ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

LEVEL III EXAMINATION - JULY 2021

(302) MANAGEMENT ACCOUNTING AND FINANCE

24-10-2021
Morning
[08.45 – 12.00]

No. of Pages : 09
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

Ranga Ltd. has faced working capital difficulties due to COVID-19 pandemic. The following information has been extracted from the financial statements of **Ranga Ltd.** for the years ended / as at 31st March 2021 and 31st March 2020:

	2020/21 (Rs.)	2019/20 (Rs.)
Sales	11,600,000	15,200,000
Inventory	1,965,000	1,515,000
Trade Receivables	3,505,000	2,295,000

The gross profit margin for the year 2020/21 was 25% and the trade payables settlement period for the year 2020/21 has been calculated as 78 days.

All sales are made on credit basis and number of days per year is 365.

You are required to:

Calculate the length of the Working Capital Cycle of **Ranga Ltd.** for the year 2020/21.

(05 marks)

Question 02

Unique Ltd. manufactures and sells various products. It recently introduced the Balanced Score Card as a performance measurement tool.

The following information is provided for the months of June and July 2021:

	June 2021	July 2021
Revenue (Rs.)	4,500,000	5,760,000
Gross Profit (Rs.)	1,800,000	2,419,200
Sales (in units)		
Product 1	6,000	5,800
Product 2 (New)	800	1,900
Production (in units)		
Product 1	6,250	6,400
Product 2 (New)	1,300	2,200
Number of Customers	5,200	5,798
Number of complaints received from customers	25	20

You are required to:

(a) **Identify** two(02) examples of performance measurements for financial perspective of the Balanced Score Card and one(01) example of performance measurement for customer perspective of the Balanced Score Card based on the above information *(calculations are not required)* . (03 marks)

(b) **State** two(02) disadvantages of the Balanced Score Card. (02 marks)

(Total 05 marks)

Question 03

Candles Ltd. manufactures and sells a special candle and the following information has been extracted for the year ended 31st March 2021:

Selling price per unit	Rs.800/-
Direct material per unit	Rs.120/-
Direct labour per unit	Rs.150/-
Variable production overhead per unit	Rs.30/-
Inventory as at 01st April 2020	2,900 units
Actual production for the year	15,500 units
Actual sales for the year	16,800 units
Budgeted production for the year	16,500 units

Fixed overheads are as follows:

	Budgeted (Rs.)	Actual (Rs.)
Production Overhead	2,310,000	2,240,000
Administration and Distribution Overheads	600,000	600,000

You are required to:

Prepare the Income Statement for the year ended 31st March 2021 using the marginal costing method. (05 marks)

Question 04

Beta Ltd. manufactures and sells motors which are used in various electrical equipment. These motors consist of various parts of which some are internally manufactured and some are bought from suppliers. **Beta Ltd.** is assessing the viability of outsourcing the production of **Part N** and the following information is provided with regards to **Part N**:

(1) The cost per unit of outsourcing would be Rs.2,500/-.

(2) The company currently incurs the following costs to manufacture it internally.

	Cost per Unit (Rs.)
Direct Material	1,430
Direct Labour	610
Variable Overheads	320
Fixed Production Overheads	430
	2,790

(3) The above mentioned fixed production overheads are absorbed based on the annual budgeted units of 100,000.

(4) If production is outsourced, 65% of the fixed production overheads can be avoided and some labour can also be laid off. A compensation payment of Rs. 36 million for labour laid off is required to be paid.

You are required to:

Assess whether the company should outsource **Part N.**
(Support your answer with calculations.) (05 marks)

End of Section A

SECTION B

(Total 30 marks)

Question 05

Craft Ltd. manufactures and sells pottery crafts to tourists.

The following information is provided for the month of December 2021 for the two sizes manufactured:

	Rs. (per unit)	
	Small size	**Large size**
Direct Raw Material:		
Raw Material **AB** (Rs. 150 per kg)	225	450
Raw Material **CD** (Rs. 800 per kg)	400	800
Skilled Labour (at Rs. 400 per hour)	600	1,000
Variable Production Overheads	300	400
Selling Price	2,800	4,500
Demand (in units)	1,500	600

The monthly fixed overhead is Rs.650,000/-.

For the month of December 2021, the resource availability of the company has been estimated as follows:

Raw Material **AB**	4,200 kg
Raw Material **CD**	1,100 kg
Skilled Labour	4,400 hours

You are required to:

(a) **Identify** the limiting factor(s). (04 marks)

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

(Total 10 marks)

Question 06

Ultra Ltd., manufactures and sells products for hotels and restaurants. The following information has been provided with reference to **Ultra Ltd.** :

(1) The sales budget from November 2021 to March 2022 is as follows: *(Rs.)*

	November 2021	**December 2021**	**January 2022**	**February 2022**	**March 2022**
Sales	3,000,000	3,200,000	2,500,000	2,200,000	2,100,000

(2) 20% of the sales are on cash basis. If sales are made on cash basis, a 10% discount is offered. Balance 80% is on credit and it will be received in the following month.

(3) The company purchases its raw materials in bulk for credit and two months credit period is granted by the suppliers. Raw material cost is 75% of the monthly cost of sales. The balance cost of 25% is settled in the month in which it is incurred. The gross profit margin is 60% and the company does not maintain any stocks at the end of each month.

