563	240	4,325,750
5	60,000	631	264	4,758,325

**Rex Ltd.** has already spent for **RX1** and **RX2**, Rs.3 million and Rs.4.5 million respectively in carrying out market research to identify the demand for the products. In addition to this, the company would need to spend Rs.12 million and Rs.9.5 million for **RX1** and **RX2** respectively on marketing and promotion prior to launching the products.

Cost of capital of the company is 15%.

*(Ignore taxation.)*

**You are required to:**

- (a) **Prepare** Net Cash Flows from Year 0 to Year 5 for each of the products separately. (07 marks)
- (b) (i) **Calculate** the NPV of the two products separately. (07 marks)
- (ii) **State** your recommendation on which product should be launched based on the answer for part (i). (01 mark)
- (B) **Beeta PLC** is a quoted public company, and the following information has been extracted from **Beeta PLC's** Statement of Financial Position as at 31<sup>st</sup> March 2017:

Item	Rs.'000
Ordinary Shares (200 million ordinary shares)	6,000,000
Retained Earnings	1,200,000
Irredeemable Preference Shares (80 million preference shares)	800,000
Irredeemable Debentures (20 million debentures with an interest rate of 12.5% per annum)	2,000,000

The following additional information is also provided:

- The current market price of an ordinary share is Rs.45/- and dividend is paid Rs.5.76 per share.
- The current market price of an irredeemable preference share is Rs.12.50 and annual dividend per share is Rs.1/- per preference share.
- Par value of a debenture is Rs.100/- and current market price is Rs.125/- per debenture.

Corporate taxes are paid at the rate of 28%.

**You are required to:**

**Calculate** the following:

- (a) Cost of Ordinary Share Capital. (02 marks)
- (b) Cost of Preference Share Capital. (02 marks)
- (c) Cost of Debenture. (02 marks)
- (d) Weighted Average Cost of Capital of the company. (04 marks)

(Total 25 marks)

*End of Section C*

## ACTION VERB CHECK LIST

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

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

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