

BATCH – All Batches

DATE: 25.09.2017

MAXIMUM MARKS: 100

TIMING: 3 Hours

PAPER 3 : Cost Accounting**Q. No. 1 is compulsory.****Wherever necessary suitable assumptions should be made by the candidates.****Working notes should form part of the answer.****Answer 1:****(a) Proportion of materials X and Z in the product A :**

Assume the minimum quantity of material Z in the product A as 'S' kg. It means that (1.25 – S) kg. of material X is required to be used for producing 1 kg. of product A. (as per working note-1).

To maintain the level of profit and the selling price (as per working note 2), it is necessary that the total cost of material in 1 kg. of product A should not exceed Rs. 100; i.e.,

$$S \text{ kg.} \times \text{Rs.}50 + (1,250 - S) \text{ kg.} \times \text{Rs.}100 = \text{Rs.} 100$$

$$\text{or } S = 0.5 \text{ kg.}$$

Hence the quantity of X material 1.25 kg. – 0.50 kg. = 0.75 kg.

Proportion of materials X and Z is : 0.75 : 0.50 = 3 : 2.

(2 marks)**Working Notes:**

(i) Percentage of loss on output : 25.

Let 1 kg. be the output of product A,

then 1.25 kg. will be the input of material X and Y.

Production of material X and Y in the output of 1 kg. of product A is:

X: 1.25 kg. / 2 = 0.625 kg.

Y: 1.25 kg. / 2 = 0.625 kg.

(1 marks)

(ii) Cost structure and price (for 1 kg. of product A):

Material X : (0.625 kg. x Rs. 100) 62.50

Material Y : (0.625 kg. x Rs. 60) 37.50

Total material cost 100.00

Add : Production expenses (50% of material cost) 50.00

Total cost 150.00

Add : Profit 33 1/3 % of total cost 50.00

Selling price 200.00

(2 marks)**(b) (1 marks for each point)**

(i) P/V Ratio = 30% (18,000/60,000)

(ii) Variable Cost = 70%

Sales (2003) 6,00,000

(-) Profit 30,000 (given)

Total Cost 5,70,000

(-) Variable Cost 4,20,000

Fixed Cost 1,50,000

(iii) B.E.P. (Rs.) = 1,50,000 = 5,00,000

30%

(iv) Margin of safety = $\frac{48,000}{30\%} = 1,60,000$

(v) Variable Cost = 70% of Sales
 2002 = Rs. 3,78,000
 2003 = Rs. 4,20,000

(c) Net worth = Capital + Reserves and surplus
 = 4,00,000 + 6,00,000 = Rs.10,00,000
 $\frac{\text{Total Debt}}{\text{Networth}} = \frac{1}{2}$

∴ Total debt = Rs. 5,00,000 **(1 marks)**

Total Liability side = Rs. 4,00,000 + Rs. 6,00,000 + Rs. 5,00,000
 = Rs. 15,00,000
 = Total Assets

Total Assets Turnover = $\frac{\text{Sales}}{\text{Total assets}}$

2 = $\frac{\text{Sales}}{\text{Rs.15,00,000}}$

∴ Sales = Rs. 30,00,000

Gross Profit on Sales : 30% i.e. Rs. 9,00,000

∴ Cost of Goods Sold (COGS) = Rs. 30,00,000 – Rs. 9,00,000
 = Rs. 21,00,000 **(1 marks)**

Inventory turnover = $\frac{\text{COGS}}{\text{Inventory}}$

3 = $\frac{\text{Rs. 21,00,000}}{\text{Inventory}}$

∴ Inventory = Rs. 7,00,000 **(1 marks)**

Average collection period = $\frac{\text{Average debtors}}{\text{Sales/day}}$

40 = $\frac{\text{Debtors}}{\text{Rs.30,00,000 / 360}}$

∴ Debtors = Rs. 3,33,333.

