



Association of Accounting Technicians of Sri Lanka

Level III Examination - January 2024

Suggested Answers

(302) MANAGEMENT ACCOUNTING AND FINANCE (MAF)

Association of Accounting Technicians of Sri Lanka

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THE ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA
Level III Examination - January 2024
(302) MANAGEMENT ACCOUNTING AND FINANCE
SUGGESTED ANSWERS

Four (04) compulsory questions
 (20 Marks)

SECTION - A

Suggested Answers to Question One:

Chapter 01 - Introduction to the Management Accounting, Relevant Cost and Decision Making under risk and uncertainty

(a)

- $$\text{BEP} = \frac{\text{Fixed cost}}{\text{Contribution per unit}}$$
- $$\text{BEP} = \frac{16,320,000}{700 - (240+140+80)}$$
- $$\text{BEP} = \underline{\underline{68,000}}$$

- $$\text{Margin of Safety} = 75,000 - 68,000$$

$$= \underline{\underline{7,000 \text{ units}}}$$

(03 marks)

(b)

Target contribution	75,000units*Rs.240	18,000,000
(-) Specific fixed cost		(16,320,000)
Target profit		<u><u>1,680,000</u></u>

(02 marks)

(Total 05 marks)

Suggested Answers to Question Two:

Chapter 07 - Working Capital Management

(a)

	2022/23	2021/22
Inventory residence period	86	74
Trade receivables residence period	110	80
(-) Trade payables residence period	(125)	(100)
Length of the working capital cycle	71	54

Workings:

	2023	2022
Trade payable residence period =	365/2.92	365/3.65
	<u>125 Days</u>	<u>100 Days</u>

(03 marks)

(b)

- Forecasting the cash flows and identifying the surplus and deficit in advance.
- Inventory management via inventory levels and implement EOQ.
- Debtors management with satisfactory credit policy (Eg: Offer discounts to debtors for early settlement)
- Offer discounts to debtors for early settlement.

(02 marks)

(Total 05 marks)

Suggested Answers to Question Three:

Chapter 03 - Different Types of Budgets and Planning & Controlling Vs Budgeting

Sales Budget		<u>X</u>		<u>Y</u>
Market share 2023		10%		24%
Sales in 2023 (Units)		280,000		375,000
Total market in 2024 (Units)	280,000/0.1	2,800,000	375,000/.24	1,562,500
Budgeted Units 2024	280,000/.10*.12	336,000	375,000/.24*.25	390,625
Budgeted Price 2024	300*1.04	312	240*1.15	276
Budgeted sales 2024 (Rs.)		<u><u>104,832,000</u></u>		<u><u>107,812,500</u></u>

(05 marks)

Suggested Answers to Question Four:

Chapter 01- Introduction to the Management Accounting, Relevant Cost and Decision Making under risk and uncertainty

			Rs.
Sales			900,000
(-) Relevant cost			
Material cost - X	1000*Rs.470	470,000	
- Y	500*Rs.500	250,000	
Labour	150Hrs*Rs.600*1.5	135,000	
Other variable cost	150Hrs*Rs.800	120,000	(975,000)
Incremental profit / (loss)			(75,000)

It is not recommended to accept the order as it generates incremental loss.

(05 marks)



End of Section A

Suggested Answers to Question Five:

Chapter 03 - Different Types of Budgets and Planning & Controlling Vs Budgeting

Cash Budget	Jan-24	Feb-24	Mar-24
Receipts			
Advance receipt -W1	35,712,000	52,800,000	29,760,000
Interest income @ 5%pa	-	89,717	252,640
Total receipt	35,712,000	52,889,717	30,012,640
Payments			
Food and beverage cost - W2	6,200,000	6,200,000	5,220,000
Variable expenses @ 4% of revenue	2,480,000	2,088,000	1,428,480
Salaries	3,000,000	3,000,000	3,000,000
Fixed expenses net of dep*n	2,500,000	2,500,000	2,500,000
Total payments	14,180,000	13,788,000	12,148,480
Net cash flows	21,532,000	39,101,717	17,864,160
Balance at beginning of the month	3,000,000	3,000,000	3,000,000
Savings A/C	(21,532,000)	(60,633,720)	(78,497,880)
Balance at the end of the month	3,000,000	3,000,000	3,000,000

