

You are required to calculate:

- (a) P/V ratio.
- (b) Sales required to earn a profit of Rs. 40,000.
- (c) Profit when sales are Rs.1,20,000.

OR iii. The Anand Trading Ltd manufactures one identical product 'Y'. The following figures are available for two successive years: 6

Particulars	Year I	Year II
Sales	3,00,000	3,60,000
Fixed cost	90,000	1,20,000
Variable costs	1,50,000	2,16,000

The directors are interested to know for the two years:

- (a) P/V Ratio
- (b) Breakeven point
- (c) Margin of safety

Q.6 Attempt any two:

- i. Write short notes on Budget & Budgetary control? 5
- ii. The standard mix for producing commodity A was as follows: 5

Material X 60 Tons @ Rs. 10
Material Y 90 Tons @ Rs. 20

The Actual was:

Material X 80 Tons @ Rs. 12
Material Y 60 Tons @ Rs. 25

- iii. Calculate any two Material Variances.
- iii. The standard labour force of A Ltd is as under: 5

20 skilled men at 50 paise per hour for 40 hours. Rs.400
40 semi skilled men at 35 paise per hour for 40 hours Rs.560

During a certain week, the actual labour force was:
30 skilled men at 50 paise per hour for 40 hours. Rs.600
30 semi skilled men at 40 paise per hour for 40 hours Rs.480

Calculate any two labour Variances.



Knowledge is Power

Enrollment No.....

Faculty of Management

End Sem (Odd) Examination Dec-2018

MS3CO09 Cost and Management Accounting

Programme: BBA

Branch/Specialisation: Management

Duration: 3 Hrs.

Maximum Marks: 60

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. Which of these is not an objective of Cost Accounting? 1
- (a) Ascertainment of Cost
 - (b) Determination of Selling Price
 - (c) Assisting Shareholders in decision making
 - (d) Cost Control
- ii. In cost accounting we used to make important financial statement 1
- (a) Balance sheet
 - (b) Cost sheet
 - (c) Profit and Loss A/c
 - (d) None of these
- iii. Direct Material is a..... 1
- (a) Manufacturing Cost
 - (b) Administrative Cost
 - (c) Factory Cost
 - (d) All of these
- iv. A tender price is..... 1
- (a) Actual Price
 - (b) Estimated Price
 - (c) Standard Price
 - (d) None of these
- v. The use of FIFO Method is suitable for: 1
- (a) At Rising Prices
 - (b) At Falling Prices
 - (c) At Constant Prices
 - (d) None of these
- vi. That level of inventory below which it is not allowed to drop further is called..... 1
- (a) Minimum Stock Level
 - (b) Maximum Stock Level
 - (c) Reorder Stock Level
 - (d) Average Stock Level
- vii. The difference between actual sales and break even sales is called..... 1
- (a) Margin of Safety
 - (b) Contribution
 - (c) P/V Ratio
 - (d) BEP in units

P.T.O.

	[2]	1	[3]	8
viii.	Fixed cost and profit is equal to:		Raw materials consumed	Rs. 4,000
(a) Variable Cost	(b) Contribution		Wages	Rs.600
(c) BEP in Sales	(d) BEP in units		Machine hours worked	1000
ix.	The corrective actions after analysis of variance has to be taken by:	1	Machine hours rate	50 paise
(a) Management	(b) Cost Accountant		Office overhead	20% on works cost
(c) Both (a) and (b)	(d) None of these		Selling overhead	6paise per unit
x.	If the standard cost is higher than the actual cost then the difference would be known as:	1	Units produced	20000
	(a) Positive (b) Negative (c) Adverse (d) Favourable		Units sold	18000 @ Re. 1 per unit
Q.2	i. Definition of Cost and Cost Accounting?	2	Q.4 i. Explain the techniques of Inventory control?	
	ii. Difference between Cost Accounting and Management Accounting. Also discuss the tools and Techniques of Management Accounting?	8	ii. Normal Usage 1200 units per week each	
OR	iii. What do you understand by Management Accounting? Also explain the limitations of Management Accounting.	8	Minimum Usage 1800 units per week each	
	i. What do you understand by Cost control and Cost Reduction?	2	Maximum Usage 600 units per week each	
Q.3	ii. The product of a manufacturing company passes through two processes, A & B and then to finished stock. It is ascertained that in each process 5% of the total weight put in is lost and 10% is scrap which from processes A and B realizes Rs.80 a ton and Rs.200 a ton respectively.	8	Reorder Quantity A= 9600 Units B=14400 Units	
	Particulars	Process A	Reorder Period A= 4 to 6 weeks B= 2 to 4 weeks	
	Materials in tons	1000	Calculate the following levels for each components of material	
	Cost of Material per ton	Rs.125	(a) Minimum Stock Level (b) Maximum Stock Level	
	Labour	Rs.28000	(c) Reorder Stock Level (d) Average Stock Level	
	Manufacturing expenses	Rs.8000	OR iii. Prepare a Store Ledger Account from the following transactions adopting FIFO Method:	
	Output (Tons)	830	Receipts: April 3, 2016 250 kg	Rs.
	Prepare a process account.	780	April 15, 2016 700 kg	2.00
OR	iii. The following data relates to the manufacture of a standard product during the four weeks period to June 30, 2015: You are required to prepare a cost sheet showing the cost per units and profit for the period.	8	April 25, 2016 300 kg	2.10
			April 29, 2016 1000 kg	2.20
			Issued : April 19, 2016 600 kg	2.30
			April 27, 2016 450 kg	
			April 28, 2016 50 kg	
			April 30, 2016 300 kg	
			Q.5 i. Marginal Costing as a tool for decision making. Discuss?	4
			ii. The sales turnover and profit during two years were as follows:	6
			Year Sales (in Rs.) Profit (in Rs.)	
			1994 1,40,000 15,000	
			1995 1,60,000 20,000	

