

**PRIME ACADEMY**  
**30<sup>TH</sup> SESSION MODEL EXAM – COSTING & FINANCIAL MANAGEMENT**  
**QUESTION PAPER**

**Total No. of Questions: 8**  
**Time Allowed: 3 Hrs**

**CFMT**

**Total No. of Printed Pages: 4**  
**Maximum Marks: 100**

**All are compulsory**

**Working notes should form part of the answer**

1. Answer any five of the following
  - (i) Calculate Capacity and efficiency ratios from the following

|                        |   |           |
|------------------------|---|-----------|
| Budgeted Production    | - | 180 units |
| Actual Production      | - | 150 units |
| Standard time per unit | - | 7.5 hours |
| Actual hours worked    | - | 900 hour  |
  - (ii) The annual carrying cost of material “K” is Rs.4.5 per unit and its total carrying cost is Rs.13, 500. What would be the Economic order quantity if there is no safety stock of material?
  - (iii) For a component standard output in 12 hours is 300 units and actual output in 12 hours is 360 units. The wage rate is Rs.15 per hour. Calculate the amount of bonus and total wages under Emerson plan.
  - (iv) A product has a P/V ratio of 30 % and applicable fixed cost is Rs.2,50,000. The company wants to have a profit of Rs.50,000. What should be the sales revenue required to achieve this?
  - (v) Enumerate the usefulness of Cost audit to the Government
  - (vi) Differentiate between job costing and Batch costing (5x2=10 Marks)
2. A process industry manufactures products X, Y, Z at a single split off stage. Product X, Y and Z are further processed in different departments. There is no loss in further processing in any of the three products. The cost data for a month are given below.

|                                                   |              |
|---------------------------------------------------|--------------|
| Cost of raw materials introduced in Joint process | Rs.12,68,800 |
| Direct wages of Joint process                     | Rs.3,84,000  |
| Direct wages for processing X                     | Rs.96,000    |
| Direct wages for processing Y                     | Rs.64,000    |
| Direct wages for processing Z                     | Rs.36,000    |

Factory overheads of Rs.4,64,000 are to be apportioned to the departments on direct wage basis. During the month the company sold all the three products after processing them as under

| Products                 | X      | Y      | Z      |
|--------------------------|--------|--------|--------|
| Output sold kg           | 44,000 | 40,000 | 20,000 |
| Selling price per kg Rs. | 32     | 24     | 16     |

There are no opening and closing inventories. Had the products been sold without processing, the selling prices would have been Rs.20, Rs.22 and Rs.10 each per kg respectively for X, Y and Z  
Prepare
  - a statement showing the apportionment of joint costs to joint products

- a statement showing product wise and total profit for the month as per current processing policy
- What processing decision is recommended to improve the profitability and calculate the product wise and total profit arising from the recommendation? (15 Marks)

3. KB Ltd manufactures three products A, B and C from the same production facilities. The following information relating to three products for the month of January 2010 is given below:

|                                | Products |       |       |
|--------------------------------|----------|-------|-------|
|                                | A        | B     | C     |
| Selling price per unit – Rs    | 120      | 100   | 80    |
| Variable cost per unit – Rs.   | 80       | 50    | 50    |
| Maximum production/month-Units | 4,000    | 4,000 | 3,000 |
| Maximum demand/month – Units   | 1,200    | 2,000 | 1,000 |
| Fixed expenses per month Rs.   | 1,00,000 |       |       |

Total hours available for the month is 250 which cannot be increased further.

Compute (a) the most profitable product mix (b) the overall break-even sales of the company for the month based on the most profitable product mix. (16 Marks)

4. Answer any three

- (i) A product is produced after passing it through three processes A, B and C. From the following prepare process B account for the year 2009:

Output of Process A transferred - 3000 units @ Rs.5 each

|                           |               |
|---------------------------|---------------|
| Process materials added   | Rs.1, 000     |
| Direct wages              | Rs.10, 000    |
| Direct expenses           | Rs. 4, 000    |
| Production overhead       | 20% of wages  |
| Output of Process B       | 2,750 units   |
| Normal loss               | 10%           |
| Scrap value of lost units | Rs.2 per unit |

- (ii) From the following information of a manufacturing unit, calculate Labour cost variance, Labour efficiency variance and Labour Rate Variance

- Standard labour cost per unit of production is Rs.15
- Time allotted per unit is 30 hours
- During the month of March 2009, 3,000 units are produced in 75,000 hours
- Actual payment of wages for the month is Rs.45,000

- (iii) A worker is allowed 60 hours to complete the job on a guaranteed wage of Rs.10 per hour. Under the Rowan plan he gets an hourly wages of Rs.12 per hour. Find out the time saved?

- (iv) What is meant by “Inter-firm comparison”? Describe the requisites to be considered while installing a system of inter-firm comparison (3 x 3 = 9 Marks)

5. Answer any five of the following

- (i) A company manufactures and sells a single product. The estimated activity of the company for the month of Feb 2010 is as follows

Sales - Rs.4, 00,000  
 Gross profit on sales - 30%  
 Increase in inventory during the month - Rs.20, 000  
 Increase in Debtors - Rs.30, 000  
 Total selling and administrative expenses - Rs.50,000 + 2.5% of sales  
 Depreciation expenses which is included in fixed  
 Selling and administrative expenses - Rs.20,000  
 Calculate the net cash surplus or deficit for the month of Feb 2010.

- (ii) Write a note on uses of Return on investment  
 (iii) Explain the concept of factoring  
 (iv) Outline the methods and tools of financial management  
 (v) Write a short note on Bridge Loan  
 (vi) What are the weakness in Weighted Average Cost of capital? (5 x 2 =10 Marks)

6. The Balance sheet for Car Auto Ltd for the year 2008 and 2009 are given below

| Liabilities            | 2008      | 2009      | Assets              | 2008      | 2009      |
|------------------------|-----------|-----------|---------------------|-----------|-----------|
|                        | Rs.       | Rs.       |                     | Rs.       | Rs.       |
| Share capital          | 12,00,000 | 14,00,000 | Fixed Assets        | 20,00,000 | 24,00,000 |
| General Reserve        | 4,00,000  | 5,00,000  | Less : Depreciation | 4,00,000  | 5,00,000  |
| Profit on sale of      |           |           |                     | 16,00,000 | 19,00,000 |
| Investment             | -         | 20,000    | Investments at cost | 3,60,000  | 3,60,000  |
| Profit & Loss A/c      | 2,00,000  | 4,00,000  | Stock at cost       | 4,00,000  | 5,40,000  |
| 7% Debentures          | 6,00,000  | 4,00,000  | Sundry Debtors less |           |           |
| Creditors for expenses | 20,000    | 24,000    | provision Rs.40,000 |           |           |
| Creditors for supply   |           |           | & Rs.50,000 respy.  | 4,50,000  | 4,90,000  |
| of goods               | 3,20,000  | 5,00,000  | Bills Receivable    | 80,000    | 1,30,000  |
| Proposed Dividend      | 60,000    | 70,000    | Prepaid expenses    | 20,000    | 24,000    |
| Provision for taxation | 1,40,000  | 1,50,000  | Misc. Expenditure   | 30,000    | 20,000    |
|                        | 29,40,000 | 34,64,000 |                     | 29,40,000 | 34,64,000 |

Other information

- During the year 2009 fixed assets valued as Rs.20,000 (depreciation written off Rs.60,000) was sold for Rs.16,000
  - The proposed dividend of last year was paid in 2009
  - During the year 2009 investments costing Rs.1,60,000 were sold and later in the year investments of the year same cost were purchased
  - Debentures were redeemed at a premium of 10% in 2009
  - Liability for taxation for 2008 came to Rs.1,10,000
  - During the year 2009, bad debts written off were Rs.10,000 against provision amount
- Prepare (i) Schedule of changes in Working Capital (ii) Funds Flow statement

