# Paper 10 – Cost & Management Accounting and Financial Management

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**Full Marks : 100** **Time allowed: 3 hours**

**Part A : (Cost and Management Accounting)**

**Section - I**

1. **Answer the following questions:**

**(a) Choose the correct answer from the given four alternatives: [1×6=6]**

(i) Reporting under marginal costing is accomplished by:
(A) eliminating the WIP inventory account
(B) including only variable costs in income statement
(C) matching variable costs against revenue and treating fixed costs as period costs
(D) treating all costs as period costs.

(ii) Which of the following is not depicted on break-even chart?
(A) Profit/Loss at different levels of output
(B) Sales to earn a given profit
(C) Contribution
(D) P/V ratio

(iii) Difference between budgeted amounts and actual results is classified as
(A) standard deviation
(B) variances
(C) mean average
(D) weighted average

(iv) Part of master budget, which covers capital expenditures, budgeted statement of cash flows and balance sheets are classified as
(A) financial budget
(B) capital budget
(C) cash flows budget
(D) balanced budget

(v) The type of standard that is best suited for cost control objective is
(A) Normal standard
(B)Basic standard
(C) Expected standard
(D) Ideal standard

(vi) The corrective actions after the analysis of variances has to be taken by
(A) Cost Auditor
(B) Management
(C) Both A and B
(D) None of the above

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

| Column I | Column II |
|---|---|
| (i) Fixed Cost | (A) Cost Control |
| (ii) Standard cost | (B)Direct Material |
| (iii)Variable Cost | (C) If there is no production , loss is equal to |
| (iv)Normal idle time cost | (D) Factory overhead. |

(c) State whether the following statements are True/False? [1×4=4]
(i) When output increases, marginal cost per unit decreases.
(ii) Labour mix variance arises only when two or more category of workers perform the same task.
(iii) In flexible budgeting, one fixed budget is developed for each level of activity.
(iv) Learning curve is useful in case of experienced workmen.

**Section II**

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

2. (a) Normal capacity of SUVAN LTD. is 240000 Units per annum. Cost structure for the year ending 31st March, 2015 is as follows:

| | ₹ |
|---|---:|
| Direct material cost per unit | 25 |
| Direct labour cost per unit (subject to a minimum of ₹2,50,000 per month) | 20 |
| Overheads: Fixed | 18,00,000 |
| Variable per unit | 15 |

Semi variable ₹9,60,000 per year upto 50% capacity and additional ₹3,00,000 for every 20% increase in capacity or part thereof.

In the year 2016-17 the company to be worked at 60% capacity for the first four months but it was expected that it would work at 80% capacity for the remaining 8 months. During the first four months, the selling price per unit will be fixed at ₹100.

Required:
What should be the price per unit in the remaining eight months to earn a total Profit of ₹43,80,000?

(b) G Enterprise is operating at 60% capacity level producing and selling 60,000 units @ ₹50 per unit. Other relevant particulars are as follows:

| | Cost per unit |
|---|---:|
| Material | ₹ 20 |
| Conversion Cost (variable) | ₹ 10 |
| Dealer's margin (10% of sales) | ₹ 5 |
| Fixed cost for the period is ₹ 6,00,000 | |

As there is a stiff competition, it is not possible to sell all the products at the existing cost price structure. The following alternative proposals are considered:
(i) Decrease selling price by 20%
(ii) Increase dealer's margin from 10% to 20%

Select the better alternative. Also calculate the sales volume required to maintain the same amount of profit under the alternative which is considered better assuming that volume of sales will not be a limiting factor under such alternative. Also assume that fixed cost will remain constant. [6+6]

3. (a) ABOKASH LTD., operates a System of Standard Costing. The Company manufactures a Chemical Product by mixing three ingredients Chemical A, B and C and processes the same. The Standard Cost data for the product are as follows: Chemical Percentage of total input Standard Cost per kg. (₹) A 50% 40 B 30% 60 C 20% 95

**Note: Loss during processing is 5% of input and this has no realizable value. During the month of May,2015, 10,200kg. of finished product was obtained from the Inputs as per details given below:**

**Chemical Consumed Quantity purchased and issued Actual Cost (₹) A 5200 kg. 2,34,000 B 3600 kg. 2,19,600 C 1700 kg. 1,58,100 You are required to calculate: (1) Material Cost Variance (2) Material Price Variance (3) Material Mix Variance**