Marking Scheme					
MS3CO09 Cost and Management Accounting					
Q.1	i.	Which of these is not an objective of Cost Accounting?	1	ii.	Process account A Process account B
		(c) Assisting Shareholders in decision making		OR	2 marks 2 marks
	ii.	In cost accounting we used to make important financial statement	1	iii.	Prime Cost Factory cost Total Cost Profit
		(b) Cost sheet			2 marks 2 marks 2 marks
	iii.	Direct Material is a.....	1	Q.4	i.
		(a) Manufacturing Cost			Techniques of Inventory control Any two techniques 1 mark for each (1 mark * 2)
	iv.	A tender price is.....	1	ii.	Calculate the following levels for each components of material 2 marks for each point (2 marks * 4)
		(b) Estimated Price			(a) Minimum Stock Level (b) Maximum Stock Level (c) Reorder Stock Level (d) Average Stock Level
	v.	The use of FIFO Method is suitable for:	1	OR	iii.
		(b) At Falling Prices			Prepare a Store Ledger Account from the following transactions adopting FIFO Method: 1 mark for each step (1 mark * 8)
	vi.	That level of inventory below which it is not allowed to drop further is called.....	1	Q.5	i.
		(a) Minimum Stock Level			Marginal Costing as a tool for decision making 1 mark for each point (1 mark * 4)
	vii.	The difference between actual sales and break even sales is called.....	1	ii.	ii.
		(a) Margin of Safety			You are required to calculate: 2 marks for each (2 marks * 6) (a) P/V ratio. (b) Sales required to earn a profit of Rs. 40,000. (c) Profit when sales are Rs.1,20,000.
	viii.	Fixed cost and profit is equal to:	1	iii.	iii.
		(b) Contribution			2 marks for each (2 marks * 6) (a) P/V Ratio (b) Breakeven point (c) Margin of safety
	ix.	The corrective actions after analysis of variance has to be taken by:	1	Q.6	i.
		(a) Management			Attempt any two: Budget
	x.	If the standard cost is higher than the actual cost then the difference would be known as:	1	ii.	Budgetary control
		(d) Favourable		ii.	Calculate any two Material Variances. 2.5 marks for each variances (2.5 marks * 2)
Q.2	i.	Definition of Cost	1 mark	iii.	iii.
		Definition of Cost Accounting	1 mark		Calculate any two labour Variances. 2.5 marks for each variances (2.5 marks * 2)
	ii.	Difference b/w Cost and Management Accounting	8		
		Any four points	4 marks		
		Tools and Techniques of Management Accounting	4 marks		
OR	iii.	Management Accounting	2 marks		
		Limitations of Management Accounting.	6 marks		
Q.3	i.	Cost control	1 mark	2	*****
		Cost Reduction	1 mark		