(15 Marks)

7(a) From the following data compute the duration of the operating cycle for each of the two years and comment on the increase/decrease

|                                                      | (Rs.Thousands) |           |
|------------------------------------------------------|----------------|-----------|
|                                                      | Year 1         | Year 2    |
| Stocks:                                              |                |           |
| Raw materials                                        | 20             | 27        |
| Work in process                                      | 14             | 18        |
| Finished goods                                       | 21             | 24        |
| Purchases                                            | 96             | 135       |
| Cost of goods sold                                   | 140            | 180       |
| Sales                                                | 160            | 200       |
| Debtors                                              | 32             | 50        |
| Creditors                                            | 16             | 18        |
| Assume 360 days per year for computational purposes. |                | (8 Marks) |

- 7(b) A company needs Rs.12 lakhs for installation of a new factory which would yield an annual EBIT of Rs.2,00,000. The company has the objective of maximizing the earnings per share. It is considering the possibility of issuing equity shares plus raising a debt of Rs.2,00,000, Rs.6,00,000 or Rs.10,00,000. The current market price per share is Rs.40 which is expected to drop to Rs.25 per share if the market borrowings were to exceed Rs.7,50,000. Cost of borrowings is indicated as under:
- |                                        |        |
|----------------------------------------|--------|
| Up to Rs.2, 50,000                     | 10 p.a |
| Between Rs.2, 50,001 and Rs.6, 25,000  | 14 p.a |
| Between Rs.6, 25,001 and Rs.10, 00,000 | 16 p.a |
- Assume a tax rate of 50% work out the EPS and the scheme which would meet the objective of the management. (8 Marks)

8. Answer any three

- (i) Calculate the average collection period from the following. Take 360 days in a year

|                             |   |              |
|-----------------------------|---|--------------|
| Average Inventory           | - | Rs.3, 60,000 |
| Debtors                     |   | Rs.2, 30,000 |
| Inventory turnover ratio    |   | 6            |
| Gross profit ratio          |   | 10%          |
| Credit sales to Total sales |   | 20%          |

- (ii) The following information is given with respect to KSK securities Ltd

|                                       |   |                |
|---------------------------------------|---|----------------|
| Current dividend                      | - | Rs.2 per share |
| Current rate of growth in dividends   | - | 5%             |
| Expected return from the market index | - | 12%            |
| Beta of the stock                     | - | 1.5            |
| Risk free rate of return              |   | 6%             |

Compute the present market price per share

- (iii) A company has an operating leverage of 1.2 as against 1.25 during the previous year. If the current fixed cost is 25% more than that of the previous year, to what extent has the contribution earned by the firm changed over the period year?
- (iv) Name three advantages of Ratio Analysis (3 x 3 = 9 Marks)

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**SUGGESTED ANSWER**

**1 i)** Efficiency Ratio =  $\frac{\text{Actual Output in terms of standard hours}}{\text{Actual hours worked}}$   
 $= \frac{150 \times 7.5}{900} = 125\%$

Capacity ratio =  $\frac{\text{Actual hours worked}}{\text{Budgeted hours}} \times 100$   
 $= \frac{900}{180 \times 7.5} \times 100$   
 $= 66.7\%$

**ii)** Average Inventory =  $\frac{\text{Total Carrying cost}}{\text{Carrying cost per unit}}$   
 $= 13,500 / 4.5 = 3,000 \text{ units}$   
 Economic Order quantity = Average Inventory X 2 = 3000 x 2 = 6,000 units

**(iii)** Efficiency =  $(360/300) \times 100 = 120 \%$   
 As per Emerson plan for efficiency above 100%, bonus of 20% of basic wages plus 1% for each 1% increase in efficiency is admissible.  
 Bonus applicable is =  $20 \% + (120 - 100) = 40\%$   
 Bonus =  $(40/100) \times 12 \times 15 = \text{Rs.}72$   
 Total wages =  $12 \times 15 + 72 = \text{Rs.}252$

**(iv)** Sales revenue required =  $\frac{(\text{Fixed cost} + \text{Desired profit})}{\text{P/V ratio}}$   
 $= \frac{2,50,000 + 50,000}{30\%}$   
 $= \text{Rs.}10,00,000$

**(v)** Usefulness to Government:-

- 1) Cases for tariff protection can be forcefully put forth if backed by cost audited data from which excesses, abnormal and avoidable expenses have been weeded out.
- 2) Where Government enters into cost-plus contracts, cost audit helps to fix the price for the contract
- 3) Cost audit brings out inefficient units thereby enables the government to take remedial action.
- 4) Since cost audit ensures efficient running of enterprises, it promotes competition and facilitates automatic check on inflation
- 5) Cost audit data helps Government in price fixation on a rational basis.
- 6) It enables the Government to settle the disputes brought before it.

(vi) (i) Job Costing and Process Costing

- In Job costing the production is by specific orders whereas in the case of Process costing it is in continuous flow, the production being homogeneous
- In Job costing costs are determined by jobs or batches of products whereas in process costing costs are compiled on time basis for each process or department
- Costs are calculated when jobs are completed in job costing whereas in process costing cost are calculated at the end of cost period
- There may or may not be any work-in-process at the beginning or end of accounting period in the case of job costing where as in process costing since the production is continuous some work-in-process will be there at the beginning and end of accounting period.
- As each product, unit is different and is not standardized more attention and supervision is needed for job costing whereas since the processes are standardized control of process activities is comparatively easy.
- In job costing the various jobs are separate and independent of each other where as in process costing since manufactured in a continuous flow, products lose their individual identity

2 Apportionment of Factory overheads

|                                  |           | Further processing |        |        |          |
|----------------------------------|-----------|--------------------|--------|--------|----------|
|                                  | Joint     | X                  | Y      | Z      |          |
| Direct wages                     | 3,84,000  | 96,000             | 64,000 | 36,000 | 5,80,000 |
| Factory overheads                | 3,07,200  | 76,800             | 51,200 | 28,800 |          |
| Total Joint costs - Rs.19,60,000 |           |                    |        |        |          |
| Material                         | 12,68,800 |                    |        |        |          |
| Labour                           | 3,84,000  |                    |        |        |          |
| Overheads                        | 3,07,200  |                    |        |        |          |

Apportionment of Joint costs

|                         | X        | Y        | Z        | Total     |
|-------------------------|----------|----------|----------|-----------|
| Out put sold            | 44,000   | 40,000   | 20,000   |           |
| Sale value at split off | 8,80,000 | 8,80,000 | 2,00,000 | 19,60,000 |
| Share of Joint costs    | 8,80,000 | 8,80,000 | 2,00,000 |           |
| 19,60,000               |          |          |          |           |

Product wise and total profit (Current policy)

| Product              | X         | Y        | Z        | Total     |
|----------------------|-----------|----------|----------|-----------|
| Sales                | 14,08,000 | 9,60,000 | 3,20,000 | 26,88,000 |
| Less:                |           |          |          |           |
| Share of joint costs | 8,80,000  | 8,80,000 | 2,00,000 | 19,60,000 |
| Less: Further        |           |          |          |           |
| Processing – wages   | 96,000    | 64,000   | 36,000   | 1,96,000  |
| - overheads          | 76,800    | 51,200   | 28,800   | 1,56,800  |
| Profit / (loss)      | 3,55,200  | (35,200) | 55,200   | 3,75,200  |

Details of incremental sales Vs additional costs

|                   | X                   | Y                    | Z                  |
|-------------------|---------------------|----------------------|--------------------|
| Incremental sales | 5,28,000            | 80,000               | 1,20,000           |
| Incremental costs | 1,72,800            | 1,15,200             | 64,800             |
| Decision          | Further<br>proceeds | Sell at<br>split off | Further<br>process |

