

Guideline Answers to Nov 2014 Exam Questions CA IPCC COST ACCOUNTING AND FINANCIAL MANAGEMENT

Question 1 is compulsory ($4 \times 5 = 20$ Marks)

Answer **any five** questions from the **remaining six** questions ($16 \times 5 = 80$ Marks). [Answer any 4 out of 5 in Q.7]

Question 1 (a): Materials – Stock Levels – Reverse Working

5 Marks

Following details are related to a manufacturing concern:

Re-order Level	1,60,000 units
Economic Order Quantity	90,000 units
Minimum Stock Level	1,00,000 units
Maximum Stock Level	1,90,000 units
Average Lead Time	6 days
Difference between Minimum Lead Time and Maximum Lead Time	4 days

Calculate – (a) Maximum Consumption per day, (b) Minimum Consumption per day.

Solution:

Refer Q.No.15, Page 2.38 of Students' Handbook on Cost A/cing & Fin. Management

Refer Q.No.24–27, Page 2.14 of Cost Accounting & Fin. Management – A Practical Guide

Let Maximum Lead time = X, Minimum Lead time = Y.

So, $X - Y = 4$

Average Lead Time = $\frac{X+Y}{2} = 6$,

So, $X + Y = 12$

On addition (to cancel Y), $2X = 16$,

So, $X = 8$, $Y = 8 - 4 = 4$

Hence, **Maximum Lead Time = 8 days, Minimum Lead Time = 4 days**

Reorder Level = Maximum Usage \times Maximum Lead Time

1,60,000 units = Maximum Usage \times 8 days

So, **Maximum Usage = 20,000 units per day.**

Maximum Level = ROL + EOQ (ROQ assumed as EOQ) – (Minimum Usage \times Minimum Lead Time)

$1,90,000 = 1,60,000 + 90,000 - (\text{Minimum Usage} \times 4 \text{ days})$ So, **Minimum Usage = 15,000 units per day**

Question 1 (b): Marginal Costing – BEP and related Computations

5 Marks

Zed Limited sells its product at ₹ 30 per unit. During the quarter ending on 31st March, it produced and sold 16,000 units and suffered a loss of ₹ 10 per unit. If the volume of sales is raised to 40,000 units, it can earn a profit of ₹ 8 per unit.

You are required to calculate:

(a) Break Even Point in Rupees.

(b) Profit if the sale volume is 50,000 units.

(c) Minimum Level of Production where the Company need not to close the production if unavoidable Fixed Cost is ₹ 1,50,000.

Solution: Similar to Q.No.9, Page 11.17 of Students' Handbook on Cost A/cing & Fin. Management [M 10 Qn]

Similar to Q.No.6, Page 11.4 of Cost Accounting & Fin. Management – A Practical Guide [N 96 Qn]

1. Marginal Cost Statement (filled up after computing PVR as per Note below)

Particulars	Situation I (16,000 units)		Situation II (40,000 units)	
	p.u.	₹	p.u.	₹
Sales	30	$16,000 \times ₹ 30 = 4,80,000$	30	$40,000 \times ₹ 30 = 12,00,000$
Less: Variable Cost (bal. fig.) (Sales – Contrib.)	10	1,60,000	10	4,00,000
Contribution at 66.67% (see Note below)	20	3,20,000	20	8,00,000
Less: Fixed Cost (bal. fig.) (Contrib.– Profit)		4,80,000		4,80,000
Profit/ (Loss)		$16,000 \times ₹ 10 = (1,60,000)$		$40,000 \times ₹ 8 = 3,20,000$

Note: PV Ratio = $\frac{\text{Change in Profit}}{\text{Change in Sales}} \times 100 = \frac{3,20,000 - (-1,60,000)}{12,00,000 - 4,80,000} = \frac{4,80,000}{7,20,000} = 66.67\% = \frac{2}{3}$

2. (a) Break Even Point (in ₹) = $\frac{\text{Fixed Costs}}{\text{PV Ratio}} = \frac{4,80,000}{66.67\%} = ₹ 7,20,000.$

(b) Profit when Sales = 50,000 units

Profit = Contribution (-) Fixed Cost = (50,000 units × ₹ 30 × 66.67%) less ₹ 4,80,000 = ₹ 5,20,000

3. Shut Down Point (Quantity) = $\frac{\text{Avoidable Fixed Cost}}{\text{Contribution p.u.}} = \frac{4,80,000 - 1,50,000}{20} = 16,500 \text{ units.}$

Question 1 (c): Capital Structure Theories – Indifference Point

5 Marks

Alpha Ltd requires funds amounting to ₹ 80 Lakhs for its new project. To raise funds, the Company has following two alternatives:

(a) To issue Equity Shares (at par) amounting to ₹ 60 Lakhs and borrow the balance amount at the interest of 12% p.a. or

(b) To issue Equity Shares (at par) and 12% Debentures in equal proportion.

The Income-Tax Rate is 30%.

