

CA - IPCC

COST ACCOUNTING & FINANCIAL MANAGEMENT

MAY, 2013 EXAM PAPER WITH
SOLUTION



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100% Questions from concepts taught in Classroom

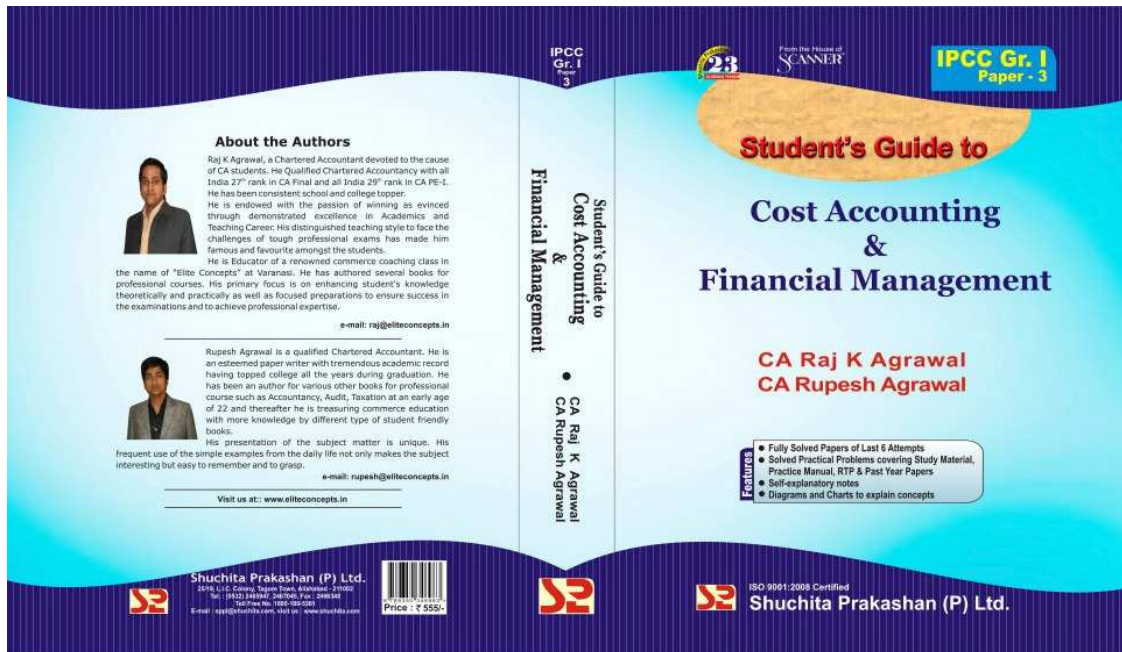
<i>An Analysis of Exam Paper</i>			
• Questions asked in exam are below the level taught in classroom			
Question No. in Exam Paper	Subject	Similar Question no. as per our Book	Page no. as per our Book
1(a)	Cost	Q17	13.24
1(b)	Cost	Q4, Q10	4.16, 14.12
1(c)	FM	Q5	17.24
1(d)	FM	Q8	23.23
2(a)	FM	Q3	26.27
2(b)	Cost	Q6	3.9
3(a)	Cost	Q17	8.29
3(b)	FM	Q18	19.29
4(a)	Cost	Q3	9.5
4(b)	FM	Q3	20.12
5(a)	Cost	Theory	1.2
5(b)	Cost	Theory	15.3
5(c)	FM	Q25	27.10
5(d)	FM	Q10, Q13	27.5, 27.6
6(a)	Cost	Q6	5.8
6(b)	FM	Q9	24.35
7(a)	Cost	Theory	2.5
7(b)	Cost	Theory	7.1
7(c)	FM	Theory	Basic Concepts
7(d)	FM	Q24, Q5(c)	27.9, 28.32
7(e)	FM	Theory	Basic Concepts



Watch Demo Lectures on our YouTube Channel Link:
www.youtube.com/user/carajkagrwal

Student's Guide to Cost Accounting & Financial Management for CA-IPCC

This is complete Solved Book, containing solution to unsolved exercises done in Class.
It also contain complete written text & presentation of Lecture delivered in Class.



Question & Solution of May 2013

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

Attempt any five questions from the remaining six questions

Working notes should form part of the answer

Q1. Answer the following:

4×5 = 20

(a) Following are the details of the product Phomex for the month of April 2013:

Standard quantity of material required per unit	5kg
Actual output	1,000 units
Actual cost of materials used	₹ 7,14,000
Material price variance	₹ 51,000 (Fav)

Actual price per kg of material is found to be less than standard price per kg of material by ₹ 10

You are required to calculate:

- (i) Actual quantity and Actual price of materials used.
- (ii) Material Usage Variance
- (iii) Material Cost Variance

Ans1(a).