Product wise and total profit (After recommendation)

|                          | X         | Y        | Z        | Total     |
|--------------------------|-----------|----------|----------|-----------|
| Sales                    | 14,08,000 | 8,80,000 | 3,20,000 | 26,80,000 |
| Less: Joint costs        | 8,80,000  | 8,80,000 | 2,00,000 | 19,60,000 |
| Further processing costs | 1,72,800  | -        | 64,800   | 2,37,600  |
| Profit / (Loss)          | 3,55,200  | Nil      | 55,200   | 4,10,400  |

3

|                           | A                      | B                      | C                      |
|---------------------------|------------------------|------------------------|------------------------|
| Selling price per unit    | 120                    | 100                    | 80                     |
| Variable cost per unit    | 80                     | 50                     | 50                     |
| Contribution per unit     | 40                     | 50                     | 30                     |
| Maximum production / hour | 4000/250<br>16units/Hr | 4000/250<br>16units/Hr | 3000/250<br>12units/Hr |
| Contribution per hour     | 640                    | 800                    | 360                    |
| Ranking                   | II                     | I                      | III                    |
| Maximum demand            | 1,200                  | 2,000                  | 1,000                  |
| Time required             | 75                     | 125                    | 50 (balance)           |
| Units to be produced      | 1,200                  | 2,000                  | 600                    |

|       |                |               |
|-------|----------------|---------------|
| Sales | A – 1200 x 120 | - 1,44,000    |
|       | B - 2000 x 100 | - 2,00,000    |
|       | C - 600 x 80   | <u>48,000</u> |
|       |                | 3,92,000      |

|              |               |               |
|--------------|---------------|---------------|
| Contribution | A – 1200 x 40 | 48,000        |
|              | B - 2000 x 50 | 1,00,000      |
|              | C - 600 x 30  | <u>18,000</u> |
|              |               | 1,66,000      |

Composite P/V ratio 1,66,000/3,92,000

Break even point – Fixed cost/P/V ratio  
 = 1,00,000/(1,66,000/3,92,000)  
 = 1,00,000 x 3,92,000  
 1,66,000  
 = Rs.2,36,145

4(i)

| Dr.                                                                                      | Particulars | Units  | Process B A/c<br>Amt (Rs.) | Particulars | Cr.<br>Units | Amt |
|------------------------------------------------------------------------------------------|-------------|--------|----------------------------|-------------|--------------|-----|
| (Rs)                                                                                     |             |        |                            |             |              |     |
| To process A A/c                                                                         | 3,000       | 15,000 | By normal loss             | 300         | 600          |     |
| To Direct Material A/c                                                                   |             | 1,000  | (10% of 3,000 units)       |             |              |     |
| To Direct wages                                                                          |             | 10,000 | By Balance c/d             | 2,700       | 31,400       |     |
| To Direct expenses                                                                       |             | 4,000  |                            |             |              |     |
| To Production overhead                                                                   |             | 2,000  |                            |             |              |     |
| (20% of Rs.10,000)                                                                       |             |        |                            |             |              |     |
|                                                                                          | 3,000       | 32,000 |                            | 3,000       | 32,000       |     |
| To balance b/d                                                                           | 2,700       | 31,400 | By process C A/c           | 2,750       | 31,981       |     |
| To Abnormal Gain A/c                                                                     | 50          | 581    |                            |             |              |     |
|                                                                                          | 2,750       | 31,981 |                            | 2,750       | 31,981       |     |
| Abnormal gain = $\frac{\text{Rs.}31,400}{2,700} \times 50 \text{ units} = \text{Rs.}581$ |             |        |                            |             |              |     |

- (ii) Labour cost variance = Standard labour cost for actual output – Actual labour cost  
 $= \text{Rs.}15 \times 3000 - \text{Rs.}45,000 = \text{Nil}$   
 Labour rate variance = Total actual hours (Standard rate – Actual rate)  
 $= 75,000 (15/30 - \text{Rs.}45,000/75,000) = \text{Rs.}7,500 \text{ (A)}$   
 Labour Efficiency Variance = Standard rate (Standard hours – Actual hours worked)  
 $= \text{Rs.}0.5 (3000 \times 30 - 75,000) = \text{Rs.}7,500 \text{ (F)}$

- (iii) Let time taken = y hours  
 Time saved = 60 – y  
 Total wages under Rowan plan  
 $= \text{Hours worked} \times \text{Rate per hour} + \frac{\text{Time taken} \times \text{time saved} \times \text{rate per hour}}{\text{Time allowed}}$   
 $= y \times \text{Rs.}10 + \frac{y}{60} \times (60-y) \times 10$   
 $= 10y + y(60-y)/6$   
 But effective hourly rate under Rowan plan = Rs.12 per hour  
 Earnings under Rowan plan = Rs.12y =  $10y + y(60-y)/6$   
 $2y = y(60-y)/6$   
 $60 - y = 12$   
 $y = 48$   
 Time saved = 60 – 48 = 12 hours

- (iv) Inter-firm comparison is the technique by which the performances, Efficiencies, costs, and profits of various concerns in an industry are studied on a voluntary basis by exchange of information and a relative comparison is made for mutual benefit of participating firms. Such a comparison will be possible where uniform costing is in operation in member firms. Inter-firm comparison is a tool for control by comparing own performances with those of other firms in the field for increasing efficiency and thereby maximizing profits. An inter-firm comparison indicates the efficiency of production and

### Requisites of Inter-firm comparison scheme:

- 5(i)** Cash receipts = Sales – increase in debtors = 4, 00,000 – 30,000 = Rs.3, 70,000  
 Cash payment = Cost of goods sold (70% of sales) + Inventory increase + Variable Selling and admin.expenses + fixed selling (excl.depren) & admin expenses  
 = Rs.2, 80,000 + .20, 000 + 10,000+ 50,000 – 20,000 = Rs.3, 40,000  
 Cash surplus = Rs. 3, 70,000 – Rs.3, 40,000 = Rs.30, 000

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- (5) Analyses profit by product line
  - (6) Pricing of new products
  - (7) Analysis major cost areas in a cost reduction Programme
  - (8) Helps in determining the relative profitability of different projects  
Helps in process development
- (iii)** Factoring is actually a unique financial innovation and it is a financial and management support to a client. A factoring company provides specialized services such as credit investigation, sales ledger management, purchases and collection of debts, credit protection as well as provision of finance against receivables and risk bearing. Under factoring accounts receivables are sold to the factoring company, who charges commission and in return bears the credit risk associated with the accounts receivable purchased by it. Factoring makes it possible for the firm to concentrate on enhancing sales and eliminates the need for establishing a separate credit and collection department
- (iv)** Finance Manager has to decide the optimum capital structure so as to maximize the wealth of the shareholders by enhancing the earnings with optimal cost of capital. For this the judicious use of financing leverage or trading on equity is important to increase the return to shareholders. Proper mix of debt and equity is essential to keep the cost of capital at minimum level and thus increase the earnings. EPS analysis, PE ratios and mathematical models are used to determine the proper debt-equity mix to derive advantages to the owners and enterprise.  
In the area of investment in capital assets, payback period, average rate of returns, profitability index are some of the methods in evaluating the proposals.  
In the area of working capital management, certain techniques are adopted such as ABC analysis, Economic Order quantities, Cash management models etc to improve liquidity and to maintain adequate circulating capital.  
For evaluating firms' performances, ratio analysis is used. Funds flow statement and cash flow statement, cash flow statement and projected financial statements help a lot to the finance manager in providing funds in right quantities and at right time.
- (v)(i)** Bridge loan: Bridge loan is normally taken by a company from commercial banks for very short period, pending distribution of loan sanctioned by the financial institutions. Often it takes time for lending institutions to disburse loans to companies. Once loans are approved by the term lending institutions companies take bridge loan to avoid time in starting projects. Bridge loans are, therefore for intermediate period. They are often repaid and adjusted out of the term loan, when disbursed by the concerned institutions. Such bridge loans are taken normally on the personal guarantees, hypothecation of movable assets and demand promissory notes.
- (vi)** If a firm relies heavily on zero cost or low cost short term debt, the inclusion of the short term debt in the cost of capital calculations will result in a lower overall cost of capital. If the firm accepts low return projects on the basis of low weighted average cost of capital, it will be compounding its problems and continuing its exposure to high financing risks

In the event of continued low profitability, the weighted average calculation of cost of capital will be inaccurate. If the firm gets low profit goals due to very low cost of capital, the shareholders will seek higher returns elsewhere.