Acid test ratio = $\frac{\text{Current Assets - Stock (Quick Asset)}}{\text{Current liabilities}}$

0.75 = $\frac{\text{Current Assets - Rs.7,00,000}}{\text{Rs.5,00,000}}$

∴ Current Assets = Rs. 10,75,000. **(1 marks)**

∴ Fixed Assets = Total Assets – Current Assets

= Rs. 15,00,000 – Rs. 10,75,000 = Rs. 4,25,000 **(1 marks)**

Cash and Bank balance = Current Assets – Inventory – Debtors
 = Rs. 10,75,000 – Rs. 7,00,000 – Rs. 3,33,333
 = Rs. 41,667

Balance Sheet as on March 31, 2016

Liabilities	Rs.	Assets	Rs.
Equity Share Capital	4,00,000	Plant and Machinery and other	
Reserves & Surplus	6,00,000	Fixed Assets	4,25,000
Total Debt:		Current Assets:	
Current liabilities	5,00,000	Inventory	7,00,000
		Debtors	3,33,333
		Cash	41,667
	15,00,000		15,00,000

- (d) The issue price of preference share will be sum of (i) PV of preference dividend payments during I – 8 years and (ii) PV of maturity value of preference shares in the eighth year, the discount rate being 18 per cent.

Determination of issue price of preference share

Years	Cash outflows	PVIF (0.18)	Total PV
1	Rs 12	0.847	Rs 10.16
2	12	0.718	8.62
3	14	0.609	8.53
4	14	0.516	7.22
5	14	0.437	6.12
6	16	0.370	5.92
7	16	0.314	5.02
8	126*	0.266	<u>33.52</u>
Issue price			85.11

*Inclusive of Rs. 110 maturity value of preference shares.

(5 marks)

Answer 2:

(a) Profit and Loss Account (As per financial records)

	Rs.		Rs.
To Direct Material	50,00,000	By Sales(1,20,000 units)	1,20,00,000
To Direct Wages	30,00,000	By Closing Stock	
To Factory Overheads	16,00,000	WIP	2,40,000
To Gross Profit	<u>29,60,000</u>	Finished Goods (4,000 units)	<u>3,20,000</u>
	<u>1,25,60,000</u>		<u>1,25,60,000</u>
To Administration Overheads	7,00,000	By Gross Profit b/d	29,60,000
To Selling and Distribution Overheads	9,60,000	By dividend	1,00,000
To Bad Debts	80,000	By Interest	20,000
To Preliminary Expenses written off	40,000		
To Legal Charge	10,000		
To Net Profit (2 marks)	<u>12,90,000</u>		<u>30,80,000</u>
	30,80,000		

Statement of Cost and Profit (As per Cost Records)

	Rs.
Direct Material	56,00,000
Direct Wages	30,00,000
Prime Cost	86,00,000
Factory Overhead	17,20,000
Gross Works Cost	1,03,20,000
Less: Closing Stock (WIP)	(2,40,000)
Works Cost (1,24,000 units)	1,00,80,000
Administration overhead (1,24,000 units @ Rs. 6 p.u.)	7,44,000
Cost of production (1,24,000 units)	1,08,24,000
Less: Finished Goods (4,000 units @Rs. 87.29)	3,49,160
Cost of goods sold (1,20,000 units)	1,04,74,840
Selling and Distribution Overhead (1,20,000 @ Rs. 8 p.u.)	9,60,000
Cost of Sales	1,14,34,840
Net profit (Balancing figure) (3 marks)	5,65,160
Sales Revenue	1,20,00,000

Statement of Reconciliation of profit as obtained under Cost and Financial Accounts

(3 marks)

	Rs.	Rs.
Profit as per Cost Records		5,65,160
Add: Excess of Material Consumption	6,00,000	
Factory Overhead	1,20,000	
Administration Overhead	44,000	
Dividend Received	1,00,000	
Interest Received		
	<u>20,000</u>	<u>8,84,000</u>
Less: Bad debts		14,49,160
Preliminary expenses written off	(80,000)	
Legal charges	(40,000)	
Over Valuation of stock in cost	(10,000)	
Profit as per financial Records		<u>(1,59,160)</u>
	<u>29,160</u>	12,90,000

