ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

LEVEL III EXAMINATION - JANUARY 2023

(302) MANAGEMENT ACCOUNTING AND FINANCE

26-02-2023
Morning
[08.45 – 12.00]

No. of Pages : 10
No. of Questions : 10

- **Instructions to candidates** (Please Read Carefully):
  (1) ***Time Allowed:*** *Reading : 15 minutes*
  Writing : 03 hours
  (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

(Total 20 marks)

Question 01

X Ltd. manufactures cooking sauces in glass bottles and sells at supermarkets. It recently introduced a new product, **Sauce Y** which is being introduced to the market. The following information was extracted from the standard cost card of **Sauce Y**:

	Per bottle of Source Y (Rs.)
Direct Material	240
Direct Labour	60
Variable Overheads	120

A bottle of **Sauce Y** is sold at Rs.820/-.

The monthly specific fixed overheads amount to Rs.95,000/- while 10% of the common fixed overheads of Rs.650,000/- will be allocated to **Sauce Y**.

You are required to:

(a) **Calculate** the monthly break-even point in units. (03 marks)

(b) **Calculate** the target profit if the target number of bottles to be sold in the first month is 450.
(02 marks)
(Total 05 marks)

Question 02

Engage Ltd., manufactures and sells custom made jewellery. The following information has been extracted from the financial statements of **Engage Ltd.**:

For the Year Ended 31st December	2022	2021
Revenue (Rs.)	24,000,000	16,000,000
GP Margin on Sales	28%	32%
Inventory (Rs.)	4,532,930	3,752,000
Trade Payables (Rs.)	4,868,200	2,185,827

Trade Receivable turnover ratio has been computed as 3.5 times and all sales and purchases are made on credit basis.

You are required to:

Compute the working capital cycle (in days) for the year 2022. (05 marks)

Question 03

Top Ltd. which manufactures and sells **Product P** was the market leader over the past decade. In 2022, the company expected to maintain its market share at 60% with sales amounting to 1,800,000 units.

However, due to a new entrant with a more modern product, the market share dropped to 54% in 2022 although the total market size remained the same. As a result of the reduction in market share, the company hired a new marketing consultant to assist in increasing the market share back to 60% on total market size in 2023. The marketing consultant of the company believes that the market will increase by 4% in 2023 and that the market share of 60% can be regained in 2023.

The product was sold at Rs. 500/- per unit in 2022, and the marketing consultant is recommending a discount of 12% for 2023 in order to meet the market share target.

The opening finished goods inventory as at 01st January 2023 is expected to be 150,000 units and the company expects to maintain the finished goods as equivalent to 2 month's average sales at the end of the year in order to be in a position to compete aggressively.

You are required to:

Prepare the following:

(a) Sales Budget in units and value for 2023. (03 marks)

(b) Production Budget in units for 2023. (02 marks)

(Total 05 marks)

Question 04

BC Ltd. manufactures and sells a range of products. They have recently developed a product which is now ready for commercial production. For this purpose, a mould needs to be made which can either be made internally or bought from an external party.

If the mould is made internally, it will involve the following costs:

(1) The raw materials to make the mould will cost Rs.420,000/-. Of this, there is Rs.130,000/- worth of materials available in the inventory, which was purchased several years ago at Rs.95,000/- and not used in the normal production of the company. If this material in inventory is not used to make the mould, it can be sold for Rs.45,000/-.

(2) 80 labour hours are required for the mould and the labour is normally paid at the rate of Rs.300/- per hour. The labour required for the making of the mould is currently fully occupied with other production work. However, they can be paid overtime at the rate of 1.5 times on normal paid rate to make the mould.

(3) Variable production overheads will be incurred at the rate of Rs.110/- per labour hour.

(4) Specialized labour is required for certain parts of the mould and this will cost Rs.250,000/-

Alternatively the mould can be purchased from an external party at a cost of Rs.700,000/-.