W1 - Advance received

	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24
Room occupancy	100%	100%	90%	80%	100%	60%	60%
Room Rate per day	25,000	25,000	25,000	18,000	22,000	20,000	20,000
No. of days per month	31	31	29	31	30	31	30
Estimated revenue	62,000,000	62,000,000	52,200,000	35,712,000	52,800,000	29,760,000	28,800,000
Advance received	52,200,000	35,712,000	52,800,000	29,760,000	28,800,000	-	-

W2 - Food and beverage

	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24
10% from revenue	6,200,000	6,200,000	5,220,000	3,571,200	5,280,000	2,976,000	2,880,000
Payment in 1-month arrears		6,200,000	6,200,000	5,220,000	3,571,200	5,280,000	2,976,000

(10 marks)

Suggested Answers to Question Six:

Chapter 01 - Introduction to the Management Accounting, Relevant Cost and Decision Making under risk and uncertainty

(a)

Direct material X1

Product	Demand	D. Material X1	Total
Small	80,000.00	0.25 (1,500/6,000)	20,000
Medium	90,000.00	0.40 (2,400/6,000)	36,000
Large	45,000.00	0.60 (3,600/6000)	27,000
Total required material			83,000
Direct material availability			85,000
Excess			(2,000)

Direct material X2

Product	Demand	D. Material X2	Total
Small	80,000	2.00 3,000/1,500	160,000
Medium	90,000	3.00 4,500/1,500	270,000
Large	45,000	3.50 5,250/1,500	157,500
Total required material			587,500
Direct material Availability			(520,000)
Short			67,500

Direct labour

Product	Demand	Labour Hrs	Total
Small	80,000	2.00 1,500/750	160,000
Medium	90,000	2.20 1,650/750	198,000
Large	45,000	2.50 1,875/750	112,500
Total required Hrs			470,500
Labour availability Hrs			600,000
Excess			(129,500)

*Direct material X2 is short.

(05 marks)

(b)

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Selling Price	12,000	15,000	18,000
(-) Variable cost			
Material X1	1,500	2,400	3,600
Material X2	3,000	4,500	5,250
Labour	1,500	1,650	1,875
Variable OH	3,200	1,620	1,850
Total variable cost	(9,200)	(10,170)	(12,575)
Contribution	2,800	4,830	5,425
Material X2	2	3	3.50
Contribution- per material Kg	1,400	1,610	1,550
Ranking	3	1	2

Product	Production Plan	D. Material X2	Total
Medium	90,000	3	270,000
Large	45,000	3.50	157,500
Small	46,250	2	92,500
			520,000

(05 marks)

(Total 10 marks)

Suggested Answers to Question Seven:

Chapter 05 - Sources of Capital and Cost of Capital

(a)

(i)

$$K_e = \frac{D_0}{P_0} * 100$$

$$K_e = \frac{3.6}{16} * 100$$

$$K_e = \underline{\underline{22.50\%}}$$

(02 marks)

(ii)

Company's' point of view

Year	Cash Flows	DF @ 10%	PV	DF @ 15%	PV
0	109	1.000	109	1.000	109
1-4	(15.40)	3.170	(48.82)	2.855	(43.97)
	100*22%*70%				
4	(100)	0.683	(68.30)	0.572	(57.18)
		NPV	(8.12)		7.85

$$\text{IRR} = 10\% + \left(\frac{(15-10) \times 8.12}{(8.12) - 7.85} \right)$$

$$= 12.54\%$$

(03 marks)

(iii)

Source	Market Value Rs. Mn	COC %	COC Rs.
Ordinary shares	1,280	22.50%	288.00
Debentures	1,744	12.54%	218.71
	<u>3,024</u>		<u>506.71</u>
WACC =	<u>506.71</u>	X 100	=16.7562%
	3,024		

(03 marks)

(b)

- Investment appraisal.
- Capital structure maintenance.
- Finance risk management.
- For capital budgeting decisions.
- In determining dividend policy.
- Helpful in evaluation of financial efficiency of top management.
- Helpful in comparative analysis of various sources of finance.