(b) Statement of Cash Flows for the year ended 31st December 20X2

	(Rs. in crore)
Cash flow from Operating Activities	
Profit before taxation	114
Adjustments:	
Add: Loss on sale of equipment	4
Add: Depreciation (Rs.218 + Rs.5 – Rs.194)	29
Operating profit before working capital changes	147
Decrease in trade receivable (Rs.270 – Rs.180)	90
Increase in inventory (Rs.205 – Rs.160)	(45)
Decrease in other current assets (Rs.20 – Rs.17)	3
Decrease in trade payable (Rs.310 – Rs.230)	(80)
Increase in other current liabilities (Rs.70 – Rs.60)	10

Cash generated from operations		125
Less: Income tax paid (Rs.8 + Rs.48 - Rs.15)		(41)
Net Cash from Operating activities (A)	(4 marks)	84
Cash flow from Investing Activities		
Purchase of plant and equipment (Rs.430 + Rs.12 - Rs.309)		(133)
Sale of investments (Rs.75 - Rs.60)		15
Sale of plant and equipment		3
Net cash from Investing activities (B)	(2 marks)	(115)
Cash Flow from Financing Activities		
Payment of dividend		(48)
Long term borrowings (Rs.135 - Rs.40)		95
Net cash from Financing activities (C)	(2 marks)	47
Net Increase/(Decrease) in cash and cash equivalents (A+B+C)		16
Cash and cash equivalent at the beginning of the year		10
Cash and cash equivalent at the end of the year		26

Answer 3:

(a)

Chemical	SQ for AO	SP	SC for AO	AQ	AP	AC	RSQ
A	50	12	600	?	15	?	?
B	<u>50</u>	15	<u>750</u>	70	?	<u>?</u>	?
	100		1350			?	

(I) Cost of Standard Mix of input **(1 marks)**

	Qty. Rs.	Price Rs.	Amount Rs.
Chemical A	50	12	600
Chemical B	<u>50</u>	<u>15</u>	<u>750</u>
	100	13.50	1,350
Standard Loss	<u>10</u>	_____	_____
	90		1,350

(II) Standard rate of output Rs.1,350/90 Kg. Rs.15 per Kg.

(III) Standard yield for actual input.

It is calculated by using the formula of yield variance.

Yield Variance : Standard cost per unit of output (Actual Yield - Standard Yield for actual input)

Rs.135 (A) = Rs.15 (90 Kg - Standard Yield for actual input)

Standard Yield for actual input = 99 Kg. **(1 marks)**

(IV) Actual input for 99 Kg. of output = $\frac{100 \text{ Kg}}{90 \text{ Kg}} \times 99 \text{ Kg.} = 110 \text{ Kg.}$ **(1 marks)**

(V) Actual input of Chemical A = 110 Kg. - Actual input of Chemical B = 110 Kg. - 70 Kg. = 40 Kg. **(1 marks)**

(VI) Material Cost Variance is given as Rs.650 (A). Hence the actual cost of actual mix of Chemicals A and B will be Rs.1,350 + Rs.650 = Rs.2,000.

(VII) The actual cost of 40 kg. of Chemical A @ Rs.15 per kg. is Rs.600. Thus, the cost of one kg of Chemical B used is (Rs.2,000 - Rs.600)/70 kg = Rs.20 per kg.

1. Material Mix Variance = (RSQ - AQ) SP **(1 marks)**

A = (55 - 40) 12 =	180 (F)
B = (55 - 70) 15 =	<u>225 (A)</u>
	45 (A)

2. Materials Usage Variance = Standard Price (Standard Qty. - Actual Qty.) **(1 marks)**

Chemical A = Rs.12 (50 kg. - 40 kg.) =	Rs.120 (F)
Chemical B = Rs.15 (50 kg. - 70 kg.) =	<u>Rs.300 (A)</u>
	Rs.180 (A)

3. Materials Price Variance = Actual Qty. (Standard Price - Actual Price) **(1 marks)**

Chemical A = 40 kg. (Rs.12 - Rs.15) =	Rs.120 (A)
Chemical B = 70 kg. (Rs.15 - Rs.20) =	<u>Rs.350 (A)</u>
Total	Rs.470 (A)

4. Actual loss of actual input **(1 marks)**

Actual total input	= 110 kg.
Less: Actual output	= 90 kg
Actual loss	20 kg

5. Actual input of Chemical A = 40 kg.
Refer to working note (V)

6. Actual price per kilogram of Chemical B = Rs.20
Refer to Working note (VII)

(b) (2 marks)