You are required to:

Assess whether the company should manufacture the mould internally or not, and support your answer with calculations. (05 marks)

End of Section A

SECTION B

(Total 30 marks)

Question 05

Linen Ltd. manufactures and sells hand embroidered table linen, in 3 sizes, the 6-seater, 8-seater and 12-seater. The following information was extracted from the standard cost card of **Linen Ltd.**:

	Rs. (per unit)		
	6-Seater	**8-Seater**	**12-Seater**
Selling Price	5,000	7,500	12,000
Direct Material (at Rs.450/- per meter)	1,125	1,800	2,700
Stitching Labour (at Rs.300/- per hour)	300	375	450
Embroidering Labour (at Rs.500/- per hour)	2,500	4,000	6,000
Variable Production Overheads	500	600	800

Budgeted Sales units for March 2023	30	15	8

For the month of March 2023, the resource availability will be as follows:

Direct Material	190 meters
stitching labour	100 hours
embroidering labour	302 hours

You are required to:

(a) **Identify** the limiting factor/s with supporting calculations. (04 marks)

(b) **Calculate** the optimal production mix based on the limiting factor/s identified. (06 marks)

(Total 10 marks)

Question 06

Wealth Ltd., purchases **Material X** in bulk, packages into smaller 1kg packets and sells through a dealers' network. The following information was extracted from the standard cost card of the 1kg packet of **Material X**:

	1 kg packet (Rs.)
Purchases:	
Material X (Rs.1,100/- per kg)	1,100
Packaging Material (Rs.170/- per 1kg packet)	170
Packing Labour Cost	30
Selling Price	2,000

The following information is available with regard to the operations:

(1) The sales and purchases for the months of November 2022 to April 2023 were budgeted as follows:

	Nov-22	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**	**Apr-23**
Sales (1 kg packets)	80,000	110,000	50,000	50,000	80,000	100,000
Purchases (Kgs)	140,000	120,000	40,000	75,000	70,000	50,000

(2) The price of **Material X** is expected to increase by 8% in March 2023, as a result of which the company is expecting to increase the sales price by 10% from March 2023.

(3) 90% of the sales are made through dealers while the other sales are made on cash basis.

(4) Of the dealer sales, 70% is on 60 days credit and the balance is on 30 days credit.

(5) The purchase of **Material X** is made on 90 days credit.

(6) Packaging material is purchased and paid in the same month it is used.

(7) Packaging labour is also paid in the same month it is incurred.

(8) The administration expenses is Rs.800,000/- per month and 60% is paid in the following month in which it was incurred.

(9) The opening cash balance as at 01st February 2023 is expected to be Rs.1,200,000/- and the excess cash will be held in a savings account earning an interest of 8% per annum. Interest is computed based on the opening balance as at the beginning of the month.

You are required to:

Prepare the cash budget for the months of February, March and April 2023. (10 marks)

Question 07

Enterprise PLC is a company listed on the Colombo Stock Exchange. The following information was extracted from the financial statements of **Enterprise PLC.**:

(1) **Enterprise PLC** has 100 million ordinary voting shares in issue, issued at Rs.5/- per share. The shares are currently trading at Rs.3.20 per share and the company paid a dividend of Rs.0.80 per share for the last financial year. Given the current economic downturn, the dividends are not expected to grow during the next year.

(2) The company has 25 million irredeemable preference shares in issue, initially issued at Rs.10/- per share. The current market price of these preference shares is Rs.8.00 per share and annual dividend per share is Rs.1.80.

(3) The company also has 1.5 million listed 5 year redeemable debentures, issued at Rs. 100/- per debenture, which has a coupon of 12% p.a. The debentures are currently trading at Rs. 85/- per debenture.

Assume the income tax rate as 24%.

