FUNDAMENTALS OF COST AND MANAGEMENT ACCOUNTING – STAGE-2

Marks

Q. 2 (a) A service department is one that is not directly engaged in production, but renders a particular type of service for the benefit of other departments. Examples of service departments are receiving, storerooms, maintenance, timekeeping, payroll, and cafeteria. 1

Service departments generally have the following characteristics:

- It is difficult to establish a meaningful measure of their production and productivity. 1
- The functional relationship between a service department's costs and the company's output is very flexible. In many instances a considerable lag exists between services and production. 1
- Service departments cannot be changed too rapidly without possible serious indirect consequences to the operational divisions. 1

(b)

	Rs.	Marks
(i) Cost of raw materials used in production	1,250	
Less: Decrease in the raw materials inventory during the year (Rs. 130 - Rs. 80 = Rs. 50)	50	1
Cost of raw materials purchased during the year	**1,200**	1
(ii) Total manufacturing costs	6,050	
Less: Direct materials used in production	1,250	
Manufacturing overhead applied	2,800	
	4,050	
Direct labor cost incurred	**2,000**	1

Predetermined overhead rate
= Manufacturing overhead cost ÷ Direct labor cost 1
= Rs. 2,800 ÷ Rs. 2,000 = **140% of direct labor cost**

	Rs.	Marks
(iii) Total manufacturing costs	6,050	
Add: Work in process inventory – beginning	250	
	6,300	1
Less: Work in process inventory – ending	400	
Cost of goods manufactured	**5,900**	1
(iv) Finished goods inventory – beginning	300	
Add: Cost of goods manufactured	5,900	
Cost of goods available for sale	6,200	1
Less: Finished goods inventory – ending	200	
Cost of goods sold	**6,000**	1

Marks

Q. 3 (a) (i)

Waqas Corporation
Comparative Income Statement
For month Ending June 30, 2011

	Rs. (million)		
	FIFO	LIFO	
Sales (16,000 units @ Rs. 7,000)	112.00	112.00	
Beginning inventory	6.00	6.00	
Purchases	62.90	62.90	2
Available for sale	68.90	68.90	
Ending inventory	**17.40**	**15.80**	
Cost of goods sold	51.50	53.10	
Gross profit	60.50	58.90	1
Marketing and administrative expenses	21.00	21.00	
Income before income tax	39.50	37.90	
Income tax (35%)	13.83	13.27	2
Net income	25.67	24.63	1

FIFO			LIFO			
Units	Rs./ Unit	Rs. (m)	Units	Rs./ Unit	Rs. (m)	
4,000	3,500	14.00	2,000	3,000	6.00	
1,000	3,400	3.40	2,000	3,200	6.40	
5,000		**17.40**	1,000	3,400	3.40	
			5,000		**15.80**	
		2			+3	= 5

(ii) Cash position at end of the June

	Rs. (m)		
	FIFO	LIFO	
Sales (receipts)	112.00	112.00	
Purchases	62.90	62.90	
Marketing and administrative expenses	21.00	21.00	
Income tax (35%)	13.83	13.27	
Total disbursements	97.73	97.17	
Cash balance	14.27	14.83	
	1	+1	= 2

Marks

Q. 3 (b) (i) Employee's Earnings:

		Saturday	Sunday	Monday	Rs.	Marks
	Hours x hourly rate	600.00	600.00	600.00		
	Units above standard	-0-	10.00	15.00		1
	Hours saved		0.50	0.75		1
	Value of time saved		37.50	56.25		1
	80% of value of time saved		30.00	45.00		1
(A)	Earnings	600.00	630.00	645.00	**1,875.00**	1

(B) Earnings = 110% x Rs. 75 hourly rate x 40 hours = **Rs. 3,300** 2
(Efficiency rate = 880 ÷ 800 x 100 = 110%) 1

(C) Earnings = (Rs. 75 hourly rate x 5% rate increase) x 24 hours 1
= Rs. 78.75 x 24 hours = **Rs. 1,890** 1

(ii) Per unit labour cost:

(A) = 1,875 ÷ 505 = **Rs. 3.71** per unit
(No. of units 160 + 170 +175 = 505)

(B) = Earning Rs.3,300 ÷ No. of units 880 = **Rs. 3.75** per unit 1

(C) = Earning Rs.1,890 ÷ No. of units 503 = **Rs. 3.76** per unit

Q. 4 (a) Let: SR-1 = Rs. 20 m + 0.20 SR-2 1
SR-2 = Rs. 17.6 m + 0.10 SR-1 1

Substituting: SR-1 = Rs.20 m + 0.20 **(Rs. 17.6 m + 0.10 SR-1)** 1

Solving: SR-1 = Rs.20 m + Rs. 3.52 m + 0.02 SR-1
0.98 SR-1 = Rs. 23.52 m
SR-1 = **Rs. 24 million** 1