6

| Dr.        | Fixed Assets A/c |                | Cr               |
|------------|------------------|----------------|------------------|
|            | Rs.              |                | Rs..             |
| To Balance | 20,00,000        | By assets sold | 80,000           |
| To Bank    | 4,80,000         | By Balance c/d | 24,00,000        |
|            | <u>24,80,000</u> |                | <u>24,80,000</u> |

| Dr.            | Depreciation Reserve A/c |                              | Cr              |
|----------------|--------------------------|------------------------------|-----------------|
|                | Rs.                      |                              | Rs..            |
| To Assets sold | 60,000                   | By Balance b/d               | 4,00,000        |
| To balance c/d | 5,00,000                 | By Depreciation for the year | 1,60,000        |
|                | <u>5,60,000</u>          |                              | <u>5,60,000</u> |

| Dr.                  | Adjusted Profit & Loss A/c |                | Cr              |
|----------------------|----------------------------|----------------|-----------------|
|                      | Rs.                        |                | Rs..            |
| To General Reserve   | 1,00,000                   | By balance b/d | 2,00,000        |
| To proposed dividend | 70,000                     | By Net profit  | 3,70,000        |
| To Balance c/d       | 4,00,000                   |                |                 |
|                      | <u>5,70,000</u>            |                | <u>5,70,000</u> |

| Dr.               | Investments A/c         |                | Cr              |
|-------------------|-------------------------|----------------|-----------------|
|                   | Rs.                     |                | Rs..            |
| To Balance b/d    | 3,60,000                | By Bank        | 1,80,000        |
| To Bank           | 1,60,000                | By Balance c/d | 3,60,000        |
| To Profit on sale | 20,000                  |                |                 |
|                   | <u>5,40,000</u>         |                | <u>5,40,000</u> |
|                   | Provision for bad debts |                |                 |
| To debtors        | 10,000                  | By Balance b/d | 40,000          |
| To balance b/d    | 50,000                  | By P/L A/c     | 20,000          |
|                   | <u>60,000</u>           |                | <u>60,000</u>   |

|                                |          |                 |
|--------------------------------|----------|-----------------|
| Funds from Operation           |          |                 |
| Net profit after tax           |          | 3,70,000        |
| Add: Depreciation for the year | 1,60,000 |                 |
| Loss on sale of fixed assets   | 4,000    |                 |
| Misc.expenditure               | 10,000   |                 |
| Provision                      | 20,000   |                 |
|                                |          | <u>1,94,000</u> |
|                                |          | 5,64,000        |

#### Schedule of changes in Working Capital

|                   | 2008     | 2009     |
|-------------------|----------|----------|
|                   | Rs.      | Rs.      |
| A. Current Assets |          |          |
| Stock             | 4,00,000 | 5,40,000 |

|                               |                 |                 |
|-------------------------------|-----------------|-----------------|
| Debtors                       | 4,50,000        | 4,90,000        |
| Bills Receivable              | 80,000          | 1,30,000        |
| Prepaid expenses              | <u>20,000</u>   | <u>24,000</u>   |
|                               | 9,50,000        | 11,84,000       |
| <b>B. Current Liabilities</b> |                 |                 |
| Creditors for supply of goods | 3,20,000        | 5,00,000        |
| Creditors for expenses        | 20,000          | 24,000          |
| Provision for taxation        | <u>1,40,000</u> | <u>1,50,000</u> |
|                               | 4,80,000        | 6,74,000        |
| Working Capital ( A – B)      | 4,70,000        | 5,10,000        |
| Increase in Working Capital   | 40,000          |                 |

### Funds flow Statement

#### Sources of Funds

|                      |                 |
|----------------------|-----------------|
| Funds from Operation | 5,64,000        |
| Issue of Shares      | 2,00,000        |
| Sale of fixed Assets | 16,000          |
| Sale of Investments  | <u>1,80,000</u> |
|                      | 9,60,000        |

#### Uses of Funds

|                             |                 |
|-----------------------------|-----------------|
| Purchase of fixed Assets    | 4,80,000        |
| Purchase of Investments     | 1,60,000        |
| Redemption of Debentures    | 2,20,000        |
| Dividend paid               | 60,000          |
| Increase in Working Capital | <u>40,000</u>   |
|                             | <u>9,60,000</u> |

**7a**

|                                                                      | Year 1         | Year 2         |
|----------------------------------------------------------------------|----------------|----------------|
| 1. Raw material stock                                                |                |                |
| $\frac{\text{Raw materials inventory} \times 360}{\text{Purchases}}$ |                |                |
| $(20/96) \times 360$                                                 | 75 days        |                |
| $(27/135) \times 360$                                                |                | 72 days        |
| 2. Less : Creditors Period                                           |                |                |
| $\frac{\text{Creditors} \times 360}{\text{Purchases}}$               |                |                |
| $(16/96) \times 360$                                                 | 60 days        |                |
| $(18/135) \times 360$                                                |                | 48 days        |
|                                                                      | <u>15 days</u> | <u>24 days</u> |
| 3. WIP Turnover                                                      |                |                |
| $\frac{\text{WIP} \times 360}{\text{Cost of goods sold}}$            |                |                |
| $(14/140) \times 360$                                                | 36 days        |                |
| $(18/180) \times 360$                                                |                | 36 days        |

4. Finished goods Turnover

|                                                                      |         |
|----------------------------------------------------------------------|---------|
| $\frac{\text{Finished goods} \times 360}{\text{Cost of goods sold}}$ |         |
| $(21/140) \times 360$                                                | 54 days |
| $(24/180) \times 360$                                                | 48 days |

5. Debtors Turnover

|                                                  |          |
|--------------------------------------------------|----------|
| $\frac{\text{Debtors} \times 360}{\text{Sales}}$ |          |
| $(32/160) \times 360$                            | 72 days  |
| $(50/200) \times 360$                            | 90 days  |
|                                                  | 177 days |
|                                                  | 198 days |

There is an increase in length of operating cycle by 21 days i.e 12 % increase approximately. Reasons for increase are as follows:

|                                             |           |
|---------------------------------------------|-----------|
| Days                                        |           |
| Debtors taking longer time (90-72)          | 18        |
| Creditors receiving earlier payment (60-48) | <u>12</u> |
|                                             | 30        |
| Less: Finish goods turnover lowered (54-48) | 6         |
| Raw material stock lowered (75-72)          | <u>3</u>  |
| Increase in operating cycle                 | <u>21</u> |

7b.

| Details                                           | EPS under different schemes        |                                   |                                  |
|---------------------------------------------------|------------------------------------|-----------------------------------|----------------------------------|
|                                                   | I                                  | II                                | III                              |
| Debt                                              | Rs.2,00,000 Debt                   | Rs.6,00,000 Debt                  | Rs.10,00,000                     |
| equity                                            | Rs.10,00,000 equity                | Rs.6,00,000 equity                | Rs. 2,00,000                     |
| Earning before interest and tax (EBIT)            | Rs.2,00,000                        | Rs.2,00,000                       | Rs.2,00,000                      |
| Less:Interest                                     | 20,000                             | 25,000                            | 25,000                           |
|                                                   |                                    | 49,000                            | 52,500                           |
|                                                   |                                    |                                   | <u>60,000</u>                    |
| Earnings before tax                               | <u>Rs.1,80,000</u>                 | <u>Rs.1,26,000</u>                | <u>62,500</u>                    |
| Tax at 50%                                        | <u>90,000</u>                      | <u>63,000</u>                     | <u>31,250</u>                    |
| Earnings after tax                                | 90,000                             | 63,000                            | 31,250                           |
| Number of shares                                  | 10,00,000 ÷ Rs.40<br>25,000 shares | 6,00,000 ÷ Rs.40<br>15,000 shares | 2,00,000 ÷ Rs.40<br>8,000 shares |
| Earnings per share (EPS)<br>(EAT ÷ No. of shares) | Rs.3.60                            | Rs.4.20                           | Rs.3.91                          |

Scheme II is to be given preference to other two alternatives, since it gives the highest earning per share. Under this scheme, the borrowing is also within limit. Under scheme III EPS is Rs.3.91 for a price of Rs.25 but the debt equity ratio is high.