You are required to:

Calculate the following:

(a) Cost of Ordinary Voting Shares. (02 marks)

(b) Cost of Irredeemable Preference Shares. (02 marks)

(c) Cost of Redeemable Debentures. (03 marks)

(d) Weighted Average Cost of Capital (WACC) using the market values. (03 marks)

(Total 10 marks)

End of Section B

SECTION C

(Total 50 marks)

Question 08

Explorer Ltd. manufactures and sells **Product W** for which the following information has been extracted from the standard cost card:

	Per Unit (Rs.)
Direct Material (500ml at Rs.900/- per litre)	450
Direct Labour:	
Skilled labour (2 hours at Rs.300/- per hour)	600
Unskilled labour (½ hour at Rs.180/- per hour)	90
Variable Overheads (at Rs.70/- per hour)	175
Total Variable Cost	**1,315**
Selling Price	1,550
Contribution per Unit	**235**

Budgeted sales units and budgeted fixed overheads for the quarter ending 31st December 2022 are expected to be 300,000 units and Rs.12,600,000/- respectively.

The actual performance for the quarter ending 31st December 2022 is given below:

	(Rs.)
Sales Revenue	480,000,000
Direct Material (166,400 litres)	152,064,000
Direct Labour Cost:	
Skilled labour (624,000 hours)	199,680,000
Unskilled labour (168,000 hours)	27,720,000
Variable Overheads	59,004,000
Fixed Overheads	13,800,000

The following variances have been calculated by the management for the quarter ending 31st December 2022:

Sales Margin Volume Variance	4,700,000	Favourable
Direct Material Usage Variance	5,760,000	Adverse
Direct Material Price Variance	2,304,000	Adverse
Variable Overhead Expenditure Variance	3,564,000	Adverse
Variable Overhead Efficiency Variance	560,000	Favourable
Fixed Overhead Expenditure Variance	1,200,000	Adverse

The actual sales / production quantity for the quarter ending 31st December 2022 was 320,000 units.

You are required to:

(a) **Calculate** the following variances:

(i) Direct Labour Rate Variance. (02 marks)

(ii) Direct Labour Mix Variance. (03 marks)

(iii) Direct Labour Yeild Variance. (03 marks)

(iv) Sales Price Variance. (02 marks)

(b) **Prepare** an Operating Statement to reconcile the budgeted contribution with actual contribution. (05 marks)

(Total 15 marks)

Question 09

Comfort Ltd., manages hotels owned by third parties. At present the company is evaluating the viability of managing a new property for which the following information is provided:

(1) Monthly rental payable on 01st year to the owners would be Rs.1,000,000/-, with a 8% increase every year from the next year and the management has signed an agreement for 5 years. The owners have agreed to give a discount of 25% from the first year's rent. Apart from the above, the owners will be eligible for 4% of the revenue from 3rd year onwards.

(2) The cost of furnishing the hotel will amount to Rs. 75 million. The furniture and fittings are expected to have a lifetime of 5 years, and capital allowances can be claimed at the rate of 25% while the furniture is depreciated on the straight-line basis for accounting purposes. The furniture and fittings are expected to have a scrap value of Rs.10 million at the end of the 5th year.

(3) The annual revenue and gross profit margin is expected to be as follows:

	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Revenue (Rs.)	250,000,000	280,000,000	352,000,000	390,000,000	440,000,000
GP Margin on Revenue	15%	16%	20%	25%	28%

(4) The annual fixed overheads, including depreciation and rent are expected to be Rs. 30 million in the first year. The fixed overheads other than depreciation and rent are expected to increase at the rate of 10% per annum in every year from 2nd year.

(5) Initial marketing expenses to be incurred at the start-up of the project is expected to be Rs. 8 million and the working capital is expected to be Rs.20 million.

(6) The company pays taxes at the rate of 24% per annum and it should be paid in the same year.

(7) The cost of capital of the company is 22%.

