

CA-IPCC NOVEMBER 2014

COST & FM

QUESTION & SOLUTION

By

CA VINEET BANSAL

(Visiting Faculty of ICAI)

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Total No. of Questions - 7 Time Allowed - 3 Hours Maximum Marks -100

Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his answers in Hindi will not be valued.

Question No. 1 is compulsory.

Candidates are also required to answer any five questions from the remaining six questions.

Wherever appropriate, suitable assumptions should be made and indicated in answer by the candidate. Working notes should form part of the answer.

Marks
5

Q1 (a)

Following details are related to a manufacturing concern:

Reorder Level	160000 units	Maximum Stock level	1,90,000 units
Economic Order Quantity	90,000 units	Average lead time	6 days
Minimum Stock Level	1,00,000 units	Difference between minimum lead time & maximum lead time	4 days

Calculate:

- (i) Maximum consumption per day (ii) Minimum consumption per day.

Q1 (b)

5

Zed Limited sells its product at Rs.30 per unit. During the quarter ending on 31st March, 2014, it produced and sold 16000 units and suffered a loss of Rs.10 per unit. If the volume of sales is raised to 40000 units, it can earn a profit of Rs.8 per unit.

You are required to calculate:

- (i) Break Even point in Rupees.
- (ii) Profit if the sales volume is 50000 units.
- (iii) Minimum level of production where the company needs not to close the production if unavoidable fixed costs is Rs.1,50,000.

Q1 (c)

5

Alpha Limited requires funds amounting to Rs.80 lakhs for its new project. To raise the funds, the company has following two alternatives:

- (i) to issue Equity (at par) amounting to Rs.60 lakhs and borrow the balance amount at the interest of 12% p.a.; or
- (ii) to issue Equity Shares (at par) and 12% Debenture 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.

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Q1 (d)**5**

'A' Ltd. and 'B' Ltd. are identical in every respect except capital structure. 'A' Ltd. does not employ debts in its capital structure where as 'B' Ltd. employs 12% Debentures amounting to Rs.10 lakhs. Assuming that:

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

(ii) Income-tax rate is 30%;

(iii) EBIT is Rs.2,50,000 and

(iv) The Equity capitalization rate of 'A' Ltd. is 20%.

Calculate the value of both the companies and also find out the Weighted Average Cost of Capital for both the companies.

Q2 (a)**8**

Z Limited obtained a contract No.999 for Rs.50 lacs. The following details are available in respect of this contract for the year ended March 31, 2014:

	Rs.		Rs.
Material Purchased	1,60,000	Electricity charges	25,000
Materials issued from stores	5,00,000	Plant hire expenses	60,000
Wages and salaries paid	7,00,000	Sub-contract cost	20,000
Drawing and maps	60,000	Materials returned to stores	30,000
Sundry expenses	15,000	Materials returned to suppliers	20,000

The following balances relating the contract No.999 for the year ended on March 31, 2014 are available:

	As on 31 st March, 2013 Rs.	As on 31 st March, 2014 Rs.
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.

Q2 (b)**8**

Balance Sheets of Star Ltd. are as under:

(in lakhs Rs.)

Liabilities	31.3.13	31.3.14	Assets	31.3.13	31.3.14
Share capital	24.00	30.00	Plant & Machinery	15.00	21.00
Reserve	4.50	6.00	Buildings	12.00	18.00
Profit and Loss A/c	1.80	3.00	Investments	-	3.00
Debentures	-	6.00	Sundry debtors	21.00	15.00
Provisions 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 balance and on building @ 10% on its opening balances.
- During the year an old machine costing Rs.1,50,000 (written down value Rs.60,000) was sold for Rs.1,05,000.
- Rs.1,50,000 was paid towards Income-tax, during the year.

Q3 (a)

8

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

	Rs.
Direct Material	75 per unit
Direct Wages	25 per unit
Variable Overheads	25 per unit
Direct Expenses	15 per unit
Factory Expenses(25% fixed)	20 per unit
Selling and Distribution Exp.(80%bvariable)	10 per unit
Office and Administrative Exp.(100% fixed)	5 per unit

The company anticipates that the variables costs will go up by 10% and fixed costs will go 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.

