SRI LANKA

Association of Accounting Technicians of Sri Lanka

July 2020 Examination - Level III

Suggested Answers (302)

(302) MANAGEMENT ACCOUNTING AND FINANCE

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THE ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

Level III Examination - July 2020

(302) MANAGEMENT ACCOUNTING AND FINANCE

SUGGESTED ANSWERS

Four (04) compulsory questions
(Total 20 Marks)

SECTION - A

Suggested Answers to Question One:

a)

Chapter 01- Introduction to Management Accounting

- It helps with planning and policy formulation of the entity and provides suggestions on the future activities from the evaluations of current status by means of relevant costing analysis.
- It coordinates the financial and other functions of the entity and helps to maintain a good relationship between financial activities and other activities in an organization.
- It provides the information for the decision at the all levels of management to make decisions.
- Provide recommendations for the control of business operations.
- Summarize financial data and information which are necessary to make decisions on the future activities.
- Performance evaluation and controlling the activities of the entity.
- Support to identify the divisions or activities with issues and facilitate strategic decision making.

(02 Marks)

b)
i)

Chapter 1- Introduction to the Management Accounting, Relevant Cost and Decision Making under Risk and Uncertainty

Method 01

		Rs.
Selling price		62
Variable cost		
Material	24	
Labour	16	
Variable production OH	8	(48)
Contribution per unit		**14**

(Break Even Point)BEP = $\frac{\text{Fixed Cost}}{\text{Contribution per unit}}$

BEP = $\frac{185,360}{14}$

BEP = 13,240

ii)

Margin of Safety(MOS) = Actual sales - BEP Sales

MOS = 15,460 - 13,240

MOS = 2,220

Method 02

Margin of safety (in units) = $\frac{\textbf{Present/Expected Profit}}{\textbf{Contribution per unit}}$

= $\frac{31,080}{14}$

= **2,220**

Working

Expected Profit= Total Contribution-FC

= 14 (15,460)-185,360

= 216,440-185,360

= <u>31,080</u>

(03 Marks)

(Total 05 Marks)

Suggested Answers to Question Two:

(a)

Chapter 3 - Different Types of Budgets and Planning & Controlling Vs Budgeting

- **Planning**
  A budgeting process forces a business to look to the future. It makes managers to look at the year ahead and consider the changes in the conditions that might take place and how to respond to those changes. This is essential for survival since it stops management from relying on ad hoc or poorly coordinated planning.

- **Controlling**
  Controlling is the entire process of comparing budgets and actual results, identifying variances, analyzing the reasons for the variances, identifying the variances and the person responsible for that, suggesting the corrective controlling actions to be taken. Under controlling, actual results are compared against the budget and action is taken as appropriate.

- **Communication**
  A budget is a formal communication channel that allows junior and senior managers to converse.

  The budgeting process involves managers at every level of an organization. Therefore, it is important to have a medium of communication between upper, middle, and lower management. Upper management of an organization understands their objectives well and coordinates to achieve them through a budget. This communication should take place from the inception of the budget preparation until the targets are achieved.

- **Co-ordination**
  The budget allows co-ordination of all parts of the business towards a common corporate goal.
  The budgeting process emphasizes the management that they need to maintain close ties with other sectors and understand how to contribute to achieve the objectives of the organization. In other words, the budgeting process integrates activities of different sections of the organization and acts as a driving force to achieve objectives.

- **Evaluation**
  Responsibility accounting divides the organization into budget centers, each of which has a manager who is responsible for its performance. The budget may be used to evaluate the actions of a manager within the business in terms of the costs and revenues over which they have control.

- **Motivation**
  The budget may be used as a target for managers to aim for. Reward should be given for operating within or under budgeted levels of expenditure. This acts as a motivator for managers. Motivation can be identified as the only psychological factor present in the budgeting process. Obtaining the contribution of upper and lower management is a valuable approach in budget preparation and setting targets. There should be a definite communication method for an organization to be productively conducted.

- **Performance Appraisal**
  Budget can be known as the main and most appropriate tool of performance appraisal. Some organizations offer salary increments, job promotions by depending on the achievements of budgeted targets. It says that budgeting can be known as a method of making managers aware of the extent that they were able to achieve targets set by them. Using budgets over performance appraisal affects in their job behavior too.

(03 Marks)

(b)

~~***Chapter 7-Working Capital Management***~~

- Invest in short term deposits
- Invest in short term debt instruments
- Negotiate early payment to suppliers to obtain the discounts.

