SRI LANKA

Association of Accounting Technicians of Sri Lanka

January 2017 Examination - AA3 Level

Questions and Suggested Answers
(AA 32)

MANAGEMENT ACCOUNTING AND FINANCE
(MAF)

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THE ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

EDUCATION AND TRAINING DIVISION

AA3 Examination - January 2017
(AA 32) Management Accounting and Finance

SUGGESTED ANSWERS

SECTION – A

Four (04) compulsory questions.
(Total 20 marks)

Suggested Answers to Question One:

a) i) Rent houses and apartments.
   ii) Finance car and other big-ticket purchase.
   iii) Get a better rate mortgage.
   iv) Feel in more control of your life.

b) i) Lack of money for emergency.
   ii) Affect marriages and relationship.
   iii) Interfere with successful employment.
   iv) Can contribute to health problem.
   v) Restrict your ability to reach long term goals.

(Total 05 marks)

Suggested Answers to Question Two:

	Note	**2016**		**2015**	
Inventory residence period		65		31	
Trade receivables residence period	1	85		46	
		150		77	
(-) Trade payables settlement period		-73		-63	
Length of the working capital cycle		**77**	**days**	**14**	**days**

Note 01 - Trade receivables residence period

Trade receivables residence period $= \dfrac{\text{Average Trade Debtors / Receivables}}{\text{Credit Sales}} \times$ 365 Days

	2016		**2015**	
	26,548,000	x 365 D	9,074,000	x 365 D
	114,000,000		72,000,000	
	85 days		46 days	

(Total 05 marks)

Suggested Answers to Question Three:

a) Maxi-max regret

Rs.000	Demand Condition		
Decision (Pre order Qty)	**200 Costumes**	**600 Costumes**	**800 Costumes**
250 Costumes	27	17	11
500 Costumes	18	42	36
750 Costumes	10	52	71

Maximax Solution

As per the above calculation the maximum profit of all the possible maximum profit under each decision is Rs. 71,000. Therefore the maxi-max regret is Rs. 71,000 in which 750 costume to be ordered.

(02 marks)

b) Mini-max regret

Rs.000	Demand Condition		
Decision (Pre order Qty)	**200 Costumes**	**600 Costumes**	**800 Costumes**
250 Costumes	0	35	60
500 Costumes	9	10	35
750 Costumes	17	0	0

Maximax Regret Solution

As per the above maximum possible loss regret table of the minimum of all the maximum possible loss under each decision is Rs. 17,000. Therefore the mini-max regret is Rs. 17,000 in which 750 costumes to be ordered.

(03 marks)

(Total 05 marks)

Suggested Answers to Question Four:

Rs.Mn

Year	Investment	Revenue	Operating cost	Cash flows	Cum. CF
0	(180.00)			(180.00)	(180.00)
1		50.00	(30.00)	20.00	(160.00)
2		80.00	(40.00)	40.00	(120.00)
3		100.00	(50.00)	50.00	(70.00)
4		110.00	(60.00)	50.00	(20.00)
5	20.00	80.00	(40.00)	60.00	40.00

PBP = 4 Years + 20/60 * 12 Months

4 years and 4 months

(Total 05 marks)

End of Section A

SECTION –B

Three (03) compulsory questions.
(Total 30 marks)

Suggested Answers to Question Five:

a) (i)

Sales Price Variance	=	Sales Value Variance	-	Sales Volume Variance
	=	Rs. 600,000F	-	Rs.360,000A
	=	**Rs. 960,000F**		

Since the selling price variance is always equal to selling price margin variance the answer Rs. 400,000F can be considered as the correct answer too.

(02 marks)

(ii)

Sales Volume Margin Variance	=	Sales Margin Variance	-	Sales Margin Price Variance
	=	Rs. 150,000A	-	Rs. 960,000F
	=	**Rs. 1,110,000A**		

If the selling price margin variance is considered as Rs. 400,000F, then the sales volume margin variance would be Rs. 550,000A.

(02 marks)

b) (i)

Sales Price Variance	=	Actual Qty.	x	(Budgeted Price	-	Actual Price)
Rs. 960,000F	=	Actual Qty.	x	(40	-	50)
Actual Qty.	=	Rs. 960,000/10				
Actual Qty.	**=**	**96,000 Units**				

(03 marks)

(ii)

Sales Volume Variance	=	Standard Price	(	Stan. Sales Qty.	-	Actual Sales Qty.)
Rs. 360,000 A	=	40	(	Stan. Sales Qty.	-	96,000)
360,000 / 40	=		(	Stan. Sales Qty.	-	96,000)
Standard / Budgeted Sales Units	=			(9,000)	+	96,000
	=	**87,000 units**				

(03 marks)
(Total 10 marks)

Suggested Answers to Question Six:

