



ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

AA3 EXAMINATION - JULY 2018

(AA32) MANAGEMENT ACCOUNTING AND FINANCE

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

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

22-07-2018
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.**

SECTION A

Four (04) compulsory questions

(Total 20 marks)

Question 01

Personal financial planning involves applying principles of finance for the purpose of making monetary decisions of an individual or a family unit.

You are required to:

- (a) **State** two(02) advantages of personal financial planning. (02 marks)
 - (b) **State** three(03) basic rules of personal financial planning. (03 marks)
- (Total 05 marks)

Question 02

Value for money is the optimum combination of whole cost and quality to meet the user's requirement. It can be assessed using the criteria of Economy, Efficiency and Effectiveness.

You are required to:

Explain the terms, Economy, Efficiency and Effectiveness with regards to Value for Money. (05 marks)

Question 03

Logic Ltd. is evaluating its trade receivable balances. The following information has been extracted from the financial statements of the company for the years ended 31st March 2016, 31st March 2017 and 31st March 2018:

For the year ended / as at	31 st March 2016	31 st March 2017	31 st March 2018
Trade Receivables	29,200,000	45,600,000	60,800,000
Sales	263,000,000	340,000,000	332,500,000
Cost of Sales	110,460,000	136,000,000	142,975,000

(Assume 360 days a year and all sales are on credit basis.)

You are required to:

- (a) **Calculate** the trade receivables collection period (in days) for the year ended 31st March 2017 and 31st March 2018. (03 marks)
- (b) **State** two(02) strategies used for managing trade receivables considering the current situation as observed by your calculations in (a) above. (02 marks)
(Total 05 marks)

Question 04

Ceramix Ltd. produces product **P** for its regular clients using highly skilled staff and unskilled staff. The company has received a special order for a large quantity of product **P** to be completed within a month and the labour requirements for the special order have been estimated as follows:

Skilled labour hours	14,500
Unskilled labour hours	41,600

Existing skilled labour is paid at Rs.800/- per hour with an agreement to offer 20,000 hours a month. If additional skilled labour hours are used, it will be considered as overtime which will be paid at 1.5 times of the normal hourly rate. Skilled labour hours required for regular works of a month would be 9,500 hours.

Current unskilled labour is paid a guaranteed pay for 120,000 hours a month at Rs.500/- per hour. In addition, an incentive of Rs.25/- per hour is paid for actual unskilled labour hours worked. For any unskilled labour shortfall, new staff would need to be hired at Rs.300/- per hour. Unskilled labour hours for a month which are expected to be idle for 68,000 hours of guaranteed pay time could be used for the special order. Overtime is not entitled for unskilled labour.

You are required to:

Calculate the relevant cost of labour for the special order. (05 marks)

End of Section A

SECTION B

Three (03) compulsory questions

(Total 30 marks)

Question 05

Bakes Ltd. is evaluating the introduction of a range of cakes to be sold through a chain of super markets. The management is in the process of deciding the production quantity. The production department can be arranged to work 1, 2 or 3 shifts and the monthly production will be 10,000 boxes, 20,000 boxes and 30,000 boxes, respectively:

The selling price per box will be Rs.450/- and the total variable cost per box will be Rs.190/- per box. Any boxes that are not sold within the month of production could be sold at a scrap value of Rs.5/- per box.

The demand is anticipated to be either low, mid or high with 8,000 boxes, 17,500 boxes and 26,000 boxes respectively per month.

You are required to:

- (a) **Prepare** the payoff table showing the contribution for the above decisions. (07 marks)
- (b) **Identify** the Maximax and Maximin criterion / solutions. (03 marks)
- (Total 10 marks)

Question 06

Electro PLC is manufacturing electronic components. A supplier has approached **Electro PLC** to supply **Component X** at a price of Rs.950/- per component.