You are required to:

(a) **Calculate** the Net Present Value (NPV) of the new project. (13 marks)

(b) **Identify** whether the company should proceed with the new project. (02 marks)

(Total 15 marks)

Question 10

(A) **Goto Ltd.** manufactures **Product C2** through several processes. 300,000 metres of raw materials costing Rs.42,575,000/- were input into Process I, while Rs.27,690,000/- of Direct Labour and Rs.16,614,000/- of Variable Production Overheads were incurred during the year for **Process I**.

At the beginning of the year, there were 25,000 meters of opening work in progress in stock with the following levels of completion:

Direct Material	100% completed, valued at Rs.3,750,000/-
Direct Labour	25% completed, valued at Rs.534,000/-
Variable Overhead	20% completed, valued at Rs.199,000/-

Opening work in progress is treated on an Average Cost basis.

At the end of the year, 288,000 meters were transferred to **Process II**, and there were 32,000 meters of closing work in progress in stock which were 100%, 50% and 45% completed with regard to direct materials, labour and variable overheads.

The normal loss is 5% from the input materials and the scrap value of the normal loss is Rs.40/- per meter.

You are required to:

Prepare the Statement of Equivalent Units & Cost and **Process I** account. (14 marks)

(B) **Jiggle Ltd.,** has recently developed a new product, **Jiggly**. For the sales and distribution of this product, the company is considering outsourcing to a distribution company to handle the sales and distribution. The outsourcing party has given three options to select from as given below:

Option 1 : Rs.600,000/- fixed fee per month

Option 2 : Rs.280,000/- fixed fee per month + 1.2% commission on the sales

Option 3 : 2.3% commission on the sales

The marketing manager of **Jiggle Ltd.** estimates the sales to be as follows for the first 12 months:

	Monthly Sales (Qty.)	**Probability**
High	100,000	0.55
Low	60,000	0.45

The sales price is fixed to Rs.300/- per unit, while the variable cost is expected to be Rs.230/- per unit under low sales and Rs.210/- per unit under high sales.

You are required to:

(a) **Calculate** the expected values of each of the three options. (05 marks)

(b) **Identify** which option should be selected along with the reason for the same. (01 mark)

(Total 20 marks)

End of Section C

ACTION VERBS CHECK LIST

Level of Competency	Description	Action Verbs	Verb Definitions
Knowledge (1)	Recall Facts and Basic Concepts.	**Draw**	Produce a picture or diagram.
		Relate	Establish logical or causal connections.
		State	Express details definitely or clearly.
		Identify	Recognize, establish or select after consideration.
		List	Write the connected items.

Level of Competency	Description	Action Verbs	Verb Definitions
Comprehension (2)	Explain & Elucidates Ideas and Information.	**Recognize**	Show validity or otherwise, using knowledge or contextual experience.
		Interpret	Translate into understandable or familiar terms.
		Describe	Write and communicate the key features.
		Explain	Make a clear description in detail using relevant facts.
		Define	Give the exact nature, scope or meaning.

Level of Competency	Description	Action Verbs	Verb Definitions
Application (3)	Use and Adapt Knowledge in New Situations.	**Reconcile**	Make consistent / compatible with another.
		Graph	Represent by graphs.
		Assess	Determine the value, nature, ability or quality.
		Solve	Find solutions through calculations and/or explanation.
		Prepare	Make or get ready for a particular purpose.
		Demonstrate	Prove or exhibit with examples.
		Calculate	Ascertain or reckon with mathematical computation.
		Apply	Put to practical use.

Level of Competency	Description	Action Verbs	Verb Definitions
Analysis (4)	Draw Connections Among Ideas and Solve Problems.	**Communicate**	Share or exchange information.
		Outline	Make a summary of significant features.
		Contrast	Examine to show differences.
		Compare	Examine to discover similarities.
		Discuss	Examine in detail by arguments.
		Differentiate	Constitute a difference that distinguishes something.
		Analyze	Examine in details to find the solution or outcome.