

MOCK TEST PAPER – 2
INTERMEDIATE (IPC): GROUP – I
PAPER – 3: COST ACCOUNTING AND FINANCIAL MANAGEMENT
SUGGESTED ANSWERS/HINTS

1. (a) **Workings:**

Let us assume that the selling price before increment is Rs.100, the other relevant details are as follows:

Particulars	Before increase	After increase
Selling Price	100	110
Variable Cost	60	63
Contribution	40	47
P/V Ratio	40%	42.73%

(i) **Computation of Break-even point sales:**

$$\text{Break-even point sales} = \frac{\text{Fixed Overheads}}{\text{P/V ratio}}$$

$$\text{- Before increase} = \frac{\text{Rs. 20,00,000}}{40\%} = \text{Rs. 50,00,000}$$

$$\text{- After increase} = \frac{\text{Rs. 30,00,000}}{42.73\%} = \text{Rs. 70,20,828 (approx.)}$$

(ii) **Sales value to make a profit of Rs.4,50,000:**

$$= \frac{\text{Fixed Overheads} + \text{Desired profit}}{\text{P/V ratio}} = \frac{\text{Rs. 30,00,000} + \text{Rs. 4,50,000}}{42.73\%} = \text{Rs. 80,73,953}$$

(b) (i) $\text{EOQ} = \sqrt{\frac{2AO}{C}}$

$$A = \text{Annual consumption} = \frac{96,000 \text{ units} \times 1 \text{ kg.}}{4 \text{ units}} = 24,000 \text{ kgs.}$$

$$O = \text{Cost of placing order} = \text{Handling cost} + \text{Freight} = \text{Rs. 1,500} + \text{Rs. 4,000} = \text{Rs. 5,500}$$

C = Carrying cost per kg. per annum

$$\text{Carrying cost (Rs. 1.50} \times 12) = \text{Rs. 18}$$

$$\text{Finance charges on investment in inventory} = \text{Rs. 8}$$

$$\underline{\text{Rs. 26}}$$

$$\text{EOQ} = \sqrt{\frac{2 \times 24,000 \text{ kgs.} \times \text{Rs. 5,500}}{\text{Rs. 26}}} = 3,186.5 \text{ kgs.}$$

(ii) Number of orders = 24,000 kgs. / 3,186.5 kgs. = 7.53 or 8 orders

$$\text{Frequency in placing orders} = 365 \text{ days} / 8 \text{ orders} = 45.63 \text{ or } 46 \text{ days}$$

- (iii) If company places orders on quarterly basis, percentage of discount in price of raw material to be negotiated:

Cost under EOQ:

Ordering cost	8 orders × Rs. 5,500	44,000.00
Carrying cost	3,186.5 kgs. × ½ × Rs.26	41,424.50
Total		85,424.50

Cost under Ordering on Quarterly Basis:

Ordering cost	4 orders × Rs.5,500	22,000.00
Carrying cost	(24,000 kgs./ 4 orders) × ½ × Rs.26	78,000.00
Total		1,00,000.00

Incremental cost if orders are placed on quarterly basis

$$= \text{Rs. } 1,00,000 - \text{Rs. } 85,424.50 = \text{Rs. } 14,575.50$$

Reduction in purchase price to be negotiated

$$= \text{Rs. } 14,575.50 \div 24,000 \text{ kgs.} = \text{Rs. } 0.61 \text{ per kg.}$$

$$\text{Percentage of discount to be negotiated } 0.61 \div 54 \times 100 = 1.13\%$$

- (c) Firm A Ltd. (pure equity): unlevered firm:

$$\text{EAT} = \text{EBIT} (1 - t)$$

$$= \text{EBT} \times 0.7 = \text{Rs. } 2,50,000 \times 0.7 = \text{Rs. } 1,75,000$$

(since, EBIT = EBT as there is no debt)

$$\text{Value of unlevered firm A} = \frac{\text{EAT}}{\text{Equity capitalization rate}} = \frac{\text{Rs. } 1,75,000}{20\%} = \text{Rs. } 8,75,000$$