(a) 1 Preference share capital

2 Long term loans

3 Bonds

4 Lease / Hire purchases

(02 marks)

(b) r_0 = d / p_0

= (5 / 50) x 100

= **<u>10%</u>**

(02 marks)

(c) Cost of Redeemable debentures

Year	Description	Cash Flow	DF @ 10%	DCF	DF @ 15%	DCF
0	Issuing Preference	94	1	94	1	94
1-8	Interest	(14)	5.335	(74.7)	4.487	(62.82)
8	Redemption	(100)	0.467	(46.7)	0.327	(32.7)
				(27.4)		**(1.52)**

$$IRR = 15\% - \left(\frac{5\% \times (1.52)}{25.88} \right)$$

= **<u>14.71%</u>**

(03 marks)

d)

Source of Capital	Value	Cost of Capital	Cost
Ordinary Share	5,000	10%	500
Debentures	2,350	14.7%	345.45
	7,350		**845.45**

WACC = (845.45 / 7,350) x 100

= **<u>11.5%</u>**

Alternative Answer for Question No. 6, Part d

Source of Capital	Value	Weight	Cost of Capital	WACC
Ordinary Share	5,000	68%	10%	6.8
Debentures	2,350	32%	14.7%	4.7
	7,350			**11.5**

WACC = **<u>11.5%</u>**

(03 marks)

(Total 10 marks)

Suggested Answers to Question Seven:

(a) ***(Rs. Million)***

	0	**1**	**2**	**3**	**4**
Investment	(120)	-	-	-	-
Scrap Value	-	-	-	-	16
Revenue	-	64	67.2	70.56	74.09
Direct Expenses	-	(20)	(21)	(22.05)	(23.15)
Working Capital	(6)	-	-	-	6
Tax (W1)	-	(1.12)	(1.74)	(2.38)	(18.74)
	(126)	**42.88**	**44.46**	**46.13**	**54.20**
DF	1	0.893	0.797	0.712	0.636
	(126)	38.29	35.43	32.84	34.47
NPV	**15.03**				

W1

	1	**2**	**3**	**4**
Revenue	64	67.2	70.56	74.09
Cost	(20)	(21)	(22.05)	(23.15)
Scrap Value	-	-	-	16
Capital allowance	(40)	(40)	(40)	-
	4	6.2	8.51	66.94
Tax @ 28%	1.12	1.74	2.38	18.74

(b) Recommend to purchase the Machine since this machinery will result in a positive NPV of Rs. 15.03 million

(10 marks)

End of Section B

SECTION –C

Two (02) compulsory questions.
(Total 50 marks)

Suggested Answers to Question Eight:

a)

	Chips	Choco
Selling price	100	80
Direct Materials	(45)	(36)
Direct labour	(25)	(21.10)
Machine hours - Mixing	(3.00)	(2.40)
- Packing	(1.00)	(0.50)
Total Variable Cost	**74**	**60**
Contribution per pack	**26**	**20**

(05 marks)

b) **Variables**

Let the number of packs to be produced in Chip and Choco are x and y respectively.

Objective Function : Maximize $26x + 20y$

Constraints

x x (5/60) + y x (4/60) $\leq$ 2,800 Mixing Constraint $\rightarrow$ (1)

x x (2/60) + y x (1/60) $\leq$ 1,000 Packing Constraint $\rightarrow$ (2)

Constraints : $\left.\begin{array}{l} x \leq 20{,}000 \\ y \leq 30{,}000 \end{array}\right\}$ Demand constraints

Non-negativity Constraints

$x \geq 0$; $y \geq 0$

(07 marks)

c) Refer attached graph paper.

