Paper 10 – Cost & Management Accounting and Financial Management

Paper 10 – Cost & Management Accounting and Financial Management

Time Allowed: 3 Hours **Full Marks: 100**

Part-A (Cost and Management Accounting)
Section-I

1. Answer the following questions:

(a) Choose the correct answer from the given four alternatives. [1x 6 = 6]

i. Marginal cost includes prime cost plus_____.
   (a) Fixed overhead
   (b) Variable overhead
   (c) Margin of safety
   (d) Actual cost

ii. Management Accounting implications are _____
   (a) Mandatory by the statue
   (b) Optional
   (c) Compulsory

iii. All _____ cost are included in the marginal cost.
   (a) Fixed
   (b) Variable

iv. Budget preparation are classified on the basis of _____.
   (a) Function
   (b) Flexibility
   (c) Time

v. The formula for material price variance is _____.
   (a) (AQ – SQ) x AP
   (b) (AP-SP) x SQ
   (c) (AP-SP) x AQ
   (d) None of the above

vi. Select from the enumerated list the functions of the management accounting.
   (a) Control
   (b) Reporting to the Management
   (c) Coordination
   (d) All of the above

(b) Match the statement in column I with the most appropriate statement in column II: [1 x 4 = 4]

	Column I		Column II
i	Performance Evaluation	A	Breakeven point
ii	Fixed cost / Pv ratio	B	Zero based budgeting
iii	Total Costing	C	Inter Firm Comparison
iv	Decision making	D	Absorption Costing

(c) State whether the following statements are true or false [1 x 4 = 4]

(i) Budgetary control aims at maximization of profits through optimum utillisation of resources.
(ii) Ideal time variance is always favorable.
(iii) Management Accounting is a modern tool to the management.
(iv) In cost accounting, marginal cost does include fixed cost.

Answer:

1. (a) (i) (a)
(ii) (b)
(iii) (a)
(iv) (d)
(v) (c)
(vi) (d)

(b)

	Column I		Column II
i	Performance Evaluation	C	Inter Firm Comparison
ii	Fixed cost / Pv ratio	A	Breakeven point
iii	Total Costing	D	Absorption Costing
iv	Decision making	B	Zero based budgeting

(c) (i) True
(ii) False
(iii) True
(iv) False

Section-II

Answer any Three Questions from Q. No 2, 3, 4 and 5. Each Question carries 12 Marks

2. (a) The following information is available for the first and second quarter of the year for Pankaj limited:

Quarter	Production (in units)	Semi- variable Cost
Quarter I	**36,000**	**₹ 2,80,000**
Quarter II	**42,000**	**₹ 3,10,000**

You are required to calculate the semi variable Cost and calculate Total Fixed Cost and Variable cost per unit. [6 Marks]

(b) The following information is available for the years 1 and 2 of Amit Limited: [6 Marks]

Year	Year-1	Year-2
Sales	**₹ 32,00,000**	**₹ 57,00,000**
Profit/ (Loss)	**₹ (3,00,000)**	**₹ 7,00,000**

Calculate PV Ratio, Total Fixed Cost, and Sales required to earn a profit of ₹ 12,00,000.

Answer:

2. (a) (1) Variable Cost per Unit (using Level of Activity Method)

$$= \frac{\text{Difference in Costs}}{\text{Difference in Prodn Quantity}} = \frac{₹\,3,10,000 - ₹\,2,80,000}{(42,000 - 36,000)\,\text{units}} = ₹\,5 \text{ per unit.}$$

(2) Fixed Cost = Total Costs less Variable Costs (estimated using 36,000 units output level data)

= ₹ 2,80,000 – (36,000 units × ₹ 5) = ₹ 1,00,000

[Note: 42,000 units level can also be taken here.]

(b)

Marginal Cost Statement (filled up after computing PVR WN 1)

Particulars	Year 1	Year 2
Sales	(Given) = ₹ 32,00,000	(Given) = ₹ 57,00,000
Less: Variable Costs	(Bal. fig.) = (Sales – Contrib.) = ₹ 19,20,000	(Bal. fig.) = (Sales – Contrib.) = ₹ 34,20,000
Contribution	(at 40% See WN-1) = ₹ 12,80,000	(at 40% See WN 1) = ₹ 22,80,000
Less: Fixed Costs	(Bal. Fig) = (Contrib. – Profit) = ₹ 15,80,000	(Bal. fig.) = (Contrib. – Profit) = ₹ 15,80,000
Profit/(Loss)	(Given) = ₹ 3,00,000	(Given) = ₹ 7,00,000

1. PV Ratio = $\frac{\text{Change in Profit}}{\text{Change in Sales}} \times 100 = \frac{₹7,00,000 + (₹3,00,000)}{₹57,00,000 - ₹32,00,000} = \frac{₹10,00,000}{₹25,00,000} = 40\%$.
2. Fixed Costs (as computed in Marginal Cost Statement above) = ₹ 15,80,000
3. Sales required to earn a profit of ₹ 12,00,000 = $\frac{\text{Desired Contribution}}{\text{PV Ratio}}$