Sources of Capital	Plan I	Plan II	Plan III	Plan IV
Present Equity Shares	1,00,000	1,00,000	1,00,000	1,00,000
New Issue	60,000	40,000	30,000	30,000
Equity share capital (Rs.)	16,00,000	14,00,000	13,00,000	13,00,000
No. of Equity shares	1,60,000	1,40,000	1,30,000	1,30,000
12% Long term loan (Rs.)	-	2,00,000	-	-
9% Debentures (Rs.)	-	-	3,00,000	-
6% Preference Shares (Rs.)	-	-	-	3,00,000

Computation of EPS and Financial Leverage (6 marks)

Sources of Capital	Plan I	Plan II	Plan III	Plan IV
EBIT (Rs.)	4,00,000	4,00,000	4,00,000	4,00,000
Interest on 12% Loan (Rs.)	-	24,000	-	-
Interest on 9% debentures (Rs.)	-	-	27,000	-
EBT (Rs.)	4,00,000	3,76,000	3,73,000	4,00,000
Less : Tax@ 40%	1,60,000	1,50,400	1,49,200	1,60,000
EAT (Rs.)	2,40,000	2,25,600	2,23,800	2,40,000
Less: Preference Dividends (Rs.)	-	-	-	18,000
(a) Net Earnings available for equity shares (Rs.)	2,40,000	2,25,600	2,23,800	2,22,000
(b) No. of equity shares	1,60,000	1,40,000	1,30,000	1,30,000
(c) EPS (a ÷ b) Rs.	1.50	1.61	1.72	1.71
Financial leverage- $\left(\frac{\text{EBIT}}{\text{EBIT} - \text{I}}\right) \text{ or } \left(\frac{\text{EBIT}}{\text{EBT}^*}\right)$	1.00	1.06	1.07	1.08

* EBT is Earnings before tax but after interest and preference dividend in case of Plan IV.

Comments: Since the EPS and financial leverage both are highest in plan III, the management could accept it.

Answer 4:

(a)

(i) Production Budget for the year 2012 by Quarters (6 marks)

	I	II	III	IV	Total
Sales demand(Unit)	18,000	22,000	25,000	27,000	92,000
I Opening Stock	6,000	7,200	8,100	8,700	30,000
II 70% of Current Quarter 's	12,600	15,400	17,500	18,900	64,400
III Demand	6,600	7,500	8,100	7,400*	29,600
30% of Following					
Quarter's Demand					
IV Total Production(II &III)	19,200	22,900	25,600	26,300	94,000
V Closing Stock (I+IV-Sales)	7,200	8,100	8,700	8,000	32,000

*Balancing Figure

(ii) Break Even Point = Fixed Cost/ PV Ratio
 = Rs. 220000/13.75% = Rs. 1600000 or 40000 units.
 P/V Ratio = (Rs. 40 - 34.50 = 5.50)/40 × 100 = 13.75%
 (Or, Break Even Point= Fixed Cost/ Contribution = Rs. 2,20,000/5.50 = 40,000 Units)
(2 marks)

(b) Statement showing the Evaluation of Two Machines (8 marks)

Machines	A	B
Purchase cost (Rs.): (i)	1,50,000	1,00,000

Life of machines (years)	3	2
Running cost of machine per year (Rs.): (ii)	40,000	60,000
Cumulative present value factor for 1-3 years @ 10%: (iii)	2.486	-
Cumulative present value factor for 1-2 years @ 10%: (iv)	-	1.735
Present value of running cost of machines (Rs.): (v)	99,440	1,04,100
	[(ii) × (iii)]	[(ii) × (iv)]
Cash outflow of machines (Rs.): (vi)=(i) +(v)	2,49,440	2,04,100
Equivalent present value of annual cash outflow	1,00,338	1,17,637
	[(vi) ÷ (iii)]	[(vi) ÷ (iv)]

Decision: Company X should buy machine A since its equivalent cash outflow is less than machine B.