(02 marks)
(Total 10 marks)



End of Section B

Suggested Answers to Question Eight:

Chapter 04 - Standard Costing & Variance Analysis

(a)

(i) Sales Price Variance = Actual Sales (Actual Price – Standard Price)
= 4,150 (14,066 – 14,000)
= **273,900 F**

(02 marks)

(ii) Direct Material Price Variance = Actual Material Used x (Standard price – Actual Price)

A1 = 6,790(1,500-1,480)
= **135,800 F**

A2 = 8,960(4,000-4,038)
= **340,480 A**

= 340,480 A – 135,800 F
= **204,680 A**

(02 marks)

(iii) Direct Material Mix Variance = Standard price of DM x [(Total actual material usage x standard mix) – (Total actual material usage x actual mix)]

A1 = $1,500 \left(15,750 \times \frac{1.5}{3.5} - 15,750 \times \frac{6,790}{15,750} \right)$
= 1,500(6750-6790)
= **60,000 A**

A2 = $4,000 \left(15,750 \times \frac{2}{3.5} - 15,750 \times \frac{8,960}{15,750} \right)$
= 4,000(9,000-8,960)
= **160,000 F**

= **100,000 F**

(03 marks)

(iv) Direct Material Yield Variance = Standard price of DM x [(Total standard material usage x Standard mix) – (Total actual material usage x standard mix)]

$$\begin{aligned} \text{A1} &= 1,500 \left(14,525 \times \frac{1.5}{3.5} - 6,750 \right) \\ &= 1,500(6,225-6,750) \\ &= \underline{\underline{787,500 A}} \end{aligned}$$

$$\begin{aligned} \text{A2} &= 4,000 \left(14,525 \times \frac{2}{3.5} - 9,000 \right) \\ &= 4,000(8,300-9,000) \\ &= \underline{\underline{2,800,000 A}} \\ &= 2,800,000 A + 787,500 A \\ &= \underline{\underline{3,587,500 A}} \end{aligned}$$

(03 marks)

(b)

Operating Statement - Marginal Costing

Budgeted Contribution	4,500*3,445	15,502,500
Sales contribution volume variance		(1,205,750)
Budgeted contribution of actual sales	4,150*3,445	14,296,750

Adjusting variances

	<u>A</u>	<u>F</u>	
Direct material price variance	204,680		
Direct material mix variance		100,000	
Direct material yield variance	3,587,500		
Direct labour rate variance		29,000	
Direct labour efficiency variance	110,250		
Variable OH expenditure variance	2,320		
Variable OH efficiency variance	39,200		
Sales contribution price variance		273,900	
	<u>3,943,950</u>	<u>402,900</u>	<u>(3,541,050)</u>
Actual contribution			<u>10,755,700</u>

(05 marks)
(Total 15 marks)

Suggested Answers to Question Nine:

Chapter 06 - Capital Investments Appraisal

(a)

Rs.000	Investment	Working capital	Contribution (w 1)	Sales & Distri.	Fixed cost-w3	Income tax W-2	Cash flows	COC @ 20%	Present Value
Y0	(80,000)	(8,000)	-	-	-		(88,000)	1.000	(88,000)
Y1	-		62,400	(10,000)	(29,000)	(1,020)	22,380	0.833	18,642
Y2	-		78,300	(8,640)	(29,000)	(6,198)	34,462	0.694	23,916
Y3	-		102,080	(11,264)	(29,000)	(12,545)	49,271	0.579	28,528
Y4	-		112,288	(12,390)	(29,000)	(15,269)	55,628	0.482	26,813
Y5	-	8,000	108,077	(11,926)	(29,000)	(20,145)	55,006	0.402	22,112
									NPV
									32,011

W1 - Contribution

	<u>Y1</u>	<u>Y2</u>	<u>Y3</u>	<u>Y4</u>	<u>Y5</u>
Demand	24,000	27,000	32,000	32,000	28,000
Price	3,600	4,000	4,400	4,840	5,324
Variable cost	(1,000)	(1,100)	(1,210)	(1,331)	(1,464)
Contribution per unit	2,600	2,900	3,190	3,509	3,860
Total contribution	62,400	78,300	102,080	112,288	108,077