Q 3 II

Process A Account

Particular	Tonne	Amount	Particular	Tonne	Amount
Materials	1000	125000	By loss in weight (5% of 1000)	50	—
Wages Labour		28000	By scrap [10% of 1000 tonne @ Rs 80 per tonne]	100	8000
Manufacturing expenses		8000	By Abnormal wastage 91C	20	3600
			By Process B on	830	149400
	1000	161000		1000	161000

$$\text{Cost of Abnormal Wastage} = \frac{161000 - 8000}{1000 - (50 + 100)} \times 20 = 3600$$

Process B Account

Particular	Tonne	Amount	Particular	Tonne	Amount
Process A 91C Material	830	149400	By loss in weight (5% of 900)	45	—
Labour	70	14000	By scrap [10% of 900 tonne @ Rs 200 per tonne]	90	18000
Manufacturing expenses		10000	By Finished stock	780	163800
Abnormal Effectiveness 91C	15	3150		915	181800
	915	181800		915	181800

$$\text{Value of abnormal Effectiveness} = \frac{178650 - 18000}{900 - (45 + 90)} \times 15 = 3150$$

23 III

Statement of Cost and Profit
(Output 20,000 units)

Particular	Total	Per unit cost
Raw Material Consumed	4000	0.2
Wages	600	0.03
	4600	0.23
Factory overhead		
Machine worked 1000 hours		
Machine Hour Rate 50 paisa (1000×0.50)	500	0.025
	5100	0.255
Office overhead (20% on Work cost) $(5100 \times 20\%)$	1020	0.051
	6120	0.306
Less \rightarrow closing Finished goods (2000×0.306)	612	
	5508	
Cost of goods sold	5508	
Selling overhead (18000×0.06)	1080	0.06
	17532	0.875
Total cost [16308]	6588	0.366
Profit	11412	0.0346
Sales	18000	1

24 III

Store ledger account

Date	Receipts			Issues			Balance		
	Qty	Rate	Amount	Qty	Rate	Amount	Qty	Rate	Amount
Jul 3	250	2.00	500	—	—	—	250	2.00	500
Jul 15	700	2.10	1470	—	—	—	700	2.10	1470
Jul 19	—	—	—	250	2.00	500			
				350	2.10	735			
				600					
Jul 25	300	2.20	660				350	2.10	735
Jul 27	450	—	—	350	2.10	735	300	2.20	660
				100	2.20	220			
				450					
							200	2.20	440
Jul 28	—	—	—	50	2.20	110	150	2.20	330
Jul 29	1000	2.30	2300	—	—	—	1000	2.30	2300
Jul 30	—	—	—	150	2.20	330			
				150	2.30	345			
				300					
							850	2.30	1955.

15. II.

QVA) Profit - Volume Ratio

$$P/V \text{ Ratio} = \frac{\text{Change in Profit}}{\text{Change in Sales}} \times 100$$

$$= \frac{20000 - 15000}{160,000 - 140,000} \times 100$$

$$= \frac{5000}{20000} \times 100$$

$$= 25\%$$

B) Sales required to earn a profit of Rs. 40,000

$$\text{Sales (Rs.)} = \frac{\text{Fixed Cost} + \text{Profit}}{P/V \text{ Ratio}}$$

$$\text{Sales} = \frac{20,000 + 40,000}{25} \times 100 = 240,000$$

We should find out fixed cost first

$$\text{Fixed cost} = \text{Sales} \times P/V \text{ Ratio} - \text{Profit}$$

$$= 140000 \times \frac{25}{100} - 15000$$

$$= 35000 - 15000$$

$$\text{Fixed cost} = 20,000 \quad [F.C. \text{ is same in both years } 1994 \text{ and } 1995]$$

c) Profit when Sales are Rs, 120,000

Profit = Sales \times P/V Ratio - Fixed Cost

$$= 120,000 \times \frac{25}{100} - 20,000$$

$$= 30,000 - 20,000$$

$$\text{Profit} = 10,000$$

Q5 III (a) Profit volume Ratio = $\frac{S-V}{S} \times 100$

or

$$\text{P/V Ratio} = \frac{C}{S} \times 100$$

I year = $\frac{300,000 - 150,000}{30,000} \times 100 = 50\%$.

II year = $\frac{360,000 - 216,000}{360,000} \times 100 = 40\%$.