Q3 (b)

8

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

Stock Turnover Ratio	7 times
(based on costs of goods sold)	
Rate of Gross Profit to Sales	25%
Sales to Fixed Assets	2 times
Average debt collection period	1.5 months
Current Ratio	2
Liquidity Ratio	1.25
Net working Capital	Rs.8,00,000
Net worth to fixed assets	0.9 times
Reserves and surplus to capital	0.25 times
Long term Debts	Nil
All Sales are on credit basis	

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Q4 (a)

8

Following information have been extracted from the cost records of XYZ Pvt. Ltd:

Stores:	Rs.	Work-in-Progress:	
Opening balance	54,000	Opening Balance	Rs.1,08,000
Purchases	2,88,000	Direct Wages applied	Rs.1,08,000
Transfer from WIP	1,44,000	Overheads charged	4,32,000
Issue to WIP	2,88,000	Closing Balance	72,000
Issue for repairs	36,000		
Deficiency found in stock	10,800		

Finished Production: Entire production is sold at a profit of 15% on cost at WIP

Wages paid	1,26,000	Overheads incurred	4,50,000
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Draw the Stores Ledger Control Account, Work-in-Progress Control Account, Overheads Control Account and Costing Profit and Loss Account.

Q4 (b)

8

The Capital Structure of RST Ltd. is as follows:

Equity Share of Rs10 each	Rs.8,00,000
10% Preference Share of Rs.100 each	5,00,000
12% Debenture of Rs.100 each	<u>7,00,000</u>
	<u>20,00,000</u>

Additional information:

-Profit after tax (Tax Rate 30%) are Rs.2,80,000

-Operating Expenses (including Depreciation Rs.96,800) are 1.5 times of EBIT

-Equity Dividend paid is 15%

-Market price of Equity Share is Rs.23

Calculate:

(i) Operating and Financial Leverage

(ii) Cover for preference and equity dividend

(iii) The Earning Yield Ratio and Price Earning Ratio

(iv) The Net Fund Flow

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

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Q5 (a)

Identify the methods of costing for the following:

(i) Where all costs are directly charged to a specific job.

(ii) Where all costs are directly charged to a group of products.

(iii) Where cost is ascertain for a single product.

(iv) Where the nature of the product is complex and method can not be ascertained.

Q5 (b)

Explain the treatment of over and under absorption of overheads in cost accounts.

Q5 (c)

Explain four kinds of float with reference to management of cash.

Q5 (d)

Distinguish between 'Operating Lease' and 'Financial Lease'.

Q6 (a)

PQR Ltd. having an annual sales of Rs.30 lakhs, is re-considering its present collection policy. At present, the average collection period is 50 days and the bad debt losses are 5% of sales. The company is incurring an expenditure of Rs.30,000 on account of collection of receivables.

The alternative policies are as under:

	Alternative I	Alternative II
Average collection period	40 days	30 days
Bad debt Losses	4% of sales	3% of sales
Collection Expenses	Rs.60,000	Rs.95,000

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

Q6 (b)

The following information relate to Process A:

(i) Opening Work-in-progress	8,000 units at Rs.75,000
Degree of Completion:	
Material	100%
Labour And Overhead	60%
(ii) Input 1,82,000 units at	Rs.7,37,500
(iii) Wages paid	Rs.3,40,600
(iv) Overheads paid	Rs.1,70,300
(v) Units scrapped	14,000
Degree of completion:	

Material	100%
Wages and overheads	80%
(vi) Closing work-in-progress	18,000 units
Degree of completion:	
Material	100%
Wages and overheads	70%
(vii) Units completed and transferred to next process	1,58,000
(viii) Normal loss 5% of total input including opening WIP	
(ix) Scrap value is Rs.5 per unit to be adjusted out of direct material cost	
You are required to compute on the basis of FIFO basis:	
(i) Equivalent production	
(ii) Cost per unit	
(iii) Value of units transferred to next process.	

Q7 **4 x 4 = 16 marks**

Answer any four of the following:

- Why money in the future is worth less than similar money today? Give the reasons and explain.
- Distinguish between 'Business Risk' and 'Financial Risk'.
- What is 'Internal Rate of Return'? Explain.
- State the different types of Packing Credits.
- Define 'Labour Turnover'. How is it measured? Explain.