Find out the point of indifference between the available two modes of financing and state which option will be beneficial in different situations.

Solution: Similar to Q.30, Page 18.32 of Students' Handbook on Cost Accounting & Fin. Management [M 03 Qn]

Let the EBIT at the Indifference Point level be ₹ E (amounts in ₹)

Particulars	Alternative 1	Alternative 2
Description	ESC = ₹ 60 Lakhs, Debt=₹ 20 Lakhs	ESC = ₹ 40 Lakhs, Debt=₹ 40 Lakhs
EBIT	E	E
Less: Interest	₹ 20 Lakhs × 12% = 1,20,000	₹ 40 Lakhs × 12% = 4,80,000
EBT	E - 1,20,000	E - 4,80,000
Less: Tax at 30%	0.3E - 36,000	0.3E - 1,44,000
EAT = Residual Earnings for ESH	0.7E - 84,000	0.7E - 3,36,000
No. of Equity Shares (assuming FV ₹ 100)	60,000 Shares	40,000 Shares
EPS = $\frac{\text{Residual Earnings}}{\text{No. of Equity Shares}}$	$\frac{0.7E - 84,000}{60,000}$	$\frac{0.7E - 3,36,000}{40,000}$

For indifference between the above alternatives, EPS should be equal. So, $\frac{0.7E - 84,000}{60,000} = \frac{0.7E - 3,36,000}{40,000}$

Solving, E = 12,00,000 So, for same EPS, required EBIT = ₹ 12,00,000 EPS = ₹ 12.6 per Share.

Beneficial Method in different situations:

Situation	Option to be chosen	Reason
EBIT below Indifference Point ₹ 12,00,000	Option 1 with lower debt (Interest Burden)	When ROCE and EBIT are low, a high DOL should be properly managed with low DFL, lower borrowings and interest burden.
EBIT equal to Indifference Point ₹ 12,00,000	Any alternative can be chosen.	Same EPS under both alternatives.
EBIT above Indifference Point ₹ 12,00,000	Option 2 with higher debt (Interest Burden)	When ROCE and EBIT are high, use of Debt funds is justified, and maximizes gain to Equity Shareholders by way of higher ROE and EPS. (This is called Leverage Effect or Gearing Effect).

Question 1 (d): Capital Structure Theories – M&M Approach

5 Marks

A Ltd and B Ltd are identical in every respect except Capital Structure. A Ltd does not employ Debt in its capital structure whereas B Ltd employs 12% Debentures amounting to ₹ 10 Lakhs. Assuming that –

(a) All assumptions of M-M model are met.

(c) EBIT is ₹ 2,50,000 and

(b) The Income-Tax Rate is 30%.

(d) The Equity Capitalization Rate of A Ltd is 20%.

Calculate the Average Value of both the Companies and also find the Weighted Average Cost of Capital for both the Companies.

Solution: **Similar to Illus. in Page 18.14 of Students' Handbook on Cost A/cing & Fin. Management [N 09 Qn]**

1. EAT of A Ltd (Pure Equity Firm) = EBIT × (100% – Tax Rate) = ₹ 2,50,000 × (100% – 30%) = **₹ 1,75,000.**

2. Value of A Ltd (Pure Equity, i.e. Unlevered Firm) = $\frac{\text{EAT}}{\text{Equity Capitalisation Rate}} = \frac{1,75,000}{20\%} = \mathbf{₹ 8,75,000}$

3. Value of B Ltd (Levered Firm) = Value of Levered Firm + (Debt × Tax Rate)
= ₹ 8,75,000 + (₹ 10,00,000 × 30%) = **₹ 11,75,000**

4. Weighted Average Cost of Capital is as under –

- A Ltd (Pure Equity Firm) = Equity Capitalisation Rate given = 20%.
- B Ltd (Levered Firm) = 20% (Since, M&M Approach is applicable, WACC is constant irrespective of D/E Mix.)

Question 2 (a): Contract Costing – Contract A/c, and Contractee's A/c **8 Marks**
Z Limited obtained a contract No. 999 for ₹ 50 Lakhs. The following details are available in respect of this contract for the year ended 31st March 2014:

Particulars	₹
Materials Purchased	1,60,000
Materials issued from Stores	5,00,000
Wages and Salaries Paid	7,00,000
Drawing and Maps	60,000
Sundry Expenses	15,000
Electricity Charges	25,000
Plant Hire Expenses	60,000
Sub-Contract Cost	20,000
Materials returned to Stores	30,000
Materials returned to Suppliers	20,000

The following balances relating to the Contract No.999 for the year ended on 31st March 2013 and 31st March 2014 are available:

	As on 31 st March 2013	As on 31 st March 2014
Work Certified	₹ 12,00,000	₹ 35,00,000
Work Uncertified	₹ 20,000	₹ 40,000
Materials at Site	₹ 15,000	₹ 30,000
Wages Outstanding	₹ 10,000	₹ 20,000

The Contractor receives 75% of Work Certified in cash. Prepare Contract Account and Contractee's Account.