Component X is usually produced internally and has the following cost structure:

	Rs.
Material per unit	150
Skilled Labour per unit (1 hour at Rs.300/- per hour)	300
Unskilled Labour per unit (2 hours at Rs.200/- per hour)	400
Variable Production Overheads per unit (Rs.75/- per skilled and unskilled labour hours)	225
Specific Fixed Overheads per annum	16,250,000
Allocated Fixed Overheads per annum	7,836,000

You are given the following additional information with regards to **Component X**:

If the **Component X** is purchased from outside:

- It is estimated that 60% of the specific fixed overheads can be saved and allocated fixed overheads will be allocated to other divisions.
- The skilled labour will be transferred to other departments for other processes while the unskilled labour will be laid off at a total compensation payment of Rs.15 million.
- In order to monitor the quality of outsourced components which are purchased from outside, the company has to strengthen its inspection department with an additional staff at a cost of Rs.450,000/- per month.

- The company can dispose some material and tools in stock purchased for Rs.2,900,000/- which will no longer be used for production for Rs.1,186,000/-.
- **Electro PLC** requires 145,000 units of **Component X** for the next year.

You are required to:

Assess whether **Component X** should be purchased from outside or not (Support your answer with calculations). (10 marks)

Question 07

MFD Ltd. produces and sells **Product Q** and the following information has been extracted from the company for the month of June 2018:

- (1) Standard cost card and standard selling price of **Product Q** are as follows:

	(Rs.)
Direct Material A (2 kg at Rs.550/- per kg)	1,100
Direct Material B (1.5 litres at Rs.400/- per litre)	600
Direct Labour (0.5 hours at Rs.300/- per hour)	150
Variable Production Overheads (Rs.160/- per hour)	80
Total Variable Production Cost per unit	1,930
Selling Price per unit	2,500

- (2) The budgeted details for the month are as follows:

Fixed Production Overheads (Rs.)	18,500,000
Variable Selling Commission (% of sales value)	3%
Budgeted Sales and production for the month of June 2018 (Units)	60,000

- (3) For the month of June 2018, 58,400 units of **Product Q** was produced and sold at Rs.2,520/- per unit. The actual cost information related to the period is as follows:

	Rs.
Direct Material A	66,860,000
Direct Material B	37,825,000
Direct Labour	8,765,200
Variable Production Overheads	4,980,000
Variable Selling Commission	4,360,000
Fixed Production Overheads	19,050,000

You are required to:

Prepare an Operating Statement showing clearly the following:

- Budgeted figures for the month of June 2018
- Actual figures for the month of June 2018
- The variations between the budgeted and actual figures.

(10 marks)

End of Section B

SECTION C

Two (02) compulsory questions.

(Total 50 marks)

Question 08

(A) **Expand PLC** is a company that is listed on the Colombo Stock Exchange.

The following information is available on the capital structure of **Expand PLC**:

- (1) The company has 8.5 million ordinary shares issued at Rs.10/- per share, currently trading at Rs.50/- per share. A dividend of Rs.6.50 per share was paid for the year just ended. The dividend on ordinary shares is expected to grow at the rate of 5% per annum.
- (2) There are 2,437,500 irredeemable preference shares in issue which were originally issued at Rs.10/- per share. The current market price of the preference shares is Rs.12/- per share and annual dividend per year is Rs.1.20 per share.
- (3) The company also has 1 million 10.8% irredeemable debentures with a par value of Rs.100/- per debenture in issue. The current market price of the debentures is Rs.84/- per debenture.

(Ignore Taxation)

You are required to:

Calculate the following:

- (a) Cost of Ordinary Shares. (02 marks)
 - (b) Cost of Irredeemable Preference Shares. (02 marks)
 - (c) Cost of Irredeemable Debentures. (02 marks)
 - (d) Weighted Average Cost of Capital using the market values. (03 marks)
- (B) **ABC PLC** is evaluating an investment of Rs.130 million in a new factory complex to introduce a new product, which is made up of Rs.122 million for Plant and Machinery and Rs.8 million for working capital. The factory will assist in increasing production capacity and sales as given below for the next 5 years:

Year	Production and Sales (in'000 units)
1	1,100
2	1,600
3	2,200
4	2,400
5	2,500

The selling price per unit for 1st year is expected to be Rs.220/- and is expected to be increased by 8% in every two years. The variable cost will be Rs.160/- per unit in the first year and the fixed cost for the first year is forecasted to be Rs.60 million. All costs are expected to be increased by 5% per annum.

