

ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

LEVEL III EXAMINATION - JANUARY 2021

(302) MANAGEMENT ACCOUNTING AND FINANCE

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

21-03-2021

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

- (a) Management Accounting involves the preparation of financial reports and information for use mainly by the internal users of an organization for the purpose of management decision making.

You are required to:

Identify two(02) differences between “Management Accounting” and “Financial Accounting”.

(02 marks)

- (b) **CX Ltd.**, manufactures and sells **Product CX1**. The following information is provided for the month of April 2021 for **CX1**:

	Rs.
Selling Price Per Unit	130
Variable Cost Per Unit	98
Monthly Fixed Overhead	94,720

Budgeted Sales quantity per month is 3,800 units.

You are required to:

Calculate the following:

- (i) Break-Even Point (BEP) in units.

- (ii) Expected profit for the month at the budgeted sales quantity.

(03 marks)

(Total 05 marks)

Question 02

MKT Ltd. operates a chain of small supermarkets and the following information has been extracted from the financial statements for the year ended 31st March 2020 and 31st March 2019:

	2019/20 (Rs.)	2018/19 (Rs.)
Sales	6,022,500	5,746,000
Inventory	944,800	925,200
Trade Payables	891,700	813,300

Trade Receivables collection period and gross profit ratio for the year 2019/20 were 53 days and 20% respectively.

All sales are made on credit basis.

You are required to:

Calculate the length of the working capital cycle of **MKT Ltd.** for the year 2019/20. (05 marks)

Question 03

Panels Ltd., manufactures and sells panels for use in interior decoration. The company budgeted to manufacture and sell 11,000 units for the year ended 31st December 2020. Due to the COVID-19 pandemic, the company was unable to meet that sales target and achieved only 5,800 units.

The following information is extracted for the year ended 31st December 2020:

	Budgeted (Rs.)	Actual (Rs.)
Sales	7,150,000	4,200,000
Direct Materials	(3,256,000)	(2,368,000)
Direct Labour	(1,745,000)	(910,000)
Variable Production Overheads	(913,000)	(364,000)
Fixed Production Overheads	(268,000)	(168,000)
Fixed Distribution Expenses	(283,000)	(283,000)
Profit	685,000	107,000

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 December 2020.

(05 marks)

Question 04

Epic Ltd. received a special order of 48,000 units at Rs.400/- per unit from a customer for a new product, for which the following information has been provided:

- (1) A research has been carried out by a consultant about the new product at a cost of Rs.450,000/- before receiving this order.
- (2) The direct material cost per unit is Rs.210/- and the materials are to be sourced from the market since these raw materials are not used by the company at present.
- (3) If the processing is carried out by the existing staff, the labour cost per unit is Rs.180/-. However, there is also the possibility of outsourcing the processing to an external party at a cost of Rs.8,475,000/- for the processing of 48,000 units.
- (4) Other variable overheads of Rs.45/- per unit will be incurred if this order is undertaken.
- (5) If this order is accepted, the company will have to postpone an existing product's production which is expected to bring a financial benefit of Rs.1,250,000/- during the postponement period.

You are required to:

Assess whether the company should accept this order (*support your answer with calculations*).

(05 marks)

_____ *End of Section A* _____

SECTION B

(Total 30 marks)

Question 05

Foodz Ltd., prepares and sells lunch to office workers, with 8 different types of lunch to select from. The orders can either be placed on a monthly basis or on a daily basis. The daily orders which are equivalent to 20% of the monthly total sales are on cash basis. If orders are placed on a monthly basis the customers are eligible for a 10% discount and cash collection is made in the following month from those customers.

The raw materials are purchased on a monthly basis. The company makes an advance payment of 25% of the estimated raw material cost for a month at the end of the previous month in order to guarantee supply, and the balance payment is made in the month the purchase is made. The packing and delivery of lunch are handled by an external party with a credit period of 60 days.

The staff salaries are paid at the end of each month while an incentive payment equivalent to 15% of the salary is made in the following month.

Electricity, water and telephone bills are paid in the following month in which it was incurred. Rent for the kitchen building is Rs.50,000/- per month but is paid on a quarterly basis in the month immediately following the end of a quarter.

The operating budgets for the months of February, March, April, May, June and July 2021 are given below: (Rs.)

	February	March	April	May	June	July
Sales	1,800,000	1,900,000	1,200,000	1,800,000	2,000,000	2,100,000
Raw Materials	1,080,000	1,140,000	720,000	1,080,000	1,200,000	1,260,000
Packing & Delivery	252,000	266,000	168,000	252,000	280,000	294,000
Staff Salaries (Exclusive of Incentive)	144,000	144,000	144,000	144,000	144,000	144,000
Electricity, Water and Telephone	18,000	18,000	12,000	18,000	18,000	18,000

The cash balance of **Foodz Ltd.** as at 01st April 2021 is expected to be Rs.180,000/-.

You are required to:

Prepare the cash budget for the months of April, May and June 2021. (10 marks)

Question 06

Speed Ltd. manufactures and sells three components namely **SX1**, **SX2** and **SX3** that are used in the automobile industry.

