Association of Accounting Technicians of Sri Lanka

Level III Examination - January 2021

Suggested Answers

(302) MANAGEMENT ACCOUNTING AND FINANCE (MAF)

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THE ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

Level III Examination - January 2021

(302) MANAGEMENT ACCOUNTING AND FINANCE

SUGGESTED ANSWERS

Four (04) compulsory questions
(20 Marks)

SECTION - A

Suggested Answers to Question One:

Chapter 1 – Introduction to the Management Accounting, Relevant Cost and Decision Making under risk and uncertainty

(a)

Financial Accounting	Management Accounting
A statutory requirement	Not a statutory requirement
Provide financial statements to internal and external parties	Management reports are provided only for internal parties
Only transactions and events measurable in monetary terms are used	Non- monetary information also considered which are relevant for decision making
Present the final financial statements in summary form	Provide information to the users in detailed form
Consider the transactions occurred only in the previous financial period	More consideration is provided on the planning of future activities

(02 Marks)

(b)

i)

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

$$\text{BEP (in units)} = \frac{94{,}720}{130\text{-}98}$$

$$= \frac{94{,}720}{32}$$

$$\text{BEP} = 2{,}960$$

ii)

Total Contribution (32*3,800)	=	121,600
Fixed Cost	=	(94,720)
Expected Profit	=	26,880

(03 Marks)

(Total 05 Marks)

Suggested Answers to Question Two:

Chapter 7 – Working Capital Management

	Note	2019/20 (days)
Inventory residence period	01	71
Trade receivables residence period		53
(-) Trade payables residence period	02	(64)
Length of working capital cycle		60

Note 01 – Inventory residence period

Cost of Sales = 6,022,500*80% = 4,818,000

Inventory residence period = $\frac{\text{Average Inventory}}{\text{Cost of Sales}}$ x 365 Days

= $\frac{(944,800+925,200)/2}{4,818,000}$ x 365 Days

= $\frac{935,000}{4,818,000}$ x 365 Days

= 71 Days

Note 02 - Trade payables residence period

Purchases = 4,818,000 + 944,800 - 925,200 = 4,837,600

Trade receivables residence period = $\frac{\text{Average Creditors}}{\text{Purchases}}$ x 365 Days

= $\frac{(891,700+813,300)/2}{4,837,600}$ x 365 Days

= $\frac{852,500}{4,837,600}$ x 365 Days

= 64 Days

(05 Marks)

Suggested Answers to Question Three:

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

Panels Ltd.
Flexible budget (Operating Statement) for the year ended 31st December 2020

(In Rs.000)	Budget		Flexible Budget	Actual	Variance
Volume	**11,000**		**5,800**	**5,800**	-
Sales	**7,150**	**7,150/11,000*5,800**	**3,770**	**4,200**	**430F**
Variable cost					
Material cost	(3,256)	3,256/11,000*5,800	(1,716.80)	(2,368)	651.20A
Labour cost	(1,745)	1,745/11,000*5,800	(920)	(910)	10F
Production overhead	(913)	913/11,000*5,800	(481.40)	(364)	117.40F
Total variable cost	**(5,914)**		**(3,118.20)**	**(3,642)**	**523.80A**
Contribution	**1,236**		**651.80**	**558**	**93.80A**
Fixed production	(268)		(268)	(168)	100F
Fixed distribution cost	(283)		(283)	(283)	-
Total fixed cost	**(551)**		**(551)**	**(451)**	**100F**
Profit	**685**		**100.80**	**107**	**6.20F**

(05 Marks)

Suggested Answers to Question Four:

Chapter 1 – Introduction to the Management Accounting, Relevant Cost and Decision Making under risk and uncertainty

Epic Ltd. **(Rs.)**

Sales		(48,000 * Rs.400)		19,200,000
Consultancy Fee	Sunk Cost			
Direct Material cost		(48,000 * Rs.210)	10,080,000	
Labour				
If produced	(48,000*Rs.180)	8,640,000		
If outsourced		8,475,000	165,000	
Other Variable Cost		(48,000 * Rs.45)	2,160,000	
Opportunity Cost			1,250,000	(13,655,000)
Incremental Profit				**5,545,000**

Note: It is recommended to sacrifice the existing financial benefit and accept the new order with exiting staff.