Solution: **Similar to Q.No.3, Page 6.17 of Students' Handbook on Cost A/cing & Fin. Management [M 08 Qn]**

1. Contract No.999 Account for the year ended 31st March 2014

Particulars	₹	Particulars	₹
To balance b/d – Work Certified	12,00,000	By Work in Progress – Work Certified	35,00,000
– Work Uncertified	20,000	– Work Uncertified	40,000
To Material at Site b/d	15,000	By Materials Returns – Stores	30,000
To Material issued	5,00,000	– Supplier	20,000
To Materials directly purchased	1,60,000		
To Wages (7,00,000 + 20,000 – 10,000)	7,10,000	Note: It is assumed that Materials are returned to Supplier, directly from the Site itself.	
To Drawings and Maps	60,000	By balance c/d – Material at site	30,000
To Sundry Expenses	15,000		
To Electricity Charges	25,000		
To Plant Hire Charges	60,000		
To Sub-Contract Cost	20,000		
To Notional Profit – balancing figure	8,35,000		
Total	36,20,000	Total	36,20,000

Particulars	₹	Particulars	₹
To Profit & Loss A/c – transfer (Note b)	4,17,500	By Notional Profit b/d	8,35,000
To Reserve Profit c/d – balancing figure	4,17,500		
Total	8,35,000	Total	8,35,000
To WIP b/d	35,40,000	By Reserve Profit b/d	4,17,500
To Material at Site b/d	30,000		

Note:

$$(a) \text{ Percentage of Completion} = \frac{\text{Work Certified}}{\text{Contract Price}} = \frac{35,00,000}{50,00,000} = 70\%$$

$$(b) \text{ So, Profit transferred to P\&L A/c} = \frac{2}{3} \times \text{Notional Profit} \times \frac{\text{Cash Received}}{\text{Work Certified}} = \frac{2}{3} \times ₹ 8,35,000 \times 75\% = ₹ 4,17,500$$

2. Contractee's A/c

Particulars	₹	Particulars	₹
To balance c/d (bal. figure)	26,25,000	By balance b/d (80% of Work Certified on Opening Date)	9,00,000
		By Bank [75% of (₹ 35,00,000 – ₹ 12,00,000)]	17,25,000
Total	26,25,000	Total	26,25,000

Question 2 (b): Cash Flow Statement

8 Marks

Balance Sheets of Star Ltd are as under –

Balance Sheets (in ₹ Lakhs)

Liabilities	31.03.13	31.03.14	Assets	31.03.13	31.03.14
Share Capital	24.00	30.00	Plant & Machinery	15.00	21.00
Reserves	4.50	6.00	Buildings	12.00	18.00
Profit & Loss A/C.	1.80	3.00	Investments	–	3.00
Debentures	–	6.00	Sundry Debtors	21.00	15.00
Provision for Taxation	2.10	3.00	Stock	6.00	12.00
Proposed Dividend	3.00	6.00	Cash in Hand/Bank	6.00	6.00
Sundry Creditors	24.60	21.00			
Total	60.00	75.00	Total	60.00	75.00

With the help of following additional information, prepare Cash Flow Statement:

- Depreciation on Plant and Machinery was charged @ 25% on its Opening Balances and on Building @ 10% on its Opening Balances.
- During the year, an Old Machine costing ₹ 1,50,000 (Written Down Value ₹ 60,000) was sold for ₹ 1,05,000.
- ₹ 1,50,000 was paid towards Income–Tax, during the year.

Solution: Similar to Q.No.3, Page 15.20 of Students' Handbook on Cost A/cing & Fin. Management [M 12 Qn]

1. Provision for Tax Account

Particulars	₹	Particulars	₹
To Bank A/c (Tax paid) (given)	1,50,000	By balance b/d	2,10,000
To balance c/d (given)	3,00,000	By P&L A/c (Provn. for the year) (bal. fig.)	2,40,000
Total	4,50,000	Total	4,50,000

2. Plant & Machinery Account

Particulars	₹	Particulars	₹
To balance b/d	15,00,000	By Depreciation A/c (25% of 15,00,000)	3,75,000
To P&L A/c (Gain on Sale) (105000–60,000)	45,000	By Cash A/c – Sale Proceeds of Machinery	1,05,000
To Bank A/c (New M/c Bought) (bal.fig)	10,35,000	By balance c/d (given)	21,00,000
Total	25,80,000	Total	25,80,000

3. Building Account

Particulars	₹	Particulars	₹
To balance b/d	12,00,000	By Depreciation A/c (10% of 12,00,000)	1,20,000
To Bank A/c – Purchase (bal. fig.)	7,20,000	By balance c/d (given)	18,00,000
Total	19,20,000	Total	19,20,000