Standard 1 Unit			Actual 1,000 Units		
Kg	Rate	Amount	Kg	Rate	Amount
5,000 kg	150	750,000	5,100 kg	140	7,14,000

(i) MPV = (SR – AR) x AQ
51,000 = 10 x AQ

$$\begin{aligned}
 \text{AQ} &= 5,100 \text{ Kg} \\
 \text{Actual Qty} &= 5,100 \text{ kg} \\
 \text{Actual Price} &= \frac{7,14,000}{5,100} \\
 &= ₹ 140 \\
 \\
 \text{(ii) MUV} &= (\text{SQ} - \text{AQ}) \text{ SR} \\
 &= (5,000 - 5,100) \times 150 \\
 &= 15,000 \text{ (A)} \\
 \\
 \text{(iii) MCV} &= \text{SC} - \text{AC} \\
 &= 7,50,000 - 7,14,000 \\
 &= 36,000 \text{ (F)}
 \end{aligned}$$

Q1(b). MFN Limited started its operation in 2011 with the total production capacity of 2,00,000 units. The following data for two years is made available to you:

	2011	2012
Sales units	80,000	1,20,000
Total cost (₹)	34,40,000	45,60,000

There has been no change in the cost structure and selling price and it is expected to continue in 2013 as well. Selling price is ₹ 40 per unit.

You are required to calculate

- I. Break-Even Point (in units)
- II. Profit at 75% of the total capacity in 2013.

Ans1(b).

$$\begin{aligned}
 \text{VC p.u.} &= \frac{\text{Change in Cost}}{\text{Change in Unit}} \\
 &= \frac{45,60,000 - 34,40,000}{1,20,000 - 80,000} \\
 &= 28
 \end{aligned}$$

Particulars	2011	2012
VC	22,40,000 (80,000 × 28)	33,60,000 (1,20,000 × 28)
FC (B/F)	12,00,000	12,00,000
Total Cost	34,40,000	45,60,000

$$\begin{aligned}
 \text{Contribution p.u.} &= \text{SP} - \text{VC} \\
 &= 40 - 28 = 12 \\
 \text{(i) BEP} &= \frac{\text{FC}}{\text{Contribution p.u.}} = \frac{12,00,000}{12} \\
 &= 1,00,000 \text{ units}
 \end{aligned}$$

(ii) Profit at 75% Capacity in 2013

Sales 1,50,000 unit @ 40	60,00,000
- VC 1,50,000 units @ 28	<u>42,00,000</u>
Contribution	18,00,000
- FC	<u>12,00,000</u>
Profit	<u>6,00,000</u>

Q1(c). A company issued 40,000, 12% Redeemable Preference Shares of ₹ 100 each at a premium of ₹ 5 each, redeemable after 10 year at a premium of ₹ 10 each. The floatation cost of each share is ₹ 2.

You are required to calculate cost of preference share capital ignoring dividend tax.

Ans1(c).

$$K_p = \frac{\text{Annual Dividend} + \frac{RV - NP}{n}}{\frac{RV + NP}{2}} \times 100$$

$$= \frac{12 + \frac{(110 - 103) \times 10}{10}}{\frac{110 + 103}{2}} \times 100$$

$$= \frac{12.7}{106.5} \times 100 = 11.92\%$$

Q1(d). The following information relates to Beta Ltd .for the year ended 31st March 2013.

Net Working Capital	₹ 12,00,000
Fixed Assets to Proprietor's Fund Ratio	0.75
Working Capital Turnover Ratio	5 times
Return on Equity (ROE)	15%

There is no debt capital.

You are required to calculate:

- Proprietor's Fund
- Fixed Assets
- Net Profit Ratio.

Ans1(d).