(05 Marks)

End of Section A

Three (03) compulsory questions
(30 Marks)

SECTION - B

Suggested Answers to Question Five:

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

Foodz Ltd.
Cash Budget **(Rs.)**

	Apr-21	May-21	Jun-21
Receipts			
Cash sales (W1)	240,000	360,000	400,000
Collection from debtors (W1)	1,368,000	864,000	1,296,000
Total receipt	**1,608,000**	**1,224,000**	**1,696,000**
Payments			
Advance payment to material (W2)	270,000	300,000	315,000
Balance payment to material (W2)	540,000	810,000	900,000
Packing and delivery (W3)	252,000	266,000	168,000
Staff salary and incentive (W4)	165,600	165,600	165,600
Electricity, Water and Telephone (W5)	18,000	12,000	18,000
Rent	150,000	-	-
Total payments	**1,395,600**	**1,553,600**	**1,566,600**
Net cash flows	212,400	(329,600)	129,400
B/B/F	180,000	392,400	62,800
B/C/F	**392,400**	**62,800**	**192,200**

Workings:

W1 - Cash sales and collection from customers

	Feb-21	Mar-21	Apr-21	May-21	Jun-21
Sales	1,800,000	1,900,000	1,200,000	1,800,000	2,000,000
Cash sales - daily @ 20%	**360,000**	**380,000**	**240,000**	**360,000**	**400,000**
Balance amount	1,440,000	1,520,000	960,000	1,440,000	1,600,000
Balance collection net of discount @ 90%		**1,296,000**	**1,368,000**	**864,000**	**1,296,000**

W2 - Payments for raw material

	Feb-21	Mar-21	Apr-21	May-21	Jun-21
Raw material	1,080,000	1,140,000	720,000	1,080,000	1,200,000
Advance payment @ 25%	**285,000**	**180,000**	**270,000**	**300,000**	**315,000**
Balance payment @75%	**810,000**	**855,000**	**540,000**	**810,000**	**900,000**

W3 - Packing and delivery

	Feb-21	Mar-21	Apr-21	May-21	Jun-21
Packing and delivery cost	252,000	266,000	168,000	252,000	280,000
Payment made 60 days			**252,000**	**266,000**	**168,000**

W4 - Salaries and incentive

	Feb-21	Mar-21	Apr-21	May-21	Jun-21
Salary cost	144,000	144,000	144,000	144,000	144,000
Incentive @ 15%	21,600	21,600	21,600	21,600	21,600
Total payment	**165,600**	**165,600**	**165,600**	**165,600**	**165,600**

W5 - Electricity, Water and Telephone

	Feb-21	Mar-21	Apr-21	May-21	Jun-21
Cost	18,000	18,000	12,000	18,000	18,000
Payment in following month		**18,000**	**18,000**	**12,000**	**18,000**

(10 Marks)

Suggested Answers to Question Six:

Chapter 1 – Introduction to the Management Accounting, Relevant Cost and Decision Making under risk and uncertainty

(a) Identification of limiting factor/s

Skilled Labour Grade A			
Component	**Demand (units)**	**Skilled Labour A requirement (Hrs)**	**Total Requirement (Hrs)**
SX1	1,000	2.00	2,000
		(1,100/550)	
SX2	1,500	2.50	3,750
		(1,375/550)	
SX3	800	3.00	2,400
		(1,650/550)	
Requirement of Skilled Labour (Grade A)			8,150
Availability of Skilled Labour (Grade A)			8,300
Excess of Skilled Labour (Grade A)			(150)

Skilled Labour Grade B			
Component	**Demand (units)**	**Skilled Labour B requirement (Hrs)**	**Total Requirement (Hrs)**
SX1	1,000	4.00	4,000
		(1,680/420)	
SX2	1,500	3.00	4,500
		(1,260/420)	
SX3	800	3.50	2,800
		(1,470/420)	
Requirement of Skilled Labour (Grade B)			11,300
Availability of Skilled Labour (Grade B)			11,000
Shortage Skilled Labour (Grade B)			300

Unskilled Labour			
Component	**Demand (units)**	**Unskilled Labour requirement (Hrs)**	**Total Requirement (Hrs)**
SX1	1,000	6.00	6,000
		(1,080/180)	
SX2	1,500	5.50	8,250
		(990/180)	
SX3	800	4.00	3,200
		(720/180)	
Requirement of Unskilled Labour			17,450
Availability of Unskilled Labour			20,000
Excess of Unskilled Labour			(2,550)

Limiting factor is skilled labour – Grade B

(05 Marks)

(b) Optimal production mix

	SX1	SX2	SX3
Selling Price	12,400	14,000	12,900
(-) Variable Cost			
Material	2,800	3,400	3,100
Skilled labour A	1,100	1,375	1,650
Skilled labour B	1,680	1,260	1,470
Unskilled labour	*1,080*	*990*	*720*
Variable OH	2,000	2,000	1,880
Total Variable Cost	**(8,660)**	**(9,025)**	**(8,820)**
Contribution	3,740	4,975	4,080
Skilled Labour Hours Grade B per unit	4	3	3.50
Contribution per Labour Hour	935	1,658	1,165.7
Rank	***3***	***1***	***2***