**8(i)** Inventory turnover ratio =  $\frac{\text{Cost of Goods sold}}{\text{Average inventory}}$   
 $6 = \frac{\text{Cost of Goods sold}}{3,60,000}$

Cost of goods sold = Rs.21,60,000

Sales – Cost of goods sold = Gross profit

Sales – 21,60,000 = 10% of sales

Sales – 21,60,000 = 0.1 sales

0.9 sales = 21,60,000

Sales = Rs.24,00,000

Credit sales = 20% of 24,00,000 = Rs.4,80,000

Average daily credit sales = 4,80,000/360 = Rs.1333.33

Average collection period = Debtors / Av.daily credit sales  
 $= 2,30,000 / 1333.33 = 173$

**(ii)** Current Dividend = D = Rs.2  
 Growth rate = g = 5%  
 Market return = Rm = 12%  
 Beta =  $\beta$  = 1.5  
 Risk free return = Rf = 6%  
 Required rate of return =  $r = Rf + \beta (Rm - Rf) = 6 + 1.5 (12 - 6) = 15\%$   
 Current market price =  $\frac{D(1+g)}{(r - g)}$   
 $= \frac{2(1+0.05)}{(0.15 - 0.05)}$   
 $= 2 \times 1.05/0.1 = \text{Rs.21}$

- (iii)**
- (i) Ratio analysis facilitates interfirm comparison and highlights relative performance of the organization in different areas.
  - (ii) It facilitates understanding of financial statements. It narrates the whole story of changes in financial conditions of the business.
  - (iii) It facilitates management by exception. Higher management can concentrate only at the areas where there is an exception or deviation from the norms set.

**PRIME ACADEMY**  
**30<sup>TH</sup> SESSION MODEL EXAM – INCOME TAX**  
**QUESTION PAPER**

**Total No. of Questions: 14**  
**Time Allowed: 3 Hrs**

**IXSV**  
**All are compulsory**

**Total No. of Printed Pages: 3**  
**Maximum Marks: 100**

1. State whether the following are true or false with explanation
  - a) Income to a non-resident by way of interest, royalty and fee for technical services deemed to accrue or arise in India is taxable in India irrespective of territorial nexus.
  - b) Mr. A, Karta of HUF claims that the HUF is non-resident as the business of HUF is transacted from UK and all the policy decisions are taken there.
  - c) Where an individual repays a sum of Rs. 30,000 towards principal and Rs. 14,000 as interest in respect of loan taken from a bank for pursuing eligible higher studies, the deduction allowable under Section 80E is Rs. 30,000 and not Rs. 14,000 (interest component only). (3x2 = 6 Marks)
2. What is Slump Sale? How is Capital Gain computed in case of Slump Sale? (7 Marks)
3. Fill in the blanks.
  - a) The maximum period for which speculation loss can be carried forward is \_\_\_\_\_ years.
  - b) An Assessee, after sale of house property, receiving arrears of rent \_\_\_\_\_ (is / is not) chargeable to tax; the same computed in the stipulated manner, shall be chargeable to tax as \_\_\_\_\_ (income from other sources / Income from house property / Question does not arise since there is no chargeability to tax) (2x2 = 4 Marks)
4. State the conditions to be satisfied for claiming deduction u/s 37(1) of the Act. (7 Marks)
5. Elaborate on what is to be taxed as 'Profits in lieu of salary'. (7 Marks)
6. Mr. Rajat submits his profit & loss account for assessment year 2010-11.

|                                                                                                                                                                         | Rs         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Computed net profit after debiting to the following:                                                                                                                    | 87,000     |
| • Provision for doubtful debts                                                                                                                                          | 16,000     |
| • Depreciation reserve                                                                                                                                                  | 21,000     |
| • Household expenses                                                                                                                                                    | 20,000     |
| • Donations to poor persons and                                                                                                                                         | 10,000     |
| • other charitable donations                                                                                                                                            | 20,000     |
| • Cash payment for purchases                                                                                                                                            | 80,000     |
| • Advertisement expenses Rs. 5,000 spent on a neon sign board purchased and put to use on 01.07.2009 and advertisement gifts to 50 customers at a cost of Rs. 100 each. |            |
| • Audit fee charged Rs. 5,000, including expenses on income-tax assessment                                                                                              | Rs. 3,000. |
| • Patents purchased for Rs. 70,000 on 01.10.2009 and put to use on 07.10.2009.                                                                                          |            |

- Preliminary expenses covered under section 35D. Market survey expenses Rs. 5,000. Feasibility report expenses Rs. 10,000. Project cost Rs. 10,00,000

Income credited to profit and loss account was:

- (i) Interest on company's deposit Rs. 50,000
- (ii) Opening stock is valued at cost plus 15% basis, whereas closing stock was valued at cost minus 15% basis. Opening stock valued was Rs. 1, 15,000; closing stock valued was Rs. 1, 70,000.

Compute his tax liability for the assessment year 2010-11. (10 Marks)

7. Mr. X employed in ABC Ltd submits the following particulars of his income for the previous year 2009-10.

|                                                                                  |           |
|----------------------------------------------------------------------------------|-----------|
| Salary after deduction of income tax at source and own contribution              | Rs        |
| To the recognized provident fund                                                 | 2, 25,000 |
| ---Income Tax deducted at source                                                 | 25,400    |
| ---Own contribution to the recognized provident fund                             | 40,000    |
| Employer's contribution to recognized provident fund                             | 35,000    |
| Interest credited to the provident fund calculated at the rate of 8.5% Per annum | 7,000     |

Mr. X is given free use of 1.8 liters engine capacity car by his employer for personal and official purposes with effect from 17.12.2009, all the expenses including salary of driver being met by the latter (employer). A sum of Rs. 1,500 is, however recovered from Mr. X. Mr. X is also provided free service of a watch man with effect from 05.04.2010 and a sweeper with effect from 07.12.2009. Salary Rs. 600 per month per person is paid by employer.

Income of Mr. X from other sources is Rs. 1, 20,000 which includes income tax refund of Rs 5,000 and Rs. 600, being interest thereon.