The expected life time of the Plant and Machinery is 5 years and the company depreciates plant and machinery on the straight-line basis over 5 years. The company can claim capital allowances at the rate of 25% per annum on Plant and Machinery for tax purpose.

Working capital of Rs.8 million can be recovered at the end of 5th year.

The company pays income taxes at 30% per annum and the income tax liability of the company for the year is paid in the same year.

Cost of capital of the company is 15%.

You are required to:

- (a) **Calculate** the Net Cash Flows for 5 years. (08 marks)
- (b) **Calculate** the Net Present Value (NPV) of the investment. (03 marks)
- (c) **Calculate** the Internal Rate of Return (IRR) of the investment. (04 marks)
- (d) **State** with reasons whether **ABC PLC** should go ahead with the project or not. (01 mark)
- (Total 25 marks)

Question 09

- (A) **X Ltd.** manufactures **Product Y** for the export market. The following standard cost card and standard selling price have been extracted from the records of the company:

	Per Unit (Rs.)
Direct Material:	
Material X1 (1.50 kg at Rs.150/- per kg)	225
Material X2 (4 kg at Rs.350/- per kg)	1,400
Direct Labour (3 hours at Rs.250/- per hour)	750
Variable Overheads (3 hours at Rs.120/- per hour)	360
Total Variable Cost	2,735
Selling Price	3,000
Contribution	265

Budgeted sales / production units for the month of May 2018 were 11,000 units.

The actual results for the month of May 2018 were as follows:

Actual Sales / Production	(Units)	11,300
Sales	(Rs.)	34,804,000
Direct Material:		
Material X1 (18,600 kg at Rs.145/- per kg)	(Rs.)	2,697,000
Material X2 (44,100 kg at Rs.375/- per kg)	(Rs.)	16,537,500
Direct Labour Cost (33,500 hours at Rs.260/- per hour)	(Rs.)	8,710,000
Variable Overheads	(Rs.)	4,422,000

Some of the variances already computed by the company are as follows:

	Rs.
Direct material price variance	1,009,500 (Adverse)
Direct labour cost variance	235,000 (Adverse)
Fixed overhead expenditure variance	6,400 (Favourable)
Variable overhead cost variance	354,000 (Adverse)
Sales Price Variance	904,000 (Favourable)

You are required to:

- (a) **Calculate** the following Variances.
- (i) Direct Material Mix Variance. (04 marks)
 - (ii) Direct Material Yield Variance. (04 marks)
 - (iii) Sales Volume Margin Variance. (02 marks)
- (b) **Prepare** an operating statement to reconcile the budgeted contribution with the actual contribution. (06 marks)
- (B) **Health-Up Ltd.** is evaluating the introduction of nutrition cereal packets in two flavours (Pineapple and Strawberry) which will be sold in boxes of 6 packets each. The details of the two products are as given below:

	Pineapple	Strawberry
Selling Price per box (Rs.)	1,080	1,640
Direct Material per box (Rs.)	390	542
Direct Labour per box (Rs.)	150	180
Variable Production Overheads per box (Rs.)	90	108
Sales for the month (boxes)	2,000	1,000

The fixed production overhead and fixed non-production overhead per month are expected to be Rs.1,625,000/- and Rs.461,200/- respectively.

You are required to:

- (a) **Calculate** the combined profit volume ratio. (04 marks)
- (b) **Compute** the monthly break-even levels in boxes for each type of product separately. (05 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.