   $= \frac{\text{Fixed Cost} + \text{Desired Profit}}{\text{PV Ratio}} = \frac{₹15,80,000 + ₹12,00,000}{40\%} = ₹\ 69,50,000.$

3. (a) Following details relating to Product S during the month of May are available-

Standard cost per unit of S: 50 kg at ₹ 40/kg	**Material price variance: ₹9,800 (Adverse)**
Actual Production: 100 units	**Material Usage Variances: ₹4,000 (Favourable)**
Actual Material Cost: ₹ 42/kg	

Calculate the actual quantity of material used during the month of May. [4 Marks]

(b) Sagar ltd has furnished the following information for the month of September. Calculate the relevant overhead variances. [8 Marks]

Particulars	Budgeted	Actual
Output (units)	**30,000**	**32,500**
Hours	**30,000**	**33,000**
Fixed overhead	**₹ 45,000**	**₹ 50,000**
Variable overhead	**₹ 60,000**	**₹ 68,000**
Working days	**25**	**26**

Answer:

3. (a) Material Price Variance = AQ × SP – AQ × AP = AQ × (SP – AP) = ₹ 9,800 Adverse.
Given SP = ₹ 40 per kg and AP = ₹ 42 per kg. So, AQ × (₹ 40 – ₹ 42) = - ₹ 9,800.
Solving, AQ = 4,900 kg.

(b)

1. Basic Calculations

Variable OH	Fixed OH
Std Rate ph $= \frac{\text{Budgeted VOH}}{\text{Budgeted Hours}} =$	Std Rate ph $= \frac{\text{Budgeted FOH}}{\text{Budgeted Hours}} =$

$\frac{₹\ 60,000}{30,000\ hours} = ₹\ 2$ ph	$\frac{₹\ 45,000}{30,000\ hours} = ₹\ 1.50$ ph
Std Rate pu = $\frac{Budgeted\ VOH}{Budgeted\ Output}$ = $\frac{₹\ 60,000}{30,000\ units} = ₹\ 2$ ph	Std Rate pu = $\frac{Budgeted\ FOH}{Budgeted\ Output}$ = $\frac{₹\ 45,000}{30,000\ units} = ₹\ 1.50$ ph

2. VOH Variance Computation Chart (either based on Time or based on Output)

Col (1): SH×SR (or) AO×SR	Col (2): AH×SR (or) SO×SR	Col (3): AVOH
32,500 units × ₹ 2 pu = ₹ 65,000	33,000 hrs × ₹ 2 ph = ₹ 66,000	(Given) ₹ 68,000

VOH Efficiency Variance = ₹ 65,000 – ₹ 66,000 = ₹ 1,000 A	+	VOH Expenditure Variance = ₹ 66,000 – ₹ 68,000 = ₹ 2,000 A

Total VOH Cost Variance = ₹ 65,000 – ₹ 68,000 = ₹ 3,000 A

3. FOH Variances Computation Chart

Col (1): AO×SR	Col (2): AH×SR	(3):PFOH=BFOH× $\frac{AD}{BD}$	Col (4): BFOH	Col (5): AFOH
32,500 units × ₹ 1.50 pu = ₹ 48,750	33,000 hrs × ₹ 1.50 ph = ₹ 49,500	₹ 45,000 × $\frac{26}{25}$ = ₹ 46,800	₹ 45,000 (given)	₹ 50,000 (given)

Efficiency Variance = ₹ 48,750 – ₹ 49,500 = ₹ 750 A	+	Capacity Variance = ₹ 49,500 – ₹ 46,800 = ₹ 2,700 F	+	Calendar Variance = ₹ 46,800 - ₹ 45,000 = ₹ 1,800 F	+	Expenditure Variance = ₹ 45,000 – ₹ 50,000 = ₹ 5,000 A

FOH Volume Variance = ₹ 48,750 – ₹ 45,000 = ₹ 3,750 F	+	FOH Expenditure Variance b/fd as above = ₹ 5,000 A

Total FOH Cost Variance = ₹ 48,750 – ₹ 50,000 = ₹ 1,250 A

4. (a) Rajat limited has prepared the expenses budget for 20,000 units in its factory for a year as detailed below; **[6 Marks]**

Particulars	Per unit
Direct Material	**50**
Direct Labour	**20**
Variable overhead	**15**
Direct expenses	**6**
Selling expenses (20% fixed)	**15**
Factory expenses (100 fixed)	**7**
Administrative expenses (100% fixed)	**4**
Distribution expenses (85% variable)	**12**
Total	**129**

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

(b) From the data enumerated below calculate the expected average units cost of making 4 machines and (b) 8 machines. [6 Marks]

Direct labour need to make first machine	**1000 hrs**
Learning curve	**90%**
Direct labour cost	**₹ 15 per hour**
Direct material cost	**₹ 1,50,000**
Fixed cost for either size order	**₹ 60,000**

Answer:

4. (a)