Product mix

Component	Production plan (units)	Skilled Labour (GradeB) requirement (Hrs)	Total Requirement (Hrs)
SX2	1,500	3.00	4,500
SX3	800	3.50	2,800
SX1	925	4.00	3,700
			11,000

(05 Marks)
(Total 10 Marks)

Suggested Answers to Question Seven:

Chapter 5 – Sources of Capital and Cost of Capital

(a) Cost of Ordinary Voting Shares

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

$$K_e = \frac{1.2\ (1+0.08)}{18} + 0.08$$

$$K_e = 15.2\%$$

(02 Marks)

(b) Cost of Irredeemable Preference Shares

$$K_p = \frac{d_0}{P_0}$$

$$K_p = \frac{1.5}{12} \times 100$$

K_p = 12.5%

(02 Marks)

(c) Cost of Redeemable Debentures

Kd = k (1-t)

Interest = 12 (1-0)

Interest = 12%

Year	Cash Flows	DF @ 12%	DCF	DF @ 15%	DCF
0	95.00	1.000	95.00	1.000	95.00
1-3	(12.00)	2.402	(28.824)	2.283	(27.40)
3	(100.00)	0.712	(71.2)	0.658	(65.80)
		NPV	**(5.024)**		**1.80**

$$IRR = 12\% + \frac{5.024}{1.80 - (5.024)} \times (15\%-12\%)$$

$$= 0.12 + 0.7362 \times 0.03$$

= 14.21%

(03 Marks)

(d) Weighted Average Cost of Capital (WACC) using market values

Source	Market Value Rs.(Mn)	Weightage	COC	COC (Rs.)
Ordinary Shares (40Mn * 18)	720	57%	15.20	8.664
Preference Shares (6Mn * 12)	72	5.69%	12.5	0.712
Debentures (5Mn * 95)	475	37.31%	14.21	5.302
	1,267			**14.678**

WACC = 14.678%

(03 Marks)
(Total 10 Marks)

End of Section B

Two (03) compulsory questions
(50 Marks)

SECTION - C

Suggested Answers to Question Eight:

Chapter 4 – Standard Costing and Variance Analysis

(a)

Direct Material Usage Variance	=	**(Standard Usage**	**-**	**Actual Usage)**	**x**	**Standard Price**
123,760 F	=	(38,080	-	Actual Usage)	x	65
	=	38,080- (123,760/65)				
Actual Usage	=	36,176Kg				

Working:
Standard Usage = 4,760 x 8 kg = 38,080 kg

(02 Marks)

(b)
(i)

Direct Labour Mix Variance =	**Standard rate of DL* [(total actual labour usage* standard mix) – (total actual labour usage*actual mix)]**		
Skilled Labour	380* [((1,130+4,950)hrs*0.25/1.25)- ((1,130+4950) hrs* 1,130/(1,130+4,950)]	32,680	Favourable
Unskilled Labour	200* [((1,130+4,950)hrs*1/1.25)-((1,130+4,950)hrs* 4,950/(1,130+4950)]	17,200	Adverse
Total		**15,480**	**Favourable**

(04 Marks)

(ii)

Direct Labour Yield (Productivity) Variance =	**Standard rate of DL *[(total standard labour usage* standard mix) – (total actual labour usage*starndard mix)]**		
Skilled Labour	380* [((0.25+1))hrs*4,760 units* 0.25/1.25)- ((1,130+4,950)hrs*0.25/1.25)]	9,880	Adverse
Unskilled Labour	200* [((0.25+1)hrs*4,760 units*1/1.25)-((1,130+4,950) hrs*1/1.25)]	20,800	Adverse
Total		**30,680**	**Adverse**

(04 Marks)

(c) Operating statement to reconcile the budgeted contribution with actual contribution

		Adverse	Favourable	Net
Budgeted contribution	**5,000*410/-**			**2,050,000**
Sales margin Volume Variance		98,400		
Budgeted contribution of actual sales				
Sales Price variance		190,400		
Direct Material Price Variance		361,760		
Direct Material Usage Variance			123,760	
Direct Labour Rate Variance			87,700	
Direct Labour Mix Variance			15,480	
Direct Labour Yield Variance		30,680		
VOH Expenditure variance		12,160		
VOH Efficiency variance		18,200		
Total variable cost		**711,600**	**226,940**	**(484,660)**
Actual Contribution				**1,565,340**

(05 Marks)
(Total 15 Marks)

Suggested Answers to Question Nine:

Chapter 6 – Capital Investments Appraisal

(a)