4. Cash Flow Statement of Star Ltd for the year ended 31st March 2014 (using Indirect Method)

Particulars	₹	₹
A. CASH FLOWS FROM OPERATING ACTIVITIES		
Profit for the year after all adjustments and transfers (3,00,000 – 1,80,000)	1,20,000	
Adjustments for:		
Transfer to Reserve (6,00,000 – 4,50,000)	1,50,000	
Proposed Dividend of this year (assumed entire Dividend of last year paid)	6,00,000	
Provision for Taxation (WN 1)	2,40,000	
Depreciation (3,75,000+1,20,000)	4,95,000	
Profit on Sale of Plant & Machinery (WN 2)	(45,000)	
Operating Profit Before Working Capital Changes	15,60,000	
Adjustments for Working Capital Changes –		
Increase in Stock (12,00,000 – 6,00,000)	(6,00,000)	
Decrease in Debtors (21,00,000 – 15,00,000)	6,00,000	
Decrease in Creditors (24,60,000 – 21,00,000)	(3,60,000)	
Cash Generated from Operations Before Income Tax	12,00,000	
Less: Income Taxes Paid	(1,50,000)	
Net Cash Flow from / (used in) Operating Activities (A)		10,50,000
B. CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of Plant & Machinery (WN 2)	(10,35,000)	
Purchase of Building (WN 3)	(7,20,000)	
Purchase of Investments (3,00,000 – Nil)	(3,00,000)	
Sale of Plant & Machinery	1,05,000	
Net Cash Flow from / (used in) Investing Activities (B)		(19,50,000)
C. CASH FLOWS FROM FINANCING ACTIVITIES		
Dividend Paid (Previous Year Dividend, now paid)	(3,00,000)	
Issue of Debentures (6,00,000 – Nil)	6,00,000	
Issue of Share Capital (30,00,000 – 24,00,000)	6,00,000	
Net Cash Flow from / (used in) Financing Activities (C)		9,00,000
D. Net Increase / (Decrease) in Cash & Cash Equivalents (A) + (B) + (C)		NIL
E. Cash & Cash Equivalents at the beginning of the period		6,00,000
F. Cash & Cash Equivalents at the end of the period (D + E)		6,00,000

Note: Interest Rate on Debentures not given, hence not adjusted. Alternatively, it can be assumed that Debentures are issued on the last day of the Financial Year, and hence no adjustment as to interest is required.

Question 3 (a): Flexible Budget**8 Marks**

RST Limited is presently operating at 50% capacity and producing 30,000 units. The entire output is sold at a price of ₹ 200 per unit. The cost structure at the 50% level of activity is as under:

Particulars	₹	Particulars	₹
Direct Material	75 per unit	Factory Expenses (25% fixed)	20 per unit
Direct Wages	25 per unit	Selling and Distribution Expenses (80% of Variable)	10 per unit
Variable Overheads	25 per unit	Office and Administrative Expenses (100% fixed)	5 per unit
Direct Expenses	15 per unit		

The Company anticipates that the Variable Costs will go up by 10% and Fixed Costs will go up by 15%.

You are required to prepare an Expense Budget, on the basis of marginal cost for the Company at 50% and 60% level of activity and find out the profits at respective levels.

Solution: **Similar to Q.No.6, Page 12.20 of Students' Handbook on Cost A/cing & Fin. Management [M 13 Qn]**

Expense Budget for RST Ltd

Particulars	50% Activity Level	60% Activity Level
Sales Quantity	30,000 units	$\frac{30,000}{50\%} \times 60\% = 36,000$ units
Sales Price	₹ 200	₹200
Variable Overhead		
(a) Direct Material	₹ 75	[₹ 75 + 10%] = ₹ 82.50
(b) Direct Wages	₹ 25	[₹ 25 + 10%] = ₹ 27.50
(c) Direct Expense	₹ 15	[₹ 15 + 10%] = ₹ 16.50
(d) Variable Overheads	₹ 25	[₹ 25 + 10%] = ₹ 27.50
(e) Factory Expenses	[75% of ₹ 20] = ₹ 15	[₹ 15 + 10%] = ₹ 16.50
(f) Selling and Distribution	[80% of ₹ 10] = ₹ 08	[₹ 08 + 10%] = ₹ 08.80
Sub Total	₹ 163	₹ 179.30
Contribution p.u.	₹ 37	₹ 20.70
Total Contribution	[30,000 × 37] = ₹ 11,10,000	[36000 × 20.70] = ₹ 7,45,200
Fixed Overhead		
(a) Factory Expenses	[25% × 20 × 30,000] = 1,50,000	[1,50,000 + 15%] = 1,72,500
(b) Selling and Distribution Expenses	[20% × 10 × 30,000] = 60,000	[60,000 + 15%] = 69,000
(c) Office and Administration Expenses	[5 × 30,000] = 1,50,000	[1,50,000 + 15%] = 1,72,500
Sub Total	3,60,000	4,14,000
Profit	7,50,000	3,31,200

Question 3 (b): Ratio Analysis – Preparation of Balance Sheet

8 Marks

From the following information, prepare Balance Sheet of a Firm:

Stock Turnover Ratio (based on Cost of Goods Sold)	7 times	Liquidity Ratio	1.25
Rate of Gross Profit to Sales	25%	Net Working Capital	₹ 8,00,000
Sales to Fixed Assets	2 times	Net Worth to Fixed Assets	0.9 times
Average Debt Collection Period	1.5 months	Reserves and Surplus	0.25 times
Current Ratio	2	Long Term Debts	Nil

All sales are on credit basis.