Particulars	Situation I	Situation II	Situation III
Production Level	20,000	15,000	18,000
Direct Material at ₹ 50 p.u.	20,000 x 50 = 10,00,000	15,000 x 50 = 7,50,000	18,000 x 50 = 9,00,000
Direct Labour at ₹ 20 p.u.	20,000 x 20 = 4,00,000	15,000 x 20 = 3,00,000	18,000 x 20 = 3,60,000
Variable OH ₹ at 15 p.u.	20,000 x 15 = 3,00,000	15,000 x 15 = 2,25,000	18,000 x 15 = 2,70,000
Direct Expenses at ₹16 p.u.	20,000 x 6 = 1,20,000	15,000 x 6 = 90,000	18,000 x 6 = 1,08,000
Selling Expenses : Fixed: [20,000 x (20% of 15)]	60,000	(same) 60,000	(same) 60,000
Variable (80% of 15%) = ₹ 12 p.u.	20,000 x 12 = 2,40,000	15,000 x 12 = 1,80,000	18,000 x 12 = 2,16,000
Factory Expenses (100% Fixed)	20,000 x 7 = 1,40,000	(same) 1,40,000	(same) 1,40,000
Administration Expenses (100% Fixed)	20,000 x 4 = 80,000	(same) 80,000	(same) 80,000
Distribution Expenses: Fixed	20,000 x 12 x 15% = 36,000	(same) 36,000	(same) 36,000
Variable (85% of 12) = ₹ 10.20 p.u.	20,000 x 10.20 = 2,04,000	15,000 x 10.20 = 1,53,000	18,000 x 10.20 = 1,83,600
Total Expenses	25,80,000	20,14,000	23,53,600

(b) Statement showing computation of cost of making 4 machines & 8 machines:

No. of Machines	Average time	Labour cost	Material	Fixed Cost	Total
1	1000	15000	15000	60000	225000
2	900	13500	15000	30000	193500
4	810	12150	15000	15000	177150
8	729	10935	15000	7500	168435

Average cost of making 4 machines ₹ 1,77,150.
Average cost of making 8 machines ₹ 1,68,435.

5. Answer any three questions out four questions: [3x4=12 Marks]

(a) Factors affecting learning curve.
(b) Factors to be considered in Production Budget.
(c) Function of Management Accounting.
(d) Limitation of Marginal Costing.

Answer:

5. (a) (i) While pricing for bids, general tendency is to set up a very high initial labour cost so as to show a high learning curve. This should the learning curve useless and sometimes misleading.

(ii) The method of production i.e. whether it is labour oriented or machine oriented influences the slop of the learning.

(iii) When labour turnover rate is high management has to train new workers frequently. In such situations the company may never reach its maximum efficiency potential. One of the important requisites of the learning curve concept is that there should be uninterrupted flow of work. The fewer the interruptions, the grater will be the improvement in efficiency.

(iv) Changes in a product or in the methods of production, designs, machinery, or the tools/used affect the slope of the learning curve. All these have the effect of starting learning a fresh because of new conditions If the changes are frequent, there may be no learning at all.

(v) Also other factors influencing the learning curve are labour strikes, lock outs and shut downs due to other cause also/affect the learning curve. In each such case there is interruption in the progress of learning.

As far as possible the effects of above factors should be carefully separated from the data used to establish the curve. The effects of these factors must also be separated from the actual costs used to measure the performance. Unless this is done analysis of the projected cost or the actual cost will not be meaningful.

(b) **Factors to be considered in Production Budget:**

Next to the sales budget, the main function of a business concern is the production and for this, a budget is prepared simultaneously with the sales budget. It is the forecast of production during the period for which the budget is prepared. It can also be prepared in two parts viz., production volume budget for the physical units i.e., the number of units, the tonnes of production etc., and the cost of production or manufacture showing details of all elements of the manufacture. While preparing the production budget, the following factors must be taken into consideration:-

(a) Production plan: Production planning is an important part of the preparation of the production budget. Optimum utilisation of plant capacity is taken by eliminating or reducing the limiting factors and thereby effective production planning is made.

(b) The capacity of the business concern: It is to be ensured that the capacity of the organisation will coincide the budgeted production or not. For this purpose, plant utilisation budget will also be necessary. The production budget must be based on normal capacity likely to be achieved and it should not be too high or too low.

(c) Inventory Policy: While preparing the production budget it is also necessary to see to what extent materials are available for producing the budgeted production. For that purpose, a purchase budget or a purchase plan must also be studied. Similarly, on the other hand, it is also necessary to verify the extent to which the inventory of finished goods is to be carried.

(d) Sales Policy: Sales budgets must also be considered before preparing production budget because it may so happen that the entire production of the concern may not be sold. In such a case the production budget must be in line with the sales budget.

(e) Sequence of Operations Policy: A plan of the sequence of operations of production for effective preparation of a production budget should always be there.

(f) Management Policy: Last, but not the least, the policy of the management should also be considered before preparing the production budget.