Firm B Ltd. (levered):

$$\begin{aligned} \text{Value of levered firm} &= \text{Value of equity} + \text{Value of debt} \\ &= \text{Rs. } 8,75,000 + (10,00,000) \times 0.3 \\ &= \text{Rs. } 11,75,000 \end{aligned}$$

- (d) (i) $\text{ROCE} = \frac{\text{EBIT}}{\text{Capital employed}} = \frac{\text{Rs. } 27,00,000}{\text{Rs. } 1,00,00,000} \times 100 = 27\%$

Workings:

(I) Calculation of EBT:	Rs.
Sales	75,00,000
Less: Variable costs	42,00,000
Contribution	33,00,000
Less: Fixed costs	6,00,000
EBIT	27,00,000
Less: Interest (12 % of Rs. 45,00,000)	5,40,000
	21,60,000

(II) Capital employed = Debt + Equity Shares = Rs. 1,00,00,000.

(ii) Since ROCE (27%) is higher than the interest payable on debt (12%). NSG has a favourable financial leverage.

(iii) Capital employed = Total assets = Rs. 1,00,00,000

Net sales = Rs. 75,00,000

$$\text{Therefore, turnover ratio} = \frac{\text{Rs. 75,00,000}}{\text{Rs. 1,00,00,000}} = 0.75$$

The industry average is 3 against NSG's ratio of 0.75. Hence NSG Ltd. has very low asset leverage.

$$\text{(iv) Operating leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{\text{Rs. 33,00,000}}{\text{Rs. 27,00,000}} = 1.22$$

$$\text{Financial Leverage} = \frac{\text{EBIT}}{\text{EBT}} = \frac{\text{Rs. 27,00,000}}{\text{Rs. 21,60,000}} = 1.25$$

$$\text{Combined leverage} = \frac{\text{Contribution}}{\text{EBT}} = \frac{\text{Rs. 33,00,000}}{\text{Rs. 21,60,000}} = 1.53$$

Or

$$\text{DCL} = \text{DOL} \times \text{DFL} = 1.22 \times 1.25 = 1.53$$

(v) For EBT to become zero, a 100% reduction in the EBT is required. As the combined leverage is 1.53, sales have to drop approx. by $100/1.53 = 65.36\%$. Hence, the new sales will be:

$$\text{Rs. 75,00,000} \times (1 - 65.36\%) = \text{Rs. 25,98,000}$$

2. (a) Workings:

	Skilled	Unskilled
Standard Rate per hour	80	60
Standard time for producing one unit	1.5 hours (Rs.120 ÷ Rs.80)	1.5 hours (Rs.90 ÷ Rs.60)
Actual hours paid (AH _{Paid})	6,600 hours	5,400 hours
Standard hours required to produce 4,000 units (SH)	6,000 hours (1.5 hours × 4,000 units)	6,000 hours (1.5 hours × 4,000 units)
Actual hours worked (AH _{Worked})	$\frac{6,600}{100} \times 97.5$ = 6,435 hours	$\frac{5,400}{100} \times 97.5$ = 5,265 hours
Revised Std. Hours (RSH)	$\left(\frac{6,600 + 5,400}{100} \times 97.5\right) \times 0.5$ = 5,850 hours	$\left(\frac{6,600 + 5,400}{100} \times 97.5\right) \times 0.5$ = 5,850 hours
Idle time _{Abnormal}	6,600 - 6,435 = 165 hours	5,400 - 5,265 = 135 hours

(i) Labour Rate Variance = AH_{Paid} (Std. Rate – Actual Rate)

- Skilled	= 6,600 hours (Rs.80 – Rs.87.50)	= Rs.49,500 (A)
- Unskilled	= 5,400 hours (Rs.60 – Rs.55)	= <u>Rs.27,000 (F)</u>
		= <u>Rs.22,500 (A)</u>