Compute Mr. X's total income for the AY 2010-11. (12 Marks)

8. Mr. Akshat Jain has let out one house along with generator facility and has charged a sum of Rs. 25,000 p.m. as rent, out of which Rs. 3,000 p.m. is attributable to the generator. He has paid Rs. 2,300 and the tenant has paid Rs. 900 towards municipal taxes. The interest on the capital borrowed for construction of the house is Rs. 7,000. Mr. Akshat Jain has paid repair charge of the generator Rs. 3,400, fuel charges Rs. 5,600 and operator's salary Rs.300 p.m. Compute the tax liability of Mr. Akshat Jain for AY 2010-11. (10 Marks)

9. Mr. X is employed in ABC Ltd getting basic pay Rs. 22,000 p.m., dearness allowance Rs. 5,000 p.m. He was retired on 21.12.2009. The employer has allowed him pension of Rs. 9,000 p.m. and the employee has requested for commutation of 52% of his pension. The employer has allowed him such commutation on 01.02.2010 and has paid Rs. 5, 61,600. The employer has paid him gratuity of Rs. 2, 95,000 and employee has completed service of 20 years and 11 months. (12 Marks)

10. Mr. X has let out one building on rent to a bank for commercial purpose on 01.04.2007 @ Rs. 4,00,000 p.m. The services have become taxable w.e.f. 1<sup>st</sup> June 2007. Mr. X has

received rent in advance on the 1<sup>st</sup> of every month. Mr. X is not rendering nay other services. The rent was increased w.e.f. 1<sup>st</sup> September 2009 to Rs. 4,40,000 p.m. Rent for the month of Feb and March 2010 was received on 7<sup>th</sup> April 2010. Amount of rent is exclusive of service tax. Compute service tax liability of Mr. X for the financial year 2009-10 and also determine the date upto which service tax should be paid. (10 Marks)

11. Mr. X an architect who is liable to pay service tax has submitted information as given below.
  - a. Received advance Rs. 300000 from ABC Ltd. On 10<sup>th</sup> April 2009 and service were rendered in September 2009 and bill was issued in October 2009.
  - b. Rendered services to Mr. A in October 2009 and a bill of Rs. 600000 were issued inclusive of service tax and payment of Rs. 400000 was received in February 2010 and balance is yet to be received.
  - c. Rendered services to United Nations in December 2009 and payment of Rs. 700000 was received in December 2009. No service tax has been collected.
  - d. Rendered services to a unit in SEZ and Rs. 300000 were received in March 2010 without service tax.
  - e. Rendered services to the Reserve Bank of India in April 2009 and payment of Rs.. 900000 were received in August 2009. No service tax has been collected.
  - f. Rendered services to family members of diplomatic agents and Rs. 150000 were received in October 2009 without service tax. (10 Marks)
  
12. Compute the invoice value to be charged and amount of tax payable under VAT by a dealer who had purchased goods for Rs. 200000 (exclusive of sales tax) and after adding for expenses of Rs. 18000 and of profit Rs. 35000 had sold out the same. The rate of VAT on purchase and sales is 12.5%. (5 Marks)

**PRIME ACADEMY**  
**30<sup>TH</sup> SESSION MODEL EXAM – INCOME TAX**  
**SUGGESTED ANSWER**

1. True or False
  - a) True. It is not necessary to have a place of business or resident in India to attract tax on interest, Royalty and fee for technical services.
  - b) True. The status of HUF shall be considered as a non-resident where its control and management of affairs is wholly situated outside India. In the given case since all the policy decisions of HUF are taken from UK, the status of HUF shall be considered as non-resident.
  - c) False. Payment of interest on any loan availed for the purpose of pursuing full time education is alone eligible for deduction under section 80E. The principal portion of the loan repaid during the previous year cannot be claimed as a deduction under section 80E.
2. According to Section 2(42C), Slump Sale means the transfer of one or more undertakings as a result of the sale for a lump sum consideration without values being assigned to the individual assets and liabilities in such sales. The determination of the value of an asset or liability for the sole purpose of payment of stamp duty, registration fees, etc., shall not be regarded as assignment of values to individual assets and liabilities.

Any profit or gains arising from the slump sale made in the previous year shall be chargeable to income-tax as capital gains. If the capital asset, being one or more undertakings transferred under the slump sale is owned and held for more than 36 months, the capital gain shall be treated as long term capital gain and in any other case, it will be treated as capital gains arising from the transfer of short term capital assets.
3. Fill in the blanks.
  - a) Four
  - b) is / Income from House Property
4. Any expenditure under section 37(1) should satisfy the following conditions.
  - a) not being expenditure of the nature described in section 30 to 36; and
  - b) not being in the nature of capital expenditure; or
  - c) not being in the nature of personal expenditure of the assessee; and
  - d) Laid out or expended wholly or exclusively for the purposes of the business or profession.If the above conditions are satisfied then the expense shall be allowed in computing the income chargeable under the head 'Profits and gains of business or profession'.
5. Section 17(3) defines 'profits in lieu of salary' to include:-
  - i) the amount of compensation due to or received by an assessee from his employer or former employer at or in connection with
    - a) termination of employment; or
    - b) modification of the terms and conditions of employment

- ii) any payment due to or received by the assessee from his employer or former employer or from provident fund or any other fund or any sum received under a key man insurance policy including the sum allocated by way of bonus on such policy. (It does not include exempt payments from superannuation fund, gratuity, commuted pension, retrenchment compensation, house rent allowance, employee's contribution to PF and interest thereon.

Any amount due to or received whether in lump sum or otherwise, by any assessee from any person before his joining any employment with that person or after cessation of his employment with that person.

#### 6. Computation of Business Income

|                                                                                |        |
|--------------------------------------------------------------------------------|--------|
| Net Profit as per profit and loss account                                      | 87,000 |
| Add: Inadmissible expenses                                                     |        |
| Provision for doubtful debts                                                   | 16,000 |
| Depreciation reserve                                                           | 21,000 |
| Household expenses                                                             | 20,000 |
| Donations                                                                      | 30,000 |
| Cash purchases in excess Rs. 20,000                                            | 80,000 |
| Cost of neon sign board (capital expenditure)                                  | 5,000  |
| Patents purchased                                                              | 70,000 |
| Installment for preliminary expenses under section 35D<br>(Rs. 15,000 – 3,000) | 12,000 |

#### Working Note

Rs. 15,000 but subject to a maximum of

Rs. 10,00,000 x 5%

Rs. 50,000, installment allowed Rs. 15,000/5 = Rs. 3,000

|                                                     |        |
|-----------------------------------------------------|--------|
| Opening stock overvalued $1,15,000 \times 15 / 115$ | 15,000 |
| Closing stock undervalued $1,70,000 \times 15 / 85$ | 30,000 |
| Less: Interest on company deposit                   | 50,000 |
| Depreciation on neon sign @ 10% on Rs 5,000         | 500    |
| Depreciation on patents @ 12.5% on Rs. 70,000       | 8,750  |

|                                                                      |          |
|----------------------------------------------------------------------|----------|
| Income under the head business or profession                         | 3,26,750 |
| Income under the head other sources<br>(Interest on company deposit) | 50,000   |
| Gross Total Income                                                   | 3,76,750 |
| Less: Deduction under section 80 C to U                              | Nil      |
| Total Income                                                         | 3,76,750 |

#### Computation of Tax Liability

|                                  |        |
|----------------------------------|--------|
| Tax on Rs. 3,76,750 at slab rate | 29,350 |
| Add: Education cess @2%          | 587    |
| Add: Higher Education Cess @ 1%  | 294    |

|                      |        |
|----------------------|--------|
| Tax liability        | 20,231 |
| Rounded off u/s 288B | 20,230 |

7. Computation of taxable income of Mr. X

|                         |          |
|-------------------------|----------|
| Basic Salary            | 2,90,400 |
| Working Salary          | 2,25,000 |
| Add: Income Tax         | 25,400   |
| Own contribution to RPF | 40,000   |
| Basic Salary            | 2,90,400 |

Employer's contribution to RPF in excess of 12% of salary  
(Rule 6 of Part A of schedule IV)

(Rs. 35,000 – Rs. 34,848) 152

Motor Car (see 17(2) (iii) Rule 3(2))

(2400+900) x 3 9,900

Sweeper (Rs. 600 x 3) + (600 x 24/30) 2,280

Gross Salary 3,02,732

Income under the head salary 3,02,732

Income under the head other sources(Rs. 1,20,000 – 5,000) 1,15,000

Gross Total Income 4,17,732

Less: Deduction under section 80C 40,000

(Employee's contribution to RPF)

Total income (rounded off u/s 288A) 3,77,730

**Note**

- Watchman has been provided from next year, hence not taxable.
- Actual expenditure shall be taken in case of sweeper and total number of days in a month shall be taken to be 30.
- Income tax refund or any other refund is not considered to be income. Hence Rs. 5,000 included in the income has been deducted (Rs. 1,20,000 – Rs. 5,000 = Rs. 1,15,000)
- Any interest received is always income.