Solution: **Similar to Q.No.12, Page 14.17 of Students' Handbook on Cost A/cing & Fin. Management**

Similar to Q.No.12, Page 14.11 of Cost Accounting & Fin. Management – A Practical Guide

Balance Sheet of

Liabilities	₹	Assets	₹
Capital (WN 8)	28,80,000	Fixed Assets (WN 5)	28,00,000
Reserves & Surplus (WN 8)	7,20,000	Current Assets	
Current Liabilities (WN 1)	8,00,000	Stock (WN 2)	6,00,000
		Debtors (WN 6)	7,00,000
		Bank (WN 7)	3,00,000
Total	44,00,000	Total	44,00,000

Working Notes and Calculations

1. Current Ratio = $\frac{\text{Current Assets}}{\text{Current Liabilities}} = 2 \text{ times.}$ So, Current Assets = 2 × Current Liabilities.

Net Working Capital = Current Assets – Current Liabilities = ₹ 8,00,000.

2 × Current Liabilities – Current Liabilities = ₹ 8,00,000.

So, **Current Liabilities = ₹ 8,00,000.**

Hence, Current Assets = 2 × 8,00,000 = **₹ 16,00,000**

2. Quick Ratio = $\frac{\text{Quick Assets}}{\text{Current Liabilities}} = 1.25 \text{ times.}$ So, $\frac{\text{Current Assets}(-)\text{Stock}}{\text{Current Liabilities}} = \frac{16,00,000(-)\text{Stock}}{8,00,000} = 1.25$

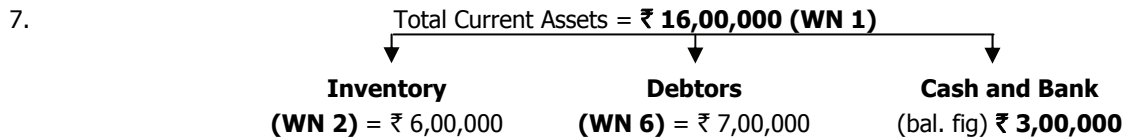
On solving the above, Stock = **₹ 6,00,000**

3. Stock T/O = $\frac{\text{COGS}}{\text{Inventory}} = \frac{\text{COGS}}{6,00,000} = 7 \text{ times.}$ So, **Cost of Goods Sold = ₹ 6,00,000 × 7 = ₹ 42,00,000**

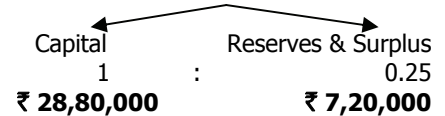
4. Since GP = 25% on Sales, Cost of Goods Sold = 75% of Sales. Hence, Sales = $\frac{\text{COGS}}{75\%} = \frac{42,00,000}{75\%} = \mathbf{₹ 56,00,000}$

5. $\frac{\text{Sales}}{\text{Net Fixed Assets}} = 2.$ So, $\frac{56,00,000}{\text{Net Fixed Assets}} = 2.$ Hence, Net Fixed Assets = $\frac{56,00,000}{2} = \mathbf{₹ 28,00,000}$

6. Debtors = Sales × $\frac{1.5}{12} = ₹ 56,00,000 \times \frac{1.5}{12} = \mathbf{₹ 7,00,000}$



8. From the Balance Sheet, after updating Items in WN 1 to 7, Net Worth = Capital + R&S = **₹ 36,00,000**



Important Note: In the question, there is one another ratio, viz. Net Worth to Fixed Assets = 0.9 times, which is **not used** in the above computation. Had it been considered, it will lead to multiple assumptions and alternative possibilities as under –

- (a) **Net Worth** = 0.9 × Fixed Assets = 0.9 × ₹ 28,00,000 = ₹ 25,20,000, with the break-up of Capital and Reserves & Surplus as ₹ 20,16,000 and ₹ 5,04,000 respectively. This would lead to a difference in the Balance Sheet, in the Liabilities Side, of an unexplained amount of ₹ 10,80,000.
- (b) This difference of ₹ 10,80,000 **cannot** be considered as Long Term Debt, since Question specifically states Long Term Debts = Nil, and **cannot** be considered as Current Liability / Cash Credit, since Current Ratio and Quick Ratio would get affected in such case.
- (c) To overcome the anomaly, the difference ₹ 10,80,000 may be considered as Preference Share Capital, and the Net Worth to be considered as **“Equity Shareholders Net Worth”**. This again is an assumption since the Question does not specify anywhere that it is a “Limited Company” form of organisation.