(c) The primary objective of Management Accounting is to maximize profits or minimize losses. This is done through the presentation of statements in such a way that the management is able to take corrective policy or decision. The manner in which the Management Accountant satisfies the various needs of management is described as follows:

(1) **Storehouse of Reliable Data:** Management wants reliable data for Planning, Forecasting and Decision-making. Management accounting collects the data from various sources and stores the information for appropriate use, as and when needed. Though the main source of data is financial statements, Management Accounting is not restricted to the use of monetary data only. While preparing a sales budget, the management accountant uses the past data of the products sold from the financial records and makes projections based on the consumer surveys, population figures and other reliable information to estimate the sales budget. So, management accounting uses qualitative information, unlike financial accounting, for preparing its reports, collecting and modifying the data for the specific purpose.

(2) **Modification and Presentation of Data**: Data collected from financial statements and other sources is not readily understandable to the management. The data is modified and presented to the management in such a way that it is useful to the management. If sales data is required, it can be classified according to product, geographical area, season-wise, type of customers and time taken by them for making payments. Similarly, if production figures are needed, these can be classified according to product, quality, and time taken for manufacturing process. Management Accountant modifies the data according to the requirements of the management for each specific issue to be resolved.

(3) **Communication and Coordination:** Targets are communicated to the different departments for their achievement. Coordination among the different departments is essential for the success of the organisation. The targets and performances of different departments are communicated to the concerned departments to increase the efficiency of the various sections, thereby increasing the profitability of the firm. Variance analysis is an important tool to bring the necessary matters to the attention of the concerned to exercise control and achieve the desired results.

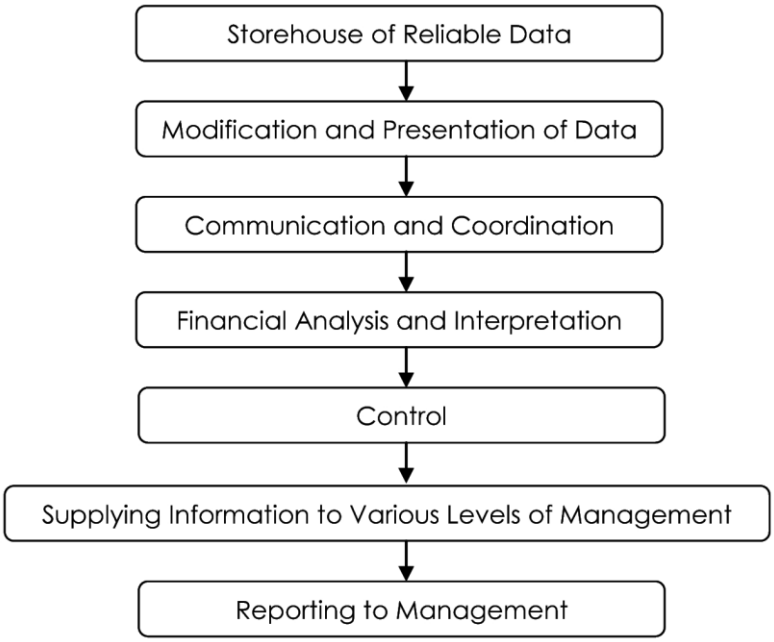
(4) **Financial Analysis and Interpretation:** Management accounting helps in strategic decision making. Top managerial executives may lack technical knowledge. For example, there are various alternatives to produce. There is always a choice for the sales mix. Management 344 Accounting for Managers Accountant gives facts and figures about various policies and evaluates them in monetary terms. He interprets the data and gives his opinion about various alternative courses of action so that it becomes easier to the management to take a decision.

(5) **Control:** It is absolutely essential that there should be a system of monitoring the performance of all divisions and departments so that deviations from the desired path are brought to light, without delay and are corrected then and there. This process is termed as control. The aim of this function 'control' is to facilitate accomplishment of the goals in an efficient manner. For the discharge of this

important function, management accounting provides meaningful information in a systematic and effective manner. However, the role of accountant is misunderstood. Many consider the accountant as a controller of their performance. Many accountants themselves misunderstand their own role as controllers. The real role of control is effective communication and assists the managers in achieving their goals, as efficiently as possible.

(6) **Supplying Information to Various Levels of Management**: Every level of management requires information for decision-making and policy execution. Top-level management takes broad policy decisions, leaving day-to-day decisions to lower management for execution. Supply of right information, at proper time, increases efficiency at all levels.

(7) **Reporting to Management:** Reporting is an important function of management accounting to achieve the targets. The reports are presented in the form of graphs, diagrams and other statistical techniques so as to make them easily understandable. These reports may be monthly, quarterly, and half-yearly. These reports are helpful in giving constant review of the working of the business.



(d) Limitations of Marginal Costing:

(a) The separation of costs into fixed and variable present's technical difficulties and no variable cost is completely variable nor is a fixed cost completely fixed.

(b) Under the marginal cost system, stock of finished goods and work-in-progress are understated. After all, fixed costs are incurred in order to manufacture products and as such, these should form a part of the cost of the products. It is, therefore, not correct to eliminate fixed costs from finished stock and work-in-progress.