Answer 5:

(a) Gantt Task and Bonus System: (4 marks)

This system is a combination of time and piecework system. According to this system a high standard or task is set and payment is made at time rate to a worker for production below the set standard.

Wages payable to workers under the plan are calculated as under:

Output		Payment
(i)	Output below standard	Guaranteed time rate
(ii)	Output at standard	Time rate plus bonus of 20% (usually) of time rate
(iii)	Output over standard	High piece rate on worker’s output. (It is so fixed so as to include a bonus of 20% of time rate)

(b) (1 mark for each point)

The following steps are useful for minimizing labour turnover:

- (a) Exit interview: An interview be arranged with each outgoing employee to ascertain the reasons of his leaving the organization.
- (b) Job analysis and evaluation: to ascertain the requirement of each job.
- (c) Organisation should make use of a scientific system of recruitment, placement and promotion for employees.
- (d) Organisation should create healthy atmosphere, providing education, medical and housing facilities for workers.
- (e) Committee for settling workers grievances.

(c) Modified Internal Rate of Return (MIRR): (4 marks)

There are several limitations attached with the concept of the conventional Internal Rate of Return. The MIRR addresses some of these deficiencies. For example, it eliminates multiple IRR rates; it addresses the reinvestment rate issue and produces results, which are consistent with the Net Present Value method.

Under this method, all cash flows, apart from the initial investment, are brought to the terminal value using an appropriate discount rate (usually the cost of capital). This results in a single stream of cash inflow in the terminal year. The MIRR is obtained by assuming a single outflow in the zeroth year and the terminal cash inflow as mentioned above. The discount rate which equates the present value of the terminal cash in flow to the zeroth year outflow is called the MIRR.

(d) Different Kinds of Float with Reference to Management of Cash:

(1 mark for each float)

The term float is used to refer to the periods that affect cash as it moves through the different stages of the collection process. Four kinds of float can be identified:

- (i) **Billing Float:** An invoice is the formal document that a seller prepares and sends to the purchaser as the payment request for goods sold or services provided. The time between the sale and the mailing of the invoice is the billing float.
- (ii) **Mail Float:** This is the time when a cheque is being processed by post office, messenger service or other means of delivery.
- (iii) **Cheque processing float:** This is the time required for the seller to sort, record and deposit the cheque after it has been received by the company.
- (iv) **Bank processing float:** This is the time from the deposit of the cheque to the crediting of funds in the seller's account.

Answer 6:

(a)

(i) Amount of under-absorption of production overheads during the year 2013-14 (2 marks)	
	(Rs.)
Total production overheads actually incurred during the year 2013-14	6,00,000
Less: 'Written off' obsolete stores Rs. 45,000	75,000
Wages paid for strike period Rs. 30,000	5,25,000
Net production overheads actually incurred: (A)	4,80,000
Production overheads absorbed by 48,000 machines hours @ Rs.10 per hour: (B)	45,000
Amount of under-absorption of production overheads: [(A)-(B)]	
Accounting treatment of under absorption of production overheads: (2 marks)	
It is given in the statement of the question that 20,000 units were completely finished and 8,000 units were 50% complete, one third of the under-absorbed overheads were due to lack of production planning and the rest were attributable to normal increase in costs.	
	(Rs.)
1. (33-1/3% of Rs. 45,000) i.e. Rs. 15,000 of under – absorbed overheads were due to lack of production planning. This being abnormal, should be debited to the Profit and Loss A/c	15,000
2. Balance (66-2/3% of Rs. 45,000) i.e. Rs. 30,000 of under – absorbed overheads should be distributed over work-in-progress, finished goods and cost of sales by using supplementary rate	30,000
Total under-absorbed overheads	45,000
Apportionment of unabsorbed overheads of Rs. 30,000 over, work-in-progress, finished goods and cost of sales. (2 marks)	

	Equivalent units	Completed	(Rs.)
Work-in-progress (4,000 units × Rs. 1.25) (Refer to Working Note)	4,000		5,000
Finished goods (2,000 units × Rs. 1.25)	2,000		2,500
Cost of sales (18,000 units × Rs. 1.25)	18,000		22,500
	24,000		30,000

Accounting treatment: **(2 marks)**

Work-in-progress control A/c Dr.