**(b) The following information are provided to you for a month in respect of a workshop:**

**(i) Overhead cost variance – ₹ 1,400 adverse**
**(ii) Overhead volume variance – 1,000 adverse**
**(iii) Budgeted hours - 1,200 hrs.**
**(iv) Budgeted overhead – ₹ 6,000**
**(v) Actual rate of recovery of overheads - ₹8 per hour**

**You are required to compute:**

**(1) Overhead expenditure variance**
**(2) Actual overheads incurred**
**(3) Actual hours for actual production** **[6+6]**

**4. (a) ADAMAS LTD.; a newly established manufacturing company has an installed capacity to produce 1,00,000 units of a consumer product annually. However its practical capacity is only 90%. The actual capacity utilisation may be substantially lower, as the firm is new to the market and demand is uncertain. The following budget has been prepared for 90% capacity utilisation:**

| | Cost per unit (₹) |
|---|---|
| Direct Materials | 12 |
| Direct Labour | 8 |
| Direct Expense | 5 |
| Production Overheads | 10 (40% variable) |
| Administration Overheads | 5 (100% fixed) |
| Selling and Distribution | 6 (50% variable) |

**You are required to prepare Flexible Budgets of a Consumer product at 70% and 80% levels of capacity utilization giving clearly the Variable Cost, Fixed Cost and the Total Costs under various heads at all stated levels.**

**(b) XYZ Co. Ltd. has two divisions A and B. A sells half of its output on the open market and transfers the rest to Division B. Costs and revenue during 2013 are:**

| | A (₹) | B (₹) | Total (₹) |
|---|---|---|---|
| Sales | 18,000 | 50,000 | 68,000 |
| Cost of production in the division | 26,000 | 22,000 | 48,000 |
| Profit during the period | | | 20,000 |

**There are no opening and closing stocks.**
**You are required to find out the profit of each division and profit of the company using transfer prices:**

**(i) At cost**
**(ii) At cost plus 20%**
**(iii) At cost plus 20% but there is over spending in Division A ₹4,000.** **[6+6]**

**5. Write short note on any three of the following:** **[4×3=12]**

**(a) P/V Ratio**
**(b) Factors to be considered in Sales Budget (any four)**
**(c) Causes of Price Variance (any four causes)**
**(d) Reasons for use of Learning Curve (any four uses)**

**Part – B (Financial Management)**

**Section - III**

**6. Answer the following questions:**

**(a) Choose the correct answer from the given four alternatives: [1×6=6]**

(i) When the concept of ratio is defined in respected to the items shown in the financial statements, it is termed as
(A) Accounting ratio
(B) Financial ratio
(C) Costing ratio
(D) None of the above

(ii) Liquidity ratios are expressed in
(A) Pure ratio form
(B) Percentage
(C) Rate or time
(D) None of the above

(iii) Which of the following are treated as long term investments?
(A) Non-current investments
(B) Trade Investments
(C) Sinking fund investments
(D) All of the above

(iv) Which of the following statement is true?
(A) Cash is decreased when new debt is issued to purchase holiday merchandise.
(B) Accepting the credit offered by a supplier is a source of cash.
(C) Increasing the use of trade credit offered by a supplier is a use of cash.
(D) Collecting an accounts receivable is a use of cash.

(v) The weighted average cost of capital for a firm is the:
(A) Discount rate which the firm should apply to all of the projects it undertakes.
(B) Rate of return a firm must earn on its existing assets to maintain the current value of its stock.
(C) Coupon rate the firm should expect to pay on its next bond issue.
(D) Maximum rate which the firm should require on any projects it undertakes.

(vi) Relationship between Economic Value Added (EVA) and Net Present Value (NPV) is considered as
(A) valued relationship
(B) economic relationship
(C) direct relationship
(D) inverse relationship

**(b) Match the statement in Column I with appropriate statement in Column II [1×4=4]**

| Column I | Column II |
|---|---|
| (i) Working Capital | (A) Collection procedures |
| (ii)Credit policy | (B) Inventory Control |
| (iii)EOQ | (C)Factoring |
| (iv)Credit standard | (D)Collateral security. |

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

(i) Deciding on the total amount of assets needed by the firm is a key step in the investment decision.