(i)

$$\frac{FA}{\text{Proprietors Fund}} = .75$$

$$\frac{\text{Working Capital}}{\text{Proprietors Fund}} = .25$$

$$\frac{12,00,000}{\text{Proprietors Fund}} = .25$$

$$\text{Proprietor's Fund} = ₹ 48,00,000$$

(ii)

$$\frac{FA}{\text{Proprietors Fund}} = .75$$

$$FA = .75 \times 48 \text{ lac} = ₹ 36,00,000$$

$$\frac{\text{Turnover}}{WC} = 5 \text{ times}$$

$$\text{Turnover} = 5 \times 12,00,000 = ₹ 60,00,000$$

$$ROE = \frac{\text{Earning}}{\text{Proprietor's Fund}}$$

$$15\% = \frac{\text{Earning}}{48,00,000}$$

$$\text{Earning} = 7,20,000$$

$$\begin{aligned} \text{NP Ratio} &= \frac{\text{Profit}}{\text{Sales}} \\ &= \frac{7,20,000}{60,00,000} = 12\% \end{aligned}$$

Q2(a). The summarized Balance Sheets of MPS Limited as on 31-3-2012 and 31-3-2013 are as under:

(₹ in lakhs)

Liabilities	31-3-2012	31-3-2013	Assets	31-3-2012	31-3-2013
	₹	₹		₹	₹
Equity Share Capital	40.00	50.00	Lands & Building	27.00	25.00
Securities Premium Account	-	1.00	Plant & Machinery	25.00	34.00
General Reserve	8.00	11.00	Investments (Long Term)	3.00	8.00
Profit & Loss Account	10.30	12.70	Stock	7.50	9.80
10% Debentures	5.00	3.00	Debtors	9.25	11.15
Sundry Creditors	4.90	6.20	Bills Receivable	1.77	1.65
Provision for Tax	5.00	7.00	Cash & Bank Balance	4.50	7.70
Proposed Dividend	4.80	6.00	Preliminary Expense	0.80	0.62
Corporate Dividend Tax	0.82	1.02			
	78.82	97.92		78.82	97.92

Additional information :

- On ₹.4.2012, the company redeemed debentures of ₹ 2,00,000 at par.
- During 2012-13 the company has issued equity shares for cash at a premium of 10%.
- Provision for tax made during the year 2012-13 for ₹ 6.80,000.
- Dividend received on investment ₹ 50,000 in July 2012.
- A machine costing ₹ 8,00,000 (WDV ₹,20,000) was sold for ₹ 50,000 during the year 2012,13.
- Depreciation for 2012-13 charged on plant & machinery ₹ 3,30,000 and ₹ 2,00,000 on land & building.
- Proposed Dividend and Corporate Dividend Tax of 2011-12 paid during the year 2012-13.

Prepare a Cash Flow Statement as per Accounting Standard (AS)-3

Ans 2(a).

Cash Flow Statement

Particulars	₹ In lakh	
	Amount (₹)	Amount (₹)
Cash Flow from Operating Activities		
Closing Bal of P/L	12.70	
+Transfer to Other Reserve	3.00	
<u>+/- Non fund Item / Non operational Items</u>		
+ Proposed dividend	6.00	
+ Proposed CDT	1.02	
+ Provision for tax	6.80	
+Loss on Sale of P&M	.70	
+ Depreciation on Land & Building	2.00	
+ Depreciation on Plant & Machinery	3.30	
+ Preliminary Exp. Written off	.18	
- Dividend on Investment Received	(.50)	
(-) Opening bal of P/L	(10.30)	

Fund from operation	24.90	
<u>+/- Changes in Working Capital</u>		
+ Increase in Creditors	1.30	
- Increase in Debtors	(1.90)	
- Increase in stock	(2.30)	
+ Decrease in B/R	.12	
- Income tax paid	(4.80)	17.32
Cash Flow from Investing Activities		
Sale of Plant & Machinery	.50	
Purchase of Plant & Machinery	(13.50)	
Purchase of Investment	(5.00)	
Dividend on Investment	.50	(17.5)
Cash Flow from Financing Activities		
Issue of share capital	11.00	
Redemption of Debenture	(2.00)	
Dividend paid	(4.80)	
CDT paid	(0.82)	3.38
Cash flow during the year		3.20
+Opening balance of cash & cash equivalents		4.50
Closing balance of cash & cash equivalents		7.70

Working Notes:

1. Provision for Taxation A/c

Particulars	Amount	Particulars	Amount
To Cash (B/F)	4.80	By Bal b/d	5.00
To Bal c/d	7.00	By P/L	6.80
	11.80		11.80

2. Land & Building A/c

Particulars	Amount	Particulars	Amount
To Bal b/d	27.00	By Depreciation	2.00
		By Bal c/d	25.00
	27.00		27.00

3. Plant & Machinery A/c

Particulars	Amount	Particulars	Amount
To Bal b/d	25.00	By Bank	.50
To Bank (B/F)	13.50	By P/L	.70
		By Depreciation	3.30
		By Balance c/d	34.00
	38.50		38.50

Q2(b). A skilled worker is paid a guaranteed wage rate of ₹ 120 per hour. The standard time allowed for a job is 6 month. He took 5 hours to complete the job. He is paid wages under Rowan Incentive Plan.