Question 4 (a): Non-Integrated System – Ledger Accounts

8 Marks

Following information have been extracted from the Cost Records of XYZ Pvt. Ltd:

Stores:	₹	Work-In-Progress:	₹
Opening Balance	54,000	Opening Balance	1,08,000
Purchases	2,88,000	Direct Wages Applied	1,08,000
Transfer from Work-In-Progress	1,44,000	Overheads Applied	4,32,000
Issues to Work-In-Progress	2,88,000	Closing Balance of WIP	72,000
Issues to Repairs	36,000		
Deficiencies found in Stock Taking	10,800		

6. Costing P & L Account

Particulars	₹	Particulars	₹
To Finished Goods Control – Factory Cost tfr	7,20,000	By Sales	8,28,000
To Costing Profit c/d	1,08,000		
Total	8,28,000	Total	8,28,000
To POH Control – Absorption Diff. w/off	82,800	By Costing Profit b/d	1,08,000
To Profit transferred to General Ledger Adj.	25,200		
Total	1,08,000	Total	1,08,000

Question 4 (b):

8 Marks

The Capital Structure of RST Ltd is as follows –

Particulars	₹
Equity Shares of ₹ 10 each	8,00,000
10% Preference Shares of ₹ 100 each	5,00,000
12% Debentures of ₹ 100 each	7,00,000
Total	20,00,000

Additional Information:

- (a) Profit after Tax (Tax Rate 30%) are ₹ 2,80,000
- (b) Operating Expenses (including Depreciation ₹ 96,800) are 1.5 times of EBIT
- (c) Equity Dividend paid is 15%
- (d) Market Price of Equity Share is ₹ 23

Calculate:

(a) Operating and Financial Leverage	(b) Cover for Preference & Equity Dividends
(c) The Earning Yield and Price Earning Ratio	(d) The Net Fund Flow

Note: All operating expenses (excluding depreciation) are variable.

Solution: Similar to Q.No.15, Page 17.16 of Students' Handbook on Cost A/cing & Fin. Management [M 12 Qn]

Profit Statement

Particulars	Computation	₹
Sales	EBITD + Operating Cost =	12,10,000
Less: Variable Operating Costs excl. Deprn	(EBIT × 1.50 times) – Deprn. = (4,84,000 × 1.50) – 96,800	(6,29,200)
Contribution	EBIT + Deprn = 4,84,000 + 96,000	5,80,800
Less: Fixed Costs = Depreciation	(given)	(96,800)
EBIT	EBT + Interest = 4,00,000 + 84,000	4,84,000
Less: Interest	12% on 7,00,000	(84,000)
EBT	100%	$\frac{2,80,000}{70\%} = 4,00,000$
Less: Tax at 30%	30%	(1,20,000)
EAT	100% – 30% = 70%	(given) 2,80,000
Less: Preference Dividend	10% on 5,00,000	(50,000)
Residual Earnings		2,30,000
Less: Equity Dividend		(1,20,000)
Retained Earnings		1,10,000
No. of Shares	$\frac{8,00,000}{10}$	80,000 Nos.
Earnings Per Share (EPS)	$\frac{\text{Residual Earnings}}{\text{No. of Equity Shares}} = \frac{2,30,000}{80,000}$	2.875

Particulars	Computation	₹
Operating Leverage	$\frac{\text{Contribution}}{\text{EBIT}} = \frac{5,80,800}{4,84,000}$	1.2 times
Financial Leverage	$\frac{\text{EBIT}}{\text{EBT}} = \frac{4,84,000}{4,00,000}$	1.21 times
PE Ratio	$\frac{\text{Market Price per Share}}{\text{Earnings per Share}} = \frac{23}{2.875}$	8
Earnings Yield Ratio (EPS Yield)	$= \frac{\text{EPS}}{\text{MPS}} = \frac{2.875}{23}$	12.5%
Preference Dividend Cover	$\frac{\text{EAT}}{\text{Pref. Dividend}} = \frac{2,80,000}{50,000}$	5.6 times
Equity Dividend Cover	$\frac{\text{Residual Earnings}}{\text{Eq. Dividend}} = \frac{2,30,000}{1,20,000}$	1.916 times
Gross Funds Flow	EBIT + Depreciation	5,80,800
Net Funds Flow (Note)	Retained Earnings + Depreciation = 1,10,000+96,800	2,06,800

Note: Net Funds Flow may also be computed as Gross Funds Flow 5,80,800 less Payments (Interest 84,000, Tax 1,20,000 and Dvds 50,000 & 1,20,000) = ₹ 2,06,800

Question 5 (a): Costing Basics

4 Marks

Identify the methods of costing for the following:

Question	Answer [See Note]
(a) Where all costs are directly charged to a specific job.	Job Costing
(b) Where all costs are directly charged to a group of products.	Batch Costing
(c) Where cost is ascertainable for a single product.	Single or Unit or Output Costing
(d) Where the nature of the product is complex and method cannot be ascertained.	Multiple Costing

Note: Refer Para 1.4.1, Page 1.15 of Students' Handbook on Cost A/cing & Fin. Management

Question 5 (b) (c) (d): Theory – Various Topics

4 Marks

Question	Theory Discussion in Students' Handbook on Cost A/cing & Fin. Management	Question Reference in Cost A/cing & Fin. Management – A Practical Guide
(b) Explain the treatment of Over and Under Absorption of Overheads in Cost Accounts.	Para 4.3.12, Page 4.12	Q.No.32, Page No.4.38 (Similar to M 86, M 89, M 94, M 04, M 06, M 10 Qn)
(c) Explain four kinds of Float with reference to Management of Cash.	Para 16.2.15, Page 16.13	Q.No.29, Page No.16.49
(d) Distinguish between 'Operating Lease' and 'Financial Lease'.	Para 21.3.5, Page 21.5	Q.No.13, Page No.21.2 (Similar N 11 Qn)

Question 6 (a): Working Capital – Debtors Management – Credit Period Decision

8 Marks

PQR Ltd having an Annual Sales of ₹ 30 Lakhs, is re-considering its present collection policy. At present, the Average Collection Period is 50 days and the Bad Debts Losses are 5% of Sales, The Company is incurring an expenditure of ₹ 30,000 on account of collection of receivables.

The alternative policies are as under:

Particulars	Alternative I	Alternative II
Average Collection Period	40 days	30 days
Bad Debt Losses	4% of Sales	3% of Sales
Collection Expenses	₹ 60,000	₹ 95,000

Evaluate the alternatives on the basis of incremental approach and state which alternative is more beneficial.

Solution:

Particulars	Present	Alternative 1	Alternative 2
1. Sales	30,00,000	30,00,000	30,00,000
2. Collection Expenses	30,000	60,000	95,000
3. Bad Debts [on Sales] (5%, 4%, 3%)	1,50,000	1,20,000	90,000
4. Collection Period [in days]	50	40	30
5. Average Debtors [Sales × $\frac{\text{Days in (4)}}{365}$]	4,10,959	3,28,767	2,46,575
6. Interest on Average Debtors (assumed at 10%)	41,096	32,877	24,658
7. Total Costs [2+3+6]	2,21,096	2,12,877	2,09,658

Note: Since the Rate of Return on Investment has not been specified in the question, it is assumed at 10% in the above.

Conclusion: From the above Table, by comparing Costs, **Alternative 2** is more beneficial.

Alternative Approach: Instead of assuming Interest Rate of 10%, the **following evaluations** are also possible (basic computations upto Point 4 as per the above Table) –

Present vs Alternative 1	<ul style="list-style-type: none"> Total Cost of (Collection + Bad Debts) = 1,80,000 in both Present and Alternative 1. Alternative 1 results in lower Collection Period of 10 days. Whatever be the Interest Rate on Debtors, Alternative 1 is better than Present Situation, since there is a reduction in the Collection Period, resulting in Interest Benefit.
Present vs Alternative 2	<ul style="list-style-type: none"> Total Cost of (Collection + Bad Debts) = 1,80,000 in Present and 1,85,000 in Alternative 2. There is an additional Cost of 5,000 under Alternative 2, which has to be offset by Interest Benefit, to obtain Indifference Point between Present and Alternative 2. The relevant Rate of Interest may be computed as under – $(4,10,959 - 2,46,575) \times R\% \times \frac{50 - 30}{365} = 5,000. \text{ Solving, } R = 56\%$ Hence, Alternative 2 is better than Present Situation, only if Rate of Interest ≥ 56% on the Incremental Investment, for the incremental period of 20 days.
Alternative 1 vs Alternative 2	<ul style="list-style-type: none"> Total Cost of (Collection + Bad Debts) = 1,80,000 in Present and 1,85,000 in Alternative 2. There is an additional Cost of 5,000 under Alternative 2, which has to be offset by Interest Benefit, to obtain Indifference Point between Alternative 1 and Alternative 2. The relevant Rate of Interest may be computed as under – $(3,28,767 - 2,46,575) \times R\% \times \frac{40 - 30}{365} = 5,000. \text{ Solving, } R = 222\%$ Hence, Alternative 2 is better than Alternative 1, only if Rate of Interest ≥ 222% on the Incremental Investment, for the incremental period of 20 days.