SOLUTIONS

Ans. 1 (a)

- $$\text{Avg. Lead time} = (\text{Mini LT} + \text{Maxi LT})/2 \quad 6 = (\text{mini LT} + \text{Mini LT} + 4)/2$$

$$\text{Mini LT} = (6 \times 2 - 4)/2 = 4 \quad \text{Maxi LT} = 4 + 4 = 8$$

$$\text{ROL} = \text{Maxi. Consumption rate} \times \text{Maxi LT} \quad 160000 = \text{Maximum Consumption rate} \times 8$$

$$\text{Maximum Consumption per day} = 160000/8 = 20000 \text{ units}$$
- $$\text{Maximum Stock Level} = \text{ROL} - (\text{Minimum Consumption per day} \times \text{Minimum LT}) + \text{ROQ}$$

$$190000 = 160000 - (\text{Minimum Consumption per day} \times 4) + 90000$$

$$\text{Minimum Consumption per day} = (90000 + 160000 - 190000)/4 = 15000 \text{ Units}$$

Note: There seems to some technical problem in question because minimum stock level can't be tallied by computing average consumption per day.

$$\text{Minimum Stock Level} = \text{ROL} - (\text{Avg. Consumption per day} \times \text{Avg. LT})$$

$$100000 = 160000 - (\text{Avg. Cons. Per day} \times 6)$$

$$\text{Avg. consumption per day} = (160000 - 100000)/6 = 10000 \text{ units}$$

Average consumption per day can not be lower than minimum consumption rate.

Ans. 1(b)

- $$\text{Contribution/Unit} = \text{Change in Profits/Change in Units}$$

$$= (40000 \times 8) - (16000 \times 10) / 40000 - 16000 \quad = \text{Rs.20}$$

$$\text{Sales Unit} \times \text{Contribution p.u.} = \text{Fixed Cost} + \text{Profit}$$

$$40000 \times 20 = \text{Fixed Cost} + 40000 \times 8 \quad \text{Fixed cost} = \text{Rs.480000}$$

$$\text{BEP units} = \text{Fixed costs/contribution per unit} = 480000/20 = 24000 \text{ unit}$$

$$\text{BEP in Rs.} = 24000 \times \text{Rs.30} \quad = \text{Rs.7,20,000}$$
- $$\text{Sales Unit} \times \text{Contribution p.u.} = \text{Fixed Cost} + \text{Profit}$$

$$50000 \times 20 = 480000 + \text{Profit}$$

$$\text{Profit} = \text{Rs.} 5,20,000$$

$$\begin{aligned} \text{(iii) Avoidable Fixed Cost} &= \text{Total Fixed Cost} - \text{Unavoidable Fixed Cost} \\ &= 4,80,000 - 1,50,000 = 3,30,000 \end{aligned}$$

$$\text{Shut Down Point} = \text{Avoidable Fixed cost} / \text{Contribution p.u.}$$

$$= \text{Rs.} 3,30,000 - 1,50,000 / 20 = 16,500 \text{ units}$$

Minimum level of Production not to close production = 16500 units

Ans. 1(c)

	Option ii	Option iii
Total Fund	Rs.80.00	Rs.80.00
(-)Equity Fund	(Rs.60.00)	(Rs.40.00)
12% Debt Fund	Rs.20.00	Rs.40.00
No. of Equity shares	6 lakhs	4 lakhs
Annual interest	Rs.2.40 lakhs (20 X 12%)	Rs.4.80 lakhs (40 X 12%)

$$(\text{EBIT} - I_1)(1-t)/N_1 = (\text{EBIT} - I_2)(1-t)/N_2$$

$$(\text{EBIT} - 240000)(1 - 0.30) / 6,00,000$$

$$= (\text{EBIT} - 4,80,000)(1 - 0.30) / 4,00,000$$

$$\text{EBIT} - 2,40,000 = 1.50 \text{ EBIT} - 7,20,000$$

$$4,80,000 = 0.50 \text{ EBIT}$$

$$\text{Indifference EBIT} = 4,80,000 / 0.50 = 9,60,000$$

Situation

Beneficial option

EBIT less than Rs.9,60,000

Option (i)

EBIT = 9,60,000

Option (i) or (ii)

EBIT more than 9,60,000

Option (ii)

Ans. 1(d)

A Ltd. (Unlevered)

$$\text{Value of Unlevered Co.} = (\text{EBIT} (1 - t)) / k_e \text{ or } k_o$$

$$= (250000 (1 - 0.30)) / 20\% = \text{Rs.} 8,75,000$$

WACC of Unlevered Co. (k_o) = k_e = 20%

B Ltd. (Levered Co.)

$$\text{Value of Levered Co.} = \text{Value of Unlevered Co.} + \text{Value of tax saving on Debt fund}$$

$$= \text{Rs.} 8,75,000 + (10,00,000 \times 0.30) = \text{Rs.} 11,75,000$$

$$\text{WACC of Levered Co.} = \text{EBIT} (1 - t) / \text{Value of Levered Co.}$$

$$= (2,50,000 (1 - 0.30)) / 11,75,000 = 14.8936\%$$

Ans. 2(a)