- (ii) Labour Efficiency Variance = Std. Rate (SH – AH_{Worked})
- Skilled = Rs.80 (6,000 hours – 6,435 hours) = Rs.34,800 (A)
 - Unskilled = Rs.60 (6,000 hours – 5,265 hours) = Rs.44,100 (F)
 - = Rs.9,300 (F)
- (iii) Labour Mix Variance = Std. Rate (RSH – AH_{Worked})
- Skilled = Rs.80 (5,850 hours – 6,435 hours) = Rs.46,800 (A)
 - Unskilled = Rs.60 (5,850 hours – 5,265 hours) = Rs.35,100 (F)
 - = Rs.11,700 (A)
- (iv) Labour Yield Variance = Std. Rate (SH – RSH)
- Skilled = Rs.80 (6,000 hours – 5,850 hours) = Rs.12,000 (F)
 - Unskilled = Rs.60 (6,000 hours – 5,850 hours) = Rs.9,000 (F)
 - = Rs.21,000 (F)
- (v) Labour Idle time Variance = Std. Rate × Idle time_{Abnormal}
- Skilled = Rs.80 × 165 hours = Rs.13,200 (A)
 - Unskilled = Rs.60 × 135 hours = Rs.8,100 (A)
 - = Rs.21,300 (A)
- (vi) Variable Overhead Expenditure Variance
- $$= AH_{Worked} (SR - AR)$$
- $$= 11,700 \text{ hours} \left(\frac{Rs.75}{2 \times 1.5 \text{ hours}} - \frac{Rs.2,85,000}{11,700 \text{ hours}} \right)$$
- $$= 11,700 \text{ hours} (Rs.25 - Rs.24.36) = Rs.7,488 (F)$$
- (vii) Variable Overhead Efficiency Variance
- $$= Std. Rate (SH - AH_{Worked})$$
- $$= Rs.25 (12,000 - 11,700) = Rs.7,500 (F)$$

(b) Calculation of Earnings per share for three alternatives to finance the project

Particulars	Alternatives		
	I To raise debt of Rs.2,50,000 and equity of Rs. 22,50,000 Rs.	II To raise debt of Rs. 10,00,000 and equity of Rs. 15,00,000 Rs.	III To raise debt of Rs. 15,00,000 and equity of Rs. 10,00,000 Rs.
Earnings before interest and tax	5,00,000	5,00,000	5,00,000
Less: Interest on debt at the rate of	25,000 (10% on Rs. 2,50,000)	1,37,500 (10% on Rs. 2,50,000) (15% on Rs. 7,50,000)	2,37,500 (10% on Rs. 2,50,000) (15% on Rs. 7,50,000) (20% on Rs. 5,00,000)

Earnings before tax	4,75,000	3,62,500	2,62,500
Less: Tax (@ 50%)	2,37,500	1,81,250	1,31,250
Earnings after tax: (A)	2,37,500	1,81,250	1,31,250
Number of shares : (B) (Refer to working note)	15,000	10,000	8,000
Earnings per share : (A)/(B)	15.833	18.125	16.406

So, the earning per share (EPS) is higher in alternative II i.e. if the company finance the project by raising debt of Rs. 10,00,000 and issue equity shares of Rs. 15,00,000. Therefore the company should choose this alternative to finance the project.

Working Note:

	Alternatives		
	I	II	III
Equity financing : (A)	Rs. 22,50,000	Rs. 15,00,000	Rs. 10,00,000
Market price per share: (B)	Rs. 150	Rs. 150	Rs. 125
Number of equity share: (A)/(B)	15,000	10,000	8,000

3. (a) (i) Statement of operating income of DKG Airlines for Melbourne-Delhi flight (one way)

Particulars	Amount (Rs.)	Amount (Rs.)
Fare received (per flight): 250 passengers × Rs. 50,000		1,25,00,000
Variable costs (per flight):		
- Fuel cost	28,00,000	
- Food (250 × Rs. 2,600)	6,50,000	
- Commission to Travel Agents (15% of Rs. 1,25,00,000)	18,75,000	(53,25,000)
Contribution per flight		71,75,000
Fixed cost (per flight):		
Annual lease cost	15,30,000	
Fixed ground service costs	1,70,000	
Salaries of flight crew	6,50,000	(23,50,000)
Operating income per flight		48,25,000