Finished goods control A/c Dr.

Cost of Sales A/c Dr.

Profit & Loss A/c Dr.

To Overhead control A/c

Working Note:

Supplementary overhead absorption rate = $\frac{\text{Rs. } 30,000}{24,000 \text{ units}} = \text{Rs. } 1.25 \text{ Per Unit}$

(b)
(i)**8 Marks**

M.A. Limited
Projected Statement of Profit / Loss
(Ignoring Taxation)

	Year 1	Year 2
Production (Units)	6,000	9,000
Sales (Units)	5,000	8,500
	(Rs.)	(Rs.)
Sales revenue (A) (Sales unit × Rs.96)	4,80,000	8,16,000
Cost of production:		
Materials cost (Units produced × Rs.40)	2,40,000	3,60,000
Direct labour and variable expenses (Units produced × Rs.20)	1,20,000	1,80,000
Fixed manufacturing expenses (Production Capacity: 12,000 units × Rs.6)	72,000	72,000
Depreciation (Production Capacity : 12,000 units × Rs.10)	1,20,000	1,20,000
Fixed administration expenses (Production Capacity : 12,000 units × Rs.4)	48,000	48,000
Total Costs of Production	6,00,000	7,80,000
Add: Opening stock of finished goods (Year 1 : Nil; Year 2 : 1,000 units)	---	1,00,000

Cost of Goods available for sale (Year 1: 6,000 units; Year 2: 10,000 units)	6,00,000	8,80,000
Less: Closing stock of finished goods at average cost (year 1: 1000 units, year 2 : 1500 units) (Cost of Production × Closing stock/ units produced)	(1,00,000)	(1,32,000)
Cost of Goods Sold	5,00,000	7,48,000
Add: Selling expenses – Variable (Sales unit × Rs.4)	20,000	34,000
Add: Selling expenses -Fixed (12,000 units × Rs.1)	12,000	12,000
Cost of Sales : (B)	5,32,000	7,94,000
Profit (+) / Loss (-): (A - B)	(-) 52,000	(+) 22,000

Working Notes:

1. Calculation of creditors for supply of materials:

	Year 1 (Rs.)	Year 2 (Rs.)
Materials consumed during the year	2,40,000	3,60,000
Add: Closing stock (2.25 month's average consumption)	45,000	67,500
	2,85,000	4,27,500
Less: Opening Stock	---	45,000
Purchases during the year	2,85,000	3,82,500
Average purchases per month (Creditors)	23,750	31,875

2. Creditors for expenses:

	Year 1 (Rs.)	Year 2 (Rs.)
Direct labour and variable expenses	1,20,000	1,80,000
Fixed manufacturing expenses	72,000	72,000
Fixed administration expenses	48,000	48,000
Selling expenses (variable + fixed)	32,000	46,000
Total (including	2,72,000	3,46,000
Average per month	22,667	28,833

(ii) Projected Statement of Working Capital requirements

	Year 1 (Rs.)	Year 2 (Rs.)
Current Assets:		
Inventories:		
- Stock of materials (2.25 month's average consumption)	45,000	67,500
- Finished goods	1,00,000	1,32,000
Debtors (1 month's average sales) (including profit)	40,000	68,000
Cash	10,000	10,000
Total Current Assets/ Gross working capital (A)	1,95,000	2,77,500
Current Liabilities:		
Creditors for supply of materials (Refer to working note 1)	23,750	31,875
Creditors for expenses (Refer to working note 2)	22,667	28,833
Total Current Liabilities: (B)	46,417	60,708
Estimated Working Capital Requirements: (A-B)	1,48,583	2,16,792

Projected Statement of Working Capital Requirement (Cash Cost Basis)

	Year 1 (Rs.)	Year 2 (Rs.)
(A) Current Assets		
Inventories:		
- Stock of Raw Material (6,000 units × Rs.40 × 2.25/12); (9,000 units × Rs.40 × 2.25 /12)	45,000	67,500
- Finished Goods (Refer working note 3)	80,000	1,11,000
Receivables (Debtors) (Refer working note 4)	36,000	56,250
Minimum Cash balance	10,000	10,000
Total Current Assets/ Gross working capital (A)	1,71,000	2,44,750
(B) Current Liabilities		
Creditors for raw material (Refer working note 1)	23,750	31,875
Creditors for Expenses (Refer working note 2)	22,667	28,833
Total Current Liabilities	46,417	60,708
Net Working Capital (A – B)	1,24,583	1,84,042