(4) Staff salaries are paid on the last day of each month and staff salaries per month is Rs.1,500,000/-.

(5) Other administration expenses are estimated as Rs.400,000/- per month and are paid in the following month in which it was incurred.

(6) The company expects to maintain a minimum cash balance of Rs.1,000,000/- at the end of each month. If there is a shortfall, it will be covered by a short term loan at the last day of each month. Interest rate on short term loan is 12% per annum. Interest on the loan will be paid in monthly basis and repayment of capital will be made from April 2022.

(7) The opening cash balance as at 01st January 2022 will be Rs.1,124,000/-.

You are required to:

Prepare the cash budget for the months of January, February and March 2022. (10 marks)

Question 07

The following information relates to **A PLC**, a company listed in the Colombo Stock Exchange:

(1) **A PLC** has 150 million ordinary voting shares in issue which are currently trading at a market price of Rs.18/- per share. The company pays a dividend of Rs.2.70 per share.

(2) The company also has 35 million irredeemable preference shares in issue which were issued at Rs.10/- per share. The current market price is Rs.12.50 per preference share and annual dividend per preference share is Rs.1/-.

(3) The company has issued 5 million redeemable debentures at Rs.100/- per debenture with a coupon rate of 11% per annum. The current market price of a debenture is Rs.95/- and the debentures are redeemable in 5 years.

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

New Ltd., manufactures and sells **Product M**. The financial performance of the company for the year ended 31st March 2021 is given below:

Actual Information for the year ended 31st March 2021	**Rs.**
Sales	10,055,250
Direct Material:	
Material X (4,250 kg)	2,796,500
Material Y (17,985 kg)	3,920,730
Direct labour	1,240,250
Variable Overheads	235,950
Fixed Overheads	1,423,250

Actual production / sales for the year was 8,175 units.

The following information has been extracted from the standard cost card of **Product M**:

	Per Unit (Rs.)
Direct Material:	
Material X (0.5kg at Rs.600/- per kg)	300
Material Y (2kg at Rs.240/- per kg)	480
Direct Labour (20 minutes at Rs.450/- per hour)	150
Variable Overheads (at Rs.75/- per hour)	25
Total Variable Cost	**955**
Selling Price	1,250
Contribution	**295**

The annual budgeted sales are 8,250 units and the annual budgeted fixed overhead is Rs.2,950,000/-:

The management accountant has calculated the below variances for the above year:

Variance	Value (Rs.)	Status
Direct Labour Efficiency Variance	135,000	Adverse
Direct Labour Rate Variance	121,000	Favourable
Variable Overhead Expenditure Variance	9,075	Adverse
Variable Overhead Efficiency Variance	22,500	Adverse
Sales Margin Volume Variance	22,125	Adverse
Sales Price Variance	163,500	Adverse

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

Max Ltd. is evaluating purchase of a new type of packaging machinery for a cost of Rs.55 million.

The following sales and gross profit margins are expected during the life time of the machinery:

Year	Sales (Rs.)	GP Margin
1	88,000,000	25%
2	80,000,000	28%
3	66,000,000	32%
4	55,000,000	35%
5	36,000,000	36%

If the machinery is purchased, the company should enter into a maintenance contract covering the life time of the machinery at the rate of 6% of the value of the machinery for the entire life duration of the machinery. This amount should be paid at the time of purchasing the machinery and will be amortized for accounting purpose over the life time of the machinery.

The annual fixed administration overhead including the above mentioned annual amortized maintenance cost and accounting depreciation of the machinery is estimated to be Rs.15,600,000/- per annum. The machinery will be depreciated on the straight-line basis over the useful life of 5 years, while the capital allowances can be claimed at 25% per annum.

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

Max Ltd.'s cost of capital is 14% per annum.

You are required to:

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

(b) **Assess** the viability of the above investment, based on the above computed NPV. (02 marks)

(Total 15 marks)

Question 10

(A) **Giga Ltd.,** manufactures and sells **Product H** through several consecutive processes.

The following information has been extracted for the month of June 2021 with regard to **Process II:**

Input transferred from **Process I** (6,500 kg)	Rs.2,271,100/-
Direct labour	Rs.944,840/-
Variable overheads	Rs.416,520/-
Output	5,440 kg
Normal loss	5% of input transferred from **Process I** and it can be sold at Rs.110/- per kg.

At the end of the month, there were 780 kg of closing work-in-progress with the following levels of completion:

Input transferred from **Process I**	:	100%
Direct Labour	:	75%
Variable Overheads	:	50%

You are required to:

Prepare the Statement of Equivalent Units & Cost and **Process II** account. (13 marks)

(B) **AB Company** manufactures **Product A** and **Product B**.

The following information is extracted from the standard cost card for the two products:

	Product A (Rs. Per Unit)	**Product B (Rs. Per Unit)**
Selling Price	200	300
Direct Material	70	60
Direct Labour	30	65
Variable Production Overheads	20	55
Fixed Production Overheads	20	25

For the month of December 2021, the company's budgeted production / sale is 300,000 units of **Product A** and 150,000 units of **Product B**. The company also has budgeted fixed non-production overheads of Rs.425,000/- for the month of December 2021.

You are required to:

(a) **Calculate** the Break Even Sales in value. (03 marks)

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