B) Break even Point = $\frac{\text{Fixed Cost}}{\text{P/V Ratio}}$

I year = $\frac{90,000}{50} \times 100 = 1,80,000$

II year = $\frac{1,20,000}{40} \times 100 = 3,00,000$

C) Margin of safety = Sales (Rs.) - B.E.P. (Rs)

$$\text{I year} = 3,00,000 - 1,80,000 = 1,20,000$$

$$\text{II year} = 3,60,000 - 3,00,000 = 60,000$$

Q6 II The standard M&C for producing commodity A was

Materials	Standard M&C			Actual M&C		
	SQ(Ton)	SP(Rs)	SCC(Rs)	AQ(Ton)	AP(Rs)	AC(Rs)
X	60	10	600	80	12	960
Y	90	20	1800	60	25	1500
	150		2400	140		2460

There is difference between the total of SQ(150) and AQ(140). Therefore, RSQ [Revised standard quantity] has been calculated and for this purpose total of AQ(140) has been divided in the proportion of SQ(60 and 90) or (2:3)

$$\text{RSQ} = \frac{\text{SQ in standard M&C}}{\text{Total Standard M&C}} \times \text{Total Actual M&C}$$

$$RSQ \text{ of } X = \frac{SQ \text{ of } X}{Total SQ} \times Total AQ$$

$$= \frac{60}{150} \times 140 = 56$$

$$RSQ \text{ of } Y = \frac{SQ \text{ of } Y}{Total SQ} \times Total AQ$$

$$= \frac{90}{150} \times 140 = 84$$

1) Material cost Variance

$$MCV = SC - AC = 2400 - 2460 = 60 \text{ (Adv.)}$$

2) Material Price Variance

$$MPV = AQ (SP - AP)$$

$$X = 80(10 - 12) = 160 \text{ (Adv.)}$$

$$Y = 60(20 - 25) = 300 \text{ (Adv.)}$$

3) Material Usage Variance

$$MUV = SP(SQ - AQ)$$

$$X = 10(60 - 80) = 200 \text{ (Adv.)}$$

$$Y = 20(90 - 60) = 600 \text{ (Fav.)}$$

4) Material Revised usage Variance = MRUV = SP(SQ - RSQ)

$$X = 10(60 - 56) = 40 \text{ (Fav.)}$$

$$Y = 20(90 - 84) = 120 \text{ (Fav.)}$$

5) Material Mix Variance

$$MMV = SPC(RSQ - AQ)$$

$$X = 10(56 - 80) = 240 \text{ (Adv)}$$

$$X = 20(84 - 60) = 480 \text{ (Fav)}$$

26 III The Standard Labour force of A Ltd

Labour	Standard Mix			Actual Mix		
	SH	SR (Rs)	SLC (Rs)	AH	AR (Rs)	ALC (Rs)
Skilled	800	0.50	400	1200	0.50	600
mi skilled	1600	0.35	560	1200	0.40	480
	2400		960	2400		1080

In the above table total of standard hour is equal to total of actual hour

a) Labour Cost Variance = $(SLC - ALC)$
 $= 960 - 1080 = 120 \text{ (Adv.)}$

b) Labour Rate Variance = $LRV = AH(SR - AR)$
 Skilled = $1200(0.50 - 0.50) = \text{Nil}$
 Semi skilled = $1200(0.35 - 0.40) = 60 \text{ (Adv.)}$

c) Labour Mix Variance = $SR(SH - AH)$

$$\text{Skilled} = 0.50(800 - 1200) = 200 \text{ (Adv.)}$$

$$\text{mi skilled} = 0.35(1600 - 1200) = 140 \text{ (Fav.)}$$

Q4 II

Reorder stock level

Formula = Maximum Usage Rate \times Maximum order Period

$$A = 600 \times 6 = 3600 \text{ units}$$

$$B = 600 \times 4 = 2400 \text{ units}$$

Minimum stock level

Formula = Reorder level - [Average rate of consumption \times Average order Period]

$$A = 3600 - [1200 \times 5]$$

$$3600 - 6000$$

$$A = -2400$$

$$B = 2400 - [1200 \times 3]$$
$$= 2400 - 3600$$

$$B = -1200$$

Maximum stock level

Formula = Reorder level + Reorder Quantity (Minimum Consumption \times Minimum reorder Period)

$$A = 3600 + 9600 [1800 \times 4) - 13200 - 7200 = 6000$$

$$B = 2400 + 14400 [1800 \times 2] = 16800 - 3600 = 13200$$

Average stock Level

Minimum stock level + $\frac{1}{2}$ of reorder quantity

$$A = -2400 + \frac{1}{2} \times 9600$$

$$= -2400 + 4800$$

$$= 2400$$

$$B = -1200 + \frac{1}{2} \times 14400$$

$$= -1200 + 7200$$

$$= 6000$$