Contract a/c (01/04/13 to 31/03/14)

Particulars	Amount	Particulars	Amount
To Work in progress b/d		By material at site c/d	30,000
(a) Work certified	12,00,000	By Material Returned to store	30,000
(b) Work uncertified	20,000	By Mat. Returned to suppliers	20,000
To Material at site b/d	15,000	By work-in-progress c/d	
To materials Purchased	1,60,000	(a) Work certified	35,00,000
To Materials Issued	5,00,000	(b) Work Uncertified	40,000
To wages & Salaries	7,10,000		
(700000+20000-10000)			
To Drawing & Maps	60,000		
To sundry Expenses	15,000		

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To Plant & Hire Exp.	60,000		
To sub-contract cost	20,000		
To Notional Profit c/d	835000		
	3620000		3620000
To profit & Loss a/c (w.n. 1)	4,17,500	By Notional Profit b/d	8,35,000
To contingency Reserve c/d (B.F.)	4,17,500		
	835000		8,35,000

Contractee's A/c

		By Balance b/d (12,00,000 X 75%)	9,00,000
To balance c/d (35,00,000 X 75%)	2625000	By bank a/c (35,00,000 - 12,00,000) X 75%	17,25,000
	2625000		2625000

Working Note

1) % Work certified = $(35,00,000 / 50,00,000) \times 100 = 70\%$

Profit transferred to Profit & Loss a/c = $2/3 \text{ (Notional Profit)} \times \text{(Cash received/work certified)}$
 $= 2/3 \text{ (835000)} \times (2625000 / 35,00,000) = \text{Rs. } 4,17,500$

Note: The opening balance of work certified is available, but opening balance of contingency Reserve is not available. Therefore it has been ignored for current year profit computation.

Ans. 2(b)

Cash flow statement (01/04/13 to 31/03/14) (Rs. In lakhs)

Particulars	Amount	Amount
Cash flow from operating Activities		
Profit transferred to B/S(3-1.80)	1.20	
Add: Profit transfer to Reserve(6-4.50)	1.50	
Add: Provision for Taxation	2.40	
Add: Proposed Dividend	6.00	
Add: Depreciation (3.75+1.20)	4.95	
(-) Profit on sale of machine	(0.45)	
(-) Increase in stock(12-6)	(6.00)	
+decrease in debtors(21-15)	(6.00)	
-Decrease in creditors(24.60-21)	(3.60)	
Cash flow before Taxes & EOI	12.00	
-Income Tax paid	(1.50)	
Net cash flow from operating Activities		10.50
Cash flow from Investing Activities		
Purchase of Plant & Machinery	(10.35)	
Sale of Machine	1.05	
Purchase of Building	(7.20)	
Purchase of Investment	(3.00)	
Net cash flow from Investing Activities		(19.50)
Cash Flow from Financing Activities		
Issue of share capital(30-24)	6.00	
Debentures Issued(6-0)	6.00	

Dividend Paid	(3.00)	
Net cash flow from Financing Activities		9.00
Increase/Decrease in cash & cash equivalent		0
Cash & Cash equivalent at the beginning		6.00
Cash & Cash equivalent at the end		6.00

Working Note:

1) Provision for taxation A/c

To Cash & Bank a/c	1.50	By Balance b/d	2.10
To Bal c/d	3.00	By P&L A/c (B.F.)	2.40
	4.50		4.50

2) Plant & Machinery A/c

To Bal b/d	15.00	By Dep. a/c (15 X 25%)	3.75
To P&L a/c(1.05-0.60)	0.45	By C & B A/c	1.05
To C&B A/c(B.F.)	10.35	By Bal c/d	21.00
	25.80		25.80

3) Building A/C

To Bal B/d	12.00	By Dep. A/c (12 X 10%)	1.20
To Bank A/c	7.20	By Bal c/d	18.00
	19.20		19.20

Note 1): In the absence of interest rate, the interest on debenture were ignored.

