



ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

AA3 EXAMINATION - JANUARY 2019

(AA32) MANAGEMENT ACCOUNTING AND FINANCE

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

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

27-01-2019
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

Retirement planning is becoming an important component of financial well-being of a person. The key in retirement planning is to determine how much money you will need upon retirement and to have a plan to save that amount as early as possible.

You are required to:

(a) **State** three(03) factors that affect the amount that will be saved for a retirement plan.(03 marks)

(b) **State** two(02) advantages of a retirement plan.

(02 marks)
(Total 05 marks)

Question 02

The following information has been extracted from the financial information of **ABC PLC** for the year ended 31st March 2018:

Inventory turnover	-	05 times
Trade Payables turnover	-	08 times
Trade Receivables as at 01 st April 2017	-	Rs.50 million
Trade Receivables as at 31 st March 2018	-	Rs.60 million
Sales	-	Rs.220 million

Assume 365 days a year. All sales are made on credit basis.

You are required to:

Compute the length of the working capital cycle for the year ended 31st March 2018. (05 marks)

Question 03

Benchmarking is a scientific way of setting objectives that will act as targets, before and during the operating period and as comparisons, during and after the operating period. Motivation to benchmarking arises due to many reasons such as to show that performance targets can be achieved, to accelerate and manage change, to enable process improvement, etc.

You are required to:

- (a) **State** two (02) advantages of benchmarking. (02 marks)
- (b) **State** three (03) limitations of benchmarking. (03 marks)
(Total 05 marks)

Question 04

MSC Ltd. manufactures and sells Product **G**. The following information has been forecasted for the year 2019 in respect of product **G**:

	Rs. (Per Unit)
Selling Price	600
Direct Material	335
Direct Labour	140
Variable Overhead	65
Fixed Overhead absorbed for product G	55

Budgeted production and sales quantity for the year 2019 would be 1,020,000 units.

You are required to:

Calculate the following for the year 2019:

- (a) Profit volume ratio. (02 marks)
- (b) Break-Even Point (BEP) in units. (02 marks)
- (c) Margin of safety in units. (01 mark)

(Total 05 marks)

End of Section A

SECTION B

Three (03) compulsory questions

(Total 30 marks)

Question 05

Sunchee Ltd. has carried out a preliminary research incurring Rs.450,000/- to develop a new cooking technique that can be used by restaurants. At present, the company is assessing the viability of carrying out a further research to develop a marketable new product.

The company needs to spend Rs.1,050,000/- to carry out the further research. The probability of the further research being successful in developing the marketable new product is 0.25. If the further research is successful and the marketable new product is developed, **Sunchee Ltd.** intends either to sell the product through agents, operate directly owned restaurants or operate directly owned sales outlets.

If the further research is successful, the forecasted financial impact under each of the above option at three different demand levels for the new product is as given below:

Options	Demand levels		
	Low (Rs.)	Average (Rs.)	High (Rs.)
(1) Sell the product through agents	5,000,000	5,750,000	8,000,000
(2) Operate directly owned restaurants	3,100,000	7,500,000	12,280,000
(3) Operate directly owned sales outlets	5,395,000	7,375,000	9,526,000

The probability under low, average and high demand levels is estimated to be 0.2, 0.65 and 0.15 respectively.

If **Sunchee Ltd.** decides not to go ahead with the further research, the preliminary research findings can be sold to a third party for Rs.400,000/-.

You are required to;

- (a) **Identify** the option from the above 3 options using expected values, **Sunchee Ltd.** should select if further research is successful and the marketable new product is developed. (07 marks)
- (b) **Assess** whether **Sunchee Ltd.** should go ahead with the further research or not. (03 marks)

(Total 10 marks)

Question 06

Vinger (Pvt) Ltd. manufactures and sells **Product SK1** for the domestic market. The company uses the marginal costing system. The budgeted and actual results for the year 2018 are given below:

	Budgeted (Rs.)	Actual (Rs.)
Sales	45,500,000	46,410,000
Direct Material	(5,250,000)	(5,292,500)
Direct Labour:		
Skilled Labour	(3,500,000)	(3,665,000)
Unskilled Labour	(16,800,000)	(16,758,350)
Variable Production Overhead	(12,250,000)	(12,392,540)
Contribution	7,700,000	8,301,610
Fixed Production Overhead	(5,750,000)	(5,766,900)
Profit	1,950,000	2,534,710

The following additional information is also provided:

- (1) There were no inventories at the beginning of the year and at the end of the year.
- (2) Budgeted sales and actual sales for the year were 35,000 units and 36,400 units respectively.

You are required to:

Prepare an Operating Statement (Budgetary Control Statement) using the marginal costing format for the year 2018 based on the flexible budget. (10 marks)

Question 07

Meels Food Ltd. is manufacturing three products namely **K₁**, **K₂** and **K₃** through a common process. The products can be sold in bulk at the end of the common process or the products can be processed further and sold at the end of further process. Details of the processing cost are given below:

	Per Unit (Rs.)		
	K₁	K₂	K₃
Selling Price at the end of common process	175	210	68
Selling Price at the end of further processing	218	225	86
Variable Cost of common process	140	165	60
Variable Cost of further processing	42	25	12

The monthly fixed cost incurred on the common process is Rs.12,680,000/-, while the further processing fixed cost for **K₁**, **K₂** and **K₃** is Rs.245,700/-, Rs.625,000/- and Rs.830,500/- respectively.