(1) $5x + 4y \leq 168{,}000$

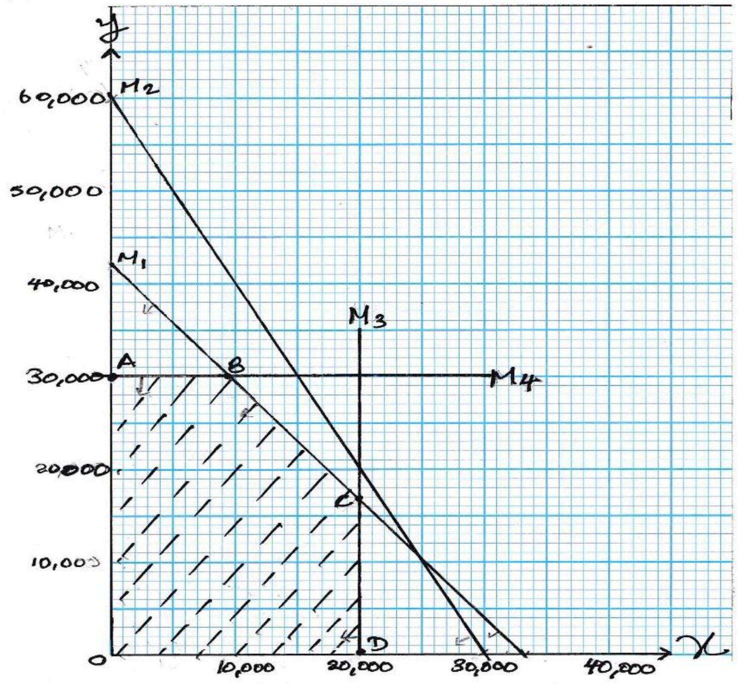
If $x = 0$ then $y = 42{,}000$ or less

If $y = 0$ then $x = 33{,}600$ or less

(2) 2a + b < 60,000

If $x = 0$ then $y = 60{,}000$ or less

If $y = 0$ then $x = 30{,}000$ or less



(08 marks)

d) Optimal product Mix Chips - 20,000 Chips - 10,000

Or

Chops - 17,000 Chops - 30,000

(02 marks)

e) **At Feasible area OPQRS**

		Maximum Contribution
O	-	-
P	(0,30000) 20 x 30,000	600,000
Q	(10,000, 30,000) 10,000 x 26 30,000 x 20	**860,000**
R	(20,000, 17,000) 20,000 x 26 17,000 x 20	**860,000**
S	(20,000.0) 20,000 x 26	520,000

Maximum Contribution = **860,000**

(03 marks)

(Total 25 marks)

Suggested Answers to Question Nine:

A

a)

Rs.000	**Budget**		**Flex Budget**	**Actual**	**Variance**
Volume	**125,000**		**138,000**	**138,000**	**-**
Sales	27,500.00	27,500/125*138	30,360.00	30,153.00	(207)
Variable cost					
Material cost	(5,750.00)	5,750/125*138	(6,348.00)	(6,520.50)	(172.5)
Labour cost	(7,500.00)	7,500/125*138	(8,280.00)	(8,298.40)	(18.4)
Production overhead	(5,000.00)	5,000/125*138	(5,520.00)	(5,752.30)	(232.3)
Distribution overhead	(1,187.50)	1,187.5/125*138	(1,311.00)	(1,290.30)	20.7F
Administration overhead	(900.00)	900/125*138	(993.60)	(883.00)	110.6F
Total variable cost	**(20,337.50)**		**(22,452.60)**	**(22,744.50)**	**(291.9)**
Contribution	**7,162.50**		**7,907.40**	**7,408.50**	**(498.9)**
Fixed Production	(2,375.00)		(2,375.00)	(2,450.00)	(75)
Fixed Admin cost	(540.00)		(540.00)	(540.00)	-
Total fixed cost	**(2,915.00)**		**(2,915.00)**	**(2,990.00)**	**(75)**
Profit	**4,247.50**		**4,992.40**	**4,418.50**	**(573.9)**

(09 marks)

b) Objectives of budgetary control system

- Compel planning – Having a budgetary control system in place the variances will be calculated and then investigate for the improvement of operation resulting a planning for the future to avoid such a variance.
- Co-ordinate activities – As a result of investigating the variances, it is required to co-ordinate with the other departments to rectify the variances.
- Motivate managers to perform well – The managers will be motivated as they are given the target and evaluate their achievement.
- Delegate authority to budget holders – The budget holder is responsible to explain the reason for variances and corrective action should be taken within the authority given.

(06 marks)

B)

a)

Direct Labour						
Rate Variance	=	Actual hours	x	(Standard rate	-	Actual Rate)
	=	450	-	(8,298,400/18,860)	x	18860
	=	**188,600F**				

(02 marks)

b)

Direct Labour						
Efficiency		Standard Rate	x	(Standard hours	-	Actual hours)
Variance	=					
		450	x	(138,000*8/60	-	18,860)
		207,000A				

(02 marks)

c)

Operating statement			
	Rs.000	**Rs.000**	**Rs.000**
Budgeted contribution			**7,907.40**
Sales variances			(207.00)
			7,700.40
Variable cost	**A**	**F**	
D. Material Price Variance		144.90	
D. Material Usage Variance	317.40		
D. Labour Rate Variance		188.60	
D. Labour Efficiency Variance	207.00		
VOH Expenditure variance	94.30		
VOH Efficiency variance	138.00		
Distribution OH Expenditure Variance		110.60	
Administration OH Expenditure Variance		20.70	
Total variable cost	756.70	464.80	(291.90)
Actual Contribution			**7,408.50**

(06 marks)

(Total 25 marks)

End of Section C

Notice :

These answers complied and issued by the Education and Training Division of AAT Sri Lanka constitute part and parcel of study material for AAT students.

These should be understood as Suggested Answers to question set at AAT Examinations and should not be construed as the "Only" answers, or, for that matter even as "Model Answers".

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