

ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

LEVEL III EXAMINATION - JULY 2023

(302) MANAGEMENT ACCOUNTING AND FINANCE• **Instructions to candidates** (Please Read Carefully):

20-08-2023

Morning

[08.45 – 12.00]

(1) **Time Allowed:** Reading : 15 minutes

Writing : 03 hours

No. of Pages : 09

No. of Questions : 10

(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

True Ltd., is engaged in the business of purchasing and selling **Product U**. The following information has been extracted from the financial statements of **True Ltd.**:

(Rs.)

For the year ended 31st March	2023	2022
Sales	800,000	650,000
Cost of Goods Sold	(576,000)	(481,000)
Gross Profit	224,000	169,000
As at 31st March	2023	2022
Inventory	125,400	105,000
Trade Payables	105,486	85,362

Products U are sold only on cash basis and all purchases are made on credit basis.

You are required to:

Calculate the working capital cycle (in days) for the year ended 31st March 2023. (05 marks)

Question 02

Inno Ltd. produces and sells **Product J**. The following information has been extracted from the standard cost card of **Product J**:

	Per Unit (Rs.)
Direct Material	325
Direct Labour (0.5 hours at Rs.300/- per hour)	150
Selling Price	650

The following information is provided for the quarter ended 30th June 2023:

(Rs.)

	Budgeted	Actual
Fixed Overheads:		
Production (Rs.)	270,000	293,600
Non-Production (Rs.)	434,000	434,000
	704,000	727,600
Production (units)	18,000	19,400
Sales (units)	18,000	19,100

1,500 units of **Product J** were there in the opening stock as at 01st April 2023 and 1,800 units were there in the stock as at 30th June 2023.

You are required to:

Prepare the Income Statement for the quarter ended 30th June 2023 using the Absorption Costing method. (05 marks)

Question 03

Farm Ltd. is a company engaged in the cultivation and marketing of vegetables in their own greenhouses and is building a new greenhouse which is expected to be completely dedicated for growing tomatoes. At present, the company is preparing the budget for the next year.

Based on the estimation, the tomatoes will be sold immediately upon harvest and the prices are expected to either be Rs.400/- per kilogram or Rs.300/- per kilogram, with the most likely price being Rs.350/- per kilogram. The harvest is expected most likely to be 100,000 kg, with an optimistic estimate of 145,000 kg and pessimistic estimate of 94,000 kg.

The variable cost is most likely to be 35% of the sales value while the optimistic estimate is 32% and pessimistic estimate is 38%. The directly attributable fixed costs are most likely expected to be Rs.8,000,000/- per annum with a variance of +/- 10% from this.

You are required to:

Prepare the budgets under the most likely, optimistic and pessimistic scenarios, using the three-tier approach. (05 marks)

Question 04

Standard Costing is widely used in many organizations given its usefulness.

You are required to:

- (a) **Explain** two(02) purposes of using the Standard Costing. (03 marks)
- (b) **Identify** two(02) issues that you may have to face when implementing Standard Costing in a modern organisation. (02 marks)

(Total 05 marks)

End of Section A

SECTION B

(Total 30 marks)

Question 05

Favours Ltd., manufactures customized gift items based on pre-orders. The following information is available with regard to the operations:

- (1) Orders are placed in advance and a 50% advance payment is paid 60 days prior to the delivery date, and the balance is payable on delivery.
- (2) Sales value based on the delivery dates and raw material purchases for the months of May to November 2023 are budgeted to be as follows:

	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23
Sales (Rs.) (Delivery in)	2,200,000	2,000,000	2,000,000	2,600,000	3,500,000	1,500,000	1,800,000
Raw Material Purchases (Rs.)	4,300,000	1,000,000	700,000	800,000	800,000	2,000,000	1,000,000

- (3) Raw material purchases are made with a 30 day credit period.
- (4) Delivery is handled by a contracted third party and the delivery fee is 15% of the sales value of the month. The payment is paid with a 30 days credit period after the delivery.
- (5) Monthly staff salaries of Rs.180,000/- are paid at the end of each month.
- (6) The monthly administration expenses are Rs.30,000/- per month of which 80% is on 30 days credit.
- (7) The opening cash balance as at 01st July 2023 is expected to be Rs.200,000/-. Excess cash will be held in a savings account at an interest of 6% 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 July, August and September 2023. (10 marks)

Question 06

Polar Ltd. manufactures 3 different products using imported raw materials. Only the labour and the packaging are done locally. Given the current import restrictions, the company is experiencing difficulties in sourcing raw materials.

The below information is extracted from the standard cost cards of the products:

	Rs. (per unit)		
	Product W	Product X	Product Y
Selling Price	3,900	5,400	6,500
Raw Material A (at Rs.16,000/- per kg)	1,600	3,200	4,000
Raw Material B (at Rs.5,000/- per kg)	1,250	1,000	750
Processing Labour (at Rs.800/- per hour)	200	200	320
Packing Labour (at Rs.400/- per hour)	40	40	40
Variable Production Overheads	100	120	150
Budgeted Sales units per month	45,000	40,000	15,000

The raw material availability has been assessed as 12,500 kg of **Raw Material A** and 24,000 kg of **Raw Material B** for the September 2023.

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 07

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

- (1) The company has 15 million ordinary voting shares in issue, which were initially issued at Rs.30/- per share. The shares are currently trading at Rs.35.20 per share and the company paid a dividend of Rs.8/- per share for the last financial year. The dividends are expected to grow by 10% per annum.
- (2) The company has 40 million listed irredeemable preference shares in issue, initially issued at Rs.14/- per share, currently trading at Rs.10/- per share. Annual dividend per share is Rs.2.10.
- (3) The company has 5 million listed 6 year redeemable debentures, issued at Rs.100/- per debenture, which has a coupon rate of 18% per annum. The debentures are currently trading at Rs.80/- per debenture.