(ii) Operating income of DKG Airlines per Melbourne-Delhi flight (one way) after reduction in fare

Fare received (per flight): 275 passengers × Rs. 48,000		1,32,00,000
Variable costs (per flight):		
Fuel cost	28,00,000	
Food (275 × Rs.2,600)	7,15,000	
Commission to Travel Agents (17.5% of Rs.1,32,00,000)	23,10,000	(58,25,000)
Contribution per flight		73,75,000

Excess contribution due to lowering of fare (Rs.73,75,000 – Rs.71,75,000) = Rs.2,00,000.
DKG Airlines should lower its fare as it would increase its contribution by Rs.2,00,000.

(b) **Statement showing Evaluation of Credit Policies** (Amount in lakhs)

	Particulars	Present (Rs.)	Proposed Policy I (Rs.)	Proposed Policy II (Rs.)
A	Expected Profit :			
	(a) Credit Sales	225.00	275.00	350.00
	(b) Total Cost other than Bad Debts:			
	Variable Costs	135.00	165.00	210.00
	(c) Bad Debts	7.50	22.50	47.50
	(d) Expected Profit [(a)-(b)-(c)]	82.50	87.50	92.50
B	Opportunity Cost of Investment in Receivables*	5.40	8.25	14.00
C	Net Benefits [A-B]	77.10	79.25	78.50

Recommendation: The Proposed Policy I should be adopted since the net benefits under this policy is higher than those under other policies.

Working Note:

***Calculation of Opportunity Cost of Average Investments**

Opportunity Cost	= Total Cost × $\frac{\text{Collection Period}}{12} \times \frac{\text{Rate of Return}}{100}$
Present Policy	= Rs.135 lakhs × 2.4/12 × 20% = Rs. 5.40 lakhs
Proposed Policy I	= Rs. 165 lakhs × 3/12 × 20% = Rs. 8.25 lakhs
Proposed Policy II	=Rs. 210 lakhs × 4/12 × 20% = Rs. 14.00 lakhs

4. (a) (i) **Statement of Equivalent Production**

(FIFO Method)

Input		Output		Equivalent Production			
Particulars	Units	Particulars	Units	Material		Labour & Overheads	
				(%)	Units	(%)	Units
Opening WIP	8,000	Transfer to next Process:					
Introduced	1,82,000	Opening WIP completed	8,000	--	--	40	3,200
		Introduced & completed	1,50,000	100	1,50,000	100	1,50,000
		Normal loss 10% (8,000 + 182,000)	19,000	--	--	--	--
		Abnormal gain	(5,000)	100	(5,000)	100	(5,000)
		Closing WIP	18,000	100	18,000	70	12,600
	1,90,000		1,90,000		1,63,000		1,60,800

(ii) Computation of Cost per unit

Particulars	Materials (Rs.)	Labour (Rs.)	Overhead (Rs.)
Input of Materials	1,47,50,000	--	--
Expenses	--	68,12,000	34,06,000
Total	1,47,50,000	68,12,000	34,06,000
Less: Sale of Scrap (19,000 units × Rs.15)	(2,85,000)	--	--
Net cost	1,44,65,000	68,12,000	34,06,000
Equivalent Units	1,63,000	1,60,800	1,60,800
Cost Per Unit	88.7423	42.3632	21.1816

Total cost per unit = Rs.(88.7423+42.3632+21.1816) = Rs.152.2871

(iii) Value of units transferred to next process:

	Amount (Rs.)	Amount (Rs.)
Opening W-I-P	15,00,000.00	
Add: Labour (3,200 units × Rs. 42.3632)	1,35,562.24	
Overhead (3,200 units × Rs. 21.1816)	67,781.12	17,03,343.36
New introduced (1,50,000 units × Rs. 152.2871)		2,28,43,065.00
		2,45,46,408.36

- (b) (i) The initial investment earned interests for April – June and July – September quarter, i.e. for 2 quarters.