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Ans. 3(a)

Expenses Budget

Particulars	50% (30,000 units)	60% (36000 units)
Variable cost		
1) Direct Material	24,75,000 (75 X 110% X 30,000)	29,70,000 (75 X 110% X 36000)
2) Direct Wages	8,25,000 (25 X 110% X 30,000)	9,90,000 (25 X 110% X 36000)
3) Variable Overheads	8,25,000 (25 X 110% X 30,000)	9,90,000 (25 X 110% X 36000)
4) Direct Expenses	4,95,000 (15 X 110% X 30,000)	5,94,000 (15 X 110% X 36000)
5) Factory Expenses	495000 (20 X 75% X 110% X 3,00,000)	5,94,000 (20 X 75% X 110% X 36000)
6) Selling& dist Exp.	264000 (10 X 80% X 110% X 30,000)	316800 (10 X 80% X 110% X 36000)
Total(A)	53,79,000	64,54,800
FIXED COST		
1)Factory Expenses	172500 (150000 X 115%)	172500
2)Selling &Dist. Exp.	69000 (60,000 X 115%)	69000
3)Office & Admin Exp.	172500 (150000 X 115%)	172500
Total(B)	414000	414000
Total Cost(A+B)	5793000	6868800
Sales Revenue(C)	60,00,000 (30000 X 200)	72,00,000 (36000 X 200)
Profit(C-(A+B))	2,07,000	3,31,200

Working Note

1) The fixed cost at present are as follows:

Factory Expenses=20 X 25% X 30,000 = 150000

Selling & Dist Exp. =10 X 20% X 30,000 =60,000

Office & Admin. Exp.=5 X 100% X 30,000 =1,50,000

Ans. 3(b)

Balance Sheet

Liabilities	Amount	Assets	Amount
Capital	20,16,000	Fixed Assets	28,00,000
Res & Surplus	5,04,000	Current Assets	
Long term debt (B.F.)	10,80,000	Stock	6,00,000
Current Liabilities	8,00,000	Cash	3,00,000
		Debtors	7,00,000
	44,00,000		44,00,000

Working Note

Net working Capital =8,00,000

Current Ratio= Current Assets/Current Liabilities =(CL+WC)/CL

$$2 = (CL + 80,000) / CL$$

$$\text{Current Liabilities} = \text{Rs. } 8,00,000$$

$$\text{Current Assets} = 8,00,000 \times 2 = 16,00,000$$

$$\text{Liquid Ratio} = \text{Liquid Asset} / \text{Current Liabilities}$$

$$1.25 = \text{Liquid Assets} / 8,00,000$$

$$\text{Liquid Assets} = 10,00,000$$

$$\text{Inventory} = \text{Current Assets} - \text{Liquid Assets}$$

$$= 16,00,000 - 10,00,000 = 6,00,000$$

$$\text{Stock turnover Ratio} = \text{Cost of good sold} / \text{Inventory}$$

$$7 = \text{Cost of good sold} / 6,00,000$$

$$\text{Cost of goods sold} = 42,00,000$$

$$\text{Sales (credit)} = (42,00,000 / 75) \times 100 = 56,00,000$$

$$\text{Avg. Debt collection Period} = (\text{Debtors} / \text{Credit Sales}) \times 12$$

$$1.50 = (\text{Debtors} \times 12) / 56,00,000$$

$$\text{Debtors} = 7,00,000$$

$$\text{Cash} = \text{Liquid Assets} - \text{Debtors}$$

$$= 10,00,000 - 7,00,000 = 3,00,000$$

$$\text{Sales to fixed Asset} = \text{Sales} / \text{Fixed Asset}$$

$$2 = 56,00,000 / \text{Fixed Asset}$$

$$\text{Fixed Asset} = 56,00,000 / 2 = 28,00,000$$

$$\text{Net Worth} / \text{Fixed Asset} = 0.90$$

$$\text{Net Worth} = 0.90 \times 28,00,000 = 25,20,000$$

$$\text{Net Worth} = \text{Capital} + \text{Res. \& Sur.}$$

$$25,20,000 = \text{Capital} + (\text{Capital} \times 0.25)$$

$$\text{Capital} = 25,20,000 / 1.25 = 20,16,000$$

$$\text{Res. \& Surplus} = 20,16,000 \times 0.25 = 5,04,000$$

Note (1) : There seems to be some mistake in question. The above solution were prepared ignoring that long term debt is nil.