During the month of February 2019, budgeted number of production and sales of **K₁**, **K₂** and **K₃** products would be 240,000, 126,000 and 400,000 units respectively.

You are required to:

- (a) **Assess** whether any of the **K₁**, **K₂** and **K₃** products should be further processed.
(Support your answer with calculations). (05 marks)
- (b) **Calculate** the estimated total contribution and profit for the month of February 2019 based on the decision in (a) above. (05 marks)
- (Total 10 marks)

End of Section B

SECTION C

Two (02) compulsory questions.

(Total 50 marks)

Question 08

- (A) **X PLC** is listed on the Colombo Stock Exchange. The following information has been extracted from the financial statements of **X PLC**, as at 31st March 2018:

	No. of Shares / Debentures	Issue Price per share / Debenture (Rs.)	Market Price per Share / Debenture (Rs.)
Ordinary Shares	24,000,000	15	55
Irredeemable Preference Shares	7,500,000	20	30
Irredeemable Debentures	10,000,000	100	78

The following additional information is also provided:

- (1) A dividend of Rs.5/- per ordinary share was paid for the year just ended and dividends are expected to grow at the rate of 10% per annum.
- (2) The preference shareholders were paid a fixed dividend of Rs.3.20 per share.
- (3) The debentures are irredeemable and listed on the Colombo Stock Exchange and were issued at Rs.100/- per debenture with a coupon rate of 14% per annum.
- (4) **X PLC** pays income tax at the rate of 30% per annum on its profits.

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) **Til Ltd.** is evaluating introduction of a new product to its current product mix. Two new products, namely **P₁** and **P₂** have been identified as projects with unequal life times. Both projects require purchase of a machinery and investment on the machinery should be paid immediately. Useful life time of the machinery on products **P₁** and **P₂** is 4 years and 5 years respectively and there is no scrap value at the end of useful life. The details of the two products are as follows:

	P₁ (Rs.)	P₂ (Rs.)
Initial Investment - Cost of Machinery	12,500,000	12,500,000
Accounting profit before income tax:		
Year 1	4,860,000	3,975,000
Year 2	5,250,000	4,386,000
Year 3	5,830,000	4,800,000
Year 4	6,750,000	5,350,000
Year 5	-	5,780,000

Both projects do not require any additional investment other than the cost of the respective machinery, for which capital allowances can be claimed for tax purpose at the rate of 25% per annum. The company depreciates its machineries on the straight line basis at cost over their useful life. The income tax rate of the company is 30% per annum and the income tax liability of the company is paid in the same year. Cost of capital of the company is 15%.

You are required to:

- (a) **Calculate** the Net Present Value (NPV) for each project separately. (12 marks)
- (b) **Compute** the Equivalent Annual value (EAV) for the two projects **P₁** and **P₂**. (03 marks)
- (c) **State** with reasons which product should be introduced assuming funds are available for the launch of only one product. (01 mark)
- (Total 25 marks)

Question 09

- (A) **M Ltd.** produces and sells **products S** and **Q**. The following information has been extracted from the records of **M Ltd.** for the year 2018.

Product	Budgeted (Standard)		Actual	
	Selling Price per unit (Rs.)	Sales Quantity (in Units)	Selling Price per unit (Rs.)	Sales Quantity (in Units)
S	3,300	25,000	3,420	23,630
Q	5,500	15,000	5,380	14,780

You are required to:

- (a) **Calculate** the following Variances.
- (i) Sales Price Variance. (02 marks)
- (ii) Sales Mix Variance. (04 marks)
- (iii) Sales Quantity Variance. (04 marks)
- (iv) Sales Value Variance. (02 marks)

(b) **M Ltd.** has computed the following variances for the year 2018:

Direct Material Usage Variance	-	Rs.250,000/- Favourable
Direct Material Price Variance	-	Rs.325,000/- Adverse
Direct Labour Efficiency Variance	-	Rs.450,000/- Adverse

Identify a possible reason each for the variances calculated above. (03 marks)

(B) **Baney Ltd.** manufactures and sells 3 different types of kids' educational toys namely **T₁**, **T₂** and **T₃**. The details of the three products for the next month are given below:

	Per Unit (Rs.)		
	T ₁	T ₂	T ₃
Direct Material	3,470	2,160	1,185
Direct Labour:			
Skilled Labour (Rs.300/- per hour)	240	180	90
Unskilled Labour (Rs.240/- per hour)	360	192	168
Variable Overhead	345	210	150
Selling Price	7,400	4,500	3,100

	T ₁	T ₂	T ₃
Monthly Demand (In Units)	14,500	26,000	42,000

The company expects a labour shortage in the next month. Maximum availability of skilled labour hours and unskilled labour hours for the next month are only 40,000 hours and 65,000 hours respectively.

You are required to:

(a) **Identify** the limiting factor (s) for **Baney Ltd.'s** production plan for the next month with supporting calculations. (04 marks)

(b) **Compute** the optimal production mix based on the resource availability. (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.