$$\text{In this case, } i = \frac{6}{4} = 1\frac{1}{2}\%, n = 2 \text{ and the compounded amount} = 800 \left(1 + 1\frac{1}{2}\%\right)^2$$

$$= 800 \times 1.03022500 = \text{Rs. } 824.18$$

$$\text{The additional amount} = \text{Rs. } (1,000 - 824.18) = \text{Rs. } 175.82$$

- (ii) In this case, the Time Deposit earned interest compounded monthly for 2 quarters.

$$\text{Here, } i = \frac{6}{12} = \frac{1}{2}\%, n = 6, P = 1,000$$

$$\text{Required maturity value } 1,000 \left(1 + \frac{1}{2}\%\right)^6 = 1,000 \times 1.03037751 = \text{Rs. } 1,030.38$$

- (iii) Total interest earned = (24.18 + 30.38) = Rs. 54.56

5. (a) Like other branches of accounting, cost accounting is also having certain limitations. The limitations of cost accounting are as follows:

1. **Expensive:** It is expensive because analysis, allocation and absorption of overheads require considerable amount of additional work, and hence additional money.
2. **Requirement of Reconciliation:** The results shown by cost accounts differ from those shown by financial accounts. Thus Preparation of reconciliation statements is necessary to verify their accuracy.

3. **Duplication of Work:** It involves duplication of work as organization has to maintain two sets of accounts i.e. Financial Account and Cost Account.
 4. **Inefficiency:** Costing system itself does not control costs but its usage does.
- (b) The difference between the allocation and apportionment is important to understand because the purpose of these two methods is the identification of the items of cost to cost units or centers. However, the main difference between the above methods is given below.
- (1) Allocation deals with the whole items of cost, which are identifiable with any one department. For example, indirect wages of three departments are separately obtained and hence each department will be charged by the respective amount of wages individually.
On the other hand, apportionment deals with the proportions of an item of cost for example; the cost of the benefit of a service department will be divided between those departments which has availed those benefits.
 - (2) Allocation is a direct process of charging expenses to different cost centres whereas apportionment is an indirect process because there is a need for the identification of the appropriate portion of an expense to be borne by the different departments benefited.
 - (3) The allocation or apportionment of an expense is not dependent on its nature, but the relationship between the expense and the cost centre decides that whether it is to be allocated or apportioned.
 - (4) Allocation is a much wider term than apportionment.
- (c) The two sources of long-term finance for a partnership firm are as follows:
- Loans from Commercial Banks:** Commercial banks provide long term loans for the purpose of expansion or setting up of new units. Their repayment is usually scheduled over a long period of time. The liquidity of such loans is said to depend on the anticipated income of the borrowers.
- As part of the long term funding for a partnership firm, the banks also fund the long term working capital requirement (it is also called WCTL i.e. working capital term loan).
- Lease financing:** Leasing is a general contract between the owner and user of the asset over a specified period of time. The asset is purchased initially by the lessor (leasing company) and thereafter leased to the user (lessee firm) which pays a specified rent at periodical intervals. Thus, leasing is an alternative to the purchase of an asset out of own or borrowed funds. Moreover, lease finance can be arranged much faster as compared to term loans from financial institutions.
- (d) Cash flow analysis is a useful tool of financial analysis. However, it has its own limitations. These limitations are as under:
1. Cash flow statement cannot be equated with the Income Statement: An Income Statement takes into account both cash as well as non-cash items and, therefore, net cash flow does not necessarily mean net income of the business.
 2. The cash balance as disclosed by the cash flow statement may not represent the real liquid position of the business since it can be easily influenced by postponing purchases and other payments.
 3. Cash flow statement cannot replace the Funds Flow Statement. Each of them has a separate function to perform.

In spite of these limitations it can be said that cash flow statement is a useful supplementary instrument.

The technique of cash flow analysis, when used in conjunction with ratio analysis, serves as a barometer in measuring the profitability and financial position of the business.