(c) The exclusion of fixed overhead from the inventories affects the Profit and Loss Account and produces an unrealistic and conservative Balance Sheet, unless adjustments are made in the financial accounts at the end of the period.

(d) In marginal costing system, marginal contribution and profits increase or decrease with changes in sales volume. Where sales are seasonal, profits fluctuate from period to period. Monthly operating statements under the marginal costing system will not, therefore, be as realistic or useful as in absorption costing.

(e) During the earlier stages of a period of recession, the low profits or increase in losses, as revealed in a magnified way in the marginal costs statements, may unduly create panic and compel the management to take action that may lead to further depression of the market.

(f) Marginal costing does not give full information. For example, increased production and sales may be due to extensive use of existing equipments (by working overtime or in shifts), or by an expansion of the resources, or by the replacement of labour force by machines. The marginal contribution fails to reveal these.

(g) Though for short-term assessment of profitability marginal costs may be useful, long term profit is correctly determined on full costs basis only.

(h) Although marginal costing eliminates the difficulties involved in the apportionment and under and over-absorption of fixed overhead, the problem still remains so far as the variable overhead is concerned.

(i) With increased automation and technological developments, the impact on fixed costs on products is much more than that of variable costs. A system which ignores fixed costs is therefore, less effective because a major portion of the cost, such as not taken care of.

(j) Marginal costing does not provide any standard for the evaluation of performance. A system of budgetary control and standard costing provides more effective control than that obtained by marginal costing.

Part-B (Financial Management)
Section-III

6. Answer the following questions:

(a) Choose the correct answer from the given four alternatives. [1x6=6]

(i) _____ ratio is also termed as Acid test ratio.
- (a) Defensive interval ratio
- (b) Current ratio
- (c) Proprietary ratio
- (d) Quick ratio

(ii) From the enumerated list please select instrument which is not dealt in capital market.
- (a) Commercial Paper
- (b) Debenture
- (c) Sweat Equity
- (d) None of the above

(iii) From the enumerated list please select instrument which is not dealt in money market.
- (a) Equity shares
- (b) Treasury Bill
- (c) Certificate of Deposit
- (d) None of the above

(iv) Rigid working capital is also known as _____.
- (a) Variable Working Capital
- (b) Seasonal Working Capital
- (c) Fixed Working Capital
- (d) Temporary Working Capital

(v) From the following select one factor which is sources of fund.
   (a) Payment of dividend
   (b) Increase in working capital
   (c) Non trading Income
   (d) None of the above

(vi) From the following select one factor which is application of fund.
   (a) Issue of share capital
   (b) Decrease in working capital
   (c) Increase in working capital
   (d) None of the above

(b) Match the statement in Column I with the most appropriate statement in column II: **[1x4=4]**

	Column I		**Column II**
i	High risk and high reward projects financing	A	Service Lease
ii	Relinquish a right	B	Forfeit
iii	Unsecured Promissory Note	C	Equity Financing
iv	Operating Lease	D	Commercial Paper (CP)

(c) State whether the following statements are True or False **[1x4=4]**

(i) Cash flow statement reveals the changes in cash position between two balance sheet dates.

(ii) Gross working capital refers to the total of the current assets.

(iii) Global Depository Receipt (GDR) are freely traded in the international market and do carry voting rights.

(iv) The motive behind holding a cash is to meet the business exigencies and to do the regular business transaction.

Answer:

6. (a) (i) (d)
   (ii) (a)
   (iii) (a)
   (iv) (c)
   (v) (c)
   (vi) (c)

(b)

	Column I		**Column II**
i	High risk and high reward projects financing	C	Equity Financing
ii	Relinquish a right	B	Forfeit
iii	Unsecured Promissory Note	D	Commercial Paper (CP)
iv	Operating Lease	A	Service Lease

(c) (i) True
   (ii) True
   (iii) False
   (iv) True

Section IV

Answer any three Question from Q. No 7, 8, 9 and 10. Each Question carries 12 Marks.

7. (a) The financial statement of a company contains the following information for the year ending 31st March 2017. [6 Marks]

Cash	1,60,000
Sundry Debtor	4,00,000
Short term Investment	3,20,000
Stock	21,60,000
Prepaid Expenses	10,000
Total current assets	30,50,000
Current liabilities	10,00,000
10% Debenture	16,00,000
Equity Share capital	20,00,000
Retained earnings	8,00,000

Statement of profit for the year ended 31st March 2017

Particulars	Amount (₹)
Sales (20% cash sales)	40,00,000
Less: Cost of goods sold	28,00,000
Profit before interest and taxes	12,00,000
Less: Interest	1,60,000
Profit before tax	10,40,000
Less: Tax @ 30%	3,12,000
Profit after tax (PAT)	7,28,000

Calculate

1. **Quick ratio**
2. **Debt Equity Ratio**
3. **ROCE**
4. **Average collection period (assuming 360 day year)**

(b) Amit Co. gives its statement of sources and utillisation of funds as under- [6 Marks]

Sources of funds	₹ Lakhs	Application of funds	₹ Lakhs
Equity Share Capital	0.50	Increase in working capital	1.50
Loans at 12%	2.50	Increase in fixed assets	1.50
Reduction in Investment	0.25	Loan as per P& L Account	1.00
Sale of Assets	0.25		
Depreciation for the year	.50		
Total	4.00	Total	4.00

The company current ratio at the beginning of the year was 2. The current liabilities of the company as at 1st January (beginning of the year) stood at ₹ 3 lakhs. It was disclosed that during the year, the turnover to capital employed ratio declined from 1.5 to 1.25. You are required to critically appraise the financial operations of the company during the year.