- I. Calculate his effective hourly rate of earning under Rowan Incentive Plan.
- II. If the worker is placed under Halsey Incentive Scheme (50%) and he wants to maintain the same effective hourly rate of earnings, calculate the time in which he should complete the job.

Ans 2(b) Rowan Scheme

$$\begin{aligned}
\text{Wages} &= (\text{Time Taken} \times \text{Time Rate}) + \left(\text{Time Saved} \times \frac{\text{Time Taken}}{\text{Time Allowed}} \times \text{Time Rate} \right) \\
&= (5 \times 120) + \left(1 \times \frac{5}{6} \times 120 \right) \\
&= 600 + 100 \\
&= ₹ 700
\end{aligned}$$

$$(i) \text{ Effective Hourly Rate} = \frac{700}{5} = ₹ 140$$

(ii) Halsey Scheme

$$\begin{aligned}
\text{Wage} &= \text{Time Taken} \times \text{Time Rate} + 50\% (\text{Time Saved} \times \text{Time Rate}) \\
\text{Time Taken} \times 140 &= \text{Time Taken} \times 120 + 50\% (6 - \text{Time Taken}) 120 \\
\text{Time Taken} \times 20 &= 50\% (6 - \text{Time Taken}) \times 120 \\
\text{Time Taken} \times 20 &= 60 (6 - \text{Time Taken}) \\
\text{Time Taken} &= 3 (6 - \text{Time Taken}) \\
\text{Time Taken} &= 18 - 3 \text{ Time Taken} \\
4 \text{ Time Taken} &= 18 \\
\text{Time Taken} &= \frac{18}{4} = 4.5
\end{aligned}$$

Q3(a). ABX Company Ltd. Provide the following information relating to Process-B

- I. Opening Work-in-progress - Nil
- II. Units Introduced - 45,000 units @ ₹ 10 per unit
- III. Expense debited to the process:

Direct material	₹ 65,500
Labour	₹ 90,800
Overhead	₹ 1,80,700
- IV. Normal loss in the process - 2% of Input
- V. Work-in-progress - 1800 units

Degree of completion	
Materials	- 100%
Labour	- 50%
Overhead	- 40%
- VI. Finish output - 42,000 units
- VII. Degree of completion of a abnormal loss:

Material	- 100%
Labour	- 80%
Overhead	- 60%
- VIII. Units scrapped as normal loss were sold at ₹ 5 per units.
- IX. All the units of abnormal loss were sold at ₹ 2 per units.

You are required to prepare:

- (a) Statement of equivalent production.
- (b) Statement showing the cost of finished goods, abnormal loss and closing balance of work-in-progress.
- (c) Process B account and abnormal loss account.

Ans 3(a).

Statement of Equivalent Production

Particulars	Unit	Particulars	Unit	Material		Labour		Overhead	
				%	Unit	%	Unit	%	Unit
Opening WIP	Nil	Normal Loss	900	--	--	--	--	--	--
Unit Introduced	45,000	Abnormal Loss	300	100%	300	80%	240	60%	180
		Finished goods	42,000	100%	42,000	100%	42,000	100%	42,000
		Closing WIP	1,800	100%	1,800	50%	900	40%	720
	45,000		45,000		44,100		43,140		42,900

Statement of Cost per Equivalent Unit:

Element of Cost	Cost	Eq. Unit	Cost per Eq. Unit
Material	45,000 x 10 + 65,500 – 900 x 5 = 5,11,000	44,100	11.5873
Labour	90,800	43,140	2.1047
Overhead	1,80,700	42,900	4.2121
			17.9041

Statement of Evaluation

Abnormal Loss:	Material	300 x 11.58	=	347.6	
	Labour	240 x 2.10	=	505	
	Overhead	180 x 4.21	=	<u>758</u>	4,740
Finished Goods:		42,000 x 17.90			7,51,974
Closing WIP:	Material	1,800 x 11.58	=	20,858	
	Labour	900 x 2.10	=	1,894	
	Overhead	720 x 4.21	=	<u>3,034</u>	25,786

Process II A/c

Particulars	Unit	Rate	Amount	Particulars	Unit	Rate	Amount
To Process I	45,000	10	4,50,000	By Normal Loss	900	5	4,500
To Material			65,500	By Abnormal Loss	300	15.8	4,740
To Labour			90,800	By FG	42,000	17.91	7,51,974
To Overhead			1,80,700	By Cl. WIP	1,800	14.32	25,786
Total			7,87,000	Total			7,87,000