6. (a) Number of days in budget period = 4 weeks × 5 days = 20 days

Number of units to be produced

	Product-A (units)	Product-B (units)
Budgeted Sales	2,400	3,600
Add: Closing stock	480 $\left(\frac{2,400 \text{ units}}{20 \text{ days}} \times 4 \text{ days} \right)$	900 $\left(\frac{3,600 \text{ units}}{20 \text{ days}} \times 5 \text{ days} \right)$
Less: Opening stock	(400)	(200)
	2,480	4,300

(i) **Material Purchase Budget**

	Material-X (Kg.)	Material-Y (Kg.)
Material required:		
- Product-A	12,400 (2,480 units × 5 kg.)	9,920 (2,480 units × 4 kg.)
- Product-B	12,900 (4,300 units × 3 kg.)	25,800 (4,300 units × 6 kg.)
Add: Closing stock	25,300 12,650 $\left(\frac{25,300 \text{ kgs.}}{20 \text{ days}} \times 10 \text{ days} \right)$	35,720 10,716 $\left(\frac{35,720 \text{ kgs.}}{20 \text{ days}} \times 6 \text{ days} \right)$
Less: Opening stock	(1,000)	(500)
Quantity to be purchased	36,950	45,936
Rate per kg. of Material	Rs. 4	Rs. 6
Total Cost	Rs. 1,47,800	Rs. 2,75,616

(ii) **Wages Budget**

	Product-A (Hours)	Product-B (Hours)
Units to be produced	2,480 units	4,300 units
Standard hours allowed per unit	3	5
Total Standard Hours allowed	7,440	21,500
Productive hours required for production	$\frac{7,440 \text{ hours}}{80\%} = 9,300$	$\frac{21,500 \text{ hours}}{80\%} = 26,875$
Add: Non-Productive down time	1,860 hours. (20% of 9,300 hours)	5,375 hours. (20% of 26,875 hours)
Hours to be paid	11,160	32,250

Total Hours to be paid = 43,410 hours (11,160 + 32,250)

Hours to be paid at normal rate = 4 weeks × 40 hours × 180 workers = 28,800 hours

Hours to be paid at premium rate = 43,410 hours – 28,800 hours = 14,610 hours

$$\begin{aligned} \text{Total wages to be paid} &= 28,800 \text{ hours} \times \text{Rs. } 25 + 14,610 \text{ hours} \times \text{Rs. } 37.5 \\ &= \text{Rs. } 7,20,000 + \text{Rs. } 5,47,875 \\ &= \text{Rs. } 12,67,875 \end{aligned}$$

(b) Working Notes:

Net Value of Plant Sold	Rs. 28,500
Profit on sale of plant	<u>20,000</u>
Sale proceeds of plant	<u>Rs. 48,500</u>
Gross value of plant sold	Rs. 43,500
Increase in Gross value of plant	<u>1,40,000</u>
Value of plant purchased	<u>Rs. 1,83,500</u>
Opening value of plant less depreciation	Rs. 95,000
Less: WDV of plant sold	<u>28,500</u>
	66,500
Add: Plant purchased	<u>1,83,500</u>
	2,50,000
Less: closing value of plant after depreciation	<u>2,13,000</u>
Depreciation for the year	<u>Rs. 37,000</u>

Profit from Operation

	Rs.
Closing value of reserves & surplus	6,15,000
Less: Opening value of reserves & surplus	3,57,000
Profit after depreciation	2,58,000
Add: Depreciation	37,000
Profit before depreciation	2,95,000
Less: profit on sale of plant	20,000
	2,75,000
Add: Interim dividend	54,000
Profit from operation	3,29,000

Fund flow statement for the year ended 31st March 20X9

	Rs.
Sources of Fund	
Fund from operation	3,29,000
Decrease in working capital (bal. Figures)	3,67,000
Sale of plant	48,500
	7,44,500
Application of Fund	
Investment (Long term)	2,37,000
Purchase of Plant	1,83,500

Repayment of Debentures	2,70,000
Payment of interim dividend	54,000
	7,44,500

7. (a) Under this scheme, firstly the quantum of work that a worker can perform is expressed in Bedaux points or B's. These points represent the standard time in terms of minutes required to perform a job. The standard numbers of points in terms of minutes are ascertained after a careful and detailed analysis of each operation or job. Each such minute consists of the time required to complete a fraction of the operation or the job, and also an allowance for rest due to fatigue.