Care Ltd.
Net Present Value of the new project **(Rs.'000)**

	0	1	2	3	4	5
Investment	(120,000)					
Sales		100,000	100,000	108,000	112,000	76,000
DM		(27,000)	(27,000)	(29,160)	(30,240)	(20,520)
DL		(16,000)	(16,000)	(17,280)	(17,920)	(12,160)
VOH		(5,000)	(5,000)	(5,400)	(5,600)	(3,800)
FC		(6,000)	(6,000)	(6,000)	(6,000)	(6,000)
	(120,000)	**46,000**	**46,000**	**50,160**	**52,240**	**33,520**
Tax		(4,480)	(4,480)	(5,644.80)	(6,277.20)	(9,385.60)
	(120,000)	**41,520**	**41,520**	**44,515.20**	**46,012.80**	**24,134.40**
DCF@15%	1	0.869	0.756	0.657	0.572	0.497
Net Present Value	**(120,000)**	**36,081**	**31,389**	**29,246**	**26,319**	**11,995**

NPV = 15,030

Workings : Tax

	1	2	3	4	5
Profit (Contribution-FC)	46,000	46,000	50,160	52,240	33,520
Capital Allowance	(30,000)	(30,000)	(30,000)	(30,000)	-
	16,000	**16,000**	**20,160**	**22,240**	**33,520**
Tax@ 28%	4,480	4,480	5,644.80	6,227.20	9,385.60

(13 Marks)

(b)

It is recommended to purchase the medical testing machine since it generates a positive NPV of Rs.15,030,000/-

(02 Marks)
(Total 15 Marks)

Suggested Answers to Question Ten:

(A)

Chapter 2 – Process Costing and Digital Costing

PRC Ltd.
Process 1 Account **Rs.**

Description	Units	Value	Description	Units	Value
D. Material	10,400	1,310,920	Output to FG	7,620	1,813,560
D. Labour	-	742,560	Normal loss	520	36,400
Overhead	-	283,960	Abnormal loss	460	109,480
			WIP	1,800	378,000
	10,400	2,337,440		10,400	2,337,440

W1- Statement of Equivalent Units

	Total Qty (Kgs)	Material X		Introduced material		Labour and OH	
		Degree of Completion	Equivalent Units	Degree of Completion	Equivalent Units	Degree of Completion	Equivalent Units
Opening stock	-						
Output	7,620	100%	7,620	100%	7,620	100%	7,620
Normal loss 5% of input	520		-		-		
Abnormal loss	460	100%	460	100%	460	100%	460
Closing WIP	1,800	100%	1,800	80%	1,440	60%	1,080
Total input	**10,400**		**9,880**		**9,520**		**9,160**

W2- Computation of unit cost

	D. Material	D. Labour	Overhead	Total
Cost of Input	1,310,920	742,560	283,960	2,337,440
Sale of NL as scrap units @70/-	(36,400)	-	-	(36,400)
Net cost of input	1,274,520	742,560	283,960	2,301,040
Expected Equivalent Units	9,880	9,520	9,160	
Cost of a unit produced	129	78	31	238

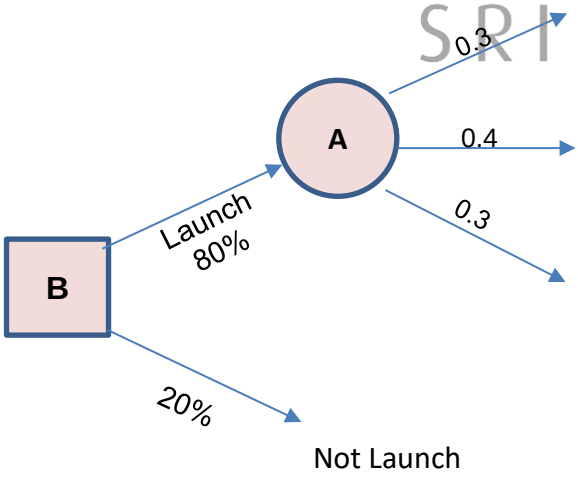
W3 - Statement of evaluation

	D. Material			D. Labour			Overhead			Grand Total
	Equivalent Units	Unit Cost	Total	Equivalent Units	Unit Cost	Total	Equivalent Units	Unit Cost	Total	
Output	7,620	129	982,980	7,620	78	594,360	7,620	31	236,220	1,813,560
Abnormal loss	460	129	59,340	460	78	35,880	460	31	14,260	109,480
Closing WIP	1,800	129	232,200	1,440	78	112,320	1,080	31	33,480	378,000
			1,274,520			742,560			283,960	**2,301,040**

(13 Marks)

(B)

Chapter 1 – Introduction to the Management Accounting, Relevant Cost and Decision Making under risk and uncertainty



					Rs.
High	1,200	x 0.3	x (400-195)	=	73,800
Medium	800	x 0.4	x (400-240)	=	51,200
Low	400	x 0.3	(400-240)	=	19,200
			Expected Profit		**144,200**

Since it generates a profit of Rs.144,200/- the magazine can be launched.

(07 Marks)
(Total 20 Marks)

End of Section C

Notice:

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