**(ii) Permanent working capital includes fixed assets.**
**(iii) Depreciation increases taxable income.**
**(iv) If EBIT were to remain constant while the firm incurred additional interest expense, the degree of financial leverage would increase.**

**7. (a) The following information is available as on 31.03.2017:**

| | |
|---|---|
| Current Ratio | 2.7 : 1 |
| Current Liabilities to Net worth | 20% |
| Total Debts to Net worth | 39% |
| Fixed Assets to Net worth | 85% |
| Sales to Net worth | 2.4 times |
| Inventory to Current Assts | 1 : 3 |
| Average Collection Period | 1 month |
| Working capital | ₹5,10,000 |

**Calculate the following as on 31.03.2017:**
**(A) Fixed assets**
**(B) Inventory**
**(C) Debtors**
**(D) Cash and Bank Balance (combined figure)**
**(E) Net worth**
**(F) Long term Debts**
**(G) Current Liabilities**

**(b) AT Ltd. is trying to estimate the first – year operating cash flow (at t =1) for a proposed project. The finance staff has collected the following information:**
**Projected sales = ₹1 crore**
**Operating costs = ₹70 lakhs (not including depreciation)**
**Depreciation = ₹20 lakhs**
**Interest expense = ₹20 lakhs**
**The company faces a 40% tax rate. What is the project's operating cash flow for the year (t=1)?** **[7+5]**

**8. (a) The following data is provided by S Limited. Sales ₹40,00,000; Variable Cost is 60% of Sales; Fixed Cost ₹10,00,000; Interest on Borrowings ₹1,50,000 in addition to the fixed costs.**
**Using the concept of leverage, answer the following:**
**(i) By what percentage will the taxable income increase if EBIT increases by 6%?**
**(ii) By what percentage will EBIT increase if there is 10% increase in sales?**

**(b) A company plans to sell 48000 units next year. The following information is given:**
**Raw Materials = 100(per unit)**
**Manufacturing expense = 30(per unit)**
**Selling cost = 20(per unit)**
**Selling Price = 180 (per unit)**
**Average Cash balance = 1,20,000**

**The duration at various stages is expected to be as follows:**
**Raw materials stage 2 months**

**Work in progress 1 month (Row Materials 100% complete; Manufacturing 25% complete)**
**Finished goods 1 month**
**Debtors 1 month**

**Assume uniform sales of 4000 units per month. Estimate the gross working capital requirement taking Debtors at Cost;** **[6+6]**

9. (a) R Ltd. Has the following book-value capital structure as on 31st March, 2017:

| | (₹ In Crores) |
|---|---:|
| 12% Debentures of ₹ 100 each | 20 |
| 10% Preference shares of ₹ 100 each | 5 |
| Equity shares of ₹ 10 each | 25 |
| Total | 50 |

Recent market prices of the securities
are: Debentures: ₹ 115 per debenture;
Preference shares: ₹ 140 per share; and
Equity shares: ₹ 48 per share
External financing opportunities are:
(i) 12% Debentures are redeemable at par after 10 years, its flotation cost is 4% and sale price is ₹ 100.
(ii) 10% Preference shares are redeemable at par after 10 years, its flotation cost is 5% and sale price is ₹ 100.
(iii) Equity shares: ₹ 4 per share is flotation cost, sale price is ₹ 44.
The dividend expected on the equity share at the end of the year is ₹ 4 per share; the anticipated growth rate in dividends is 7% p.a. and the company has the practice of paying all its earnings in the form of dividend. The corporate tax rate is 30%.

You are required to calculate the weighted average cost of capital using (i) Book value weights .

(b) The following data relating to a project are provided by the Management of G Ltd:

| | |
|---|---|
| Annual saving | ₹ 4,20,000 |
| Useful life | 4 years |
| Profitability Index | 1.04291 |
| Internal rate of Return | 14% |
| Salvage Value | Nil |

Assume that the only outflow is at the beginning of year 1.

Find (i) Net Present Value (to the nearest rupee) and (ii) Cost of Capital (as a % up to one decimal point)

Table Showing Present Value of Re.1 at different discount rates: (You are required to use PV factors only up to three decimals as shown below)

| Rate / End of Year | 14% | 13% | 12% | 11% |
|---|---|---|---|---|
| 1 | 0.877 | 0.885 | 0.893 | 0.901 |
| 2 | 0.769 | 0.783 | 0.797 | 0.812 |
| 3 | 0.675 | 0.693 | 0.712 | 0.731 |
| 4 | 0.592 | 0.613 | 0.636 | 0.659 |
| Total | 2.913 | 2.974 | 3.038 | 3.103 |

[7+5]

10. Write short note on any three of the following: [3×4=12]
(a) Issue of Commercial Papers in India
(b) Criticisms of CAPM
(c) Importance of Cash Management.
(d) Basic Propositions of MM Approach