(02 Marks)
(Total 05 Marks)

Suggested Answers to Question Three:

Chapter 7-Working Capital Management

(a)

	Note	2019/20
Inventory residency period	**1**	73 Days
Trade receivable period	**2**	25 Days
		98 Days
(-) Trade payables period		(35) Days
Length of working capital cycle		**63 Days**

Note 01 - Inventory residency period

$$\text{Inventory residency period} = \frac{\text{Average Inventory}}{\text{Cost of sales}} \times 365 \text{ Days}$$

$$= \frac{(1{,}120+880)/2}{5{,}000} \times 365 \text{ Days}$$

$$= \frac{1{,}000}{5{,}000} \times 365 \text{ Days}$$

73 Days

Note 02 - Trade receivables period

$$\text{Trade receivables period} = \frac{\text{Average Debtors}}{\text{Sales}} \times 365 \text{ Days}$$

$$= \frac{(455.5+321.5)/2}{5{,}671.5} \times 365 \text{ Days}$$

$$= \frac{388.50}{5{,}671.50} \times 365 \text{ Days}$$

25 days

(03 Marks)

(b)

- Negotiating early settlement with discounts.
- Attempting to obtain satisfactory credit from suppliers.
- Attempting to extend the credit periods during the periods of cash shortages.
- Better management of inventory and debtors will decrease the requirement of credit purchases.
- Maintain good relationship with the regulators and important suppliers.

(02 Marks)
(Total 05 Marks)

Suggested Answers to Question Four:

a)

Chapter 6-Capital Investments Appraisal

Year	Cash Flows Rs.000	NCF Rs.000
0	(16,500)	(16,500)
1	3,580	(12,920)
2	4,900	(8,020)
3	5,395	(2,625)
4	5,745	-
5	6,250	-

Payback period = 3 Years + 2,625 / 5,745 * 12
3 Years and 5.5 months

(03 Marks)

b) It is recommended to accept the project since the investment can be recovered within 3 years and 5.5 months which is lower than the project period of 5 years.

(02 Marks)
(Total 05 Marks)

End of Section A

Suggested Answers to Question Five:

(a)

Chapter 3 - Different Types of Budgets and Planning & Controlling Vs Budgeting

	December-2020
Receipts	
Cash Sales and collection from debtors (**W1)**	836,000
Total receipts	**836,000**
Payments	
Supplier settlement (**W2)**	565,400
Distribution expenses (**W3)**	35,900
Administration cost (**W4)**	60,000
Income Tax	64,000
Loan repayment with interest	250,000
Dividends paid	400,000
Payment for new machinery	400,000
Total payments	**1,775,300**
Net cash flows	(939,300)
Balance as of 01/12/2020	1,474,000
Balance as of 31/12/2020	**534,700**

W1 - Cash sales and collection from debtors	**Oct-20**	**Nov-20**	**Dec-20**
Sales	700,000	800,000	900,000
Collections			
Same month 60%	420,000	480,000	540,000
Next month 30%		210,000	240,000
Following month 8%			56,000
	420,000	**690,000**	**836,000**
W2 - Payments to suppliers	**Oct-20**	**Nov-20**	**Dec-20**
Purchases	480,000	560,000	587,000
Payments			
Same month 20%	96,000	112,000	117,400
Following month 80%	-	384,000	448,000
	96,000	**496,000**	**565,400**

W3 - Distribution expenses	**Oct-20**	**Nov-20**	**Dec-20**
Distribution cost	32,000	35,000	41,000
Same month 15%	4,800	5,250	6,150
Following month 85%	-	27,200	29,750
	4,800	**32,450**	**35,900**
W4 - Administration Expenses	**Oct-20**	**Nov-20**	**Dec-20**
Administration cost	56,000	66,000	76,000
Depreciation	(16,000)	(16,000)	(16,000)
	40,000	**50,000**	**60,000**

Note: *Since bad debts have not been included in the expenses and it is not a cash outflow, it has not been taken to cash budget.*

(Total 10 Marks)

Suggested Answers to Question Six:

Chapter 1- Introduction to the Management Accounting, Relevant Cost and Decision Making under Risk and Uncertainty

		X		Y		Z
Selling Price		**1,100**		**1,500**		**1,850**
(-) Variable cost						
Material	*1*250*	250	*250*1.6*	400	*250*2.2*	550
Skilled labour	*0.5*400*	200	*1*400*	400	*0.8*400*	320
Unskilled labour	*1*280*	280	*1.25*280*	350	*1.5*280*	420
Variable OH	*1.5*120*	180	*120*2.25*	270	*120*2.3*	276
Total Variable Cost		**910**		**1,420**		**1,566**
Contribution		190		80		284
Skilled Labour Hours per unit		0.5		1		0.8
Contribution per Skilled Labour Hour		380		80		355
Ranking		**1**		**3**		**2**

