ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

LEVEL III EXAMINATION - JULY 2022

(302) MANAGEMENT ACCOUNTING AND FINANCE

21-08-2022
Morning
[08.45 – 12.00]

No. of Pages : 08
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

The following information has been extracted from the financial statements of **Quest (Pvt) Ltd.,** as at 31st March 2022 and 31st March 2021:

	As at 31st March 2022 (Rs.)	**As at 31st March 2021 (Rs.)**
Inventory	2,525,000	2,175,000
Trade Receivables	4,525,000	2,850,000
Trade Payables	5,060,000	3,400,000

Total sales for the year ended 31st March 2022 was Rs.29,500,000/- and inventory resident period was calculated as 73 days. 50% of sales are on credit basis and all the purchases are made on credit.

You are required to:

Calculate the length of working capital cycle for the year ended 31st March 2022. (05 marks)

Question 02

Teddy Ltd., manufactures and sells Teddy bears as toys. The following information has been extracted from **Teddy Ltd.** for the month of July 2022:

	Per Unit (Rs.)
Direct Material	550
Direct Labour (0.5 hours at Rs.400/- per hour)	200
Variable Production Overheads	75

Actual / budgeted selling price per unit is Rs.1,400/- and the budgeted and actual units of production / sales for the month of July 2022 were as follows:

	Budgeted (Units)	**Actual (Units)**
Production	2,000	1,870
Sales	1,900	1,915
Opening Inventory	300	400
Closing Inventory	400	355

Budgeted and actual fixed overheads for the month of July were as follows:

Fixed Overheads	**Budgeted (Rs.)**	**Actual (Rs.)**
Production	215,000	265,000
Non-Production	425,000	468,000
	640,000	**733,000**

You are required to:

Prepare the Income Statement for the month ended 31st July 2022 using the Marginal Costing.

(05 marks)

Question 03

Rex Ltd. manufactures and sells school bags. The company has manufactured and sold only. 3,500 bags due to economic situation of the country for the year ended 31st March 2022 while budgeted production / sales for the year was 5,500 bags. The following information was extracted from the books of the company for the year ended 31st March 2022:

(Rs.'000)

	Actual (3,500 bags)	**Budgeted (5,500 bags)**
Sales	11,200	17,600
Direct Material	(4,192)	(6,152)
Direct Labour	(3,223)	(4,823)
Variable Production Overheads	(649)	(1,120)
Fixed Production Overheads	(448)	(525)
Fixed Administration Overheads	(648)	(648)
Profit	**2,040**	**4,332**

There were no inventories at the beginning of the year and at the end of the year.

You are required to:

Prepare the flexible budget (Operating Statement) for the year ended 31st March 2022.

(05 marks)

Question 04

Opta Ltd. is manufacturing and selling **Product Q**. It is manufactured using many different components, all of which are manufactured by **Opta Ltd.** At the moment, **Opta Ltd.** is considering purchasing **Component X** used for the production of **Product Q** at Rs.1,350/- per unit from an external manufacturer.

The following information is available relating to **Component X**:

(1) The standard cost card of a **Component X** is given below:

	Per Unit (Rs.)
Direct Material	650
Direct Labour (0.75 hours per unit)	420
Variable Production Overheads	245
Fixed Overheads	105

(2) The fixed overheads are absorbed based on the budgeted production quantity of 6,600 units.

(3) If the company decides to purchase from an external party 30% of the fixed overheads can be saved, and 50% of the direct labour can be laid off incurring a compensation of Rs.2,500,000/-. In addition, the dedicated machine used to produce **Component X** can be disposed for a price of Rs.2,300,000/-.

You are required to:

Assess whether the company should purchase **Component X** from an external party or not with supporting calculations. (05 marks)

End of Section A

SECTION B

(Total 30 marks)

Question 05

Tix Ltd., manufactures and sells 3 different products range (Small, Medium and Large). The following information is provided for the next quarter:

	Rs. (per unit)		
	Small	**Medium**	**Large**
Selling Price	800	1,100	1,500
Direct Material	300	450	650
Skilled Labour (at Rs.200/- per hour)	160	200	240
Unskilled Labour (at Rs.150/- per hour)	150	225	270
Budgeted Sales per quarter (in units)	500	300	160

For the next quarter, the labour availability has been estimated as follows:

Skilled labour	860 hours
Unskilled labour	1,300 hours

You are required to:

(a) **Identify** 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

New Ltd., manufactures **Product X** and sells through online and wholesale. The following information is extracted from the standard cost card per unit of **Product X**:

	Per Unit (Rs.)
Selling price	1,350
Raw Material **A** (800 g at Rs.600/- per kg)	480
Raw Material **B** (200 g at Rs.400/- per kg)	80
Labour Cost	150

The following information is available with regard to the operations:

(1) 70% of the total sales are made to wholesalers. Of the sales to wholesalers, 65% is on 30 days credit while the balance is on 60 days credit. The online sales are based on bank transfers prior to delivery where delivery is made within a day of the bank transfer.

(2) The sales and production for the months of August 2022 to January 2023 are budgeted as follows:

	Aug-22	**Sep-22**	**Oct-22**	**Nov-22**	**Dec-22**	**Jan-23**
Sales (Units)	2,700	2,700	2,700	3,000	3,750	3,600
Production (Units)	3,000	3,000	3,000	3,000	3,450	3,300

(3) Raw Material **A** is bought from a supplier on 60 days credit terms and Raw Material **B** is bought on a monthly basis at the start of each month on cash terms.

(4) Labour cost is paid at the end of each month.