Working Note:**3. Cash Cost of Production:**

	Year 1 (Rs.)	Year 2 (Rs.)
Cost of Production as per projected Statement of P&L	6,00,000	7,80,000
Less: Depreciation	1,20,000	1,20,000
Cash Cost of Production	4,80,000	6,60,000
Add: Opening Stock at Average Cost:	--	80,000
Cash Cost of Goods Available for sale	4,80,000	7,40,000
Less : Closing Stock at Avg. Cost $\left(\frac{\text{Rs. } 4,80,000 \times 1,000}{6,000} \right); \left(\frac{\text{Rs. } 7,40,000 \times 1,500}{10,000} \right)$	(80,000)	(1,11,000)
Cash Cost of Goods Sold	4,00,000	6,29,000

4. Receivables (Debtors):

	Year 1 (Rs.)	Year 2 (Rs.)
Cash Cost of Goods Sold	4,00,000	6,29,000
Add : Variable Expenses @ Rs. 4	20,000	34,000
Add: Total Fixed Selling expenses (12,000 units×Rs.1)	12,000	12,000
Cash Cost of Debtors	4,32,000	6,75,000
Average Debtors	36,000	56,250

Answer 7:**(a) Step method and Reciprocal Service method of secondary distribution of overheads: (2 marks for each method)**

Step method: This method gives cognisance to the service rendered by service department to another service department, thus sequence of apportionments has to be selected. The sequence here begins with the department that renders service to the max number of other service department. After this, the cost of service dep't serving the next largest number of department is apportioned.

Reciprocal service method: This method recognises the fact that where there are two

or more service department, they may render service to each other and, therefore, these inter department services are to be given due weight while re-distributing the expense of service department. The methods available for dealing with reciprocal servicing are:

- (i) Simultaneous equation method
- (ii) Repeated distribution method
- (iii) Trial and error method

**(b) Definition of Inter-Process Profit and Its advantages and disadvantages
(2 marks for definition and 0.5 marks for each advantage and disadvantage)**

In some process industries the output of one process is transferred to the next process not at cost but at market value or cost plus a percentage of profit. The difference between cost and the transfer price is known as inter-process profits.

The advantages and disadvantages of using inter-process profit, in the case of process type industries are as follows:

Advantages:

1. Comparison between the cost of output and its market price at the stage of completion is facilitated.
2. Each process is made to stand by itself as to the profitability.

Disadvantages:

1. The use of inter-process profits involves complication.
2. The system shows profits which are not realised because of stock not sold out

(c) Time value of money means that worth of a rupee received today is different from the worth of a rupee to be received in future. The preference of money now as compared to future money is known as time preference for money.

A rupee today is more valuable than rupee after a year due to several reasons:

- Risk – there is uncertainty about the receipt of money in future.
- Preference for present consumption – Most of the persons and companies in general, prefer current consumption over future consumption.
- Inflation – In an inflationary period a rupee today represents greater real purchasing power than a rupee a year hence.
- Investment opportunities – Most of the persons and companies have a preference for present money because of availabilities of opportunities of investment for earning additional cash flow.

Many financial problems involve cash flow accruing at different points of time for evaluating such cash flow an explicit consideration of time value of money is required.

(4 marks)

(d) The term trading on equity means debts are contracted and loans are raised mainly on the basis of equity capital. Those who provide debt have a limited share in the firm's earning and hence want to be protected in terms of earnings and values represented by equity capital. Since fixed charges do not vary with firms earnings before interest and tax, a magnified effect is produced on earning per share. Whether the leverage is favourable, in the sense, increase in earnings per share more proportionately to the increased earnings before interest and tax, depends on the profitability of investment proposal. If the rate of returns on investment exceeds their explicit cost, financial leverage is said to be positive.

(4 marks)