Assume the income tax rate as 30%.

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 value. (03 marks)
- (Total 10 marks)

End of Section B

SECTION C

(Total 50 marks)

Question 08

Oval Ltd. manufactures and sells **Product P**. The following information has been extracted from the standard cost card for **Product P**:

	Per Unit (Rs.)
Direct Material (2 kg at Rs.500/- per kg)	1,000
Direct Labour:	
Production Labour (0.5 hours at Rs.800/- per hour)	400
Support Labour (1.5 hours at Rs.500/- per hour)	750
Variable Overheads (at Rs.200/- per hour)	400
Total Variable Cost	2,550
Selling Price	3,400
Contribution per Unit	850

Budgeted Sales / Production per Month (Units)	25,000
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The company is currently in the process of analyzing the performance for June 2023 and actual production / sales quantity for the month was 26,000 units. The actual performance is as given below:

	(Rs.)
Sales Revenue (26,000 units)	87,880,000
Direct Material (53,300 kg)	26,010,400
Direct Labour Cost:	
Production Labour (12,480 hours)	10,296,000
Support Labour (41,600 hours)	24,128,000
Variable Overheads	10,275,200
Fixed Overheads	2,156,000

You are required to:

Calculate the following variances:

- (a) Direct Material Cost Variance. (02 marks)
 - (b) Direct Labour Rate Variance. (02 marks)
 - (c) Direct Labour Mix Variance. (03 marks)
 - (d) Direct Labour Yield / Productivity Variance. (03 marks)
- (Total 10 marks)

Question 09

Works Ltd., produces and sells **Product W** and is currently considering the replacement of **T12**, an existing machine which has a processing capacity of 10,000 units per month. The old machine can be disposed for a value of Rs.4 million immediately once a new machine is purchased. Two options have been identified with regard to the replacement as given below:

		Machine X99	Machine Y23
Cost	(Rs.)	25,000,000	40,000,000
Capacity Per Month	(units)	20,000	35,000
Variable Overhead Cost Per Unit	(Rs.)	40	38
Useful Life	(years)	4	5
Capital Allowance for Tax Purposes (Per Annum)		25%	25%

Product W is sold at Rs.500/- per unit while the direct material and direct labour cost is Rs.140/- per unit. The annual fixed costs are estimated to be Rs. 8 million excluding depreciation.

The demand for the **Product W** is estimated to be 100,000 units for year 1 and thereafter it is expected to increase by 12% per annum.

The company pays taxes at the rate of 30% per annum and it should be paid in the same year. The cost of capital is 20%.

You are required to:

- (a) **Calculate** the Net Present Values (NPV) of two (2) options separately. (12 marks)
 - (b) **Identify** the machine that **Works Ltd.** should purchase. (03 marks)
- (Total 15 marks)

Question 10

- (A) **Oxy Ltd.** manufactures **Product CO2** using several processes. 25,000 litres of materials were input into **Process 3** from **Process 2** costing Rs.20,350,000/- at the beginning of June 2023. In addition to this, direct labour worth Rs.8,547,000/- and variable production overheads of Rs.2,564,100/- were incurred to the **Process 3** during the month of June 2023.

At the beginning of June 2023, there were 3,460 litres of opening work-in-progress in stock with the following levels of completion:

Input from Process 2	:	100% completed, valued at Rs.2,800,120/-
Direct Labour	:	60% completed, valued at Rs.693,650/-
Variable Production Overheads	:	35% completed, valued at Rs.121,600/-

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

At the end of June 2023, there were 3,100 litres of closing work-in-progress, in stock which were 100%, 70% and 40% completed with regard to input materials from **Process 2**, direct labour and variable production overheads respectively. At the end of the month, 23,700 litres were transferred as Finished Goods.

The normal loss is 6% from the input material from **Process 2** and the scrap can be sold at Rs.210/- per litre.

You are required to:

Prepare the Statement of Equivalent Units & Cost and **Process 3** account. (14 marks)

- (B) (a) **Rite Ltd.**, is currently considering the launch of 2 products, **W₁** & **W₂**. The following fixed overheads are provided for the two products:
- (1) Market research was carried out at a cost of Rs. 1.3 million for **W₁** and Rs. 2 million for **W₂**.
 - (2) The marketing budget for the first year of launch is estimated to be Rs. 5 million for each product.
 - (3) The Sales Managers who will be hired if the products are launched are expected to be paid a salary of Rs. 5 million per annum for **W₁** and Rs. 6 million per annum for **W₂**.

- (4) Staff training if the products are launched is expected to cost Rs. 2.1 million and Rs. 2.4 million respectively for **W₁** and **W₂** in 1st year.
- (5) Machine rentals for **W₁** and **W₂** are expected to be Rs.15.05 million and Rs.18.65 million per annum respectively.
- (6) Other fixed overheads per annum for **W₁** and **W₂** are estimated to be Rs.4.5 million and Rs. 4.9 million respectively.

You are required to:

Identify the relevant fixed overhead costs of products **W₁** and **W₂** separately for 1st year.

(If any overhead is irrelevant, the reason to be stated clearly). (05 marks)

- (b) The standard cost cards of the 2 products of **Rite Ltd.** are estimated to be as follows:

	W₁ (Rs.)	W₂ (Rs.)
Selling Price	2,900	3,750
Direct Material	(900)	(1,336)
Direct Labour	(500)	(600)
Variable Overheads	(315)	(364)

The budgeted sales for **W₁** and **W₂** in the first year is expected to be in the ratio of 2 : 1 respectively.

You are required to:

Calculate the Break-even Sales Values (in Rs.) for **W₁** and **W₂** separately. (06 marks)

(Total 25 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.