Workers who are not able to complete tasks allotted to them within the standard time are paid at the normal daily rate.

Those who are able to improve upon the efficiency rate are paid a bonus, equal to the wages for time saved as indicated by excess of B's earned (standard minutes for work done) over actual time. Workers are paid 75% of the time saved.

- (b) **Level of activity method:** Under this method, the variable overhead may be determined by comparing two levels of output with the amount of expenses at those levels. Since the fixed element does not change, the variable element may be ascertained with the help of the following formula.

$$\frac{\text{Change in the amount of expense}}{\text{Change in the quantity of output}}$$

Suppose the following information is available:

	Production Units	Semi-variable expenses (Rs.)
January	100	260
February	140	300
Difference	40	40

The variable cost :

$$\frac{\text{Change in Semi – variable expenses}}{\text{Change in production volume}} = \frac{\text{Rs. 40}}{40 \text{ units}} = \text{Re. 1/ unit}$$

Thus, in January, the variable cost will be 100 × Re. 1 = Rs. 100 and the fixed cost element will be (Rs. 260 – Rs. 100) or Rs. 160. In February, the variable cost will be 140 × Re. 1 = Rs. 140 whereas the fixed cost element will remain the same, i.e., Rs. 160.

- (c) **Different Kinds of Float with reference to Management of Cash:** 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 with reference to management of cash are:

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.

Mail float: This is the time when a cheque is being processed by post office, messenger service or other means of delivery.

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.

Banking processing float: This is the time from the deposit of the cheque to the crediting of funds in the sellers account.

(d) The limitations of financial ratios are listed below:

- (i) Diversified product lines: Many businesses operate a large number of divisions in quite different industries. In such cases ratios calculated on the basis of aggregate data cannot be used for inter-firm comparisons.
- (ii) Financial data are badly distorted by inflation: Historical cost values may be substantially different from true values. Such distortions of financial data are also carried in the financial ratios.
- (iii) Seasonal factors may also influence financial data.
- (iv) To give a good shape to the popularly used financial ratios (like current ratio, debt- equity ratios, etc.): The business may make some year-end adjustments. Such window dressing can change the character of financial ratios which would be different had there been no such change.
- (v) Differences in accounting policies and accounting period: It can make the accounting data of two firms non-comparable as also the accounting ratios.
- (vi) There is no standard set of ratios against which a firm's ratios can be compared: Sometimes a firm's ratios are compared with the industry average. But if a firm desires to be above the average, then industry average becomes a low standard. On the other hand, for a below average firm, industry averages become too high a standard to achieve.
- (vii) Financial ratios are inter-related, not independent: Viewed in isolation one ratio may highlight efficiency. But when considered as a set of ratios they may speak differently. Such interdependence among the ratios can be taken care of through multivariate analysis.

Financial ratios provide clues but not conclusions. These are tools only in the hands of experts because there is no standard ready-made interpretation of financial ratios.

- (e) (i) These are the costs which are associated with the purchase and sale of goods (in the case of merchandise inventory). In the production scenario, such costs are associated with the acquisition and conversion of materials and all other manufacturing inputs into finished product for sale. Hence, under marginal costing, variable manufacturing costs and under absorption costing, total manufacturing costs (variable and fixed) constitute inventoriable or product costs.
- (ii) As the name indicates it is the reciprocal of payback period. A major drawback of the payback period method of capital budgeting is that it does not indicate any cut off period for the purpose of investment decision. It is, however, argued that the reciprocal of the payback would be a close approximation of the Internal Rate of Return (later discussed in detail) if the life of the project is at least twice the payback period and the project generates equal amount of the annual cash inflows. In practice, the payback reciprocal is a helpful tool for quickly estimating the rate of return of a project provided its life is at least twice the payback period.

The payback reciprocal can be calculated as follows:

$$\text{Payback Reciprocal} = \frac{\text{Average annual cash in flow}}{\text{Initial investment}}$$