Product	**Production plan**	**Skilled Labour Requirement (Hrs)**	**Total Requirement Hrs**
X	4,000	0.50	2,000
Z	2,500	0.80	2,000
Y	4,400	1.00	4,400
Available skilled labour hours			**8,400**

Optimal Production Mix

X=4,000

Y=4,400

Z=2,500

(Total 10 Marks)

Suggested Answers to Question Seven:

Chapter 5-Sources of Capital and Cost of Capital

a) Cost of Ordinary Shares:

$$K_e = \frac{d_0 (1+g)}{P_0} + g$$

$$K_e = \frac{1.2 (1+0.05)}{9} + 0.05 \quad x\ 100$$

$$\mathbf{K_e = \underline{\underline{19\%}}}$$

(02 Marks)

b) Cost of Irredeemable Preference Shares :

$$\mathbf{Kp = \frac{d_0}{P_0}}$$

$$Kp = \frac{1.2}{6.4} \quad x\ 100$$

$$\mathbf{Kp} = \mathbf{\underline{\underline{18.75\%}}}$$

(02 Marks)

c) Cost of Redeemable Debentures :

Kd = k (1-t)

Interest = 11.5 % X (1-.14)

Interest = **<u>9.89%</u>**

	Investor's point of view					
Year	**Description**	**Cash Flows**	**DF @ 10%**	**PV**	**DF @ 15%**	**PV**
0	Debentures	(95)	1.00	(95.00)	1.00	(95)
1-6	Interest	9.89	4.36	43.07	3.78	37.43
6	Redemption	100	0.56	56.45	0.43	43.23
			NPV	**4.52**		**(14.34)**

$$\textbf{IRR} = A + \frac{NPVa}{NPVa - NPVb} \times (B-A)$$

$$= 10\% + \frac{4.52}{4.52 - (14.34)} \times (15\%-10\%)$$

$$= 0.10 + 0.2397 \times 0.05$$

$$= \underline{11.1\%}$$

(03 Marks)

d)

Weighted average cost of capital using market values

Rs.Mn					
	No of shares	**Market Value Rs.000**	**Weightage %**	**COC %**	**WACC**
Ordinary shares	40,000	360,000	54.7%	19%	10.39
Preference shares	5,000	32,000	4.9%	18.75%	0.92
Debentures	2,800	266,000	40.4%	11.1%	4.48
		658,000			**15.79**

WACC =<u>15.79%</u>

(03 Marks)
(Total 10 Marks)

End of Section B

Suggested Answers to Question Eight:

Chapter 4-Standard Costing and Variance Analysis

(a) Direct Material Price Variance

Direct Material Price Variance		(Standard Price	-	Actual.) Price	x	Actual Material Usage		Variance	
A	=	(80	-	78)	x	23,400	=	46,800	**Favourable**
		1,825,200/23,400							
B	=	(120	-	130)	x	51,500	=	515,000	**Adverse**
		6,695,000/51,500						**468,200**	**Adverse**

(03 Marks)

(b) Direct Material Mix Variance

Direct Material Mix Variance=	Standard Price of Direct Material X	Total Actual Material Usage	X	Standard Mix	-	Total Actual Material Usage	X	Actual Mix		
Material A	80	{[74,900	X	(1/3.5)	-	[74,900	X	(23,400)/74,900)]}	160,000	Adverse
Material B	120	{[74,900	X	(2.5/3.5)	-	(74,900	X	(51,500)/74,900)]}	240,000	Favourable
Total		**=160,000A**	**-**	**240,000F**					**80,000**	**Favourable**

(04 Marks)

(c) Direct Material Yield Variance

Direct Material Yield Variance=	Standard Price of Direct Material X	[[Total Standard Material Usage	X	Standard Mix	]-	[Total Actual Material Usage	X	Standard Mix	]	
Material A	80	{[78,190	X	(1/3.5)	-	(74,900	X	((1)/3.5)]}	75,200	Favourable
Material B	120	{[78,190	X	(2.5/3.5)	-	(74,900	X	((2.5)/3.5)]}	282,000	Favourable
Total		**=282,000F**	**-**	**75,200F**					**357,200**	**Favourable**

(04 Marks)

(d) Direct Labour Rate Variance

Direct Labour Rate variance **=** **Actual Labour Hours** **(Standard Rate** **x** **Actual Rate)**