8. Computation of income under the head house property

|                                              |          |
|----------------------------------------------|----------|
|                                              | 2,64,000 |
| Less: Municipal taxes                        | 2,300    |
| Net Annual Value                             | 2,61,700 |
| Less: 30% of NAV u/s 24(a)                   | 78,510   |
| Less: Interest on capital borrowed u/s 24(b) | 7,000    |
| Income under the head House Property         | 1,76,190 |

Computation of income under the head other sources

|                                           |        |
|-------------------------------------------|--------|
| Income from generator<br>(Rs. 3,000 x 12) | 36,000 |
|-------------------------------------------|--------|

|                                            |          |
|--------------------------------------------|----------|
| Less: Repair charges                       | 3,400    |
| Less: Fuel charges                         | 5,600    |
| Less: Operator salary<br>(Rs. 300 x 12)    | 3,600    |
| Income under the head other sources        | 23,400   |
| Computation of Total Income                |          |
| Income under the head House Property       | 1,76,190 |
| Income under the head Other Sources        | 23,400   |
| Gross Total Income                         | 1,99,590 |
| Less: Deduction under section 80 C to 80 U | Nil      |
| Total Income                               | 1,99,590 |
| Computation of Tax Liability               | 3,959    |
| Add: Education cess @ 2%                   | 79       |
| Add: SHEC @ 1%                             | 40       |
| Tax liability                              | 4078     |
| Rounded off to                             | 4080     |

|    |                                                               |                         |                         |
|----|---------------------------------------------------------------|-------------------------|-------------------------|
| 9. |                                                               |                         |                         |
| 1  | <b>Particulars</b>                                            | <b>Amount<br/>(Rs.)</b> | <b>Amount<br/>(Rs.)</b> |
| 1  | Basic Pay [(22,000 x 8) + (22000 x 21/30)]                    |                         | 191 400                 |
| 2  | Dearness Allowance ((5000 x 8) + (5000 x 21/30))              |                         | 43 500                  |
| 3  | Gratuity Section 10(10)                                       |                         | 75 000                  |
|    | Working Note                                                  |                         |                         |
|    | Least of the following is exempt:                             |                         |                         |
|    | a) Gratuity received Rs. 2,95,000                             |                         |                         |
|    | b) Rs. 3,50,000                                               |                         |                         |
|    | c) $1/2 \times 22000 \times 20 = 220000$                      |                         |                         |
|    | Received Rs. 2,95,000                                         |                         |                         |
|    | Exempt Rs. 2,20,000                                           |                         |                         |
|    | Taxable Rs. 75,000                                            |                         |                         |
| 4  | Uncommuted pension - Section 17(1)(ii)                        |                         | 20 340                  |
|    | Working Note                                                  |                         |                         |
|    | For December 2009                                             |                         |                         |
|    | $9000 \times 9 / 30 = 2700$                                   |                         |                         |
|    | For January 2010                                              |                         |                         |
|    | $9000 \times 1 = 9000$                                        |                         |                         |
|    | From February 2010 to March 2010                              |                         |                         |
|    | $9000 \times 48\% \times 2 = 8640$                            |                         |                         |
|    | Total Rs. 20,340                                              |                         |                         |
| 5  | Commuted pension - Section 10(10A)                            |                         | 201 600                 |
|    | Working Note                                                  |                         |                         |
|    | Received Rs. 5,61,600                                         |                         |                         |
|    | Exempt Rs. $5,61,600 / 52\% \times 33.3333\%$ Rs. 3,59,999.64 |                         |                         |

|   |                              |         |
|---|------------------------------|---------|
|   | Taxable Rs. 2,01,600.36      |         |
| 6 | Gross salary                 | 531 840 |
|   | Income under the head salary | 531 840 |
|   | Rounded off to nearest ten   | 531 840 |

#### Computation of Tax liability

|  |                                    |        |
|--|------------------------------------|--------|
|  | Tax on Rs. 5,31,840/- at slab rate | 63 552 |
|  | Add: Education cess @ 2%           | 1 271  |
|  | Add: SHEC @ 1%                     | 636    |
|  | Tax liability                      | 65 459 |
|  | Rounded off u/s 288B               | 65 460 |

10. Service tax liability: April to June 2009. Rs. 1,23,600 due date 5<sup>th</sup> July 2009 July to Sep 2009 Rs. 127,720 Due date 5<sup>th</sup> October 2009. Oct to Dec 2009 Rs. 1,35,960, Due date 5<sup>th</sup> January 2010 Jan to March 2010 Rs. 45,320 Due to date 31<sup>st</sup> March 2010.
11. (i) Service tax liability Rs. 28,015 Due date 5<sup>th</sup> July 2009  
(ii) Service tax liability Rs. 37,353 Due date 31<sup>st</sup> March 2010  
(iii) Exempt from service tax  
(iv) Exempt from service tax  
(v) Exempt from service tax  
(vi) Exempt from service tax
12. Invoice value Rs. 2,84,625 VAT payable Rs. 6,625

**PRIME ACADEMY**  
**30<sup>TH</sup> SESSION MODEL EXAM - QUESTION PAPER**  
**INFORMATION TECHNOLOGY & STRATEGIC MANAGEMENT**

**Total No. of Questions: 10**  
**Time Allowed: 3 Hrs**

**MOCM**  
**All are compulsory**

**Total No. of Printed Pages: 2**  
**Maximum Marks: 100**

Section A

- 1(a) Describe briefly the following terms
- i. Drag
  - ii. PPP (Point-to-Point Protocol)
  - iii. Packet Switching
  - iv. Bridge
  - v. Extended Entry Table
- (5 x 1 =5 Marks)
- (b) Explain each of the following:
- i. Toggle
  - ii. Smart Card Systems
  - iii. Flash Memory
  - iv. CMOS
  - v. Boot strap loader
- (5 x 1 =5 Marks)
- 2) Answer the following:
- a. Define Graphical User Interface (GUI). Why is it mostly used these days? Explain.
  - b. Discuss various issues related to data management
- (5 x2 =10Marks)
- 3
- a) what are the concerns that the business house has to address before initiating electronic commerce?
  - b) Explain briefly various Disaster Recovery (DR) plans for eliminating down time.
- (5+5=10 Marks)
- 4.
- a) Explain "Decision table". Explain in brief four parts of a decision table
  - b) Distinguish between Hardware and software
- (5+5=10 Marks)
5. An insurance company follows the following rules:
- (i) If a person's health is good and age is between 20 and 40 years and lives in a city and sex is male, then the premium is Rs.20 per thousand and he will be insured for maximum amount of Rs.10.0 lakhs.
  - (ii) If a person satisfies all the above conditions, except that sex is female, then the premium is Rs.15 per thousand and maximum insured sum will be Rs.15.0 lakhs.
  - (iii) If a person's health is poor and age is between 20 and 40 years, but lives in a village. For a male sex, premium is Rs.50 per thousand and maximum insured sum is Rs.1.0 lakh only.
  - (iv) In all other cases, the person is not to be insured.
- Draw a flow chart to find the eligibility of a person to be insured, premium rate and maximum amount of Insurance.
- (10 Marks)