Note (2) : If long term debt is nil, then Net worth = Fixed Asset + Working Capital

In such case net worth can't be lower than Fixed Assets and Net worth / Fixed asset ratio of 0.90 will prove wrong. The solution ignoring this ratio will be as follows:-

$$\text{Net worth} = \text{Fixed Asset} + \text{Working Capital}$$

$$= 28,00,000 + 8,00,000 = 36,00,000$$

$$\text{Reserve \& Surplus} = (36,00,000 / 1.25) \times 0.25 = 7,20,000$$

$$\text{Capital} = 36,00,000 / 1.25 = 28,80,000$$

Balance Sheet

Capital	28,89,000	Fixed Asset	28,00,000
Reserve & Surplus	7,20,000	Current Assets	
Current Liabilities	8,00,000	Stock	6,00,000
		Debtors	7,00,000
		Cash	3,00,000
	44,00,000		44,00,000

Ans. 4(a)

Stores Ledger Control Account

To Balance b/d	54,000	By WIP control a/c	28,800
To cost ledger control a/c	2,88,000	By OH Control A/c	36,000

IPCC - COST & FM

8 Regular & 2 Grand Test.

Highest number of exam oriented test taken, checked & solved by any teacher in 1 IPCC batch.

To WIP Control A/c	144000	By Costing P&L A/c(Deficiency)	10800
		By Balance c/d	151200
	486000		486000

WIP Control A/c

To Bal b/d	108000	By Stores Ledger Control A/c	144000
To Store ledger Control a/c	288000	By Cost of sales a/c (B.F.)	720000
To Wages Control A/c	108000	By Bal c/d	72000
To Overhead Control a/c	432000		
	936000		936000

Overhead Control A/c

To Stores Ledger Control A/c	36000	By WIP Control a/c	432000
To Wages Control a/c	18000	By Bal c/d	72000
To Control Ledger a/c	450000		
	504000		504000

Costing P&L a/c

To Cost of sales a/c	7,20,000	By Sales a/c	828000
		(7,20,000 X 115%)	
To Deficiency in Stock	10800		
To Net Profit c/d	97200		
	828000		828000

Working Notes:

Wages Control a/c

To Cost Ledger Control a/c	126000	By WIP Control a/c	108000
		By OH Control a/c(B.F.)	18000
	126000		126000

Note 1) Deficiency in stock taking assumed due to abnormal reason therefore transferred to costing Profit & Loss a/c.

Note 2) The difference (under absorbed) in OH Control a/c has carried forward for future years. Alternatively, it can be transferred to costing P&L a/c.

Note 3) The control accounts will be prepared according to non-integrated accounting system.

Ans. 4(b)

(i) $EAT = (EBIT - I) (1 - t)$

$2,80,000 = (EBIT - 7,00,000 \times 12\%) (1 - 0.30)$

$4,00,000 = EBIT - 84000$

$EBIT = 4,84,000$

Contribution – Fixed operating cost = EBIT

Contribution = $4,84,000 + 96,800 = 5,80,800$

$DOL = Contribution/EBIT = 5,80,800/4,84,000 = 1.20$

EAT for ESH = EAT - Preference Dividend

$= 2,80,000 - 5,00,000 \times 10\% = 2,30,000$

$DFL = EBIT (1 - t) / EAT \text{ for ESH}$

$= 484000 (1 - 0.30) / 230000 = 1.473$

Or $DFL = EBIT / (EBT \text{ for ESH}) = 484000 / (230000 / (1 - 0.30))$

$= 484000 / 328571 = 1.473$

(ii) Preference Dividend coverage Ratio = $EAT / \text{Preference Dividend}$

$= 280000 / 50,000 = 5.60 \text{ times}$

Equity Dividend = $8,00,000 \times 15\% = 1,20,000$

Equity Dividend Coverage Ratio = EAT for ESH / Equity Dividend

= 2,30,000 / 120000 = 1.96 times

(iii) Earning Per Share = (EAT for ESH) / No. of ES

= 2,30,000 / 80,000 = 2.875

Earning Yield = (EPS / MP) × 100 = (2.875 / 23) × 100 = 12.5%

Price Earning Ratio = MP / EPS = 23 / 2.875 = 8 times

(iv) Profit After Tax 280000

Add: Interest 84000

Add: Depreciation 96800

Net Fund Flow 460800

Note 1) The net fund flow were computed assuming income tax as operating expenses.