W2 - Income tax

	<u>Y1</u>	<u>Y2</u>	<u>Y3</u>	<u>Y4</u>	<u>Y5</u>
Cash flows	23,400	40,660	61,816	70,898	67,151
Capital allowance 25%	(20,000)	(20,000)	(20,000)	(20,000)	-
Taxable profit	3,400	20,660	41,816	50,898	67,151
Income tax @ 30%	1,020	6,198	12,545	15,269	20,145
Tax saving / (Tax Payment)	(1,020)	(6,198)	(12,545)	(15,269)	(20,145)

W3 - Fixed cost

Estimated cost with Dep*n	45,000
Dep*n	(16,000)
Fixed cost	29,000

(13 marks)

(b) According to the above analysis, it is recommended to launch the new product using new machinery as it generates a positive NPV of Rs.32Mn.

(02 marks)
(Total 15 marks)

Suggested Answers to Question Ten:

(A)

Chapter 02 - Process Costing and Digital Costing

Statement of Equivalent Units							
	Total Qty Material	Direct Material		Direct labour		Overhead	
		DOC	Equivalent Units	DOC	Equivalent Units	DOC	Equivalent Units
Opening stock -Output	4,130	100%	4,130	100%	4,130	100%	4,130
Fresh - Output	10,470	100%	10,470	100%	10,470	100%	10,470
Normal loss 5% of input	875	-	-	-	-	-	-
Abnormal gain	(1,145)	100%	(1,145)	100%	(1,145)	100%	(1,145)
Closing WIP	7,300	100%	7,300	60%	4,380	30%	2,190
Total input	21,630		20,755		17,835		15,645

Computation of unit cost	D. Material	D. Labour	Overhead	Total
Opening stock	4,761,715	2,189,745	2,116,800	9,068,260
Cost of Input	24,500,000	14,700,000	11,025,000	50,225,000
Sale of scrap units @210/-	(350,000)	-	-	(350,000)
Net cost of input	28,911,715	16,889,745	13,141,800	58,943,260
Expected Equivalent Units	20,755	17,835	15,645	
Cost of unit produced	1,393	947	840	3,180

Statement of evaluation	D. Material			D. Labour			Overhead			Total
	Eus	Cost	Total	Eus	Cost	Total	Eus	Cost	Total	
Output	14,600	1,393	20,337,800	14,600	947	13,826,200	14,600	840	12,264,000	46,428,000
Abnormal gain	1,145	1,393	1,594,985	1,145	947	1,084,315	1,145	840	961,800	3,641,100
Closing WIP	7,300	1,393	10,168,900	4,380	947	4,147,860	2,190	840	1,839,600	16,156,360
			32,101,685			19,058,375			15,065,400	

Process I Account

Description	Units	Value	Description	Units	Value
Opening inventory	4,130	9,068,260	Output to FG	14,600	46,428,000
D. Material - P 2	17,500	24,500,000	Normal loss	875	350,000
D. Labour	-	14,700,000			
Overhead	-	11,025,000			
Abnormal gain	1,145	3,641,100	WIP B/F	7,300	16,156,360
	22,775	62,934,360		22,775	62,934,360
WIP C/F	7,300	16,156,360			

(14 marks)

(B)

Chapter 01 - Introduction to the Management Accounting, Relevant Cost and Decision Making under risk and uncertainty

	Website			Physical store		
Low	0.6	12,000	7,200	0.25	9,000	2,250
Average	0.2	17,000	3,400	0.5	18,000	9,000
High	0.2	24,000	4,800	0.25	26,000	6,500
			15,400			17,750
Selling price			1,000			1,000
Variable cost			(400)			(400)
Contribution per unit			600			600
Total contribution	(15,400x600)		9,240,000	(17,750x600)		10,650,000
(-) Fixed cost			(3,000,000)			(8,000,000)
Expected profit			6,240,000			2,650,000

It is recommended use website to launch the fashion line.

(06 marks)
(Total 20 Marks)

End of Section C

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