Answer:

7. (a) (i) Quick Ratio = $\frac{\text{Current Assets - Stock - Prepaid Expenses}}{\text{Current Liabilities}}$

$$= \frac{30,50,000 - 21,60,000 - 10,000}{10,00,000} = 0.88 \text{ times.}$$

(ii) Debt – Equity Ratio = $\frac{\text{Debt (i.e., 10\% Debentures)}}{\text{Equity (i.e., ESC + Retained Earnings)}}$

$$= \frac{16,00,000}{(20,00,000 + 8,00,000)} = 0.57 : 1$$

(iii) ROCE = $\frac{\text{EBIT}}{\text{Equity + Debt}} = \frac{12,00,000}{[(20,00,000 + 8,00,000) + 16,00,000]} = 27.27\%$

(iv) Debtors T/O Ratio = $\frac{\text{Credit Sales}}{\text{Average Debtors}} = \frac{\text{80\% of 40,00,000}}{\text{[assumed as given Debtors = 4,00,000]}}$

= 8 times

So, Average Collection Period = $\frac{360}{8}$ = 45 days.

(b) Analysis of Funds Flow Statement

1. **Cash Loss during the year:** There is a total loss of ₹ 1 Lakh of which Depreciation constitutes ₹ 0.50 Lakh. Hence, the balance constitutes Cash Loss either due to reduction in sales prices or volume or increase in costs and overheads. Cash Loss is not a good sign for the Company vis-a-vis Going Concern.
2. **Reduction in Capital Turnover Ratio:** The Capital Turnover Ratio (i.e. $\frac{\text{Sales}}{\text{Capital Employed}}$) has come down from Capital Employed 1.50 to 1.25. The higher the turnover ratio, the better it is for the Firm. Fall in Capital Employed Turnover Ratio represents deterioration of activity levels and Sales, and also over-capitalization and idle funds with the Firm.
3. **Mismatch of funds:** Increase in Working Capital (a short-term application) has been financed out of long-term and permanent sources of funds (i.e. Share Capital, Loans at 12%, Sale of Investments and Assets). This is not a prudent financial practice, since there is no proper matching between long-term and short-term sources and applications.
4. **Debt Equity Funding:** In view of Cash Losses, the Firm should have gone in for obtaining equity funds since debt involves fixed commitment towards interest and principal. However, the Firm has obtained more Debt Funds at a cost of 12%, which may increase the Cash Losses in the subsequent years.
5. **Excessive Current Assets:** The Current Ratio at the start of the year was 2:1 which is a satisfactory one. However, during the year, there has been further increase in net Current Assets, which will cause a further increase in the Current Ratio. A high Current Ratio may indicate poor collection of Debtors, piling up of unsold Finished Goods, delays in production cycle and consequent increase in WIP, slow-moving Raw Materials, etc. The firm should monitor Working Capital items closely and adopt suitable techniques for maintaining a reasonable liquidity position.

8. (a) Compute the maximum permissible bank finance under methods I, II, III of Tandon Committee norms from the enumerated details-Assuming Core Current Assets are ₹380 Lakh.

[6 Marks]

Current Liabilities	₹ Lakhs	Current Assets	₹ Lakhs
Creditor for Purchase	400	Raw material	800
Other current liabilities	200	WIP	80
	600	Finished goods	360
Bank Borrowing including Bill discounted with bankers	800	Receivables (including bill discounted)	200
		Other current Assets	40
	1,400		1,400

(b) Calculate the degree of operating leverage, degree of financial leverage and the degree of combined leverage for the following firm: [6 Marks]

Particulars	P	A	S
Production (in units)	17,500	6,700	31,800
Fixed Cost	₹ 4,00,000	₹ 3,50,000	₹ 2,50,000
Interest on loan	₹ 1,25,000	₹ 75,000	Nil
Selling price per unit	₹ 85	₹ 130	₹ 37
Variable cost per unit	₹ 38.00	₹ 42.50	₹ 12.00

Answer:

8. (a) Maximum Permissible Bank Finance as per Tandon Committee Norms (amounts in ₹ Lakhs)

Method	Computation	MPBF	Actual	Excess
I	= 75% of (Current Assets - Current Liabilities) = 75% of (1,480 - 600)	660	800	140
II	= 75% of Current Assets - Current Liabilities = (75% of 1,480) - 600	510	800	290
III	= 75% of (Total Current Assets - Core Current Assets) - Current Liabilities = 75% of (1,480 - 380) - 600	225	800	575

Note: Current Liabilities exclude Bank Borrowings & Bills discounted with Bankers.