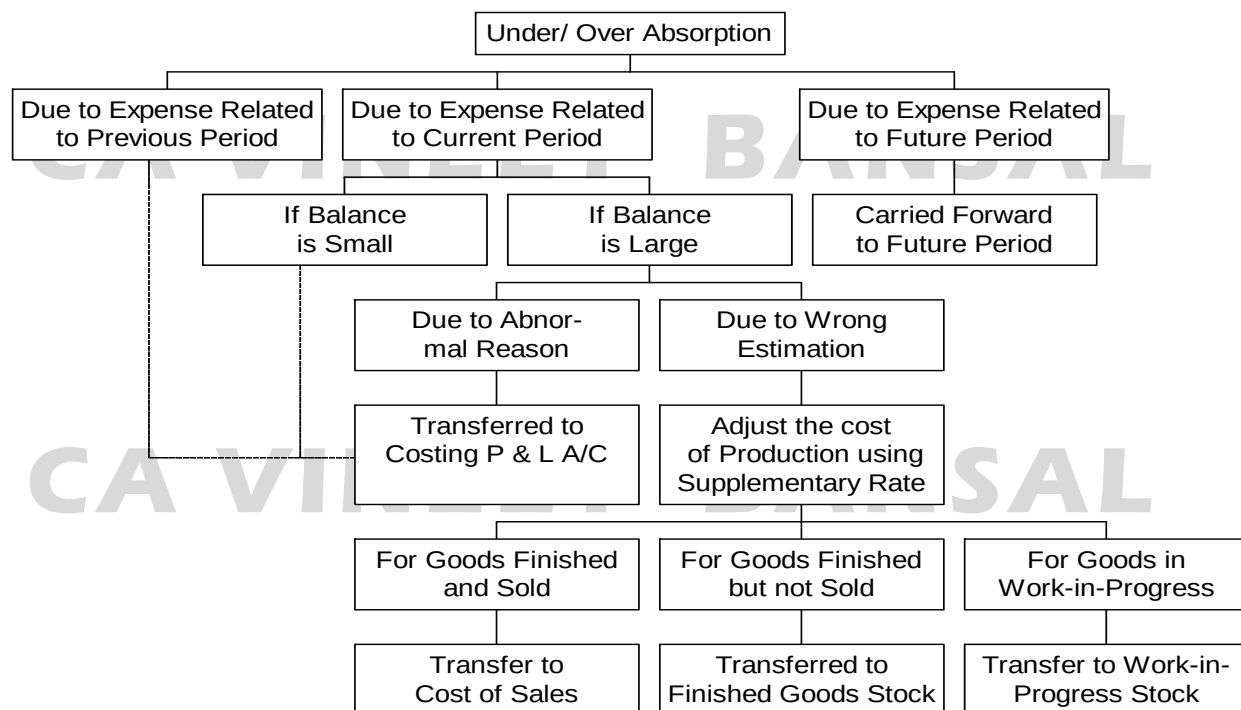
If income tax is considered as non-operating item it will also be added to compute net fund flow.

Ans. 5(a)

(i) Job Costing (ii) Batch Costing (iii) Unit or Single Costing (iv) Multiple Costing

Ans. 5(b)

Treatment of Under/ Over Absorption of Overhead



Ans. 5(c)

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.

Ans. 5(d)

No.	Operating Lease	Finance Lease
1.	The lessee is only provided the use of the asset for a certain time. Risk incident to ownership belongs only to the lessor.	The risk and reward incident to ownership are passed on the lessee.
2.	The lessor bears the risk of obsolescence.	The lessee bears the risk of obsolescence.
3.	The lease is kept cancellable by the lessor.	The lease is non-cancellable by either party under it.
4.	Usually, the lessor bears the cost of repairs, maintenance or operations.	The lessor does not bear the cost of repairs, maintenance or operations.
5.	The lease is usually non-payout.	The lease is usually full payout.

Ans. 6(a)

Statement showing evaluation of collection policy

Particulars	Present	Alternative I	Alternative II
Bad debts	150000 (3000000 X 5%)	120000 (3000000 X 4%)	90000 (30,00,000 X 3%)
Collection Expenses	30,000	60,000	95000
Opportunity cost of investment	49315 (410959 X 12%)	39452 (328767 X 12%)	29589 (246575 X 12%)
Total annual cost	229315	219452	214589
Decremental cost or Incremental benefit	-	9863	14726

Alternative II is providing highest incremental benefit, therefore it will be most beneficial.

Assumption 1) Average collection period is given, but cost of investment in debtors not given. Therefore it is assumed that cost of investment in Debtors is 12% p.a.

Working Note:

1)

	Present	Alternative I	Alternative II
Annual sales	Rs.30,00,000	Rs.30,00,000	Rs.30,00,000
Avg. collection period	50 days	40 days	30 days
Average investments in debtors	410959 (30,00,000 X 50/365)	328767 (30,00,000 X 40/365)	246575 (30,00,000 X 30/365)

Note 1) The cost of sales is not available, therefore investment in debtors will be computed from sales.