(5) The other administration expenses per month is Rs.180,000/- and 40% of expenses are paid in the following month in which it was incurred and the balance is paid within the incurring month itself.

(6) The opening cash balance as at 01st October 2022 will be Rs.140,000/-.

You are required to:

Prepare the cash budget for the months of October, November and December 2022. (10 marks)

Question 07

XY PLC is a company listed in the Colombo Stock Exchange and the following information is extracted from the financial statements of **XY PLC**:

(1) **XY PLC** has 20 million ordinary voting shares in issue which are issued at Rs.25/- per share. The shares are currently trading at Rs.36/- per share and the company paid a dividend of Rs.6/- per share for the last financial year. The dividends are expected to grow by 5% per annum.

(2) The company has issued 7 million debentures with a coupon rate of 10% per annum, at Rs.100/- per debenture. The current market price of a debenture is Rs.95/- and the redemption will happen in 5 years.

(3) The company is liable to pay income tax at the rate of 24%.

You are required to:

(a) **List** two(02) matters to be considered by **XY PLC** when choosing a long term funding source. (02 marks)

(b) **Calculate** the following:

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

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

(iii) 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

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

	Per Unit (Rs.)
Direct Material	
Material T1 (0.25 litres at Rs.800/- per litre)	200
Material T2 (4.75 Litres at Rs.160/- per litre)	760
Direct Labour (30 minutes at Rs.600/- per hour)	300
Variable Overheads (at Rs.200/- per hour)	100
Total Variable Cost	**1,360**
Selling Price	2,500
Contribution per Unit	**1,140**

Budgeted Sales / Production per month is 4,500 units and actual Sales / Production for the month of June 2022 was 4,220 units. Actual information for the month of June 2022 is as follows:

	(Rs.)
Sales Revenue (4,220 Units)	10,866,500
Direct Material:	
Material T1 (1,180 litres)	920,400
Material T2 (24,200 litres)	5,324,000
Direct Labour Cost (at Rs.630/- per hour)	1,297,800
Variable Overheads	504,700

The variances that have been calculated by the management for June 2022 are as follows:

Direct Labour Efficiency Variance	30,000	Favourable
Direct Labour Rate Variance	61,800	Adverse
Variable Overhead Expenditure Variance	92,700	Adverse
Variable Overhead Efficiency Variance	10,000	Favourable
Sales Margin Volume Variance	319,200	Adverse
Sales Price Variance	316,500	Favourable

You are required to:

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

(i) Direct Material Price Variance. (02 marks)

(ii) Direct Material Mix Variance. (04 marks)

(iii) Direct Material Yield Variance. (04 marks)

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

(Total 15 marks)

Question 09

Fitness Ltd., operates a chain of gyms. The company is currently evaluating the viability of opening up a new gym in a suburb using a rented space. The space will be rented for a period of 5 years, with the first year rental of Rs.2,400,000/- with an annual increase of 5%.

The equipment as the initial investment is expected to cost Rs. 50 million, with a life time of 3 years. At the end of the useful life this equipment would have to be replaced immediately with a new equipment at a cost which is expected to be 20% higher than the initial office equipment cost. The new equipment is expected to have a life time of 2 years and a scrap value of Rs. 25 million at the end of the 5th year of project planning horizon will be expected.

Capital allowances can be claimed at the rate of 20% per annum on all equipment, while depreciation is charged on the straight-line basis at cost over the useful life time of the assets.

The annual administration expenses excluding the depreciation are expected to be Rs.4,000,000/- and the annual staff cost is expected to be Rs.3,600,000/- over the 5 years. The initial setting up cost of Rs. 2 million is to be paid at the start-up of the project.

The revenue is expected to be as follows over the 5 years:

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue (Rs.)	30,000,000	40,000,000	45,000,000	46,000,000	37,000,000

The company pays income taxes at the rate of 24% per annum and it should be paid in the same year. The cost of capital of the company is 15% per annum.

You are required to:

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

(b) **Assess** the viability of the above project based on NPV. (02 marks)

(Total 15 marks)

Question 10

(A) **Y Ltd.** manufactures **Product OP2** through several processes.

The following information is relating to a process for the month of April 2022:

Direct Material (10,000 kg)	Rs.3,600,000/-
Direct Labour	Rs.1,944,000/-
Variable Overhead	Rs.648,000/-
Output	8,600 kg
Normal Loss	5% of direct material and it can be sold at Rs.100/- per kg.

At the beginning of the month there were 500 kilograms of opening work-in-progress in stock with the following levels of completion and opening work in progress is treated on an Average Cost basis:

Raw Material	:	100% completed, valued at Rs.175,000/-
Direct Labour	:	20% completed, valued at Rs.17,400/-
Variable Overheads	:	15% completed, valued at Rs.7,330/-

At the end of the month there were 1,100 kilograms of closing work in progress in stock which were 100%, 40% and 30% completed with regard to raw materials, labour and variable overheads respectively.

You are required to:

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

(B) **Six Ltd.,** manufactures **Products PQ** and **QR**, for which the following information is available:

Per Unit	**PQ (Rs.)**	**QR (Rs.)**
Selling Price	1,400	600
Direct Material	530	320
Direct Labour	180	85
Variable Production Overheads	120	25

The budgeted production / sales units for the month of September 2022 is 18,000 and 36,000 units of **Products PQ** and **QR** respectively. The budgeted fixed overhead amounts to Rs.8,610,000/- for the month of September 2022.

You are required to:

(a) **Calculate** the Combined Profit Volume (PV) Ratio. (04 marks)

(b) **Calculate** the Break Even Sales value of **Six Ltd.** (02 marks)

(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.