Abnormal Loss A/c

Particulars	Unit	Rate	Amount	Particulars	Unit	Rate	Amount
To Process II A/c	300	15.8	4,740	By Bank	300	2	600
				By Costing P/L			4,140
Total			4,740	Total			4,740

Q3(b). The following information related to XL company Ltd. For the year ended 31st March, 2013 are available to you:

Equity share capital of ₹ 10 each	₹ 25 lakh
11% Bonds of ₹ 1000 each	₹ 18.5 lakh
Sales	₹ 42 lakh
Fixed cost (Excluding Interest)	₹ 3.48 lakh

Financial leverage	₹.39
Profit-Volume Ratio	25.55%
Income Tax Rate Applicable	35%

You are required to calculate:

- Operating Leverage;
- Combined Leverage; and
- Earning Per Share.

Ans 3(b).

$$\begin{aligned} \text{PV Ratio} &= \frac{\text{Contribution}}{\text{Sales}} \\ 25.55\% &= \frac{\text{Contribution}}{42 \text{ lakh}} \\ \text{Contribution} &= ₹ 10,73,100 \end{aligned}$$

Income Statement

Sales	42,00,000
- VC (B/F)	<u>31,26,900</u>
Contribution	10,73,100
- FC	<u>3,48,000</u>
EBIT	7,25,100
- Interest	<u>2,03,500</u>
EBT	5,21,600
- Tax @ 35%	<u>1,82,560</u>
EAT	3,39,040
÷ No. of Equity Share	<u>2,50,000</u>
EPS	<u>1.35616</u>

$$\text{(i) Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{10,73,100}{7,25,100} = 1.4799$$

$$\text{(ii) Combined Leverage} = \frac{\text{Contribution}}{\text{EBT}} = \frac{10,73,100}{5,21,600} = 2.0573$$

$$\text{(iii) EPS} = 1.35616$$

Q4(a). A company manufactures one main product (M₁) and two by-products B₁ and B₂ for the month of January 2013, following details are available.

Total Cost upto Separation Point ₹ 2,12,400

	M ₁	B ₁	B ₂
Cost after separation	-	₹ 35,000	₹ 24,000
No. of units produced	4,000	₹,800	3,000
Selling price per units	₹ 100	₹ 40	₹ 30
Estimated net profit as parentage to sales value	-	20%	30%
Estimated selling expenses as percentage to sales value	20%	15%	15%

There are no beginning or closing inventories.

Prepare statement showing:

- Allocation of joint cost; and

II. Productwise and overall profitability of the company for January 2013.

Ans 4(a).

(i) Statement showing the Apportionment of Joint Cost

	By Products	
	A	B
Sales	72,000	90,000
Less: Profit	14,400	27,000
Cost of Sales	57,600	63,000
Less: Selling Expenses	10,800	13,500
Cost of Production	46,800	49,500
Less: Cost after separation	35,000	24,000
Allocation of Joint Cost	11,800	25,500

(ii) Product wise & overall profitability

Particulars	M ₁	B ₁	B ₂	Total
Sales	4,00,000	72,000	90,000	5,62,000
- Selling Exp	<u>80,000</u>	<u>10,800</u>	<u>13,500</u>	<u>1,04,300</u>
Cost of Sales	3,20,000	61,200	76,500	4,57,700
- Production Cost				
Pre-separation	1,75,100	11,800	25,500	2,12,400
Post separation	--	35,000	24,000	59,000
Profit	1,44,900	14,400	27,000	1,86,300

Q4(b). The following information is provided by the DPS Limited for the year ending 31st March, 2013

Raw material storage period	55 days
Work-in progress conversion period	18 days
Finished Goods storage period	22 days
Debt collection period	45 days
Creditors payment period	60 days
Annual Operating cost (including depreciation of ₹ 2,10,000)	₹ 21,00,000

[1 year = 360 days]

You are required to calculate:

- I. Operating Cycle period
- II. Number of Operating Cycle in a year.
- III. Amount of working capital required of the company on a cash cost basis.
- IV. The company is a market leader in its product, there is virtually no competitor in the market. Based on a market research it is planning to discontinue sales on credit and deliver products based on pre-payment. Thereby, it can reduce its working capital requirement substantially. What would be the reduction in working capital requirement due to such decision?

Ans 4(b).