(b)

Firm	P	A	S
Total Contribution	(85-38) x 17,500 Units=₹ 8,22,500	(130-42.5) x 6,700 Units=₹ 5,86,250	(37-12) x 31,800 Units=₹ 7,95,000
Less: Fixed Cost	4,00,000	3,50,000	2,50,000
EBIT	4,22,500	2,36,250	5,45,000
Less: Interest	1,25,000	75,000	-
EBT	2,97,500	1,61,250	5,45,000
Degree of Operating Leverage = $\frac{\text{Contribution}}{\text{EBIT}}$	1.95	2.48	1.46
Degree of Financial Leverage = $\frac{\text{EBIT}}{\text{EBT}}$	1.42	1.47	1.00

Degree of Combined Leverage = DOL x DFL	2.77	3.64	1.46

Inference: Overall Risk of Firm P is the highest while that of Firm Q is the least.

9. (a) PKj Limited has obtained funds from the following sources, the specific cost are also given against them: **[6 Marks]**

Sources of funds	Amount (₹)	Cost of capital
Equity shares	**30,00,000**	**15%**
Preference shares	**8,00,000**	**8%**
Retained Earnings	**12,00,000**	**11%**
Debenture	**10,00,000**	**9%(before tax)**

You are required to calculate the weighted average cost of capital assuming that corporate tax rate is 30%.

(b) Pankaj and Co. is evaluating an investment proposal of ₹ 3,06,000 with expected cash flows as ;

Year	CFAT (₹)
1	**1,00,000**
2	**1,20,000**
3	**1,50,000**
4	**1,00,000**

The company's cost of capital is 10%. Compute the NPV and PI for this project. **[6 Marks]**

Answer:

9. (a)

Computation of WACC

Component	₹	%	Individual Cost	WACC
Equity Shares	30,00,000	50.00%	Ke (Given) = 15.00%	7.50%
Preference Shares	8,00,000	13.33%	K_p (Given) = 8.00%	1.07%
Retained Earnings	12,00,000	20.00%	K_r (Given) = 11.00%	2.20%
Debentures	10,00,000	16.67%	Kd =9% x (100% - 30%) = 6.30%	1.05%
Total	60,00,000	100.00%	WACC = Ko =	11.82%

(b)

Year	CFAT	PV Factor at 10%	DCFAT
1	₹ 1,00,000	0.9091	₹ 90,910
2	₹ 1,30,000	0.8264	₹ 1,07,432
3	₹ 1,50,000	0.7513	₹ 1,12,695
4	₹ 1,00,000	0.6830	₹ 68,300
Total DCFAT = Discounted Cash Inflows			₹ 3,79,337
Less: Initial Investment = Discounted Cash Outflows			₹ 3,06,000
Net Present Value (NPV) = Total DCFAT less Initial Investment			₹ 73,337
Profitability Index (PI) = $\frac{\text{Total DCFAT}}{\text{Initial Investment}}$			1.24

10. Write a short note on any three **[3x4=12 Marks]**

(a) Window Dressing.

(b) Importance of Capital Budgeting Decisions.

(c) Functions of Financial Management.

(d) Distinguish between factoring vs. forfeiting.

Answer:

10. (a) **Window Dressing:**

The term window dressing means manipulation of accounts in a way so as to conceal vital facts and present the financial statements in a way to show a better position than what it actually is. On account of such a situation, presence of a particular ratio may not be a definite indicator of good or bad management. For example, a high stock turnover ratio is generally considered to be an indication of operational efficiency of the business. But this might have been achieved by unwarranted price reductions or failure to maintain proper stock of goods.

Similarly, the current ratio may be improved just before the Balance Sheet date by postponing replenishment of inventory. For example, if a company has got current assets of ₹ 4,000 and current liabilities of ₹ 2,000 the current ratio is 2, which is quite satisfactory. In case the company purchases goods of ₹ 2,000 on credit, the current assets would go up to ₹ 6,000 and current liabilities to ₹ 4,000. Thus reducing the current ratio to 1.5. The company may, therefore. Postpone the purchases for the early next year so that its current ratio continues to remain at 2 on the Balance Sheet date. Similarly, in order to improve the current ratio, the company may pay off certain pressing current liabilities before the Balance Sheet date. For example, if in the above case the company pays current liabilities of ₹ 1,000, the current liabilities would stand reduced to ₹ 1,000, current assets would stand reduced to ₹ 3,000 but the current ratio would go up to 3.