Substituting: SR-2 = Rs. 17.6 m + 0.10 (Rs. 24 m) 1
= Rs. 17.6 m + Rs.2.4 m
= **Rs. 20 million** 1

Total PDN-1 overhead = Rs. 84 m + 0.40 (SR-1) + 0.50 (SR-2) 1
= Rs. 84 m + 0.40 (Rs. 24 m) + 0.50 (Rs. 20 m) 1
= Rs. 84 m + Rs. 9.6 m + Rs. 10 m
= **Rs. 103.6 million** 1

Marks

Q. 4 (b) Journal entries:

			Rs.	Marks
(a)	Materials	80,000		
	Accounts payable		80,000	1
(b)	Work in process	130,000		
	Factory overhead control	7,000		
	Materials		137,000	2
(c)	Accounts payable	1,800		
	Materials		1,800	1
(d)	Payroll	179,000		
	Accrued payroll		179,000	1
	Work in process	160,000		
	Factory overhead control	19,000		
	Payroll		179,000	2
(e)	Accrued payroll	150,000		
	Cash		150,000	1
(f)	Factory overhead control	84,000		
	Cash (or accounts payable)		84,000	1
(g)	Marketing and administrative expenses control	17,000		
	Cash (or accounts payable)		17,000	1
(h)	Cash	600,000		
	Accounts receivable		600,000	1
(i)	Accounts payable	270,000		
	Cash		270,000	1
(j)	Factory overhead control	4,354		
	Accumulated depreciation – building		400	
	Accumulated depreciation – equipment		3,954	1
(k)	Work in process	96,000		
	Factory overhead control		96,000	1
(l)	Finished goods *	406,800		
	Work in process		406,800	1
(m)	Cost of goods sold	410,000		
	Finished goods		410,000	
(n)	Accounts receivable	570,000		1
	Sales		570,000	1

Work-in-process

			Rs.	Marks
Balance	170,800	Finished goods (l)	406,800 *	3
Material	130,000	Inventory	150,000	
Labour	160,000			
Factory overhead	96,000			

			Marks
Q. 5	**(a)**		
(i)	Materials price variance = (AQ × AP) – (AQ × SP)		1
	= Rs. 70,520 – (4,100 × Rs. 16.50) =	**Rs. 2,870 U**	1
(ii)	Materials quantity variance = SP(AQ – SQ)		1
	= Rs. 16.50 (3,500 – 3,510 *) =	**Rs. 165 F**	1
	* SQ = Standard quantity per unit × Actual output		
	= 2.7 × 1,300 = 3,510		1
(b) (i)	Labor rate variance = (AH × AR) – (AH × SR)		1
	= Rs. 11,385 – (1,100 × Rs. 10.50) =	**Rs. 165 F**	1
(ii)	Labor efficiency variance = SR(AH – SH)		1
	= Rs. 10.50 (1,100 – 1,320 *) =	**Rs. 2,310 F**	1
	* SH = Standard hours per unit × Actual output		
	= 3.3 × 400 = 1,320		1
(iii)	Journal entries to record the direct labor costs:		

	Dr	Cr	Marks
Work In Process	13,860		
Labor Rate Variance		165	2
Labor Efficiency Variance		2,310	
Wages Payable (or Cash)		11,385	

			Marks
Q. 6 **(a)** (i)	Variable overhead spending variance = (AH × AR) – (AH × SR)		1
	= Rs. 44,980 – (5,200 × Rs. 7.70) =	**Rs. 4,940 U**	2
(ii)	Variable overhead efficiency variance = SR(AH – SH)		1
	= Rs. 7.70(5,200 – 5,400 *) =	**Rs. 1,540 F**	2
	* SH = Standard hours per unit × Actual output		
	= 2.5 × 2,160 = 5,400		1

(b)

Income statement – marginal costing

		Rs. '000'	Marks
Sales		1,430	1
Less variable expenses:			
Variable cost of goods sold:			
Beginning inventory	0		
Add variable manufacturing costs	1,032		
Goods available for sale	1,032		1
Less ending inventory	172		
Variable cost of goods sold	860		1
Variable selling and administrative	70		
Variable cost of sales		930	1
Contribution margin		500	1
Less fixed expenses:			
Fixed manufacturing overhead	384		
Fixed selling and administrative	40	424	
Net operating income		76	1

THE END