(i) Statement Showing Computation of Net Operating Cycle Period

	Days
Raw material storage period	55
Work-in-Progress Conversion period	18
Finished goods storage period	22

Average collection period from debtors	<u>45</u>
	140
Less: Average credit period awaited	<u>60</u>
Operating Cycle	80

(ii) No. of operating Cycle in a year

$$= \frac{360}{80} = 4.5$$

(iii) Annual Cash Operating Cost = 21,00,000 – 2,10,000 = 18,90,000

$$\text{Working Capital Requirement} = \frac{18,90,000}{360} \times 80 = ₹ 4,20,000$$

(iv) Net Operating Cycle Period when Credit sale is discontinued

$$= 55 + 18 + 22 - 60 = 35$$

$$\text{New Working Capital Requirement} = \frac{18,90,000}{360} \times 35$$

$$= ₹ 1,83,750$$

Reduction in Working Capital Requirement

$$= ₹ 4,20,000 - ₹ 1,83,750$$

$$= ₹ 2,36,250$$

Q5(a). Cost of a product or service is required to be expressed in suitable cost unit.

State the cost units for the following industries;

- I. Steel
- II. Automobile
- III. Transport
- IV. Power

Ans 5(a).

- (i) Per tonne
- (ii) Per Unit or per Batch or Number
- (iii) Per Tonne Km or Per Passenger Km
- (iv) Per Kilowatt hour

Q5(b). Distinguish between cost allocation and cost absorption

Ans 5(b). Cost Allocation

It is defined as the process of allotment or identification or assignment of whole items to cost centres or costs units. Thus the charging of direct cost to a cost center or a cost unit is the process of allocation of costs.

Cost Apportionment

It is defined as the process of distributing an item of cost over several cost centres or cost units. In the case of apportionment, one item of cost is charged to two or more cost centres or cost unit. Generally indirect costs (i.e. Overheads) are charged to cost centres or units by way of apportionment in proportion to the anticipated benefits.

Q5(c). What is debt securitization? And also state its advantages.

Ans 5(c). Debt securitization is a method of recycling of funds. It is thus a process of transforming the assets of a lending institution into negotiable instrument for generation of funds.

Function of debt securitization:

- (i) The origination function: The credit worthiness of borrower is assessed.
- (ii) The pooling function: The loans/credit of similar types are dubbed or pooled together.
- (iii) The transferring function: The asset pool is then transferred to a SPV.
- (iv) Securitisation function: The SPV then issues securities on the basis of asset pools.

Advantage of debt securitization:

- (i) It converts the debt into securities.
- (ii) It converts the illiquid asset into liquid ones.
- (iii) It opens up new investment avenues.

Q5(d). Distinguish between factoring and bill- discounting.

Ans 5(d). Factoring: Factoring is a new concept in financing of accounts receivable. This refers to outright sale of accounts receivables to a factor or a financial agency. A factor is a firm that acquires the receivables of other firms. The factoring agency bears the right of collection and services the accounts for a fee. Factoring is an arrangement of managing credit receivable. Factor is a person who makes collection of credit invoices & charges commission for it. This commission is generally paid upfront (in advance). Factor also provides loan to the extent of 85% to 90% of the amount of credit invoice, holding 10% to 15% as reserve. On this loan interest is paid in arrear (at the end of the period of loan). If it is given in the question that interest is collected upfront we will do accordingly.

Factoring are of two types:

- 1. Recourse factoring: In this type of factoring bad debt is not borne by factor.
- 2. Non- Recourse factoring: Bad Debt is borne by factor.

Bills Discounting: The company which sells goods on credit, will normally draw a bill on the buyer who will accept it and sends it to the seller of goods. The seller, in turn discounts the bill with his banker.

Q6(a). Pentax Limited has prepared its expense budget for 20,000 units in its factory for the year 2013 as detailed below:

	₹ per unit
Direct Materials	50
Direct Labour	20
Variable Overhead	15
Direct Expenses	6
Selling Expenses (20% fixed)	15
Factory Expenses (100% fixed)	7
Administration expenses (100% fixed)	4
Distribution expenses (85% variable)	<u>12</u>
Total ₹	<u>129</u>

Prepare an expense budget for the production of 15,000 units and 18,000 units.