Question 6 (b): Process Costing – Equivalent Production – FIFO Method

8 Marks

The following information relate to Process A:

(i) Opening Work-in-Progress	8,000 units at ₹ 75,000
Degree of Completion:	Material 100%, Labour and Overhead 60%
(ii) Input 1,82,000 units at	₹ 7,37,500
(iii) Wages paid	₹ 3,40,600
(iv) Overheads	₹ 1,70,300
(v) Units scrapped	14,000
Degree of Completion:	Material 100%, Labour and Overhead 80%
(vi) Closing Work-in-Progress	18,000 units
Degree of Completion:	Material 100%, Labour and Overhead 70%
(vii) Units completed and transferred to next process	1,58,000 units
(viii) Normal Loss	5% of Total Input including Opening WIP
(ix) Scrap Value to be adjusted out of Direct Material Cost	₹ 5 per unit

You are required to compute on the basis of FIFO basis:

- Equivalent Production
- Cost Per Unit
- Value of Units transferred to next Process.

Solution:

Similar to Q.No.12, 13, 14 Page 8.22 to 8.24 of
Students' Handbook on Cost A/cing & Fin. Management [M 87, M 98, N 09 Qn]
 Similar to Q.No.12, Page 8.14 of Cost Accounting & Fin. Management – A Practical Guide [M 90 Qn]

1. Statement of Equivalent Production

Particulars	Input	Particulars	Output	Materials		Labour & OH	
				%	E.U	%	E.U
Opg. WIP	8,000	Transfer from: – Opg WIP	8,000	–	–	40%	3,200
Fresh units	1,82,000	– fresh units(b/f)	1,50,000	100%	1,50,000	100%	1,50,000
		Total tfr to Process B	1,58,000		1,50,000		1,53,200
		Normal Loss (5% of 190000)	9,500	–	–	–	–
		Abnormal Loss (b/f.)	4,500	100%	4,500	80%	3,600
		Closing WIP	18,000	100%	18,000	70%	12,600
Total	1,90,000	Total	1,90,000		1,72,500		1,69,400

Note: Transfer out of Fresh Units = Total Transfer **Less** Transfer out of Opening WIP = 1,58,000 – 8,000 = 1,50,000 units.

2. Statement of Cost per Equivalent Unit

Cost Element	Total Costs	Equivalent Units	Cost per Equivalent Unit
Material	7,37,500		
Less: Scrap Value of Normal Loss	<u>(47,500)</u>		
	₹ 6,90,000	1,72,500	₹ 4
Labour	₹ 3,40,600	1,69,400	₹ 2.01 (approx.)
Overhead	₹ 1,70,300	1,69,400	₹ 1.01 (approx.)
Total	₹ 12,00,900		

3. Statement of Cost Apportionment

Item	Material at ₹ 4/eu	Labour at ₹ 2.01/eu	OH at ₹ 1.01/eu	Total
Transfer to B	1,50,000 × 4 = 6,00,000	1,53,200 × 2.01 = 3,08,028	1,53,200 × 1.01 = 1,54,014	10,62,042
Abnormal Loss	4,500 × 4 = 18,000	3,600 × 2.01 = 7,238	3,600 × 1.01 = 3,619	28,857
Closing WIP	18,000 × 4 = 72,000	12,600 × 2.01 = 25,334	12,600 × 1.01 = 12,667	1,10,001
Total	6,90,000	3,40,600	1,70,300	12,00,900

Note: Total Cost of Transfer= Opening WIP Cost ₹ 75,000 + Current Value Addition ₹ 10,62,042 = Total ₹ **11,37,042**.

4. Process A Account (not required in Question, prepared as WN Purposes only)

Particulars	Qty	₹	Particulars	Qty	₹
To Opening WIP b/d	8,000	75,000	By Process B – Transfer (Note 3)	1,58,000	11,37,042
To Direct Materials	1,82,000	7,37,500	By Normal Loss (Scrap Rate ₹ 5 pu)	9,500	47,500
To Direct Labour		3,40,600	By Abnormal Loss	4,500	28,857
To Production Overheads		1,70,300	By Closing WIP c/d	18,000	1,10,001
Total	1,90,000	13,23,400	Total	1,90,000	13,23,400

Question 7: Answer any four of the following:**4 X 4 = 16 Marks**

Question	Theory Discussion in Students' Handbook on Cost A/cing & Fin. Management	Question Reference in Cost A/cing & Fin. Management – A Practical Guide
(a) Why money in the future is worth less than similar today? Give the reasons and explain.	Para 19.1.1, Page 19.1	Q.No.2, Page No.19.6 (Similar to M 05, M 08, N 11 Qn)
(b) Distinguish between 'Business Risk' and 'Financial Risk'.	Para 17.1.1, Page 17.1	Q.No.1, Page No.17.14 (Similar to M 07, N 09, N 12 Qn)
(c) What is 'Internal Rate of Return'? Explain.	Para 20.2.10, Page 20.8	Q.No.14, Page No.20.30 (Similar to N 08 Qn)
(d) State the different types of Packing Credit.	Para 21.3.19, Page 21.13	Q.No.27, Page No.21.2
(e) Define 'Labour Turnover'. How is it measured? Explain.	Para 3.3.1 & 3.3.2, Page 3.8	Q.No.21,22, Page No.3.22 (Similar to N 85,94,04,07,10 and M 96, 03 Qn)