(b) The selection of the most profitable project of capital investment is the key function of Financial Manager. The decisions taken by the management in this area affect the operations of the firm for many years. Capital budgeting decisions may be generally needed for the following purposes:
a) Expansion; b) Replacement; c) Diversification; d) Buy or lease and e) Research and Development.

a) Expansion: The firm requires additional funds to invest in fixed assets when it intends to expand the production facilities in view of the increase in demand for their product in near future. Accordingly the current assets will increase. In case of expansion the existing infrastructure – like plant, machinery and other fixed assets is inadequate, to carry out the increased production volume. Thus the firm needs funds for such project. This will include not only expenditure on fixed assets (infrastructure) but also an increase in working capital (current assets).

b) Replacement: The machines and equipment used in production may either wear out or may be rendered obsolete due to new technology. The productive capacity and competitive ability of the firm may be adversely affected. The firm needs funds or modernisation of a certain machines or for renovation of the entire plant etc., to make them more efficient and productive. Modernization and renovation will be a substitute for total replacement, where renovation or modernization is not desirable or feasible, funds will be needed for replacement.

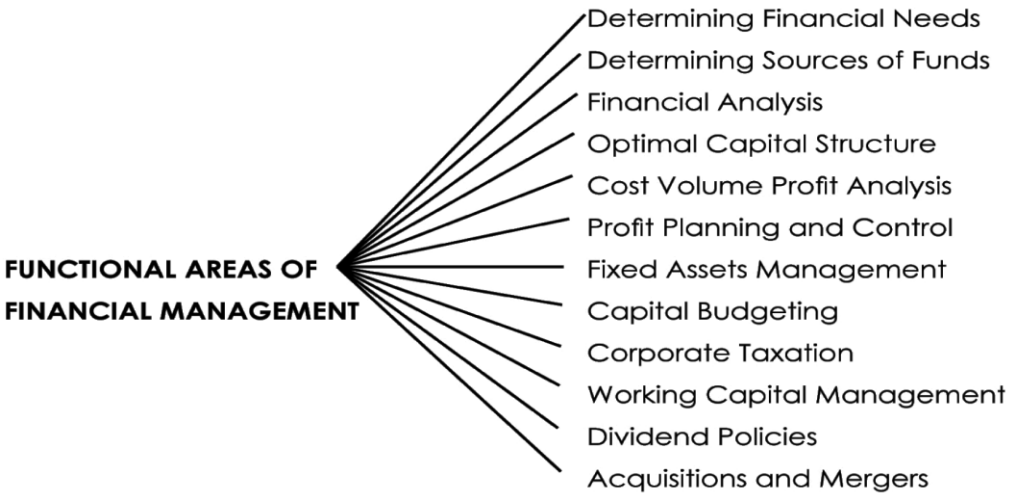
c) Diversification: If the management of the firm decided to diversify its production into other lines by adding a new line to its original line, the process of

diversification would require large funds for long-term investment. For example ITC and Philips company for their diversification.

d) Buy or Lease: This is a most important decision area in Financial Management whether the firm acquire the desired equipment and building on lease or buy it". If the asset is acquired on lease, there have to be made a series of annual or monthly rental payments. If the asset is purchased, there will be a large initial commitment of funds, but not further payments. The decision – making area is which course of action will be better to follow? The costs and benefits of the two alternative methods should be matched and compared to arrive at a conclusion.

e) Research and Development: The existing production and operations can be improved by the application of new and more sophisticated production and operations management techniques. New technology can be borrowed or developed in the laboratories. There is a greater need of funds for continuous research and development of new technology for future benefits or returns from such investments.

(c) One of the most important functions of the Finance Manager is to ensure availability of adequate financing. Financial needs have to be assessed for different purposes. Money may be required for initial promotional expenses, fixed capital and working capital needs. Promotional expenditure includes expenditure incurred in the process of company formation. Fixed assets needs depend upon the nature of the business enterprise – whether it is a manufacturing, non-manufacturing or merchandising enterprise. Current asset needs depend upon the size of the working capital required by an enterprise.



Functions of Financial Management

(d) Both Factoring and Forfeiting are used as tools of financing. But there are some differences:

(i) Factoring is always used as a tool for short term financing whereas Forfeiting is for medium term financing at a fixed rate of interest.

(ii) Factoring is generally employed to finance both the domestic and export business. But, Forfeiting is invariably employed in export business only.

(iii) The central theme of Factoring is the purchase of the invoice of the client whereas it is only the purchase of the export bill under Forfeiting.

(iv) Factoring is much broader in the sense it includes the administration of the sales ledger, assumption of credit risk, recovery of debts and rendering of consultancy services. On the other hand, Forfeiting mainly concentrates on financing aspects only and that too in respect of a particular export bill.

(v) Under Factoring, the client is able to get only 80% of the total invoice as 'credit facility' whereas the 100% of the value of the export bill (of course deducting service charges) is given as credit under forfeiting.

(vi) Forfeiting is done without recourse to the client whereas it may or may not be so under Factoring.

(vii) The bills under Forfeiting may be held by the forfeiter till the due date or they can be sold in the secondary market or to any investor for cash. Such a possibility does not exist under Factoring.

(viii) Forfeiting is a specific one in the sense that it is based on a single export bill arising out of an individual transaction only. But Factoring is based on the "whole turnover' i.e., a bulk finance is provided against a number of unpaid invoices.