Ans 6(a). Expense Budget

Particulars	15,000 Unit	18,000 Unit
Direct Material	7,50,000 (15,000 × 50)	9,00,000 (18,000 × 50)
Direct Labour	3,00,000 (15,000 × 20)	3,60,000 (18,000 × 20)
Variable Overhead	2,25,000 (15,000 × 15)	2,70,000 (18,000 × 15)
Direct Expenses	90,000 (15,000 × 6)	1,08,000 (18,000 × 6)
Selling Expenses Fixed	60,000 (20,000 × 3)	60,000 (20,000 × 3)
Selling Expenses Variable	1,80,000 (15,000 × 12)	2,16,000 (18,000 × 12)
Factory Expenses Fixed	1,40,000 (20,000 × 7)	1,40,000 (20,000 × 7)
Administration Expenses Fixed	80,000 (20,000 × 4)	80,000 (20,000 × 4)
Distribution Expenses Fixed	36,000 (20,000 × 1.8)	36,000 (20,000 × 1.8)
Distribution Expenses Variable	1,53,000 (15,000 × 10.20)	1,83,600 (18,000 × 10.20)
Total Expenses	20,14,000	23,53,600

Q6(b). PQR Company Ltd. Is considering to select a machine out of two mutually exclusive machines. The company's cost of capital is 12 per cent and corporate tax rate is 30 per cent. Other information relating to both machines is as follows.

	Machine – I	Machine - II
Cost of Machine	₹ 15,00,00	₹ 20,00,000
Expected Life	5 year	5 year
Annual Income (Before Tax and Depreciation)	₹ 6,25,000	₹ 8,75,000

Depreciation is to be charged on straight line basis:

You are required to calculate:

- I. Discounted Pay Back-Period
- II. Net Present Value
- III. Profitability Index

The present value factors of ₹ @ 12 % are as follows.

Year	01	02	03	04	05
PV factor @ 12%	0.893	0.797	0.712	0.636	0.567

Ans 6(b).

Particulars	M-I	M-II
Profit before depreciation & Tax	6,25,000	8,75,000
- Depreciation	3,00,000 (15 lac /5)	4,00,000 (20 lac /5)
Profit before tax	3,25,000	4,75,000
- Tax @ 30%	97,500	1,42,500
Profit after tax	2,27,500	3,32,500

+ Depreciation	3,00,000	4,00,000
Annual Cash Inflow	5,27,500	7,32,500

Machine I

Year	Inflow	PVf @ 12%	PV	Cumm. PV
1	5,27,500	.893	4,71,058	4,71,058
2	5,27,500	.797	4,20,417	8,91,475
3	5,27,500	.712	3,75,580	12,67,055
4	5,27,500	.636	3,35,490	16,02,545
5	5,27,500	.567	<u>2,99,092</u>	19,01,637
			<u>19,01,637</u>	

$$(i) \text{ Discounted Payable Period} = 3 \text{ year} + \frac{2,32,945}{3,35,490}$$

$$= 3.69 \text{ Year}$$

$$(ii) \text{ NPV} = \text{PV of inflow} - \text{PV of Outflow}$$

$$= 19,01,637 - 15,00,000$$

$$= 4,01,637$$

$$(iii) \text{ PI} = \frac{\text{PV of Inflow}}{\text{PV of Outflow}} = \frac{19,01,637}{15,00,000} = 1.27$$

Machine II

Year	Inflow	PVf @ 12%	PV	Cumm. PV
1	7,32,500	.893	6,54,123	6,54,123
2	7,32,500	.797	5,83,802	12,37,925
3	7,32,500	.712	5,21,540	17,59,465
4	7,32,500	.636	4,65,870	22,25,335
5	7,32,500	.567	<u>4,15,327</u>	26,40,662
			<u>26,40,662</u>	

$$(i) \text{ Discounted Payback Period} = 3 \text{ year} + \frac{2,40,535}{4,65,870}$$

$$= 3.52 \text{ year}$$

$$(ii) \text{ NPV} = \text{PV of Inflow} - \text{PV of Outflow}$$

$$= 26,40,662 - 20,00,000$$

$$= 6,40,662$$

$$(iii) \text{ PI} = \frac{\text{PV of Inflow}}{\text{PV of Outflow}} = \frac{26,40,662}{20,00,000} = 1.32$$

Conclusion :

Basis	M-I	M-II	Selection
Discounted Payback Period	3.69	3.52	M II
NPV	4,01,637	6,40,662	M II
PI	1.27	1.32	M I

Q7. Answer any four of the following:

- (a) "Perpetual inventory system comprises Bin Card and Stores Ledger, but the efficacy of the system depends on continuous stock taking." Comment.

- (b) "Is reconciliation of cost accounts and financial accounts necessary in case of integrated accounting system?"
- (c) "Operating risk is associated with cost structure, whereas financial risk is associated with capital structure of a business concern." Critically examine this statement.
- (d) What is venture capital financing? State the factors which are to be considered in financing any risky project.
- (e) State the advantages of Electronic Cash Management System.