Ans. 6(b)

1) Computation of Equivalent Production

Particulars	Material		Labour & Overheads	
	%	Units	%	Units
Work on Opening WIP	0	0	40% (100-60)	3200 (8000 X 40%)
Introduced and Finished	100%	150000	100%	150000

(158000-8000)				
Closing WIP	100%	18000	70%	12600
Abnormal loss	100%	4500	80%	3600
Total Equivalent units		172500		169400

Working: Normal Loss Units = $(8000 + 182000) \times 5\% = 9500$ units

Abnormal Loss Units = $14000 - 9500 = 4500$

(ii) Computation of cost per unit

	Material	Labour & OH	Total
Current cost of Element	690000	510900	
	(737500 - 9500 X 5)	(340600 + 170300)	
Total Equivalent Units	172500	169400	
Cost per unit	4	3.0159	7.0159
	(690000/172500)	(510900/169400)	

(iii) Computation of cost of Finished Units

	Material	Labour & OH	Total
Cost of work on opening WIP	-	9651	9651
		(3200 X 3.0159)	
Cost of Intro. & Finished	6,00,000	452391	1052391
	(150000 X 4)	(150000 X 3.0159)	
Cost of opening WIP			75000
Cost of Finished Units transferred to next process			11,37,042

Ans. 7(a)

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

- (1) Risk: There is uncertainty about the receipt of money in future.
- (2) Preference for present consumption: Most of the persons and companies in general, prefer current consumption over future consumption.
- (3) Inflation: In an inflationary period a rupee today represents a greater real purchasing power than a rupee a year hence.
- (4) 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. Therefore money in the future (Rs.1) is worth less than similar money (Rs.1) today, because one can earn interest for 1 year on Rs.1 invested today.

Ans. 7(b)

(1) Business Risk

Business risk refers to the risk associated with the firm's operations. It is an unavoidable risk because of the environment in which the firm has to operate and the business risk is represented by the variability of earnings before interest and tax (EBIT) due to changes in or influenced by, revenues and expenses. Revenues and expenses are affected by demand of firm's products, variations in prices and proportion of fixed cost in total cost.

(2) Financial Risk

Whereas, Financial risk refers to the additional risk (over business risk) placed on firm's shareholders as a result of debt fund use in financing. Companies that issue more debt instruments would have higher financial risk than companies financed mostly by equity, due to fixed interest cost. Financial risk can be measured by ratios such as firm's financial leverage, total debt to assets ratio etc.

Ans. 7(c)

IRR method follows discounted cash flow technique which takes into account the time value of money. The internal rate of return is the rate at which the present value of expected future cash inflows will be equal to present value of cash outflow or the initial capital outlay. In other words, it is the rate at which NPV of the proposal will be equal to zero.

Decision Rule:

- (1) Independent Proposals: The project should be accepted if IRR is greater than cut-off rate or cost of capital. If IRR less than cut off rate the project is rejected.
- (2) Mutually Exclusive Proposals: The projects having highest IRR will be Accepted and all other projects will be rejected.

Whenever a project report is prepared, IRR is to be worked out in order to ascertain the viability of the project. This is also an important guiding factor to financial institutions and investors.

Ans. 7(d)

Packing credit is an advance made available by banks to an exporter. Packing credit may be of the following types:

- (i) **Clean Packing credit**: This is an advance made available to an exporter only on presentation of a export order or a letter of credit without exercising any charge or control by bank over raw material or finished goods.
- (ii) **Packing credit against hypothecation of goods**: Export finance is made available on certain terms and conditions where the exporter has pledgeable interest and the goods are hypothecated to the bank as security with stipulated margin.
- (iii) **Packing credit against pledge of goods**: Export finance is made available on certain terms and conditions where the exportable finished goods are pledged to the banks. The possession of the goods so pledged lies with the bank and is kept under its lock and key.

Ans. 7(e)

Labour turnover in an organization is the rate of change in the composition of labour force during a specified period as compared to average number of employees on roll during the year in organization.

The methods for measuring labour turnover are:

Replacement method =
$$\frac{\text{Number of employees replaced during the year} \times 100}{\text{Average number of employees on roll during the year}}$$

Separation method =
$$\frac{\text{Number of employees separated during the year} \times 100}{\text{Average number of employees on roll during the year}}$$

Flux method =
$$\frac{(\text{No. of employees replaced} + \text{No. of employees separated}) \times 100}{\text{Average number of employees on roll during the year}}$$

A company will incur very high replacement costs if the rate of labour turnover is high. Each company must, therefore, workout the optimum level of labour turnover keeping in view its personnel policies.