The following information is provided for the month of April 2021 for the three components:

	Rs. (per unit)		
	SX1	SX2	SX3
Direct Material	2,800	3,400	3,100
Skilled Labour - Grade A (at Rs.550/- per hour)	1,100	1,375	1,650
Skilled Labour - Grade B (at Rs.420/- per hour)	1,680	1,260	1,470
Unskilled Labour (at Rs.180/- per hour)	1,080	990	720
Variable Overheads	2,000	2,000	1,880
Selling Price	12,400	14,000	12,900

Budgeted Sales Units per Month	1,000	1,500	800
--------------------------------	-------	-------	-----

For the month of April 2021, the Human Resources Department has estimated the maximum labour availability as follows:

Skilled labour - Grade A	8,300 hours
Skilled labour - Grade B	11,000 hours
Unskilled Labour	20,000 hours

You are required to:

(a) **Identify** the limiting factor/s. (05 marks)

(b) **Calculate** the optimal production mix based on the limited resource/s identified. (05 marks)

(Total 10 marks)

Question 07

LST PLC is a company listed in the Colombo Stock Exchange. The following information is provided for the company:

- (1) **LST PLC** has 40 million ordinary voting shares in issue which were issued at Rs.10/- per share at the inception of the company. For the last year, a dividend of Rs.1.20 per share was paid while the dividends are expected to grow at 8% per annum. The current market price of an ordinary voting share is Rs.18/-.
- (2) The company also has 6,000,000 irredeemable preference shares which were issued at Rs.10/- per share. Annual dividend for preference shares is Rs.1.50 per share and market price of a preference share is Rs.12/-.
- (3) The company issued 5,000,000 listed debentures at Rs.100/- per debenture, with a coupon rate of 12% per annum. The debentures are redeemable in 3 years and the current market price of a debenture is Rs.95/-.

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

DRL Ltd. manufactures and sells **Product T**. The following information has been extracted from the standard cost card of **Product T**:

	Per Unit (Rs.)
Direct Material (8 kg at Rs.65/- per kilogram)	520
Direct Labour:	
Skilled Labour (15 minutes at Rs.380/- per hour)	95
Unskilled Labour (1hr at Rs.200/- per hour)	200
Variable Overheads (1.25 hours at Rs.140/- per hour)	175
Total Variable Cost	990
Selling Price	1,400
Contribution	410

Budgeted sales / production for the quarter ended 31st December 2020 was 5,000 units.

The below actual information has been extracted from the income statement for the quarter ended 31st December 2020:

Actual Sales / Production		4,760 Units
Sales Revenue	(Rs.)	6,473,600
Direct Labour Cost:		
Skilled Labour (1,130 hours at Rs.390/- per hour)	(Rs.)	440,700
Unskilled Labour (4,950 hours at Rs.180/- per hour)	(Rs.)	891,000
Variable Overheads	(Rs.)	863,360

The following variances were computed for the above period:

Variance	Value
Direct Material Price Variance	Rs.361,760/- Adverse
Direct Material Usage Variance	Rs.123,760/- Favourable
Labour Rate Variance	Rs.87,700/- Favourable
Variable Overhead Expenditure Variance	Rs.12,160/- Adverse
Variable Overhead Efficiency Variance	Rs.18,200/- Adverse
Sales Margin Volume Variance	Rs.98,400/- Adverse
Sales Price Variance	Rs.190,400/- Adverse

You are required to:

- (a) **Calculate** the actual kilograms of direct materials used for the quarter. (02 marks)
- (b) **Calculate** the following variances:
- (i) Direct Labour Mix Variance. (04 marks)
- (ii) Direct Labour Yield (Productivity) Variance. (04 marks)
- (c) **Prepare** an operating statement to reconcile the budgeted contribution with actual contribution. (05 marks)
- (Total 15 marks)

Question 09

Care Ltd., a healthcare provider is currently assessing the viability of a new project, which involves purchase of a medical testing machine at a cost of Rs.120 million.

If the machine is bought, it is estimated that the cost per test will be Rs.540/- for direct material, Rs.320/- for direct labour and Rs.100/- for variable overheads. The company will expect to charge Rs.2,000/- per test from patients.

Over the next 5 years, the company expects the demand for the tests to be as given below:

Year	Number of Tests
1	50,000
2	50,000
3	54,000
4	56,000
5	38,000

The fixed overheads per annum is estimated to be Rs. 30 Million which included depreciation computed of the testing machine on the straight-line basis over the useful life of 5 years.

Care Ltd. pays income tax at the rate of 28% per annum and it should be paid in the same year. The company is eligible to claim capital allowances at the rate of 25% on the new machine.

Care Ltd.'s cost of capital is 15% per annum.

You are required to:

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

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

(Total 15 marks)

Question 10

- (A) **PRC Ltd.**, manufactures and sells **product X**, which is manufactured in a continuous production process where the products move from one process to the next until it is completed.

The following information has been provided for the month of December 2020 with regard to **Process I**:

Direct material (10,400 kg)	Rs.1,310,920
Direct labour	Rs.742,560
Variable overheads	Rs.283,960
Output transferred to Process II	7,620 kg
Normal loss	5% on direct material input and this can be sold at Rs.70/- per kg.

At the end of the month, there were 1,800 kg of closing work in progress with the following levels of completion:

Direct Material	:	100%
Direct Labour	:	80%
Variable Overhead	:	60%

You are required to:

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

- (B) **NEX Ltd.** is currently assessing introducing a new magazine to its customers. This is a subscription-based bi-annual magazine. It is estimated that the magazine will be launched by the company with a probability of 80%. If the magazine is launched, the demand will be either high, medium or low and if over 1 million copies are printed, the variable production costs will be Rs.195/- per copy whereas, for a lower quantity it will be Rs.240/- per copy. The selling price is Rs.400/- per copy.

Sales quantity and probability of each demand level are as follows:

Demand	Sales Quantity	Probability
High	1,200	0.3
Medium	800	0.4
Low	400	0.3

You are required to:

Draw a decision tree to evaluate the decision with supporting calculations. (07 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.