Ans7(a). Perpetual inventory system is the recording as they occur of receipts, issues and the resulting balances of individual items of stock in either quantity or quantity and value. Under this system, a continuous record of receipt and issue of materials is maintained by the Stores Department and the information about the stock of material is always available. In this method, stock records are maintained in such a way as to make an entry in the records, the physical movement of stock, on receipts and issues of materials and to indicate the balance of each item of material in the stores at any point of time. In this system, the entries are made in bin cards and stores ledger as and when the receipts and issues of materials take place and ascertaining the balance after every receipt or issue of materials. The stocks as per the dual records namely bin card and stores ledger are reconciled on a continuous basis.

However, in Continuous stock taking is the process of counting and valuing selected items at different times on a rotating basis. Under this system, physical stock verification is made for each item of stock on continuous basis. It is a physical checking of the stock records with actual stocks on continuous basis. It is a method of verification of physical stock on a continuous basis instead of at the end of the accounting period. It is a verification conducted round the year, thus covering each item of store twice or thrice. Valuable items are checked more frequently than the stocks with lesser value.

Thus we can say that efficacy of the system depends on continuous stock taking.

Ans7(b). Integrated accounting system refers to the interlocking of the financial and cost accounting systems to ensure all relevant expenditure is absorbed into the cost accounts. Under this accounting system transactions are classified both according to their function and nature.

Under integrated accounting system, both Financial and Cost Accounting records are maintained in one set of books to meet the requirements of Financial Accounting and Cost Accounting purposes.

In this system only one set of accounts are maintained and there will be single profit figure. The necessity of preparation of reconciliation statement does not arise.

Ans 7(c). Operating Risk is due to the presence of Fixed Operating cost in total cost structure of an equity. If there is no fixed cost there would be no Operating risk.

$$\text{Operating Risk} = \frac{\text{Contribution}}{\text{EBIT}}$$

(Operating Leverage)

If fixed cost is Zero

Operating Leverage = 1, means no operating risk

Financial Risk is due to the presence of debt & Preference share in capital structure of an entity. If there is no capital of fixed cost commitment, there would be no financial risk

$$\text{Financial Risk} = \frac{\text{EBIT}}{\text{EBT}}$$

(Financial Leverage)

If debt is zero

Financial Leverage= 1, means no financial risk

Ans7(d). Venture capital refers to financial investment in a highly risky project with the objective of earning a high rate of return. Thus venture capital financing means financing of high risk projects promoted by new, inexperienced entrepreneurs who have excellent business ideas, but does not have a financial backing.

Features of Venture Capital financing:

- (i) Equity participation by the venture capitalist.
- (ii) It is a long term financing for a period between 5 to 10 years.
- (iii) The venture capitalist not only invest but also participate in the management of the venture capital undertaking.

Factors that a venture capitalist should consider before financing any risky project are as follows:

- 1. Level of expertise of company's management:** Most of venture capitalist believes that the success of a new project is highly dependent on the quality of its management team. They expect that entrepreneur should have a skilled team of managers. Managements also be required to show a high level of commitments to the project.
- 2. Level of expertise in production:** Venture capital should ensure that entrepreneur and his team should have necessary technical ability to be able to develop and produce new product / service.
- 3. Nature of new product / service:** The venture capitalist should consider whether the Development and production of new product / service should be technically feasible. They should employ experts in their respective fields to examine idea proposed by the entrepreneur.
- 4. Future prospects:** Since the degree of risk involved in investing in the company is quite fairly High, venture capitalists should seek to ensure that the prospects for future profits compensate for the risk. Therefore, they should see a detailed business plan setting out the future business strategy.
- 5. Competition:** The venture capitalist should seek assurance that there is actually a market for a new product. Further venture capitalists should see the research carried on by the entrepreneur.

Ans 7(e). With the growth in use of computers, banks are now providing electronic fund transfer and electronic clearing transfer securities. Dividends payments by companies, refunds of subscription money in case of OPOs and refund of tax by Income-tax Dept. are now being made through electronic clearing facility where in the funds are transferred from one account to another within a few moments across India. In such transfers, there is no float as such. Business houses are also using these faculties and payments and receipts are effected through electronic clearing system. If it is so, then the question of float management does not arise. Even where the cheques are being used for payment, float period is reducing because of greater efficiency on the part of the banking system.

-----We are Here for You-----

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