= 43,500 (180-196)

= <u>**696,000 Adverse**</u>

(02 Marks)

(e) Direct Labour Efficiency Variance

Direct Labour Efficiency variance **=** **Standard Rate** **(Standard Hours** **x** **Actual Hours)**

= 180 (44,680-43,500)

= <u>**212,400 Favourable**</u>

(02 Marks)
(Total 15 Marks)

Suggested Answers to Question Nine:
(a)

Chapter 6-Capital Investments Appraisal

(Rs.'000)

	Investment	Working Capital	Contribution	Fixed cost	Income Tax	Cash flows	COC @ 12%	Present Value
Y0	(23,000)	(9,000)				(32,000)	1.000	**(32,000)**
Y1	-	-	8,400	(1,400)	(175)	6,825	0.893	**6,095**
Y2	-	-	8,300	(1,400)	(161)	6,739	0.797	**5,378**
Y3	-	-	10,200	(1,400)	(427)	8,373	0.712	**5,962**
Y4	-	-	12,000	(1,400)	(679)	9,921	0.636	**6,309**
Y5	-	9,000	12,500	(1,400)	(1,554)	18,546	0.567	**10,516**
							NPV	**2,260**

NPV=2,260 Mn

Workingss

(Rs.'000)

Tax

W1 - Income tax	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**
Cash flows	7,000	6,900	8,800	10,600	11,100
Capital allowance	(5,750)	(5,750)	(5,750)	(5,750)	-
Taxable profit	1,250	1,150	3,050	4,850	11,100
Income tax @ 14%	0.18	0.16	0.43	0.68	1.55
Tax Payment	**175**	**161**	**427**	**679**	**1,554**

(8 Marks)

(b) It is recommended to launch the new product since it generates a positive NPV .

(2 Marks)

(Total 10 Marks)

Suggested Answers to Question Ten:
(a)

Chapter 2- Process Costing and Digital Costing

Process I Account

Description	Units	Rs.Value	Description	Units	Rs.Value
Direct Material	2,800	224,000	Output to FG	2,500	387,500
Direct Labour	-	118,350	Normal loss	140	3,220
Overhead	-	70,200	Abnormal loss	10	1,550
			WIP B/F	150	20,280
	2,800	**412,550**		**2,800**	**412,550**
WIP C/F	150	20,280			

W1- Statement of Equivalent Units							
		Direct Material		Direct Labour		Overhead	
	Total Qty Kgs	**Degree of Completion**	**Equivalent Units**	**Degree of Completion**	**Equivalent Units**	**Degree of Completion**	**Equivalent Units**
Opening stock	-						
Output	2,500	100%	2,500	100%	2,500	100%	2,500
Normal loss 5% of input	140		-		-		
Abnormal loss	10	100%	10	100%	10	100%	10
Closing WIP	150	100%	150	80%	120	60%	90
Total input	2,800		2,660		2,630		2,600

W2- Computation of unit cost	D. Material	D. Labour	Overhead	Total
Cost of Input	224,000	118,350	70,200	412,550
Sale of NL as scrap units @23/-	(3,220)	-	-	(3,220)
Net cost of input	220,780	118,350	70,200	409,330
Expected Equivalent Units	2,660	2,630	2,600	
Cost of unit produced	83	45	27	155

W3 - Statement of evaluation	Direct Material			Direct Labour			Overhead			Grand Total
	Equivalent Units	Unit Cost	Total	Equivalent Units	Unit Cost	Total	Equivalent Units	Unit Cost	Total	
Output	2,500	83	207,500	2,500	45	112,500	2,500	27	67,500	387,500
Abnormal loss	10	83	830	10	45	450	10	27	270	1,550
Closing WIP	150	83	12,450	120	45	5,400	90	27	2,430	20,280
			220,780			**118,350**			**70,200**	**409,330**

(15 Marks)

(b)

Low Budget:

High	0.2X100,000X50	=	1,000,000
Medium	0.4X70,000X250	=	7,000,000
Low	0.4X40,000X350	=	5,600,000
	Contribution	=	13,600,000
	Cost	=	(5,800,000)
	Profit	=	**7,800,000**

High Budget:

High	0.5X130,000X100	=	6,500,000
Medium	0.3X120,000X330	=	11,880,000
Low	0.2X75,000X390	=	5,850,000
		=	24,230,000
		=	(14,500,000)
		=	**9,730,000**

Feather Ltd. Should go ahead with high budget since it generates more expected profit.

(10 Marks)
(Total 25 marks)

End of Section C

Notice:

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