## Section B

- 6 State with reasons which of the following statements is correct or incorrect
- a) Strategic actions are always in reaction to the changes in environment
  - b) A core competence is a unique strength of an organization which may not be shared
  - c) Managers must list and analyze all environmental influences for proper strategic understanding.
- (3 x 2 = 6 Marks)
- 7 Define the following:
- (a) SWOT analysis
  - (b) Business process reengineering
- (2 x 2 = 4 Marks)
- 8 What is turnaround management? What are various stages in its implementation? 10 Marks
- 9 What are acquisitions? Discuss with example of two companies?
- a) What is marketing Mix? A company launches a new brand of ice creams. It keeps prices much below the prices of similar ice creams that are already in the market. Choose the pricing strategy that is probably being used by the company.
- (5+5=10 Marks)
- 10 Brooke Bond India Ltd. Offers a range of over 34 products in product lines of tea, coffee and spices. Operating through a countrywide sales and marketing network for consumers, it also offers institutional business service for hotels, restaurant, clubs and other bulk buyers like canteens and industrial establishments. Thus it serves entirely different sets of customers, individuals and institutional.
- a. Identify the various levels of organization.
  - b. Define good organization structure that may be in existence now.
  - c. Spell out the different levels of strategy
  - d. Why these companies need multiple strategies
- (20 Marks)

**PRIME ACADEMY**  
**30<sup>TH</sup> SESSION MODEL EXAM – SUGGESTED ANSWER**  
**INFORMATION TECHNOLOGY & STRATEGIC MANAGEMENT**

1) A. **Describe briefly the following terms**

- i. **Drag:** It refers to the activity of moving something around the computer monitor with the help of the mouse. Dragging involves holding down one of the mouse buttons while the user moves it.
- ii. **PPP (Point-to-Point Protocol)** – It is most well known protocol that allows a computer to use a regular telephone line and a modem to make TCP/IP Internet connection and thus be really on the Internet.
- iii. **Packet Switching:** It is a sophisticated means of data transmission capacity of networks. In packet switching, all the data coming out of a machine is broken up into chunks. Each chunk has the address of the location it came from and also the address of the destination. This technique is used to move data around on the Internet.
- iv. **Bridge:** The main task of a bridge computer is to receive and pass data from one LAN to another. In order to transmit this data successfully, the bridge magnifies the data transmission signal. This means that bridge can act as a repeater as well as a link.
- v. **Extended Entry Table:** The condition and action statements in an extended entry table are not complete, but are completed by the condition and action entries.

1) B. **Explain each of the following:**

- i. **Toggle:** It is a switch or control code that turns an event on or off by repeated action or use. It also means to turn something on or off by repeating the same action.
- ii. **Smart Card Systems:** Smart cards are similar to credit card in size and shape but have small microprocessor chip and memory to store the details of the card holder.  
  
Data from Smart cards is read with the help of a device known as Smart Card Reader. Smart cards are going to replace the need of multiple documents to be retained by a person like Ration card, Driving license, Passport, Identity card, Voter card etc.
- iii. **Flash Memory:** Flash Memory is a memory in which the data is r permanently and is not wiped out when the power is turned off. Flash memory devices are very fast because they do not have any moving part.
- iv. **CMOS:** The PC uses the CMOS (Complementary Meta Semiconductor) memory to store the date, time and system setup parameters. These parameters are loaded every time the computer is started. A small lithium ion battery located on the motherboard powers the CMOS.
- v. **Boot strap loader:** When a computer is first turned on or restarted, a special type of absolute loader called a bootstrap loader is executed. This bootstrap loads the first program to be run by the computer – usually an operating system. Since no program can be executed without OS, hence bootstrap loader is the most essential system software without which the computer cannot be started.

## 2. Graphical user interface (GUI)

Is a user-friendly graphics oriented environment. Through the 1980s, microcomputer's operating system was strictly text based, command driven software. The users were required to issue commands to the operating system by entering them on the key board. The commands were syntax sensitive, hence the user had to follow the terms for constructing the command, and otherwise error was displayed on the monitor. The trend now-a - day is away from command driven interface to graphical user interface. GUI provides an alternative to cryptic text commands. With the GUI, the user can interact with operating system and other software packages by selecting options from menus that are temporarily super-imposed over whatever is currently on the screen by using mouse to position the graphics cursors over the appropriate icons. GUI have effectively eliminated the need for users to memorize and enter cumbersome commands.

In PCs like 386 & 486, complex graphic displays are used, hence GUI became necessary for almost all applications. Microsoft MS-Windows introduced in 1983 provided an effected GUI cover for MS-DOS. In today's environment, almost all the software are based on GUI.

### a) Various issues related to data management.

All issues regarding the effective management of data fall into at least one of the following categories:

- (1) **Content:** What data should the organization collect in future? What data are being currently collected by the organization?
- (2) **Access:** In what ways should organized users access the data in order to effectively perform their jobs? This issue involves the timing required to get data to the users when they need it, and also the issues of which users have a right to which data.
- (3) **Organization:** In what ways should the data be logically and physically organized to the key types of data accesses required by the users?
- (4) **Accuracy:** Which validation, editing and auditing procedures are necessary in every stage of the input - processing - output cycle to ensure that data and information generated from the data are correct?
- (5) **Integrity:** What controls are necessary in each stage of the input-processing- output-storage cycle to ensure that data are up-to-date and that changes to specific occurrences of data are made everywhere in the system?
- (6) **Security:** How will data be protected from such possible events as unauthorized access, unauthorized modification, outright theft, and malicious or unintentional destruction?
- (7) **Privacy:** How will data be safeguarded to protect the rights of individuals to privacy?
- (8) **Cost:** How should data-related costs be controlled? To which sets of data and information needs should scarce resources be allocated?

### 3a Concerns that the business house has to address before initiating electronic commerce

A number of additional concerns about initiating electronic commerce on the Internet must be addressed before these businesses are ready to take the" electronic plunge":

**Reliability:** Will the service level that the company depends upon to conduct business always be available? America Online customers, for example, experienced a 19-hour outage in August of 1996.

**Scalability:** How can the Internet and individual services are scaled to meet the needs and expectations of all businesses?

**Ease of use:** Can methods be developed to promote easy access and use to all potential trading partners? Will small businesses be at a disadvantage due to a lack of technical sophistication and resources?

**Payment methods:** What will be an appropriate, safe, and reliable payment method for electronic commerce?

Many other concerns about the vulnerability of the Internet include the risks inherent in electronic mail transactions, the threat of computer viruses, and the existence of unprofessional employees. Companies or consumers passing information through email that can be intercepted bringing risk to both parties. Businesses connected to the Internet that also store important company information in the same location are subject to tampering, and their information may be accessed and possibly damaged. Financial information such as credit card numbers may be stolen and used by unauthorized parties to make illegal purchases, resulting in damage to customers and businesses alike. These fraudulent purchases, unfortunately, are charged to the customer and prove difficult for the businesses to collect.

**3b Various Disaster Recovery (DR) plans for eliminating Down time.**

Data centers must have proper disaster recovery systems that minimize downtime for its customers. Downtime can be eliminated by proper disaster recovery plans for mission-critical data. The different types of Disaster recovery plans (DRP) are:

- (i) **Cold Site:** It is an alternative facility that is devoid of any resources or equipments except air conditioning and raised flooring. In this DRP, equivalent hardware is installed at Disaster site immediately but lost data can not be restored.
- (ii) **Warm site:** It is an alternative processing site that is only partially equipped. In this DRP, organization data is copied on another site in periodic intervals so that in case of disaster, data can be restored from another site but the changes made in the data by the organization between the last backup time and current time is lost. Therefore, after the restoration of data, updation is required in the data to make it live data.
- (iii) **Hot site:** It is an alternative facility that has the equipments and resources to recover business functions that are affected by a disaster. In this DRP, mirror image of data is stored simultaneously at the alternate site with the storage of data at current location. Therefore, data can be restored immediately in case of any disaster and downtime is avoided.

**4a Decision table and four parts of a decision table.**

A decision table is a table, which may accompany a flowchart, defining the possible contingencies that may be considered within the program and the appropriate course of action for each contingency. Decision tables are necessitated by the fact that branches of the flowchart multiply at each diamond (comparison symbol) and may easily run into scores and even hundreds. If, therefore, the programmer attempts to draw a flowchart directly, he is liable to miss some of the branches.

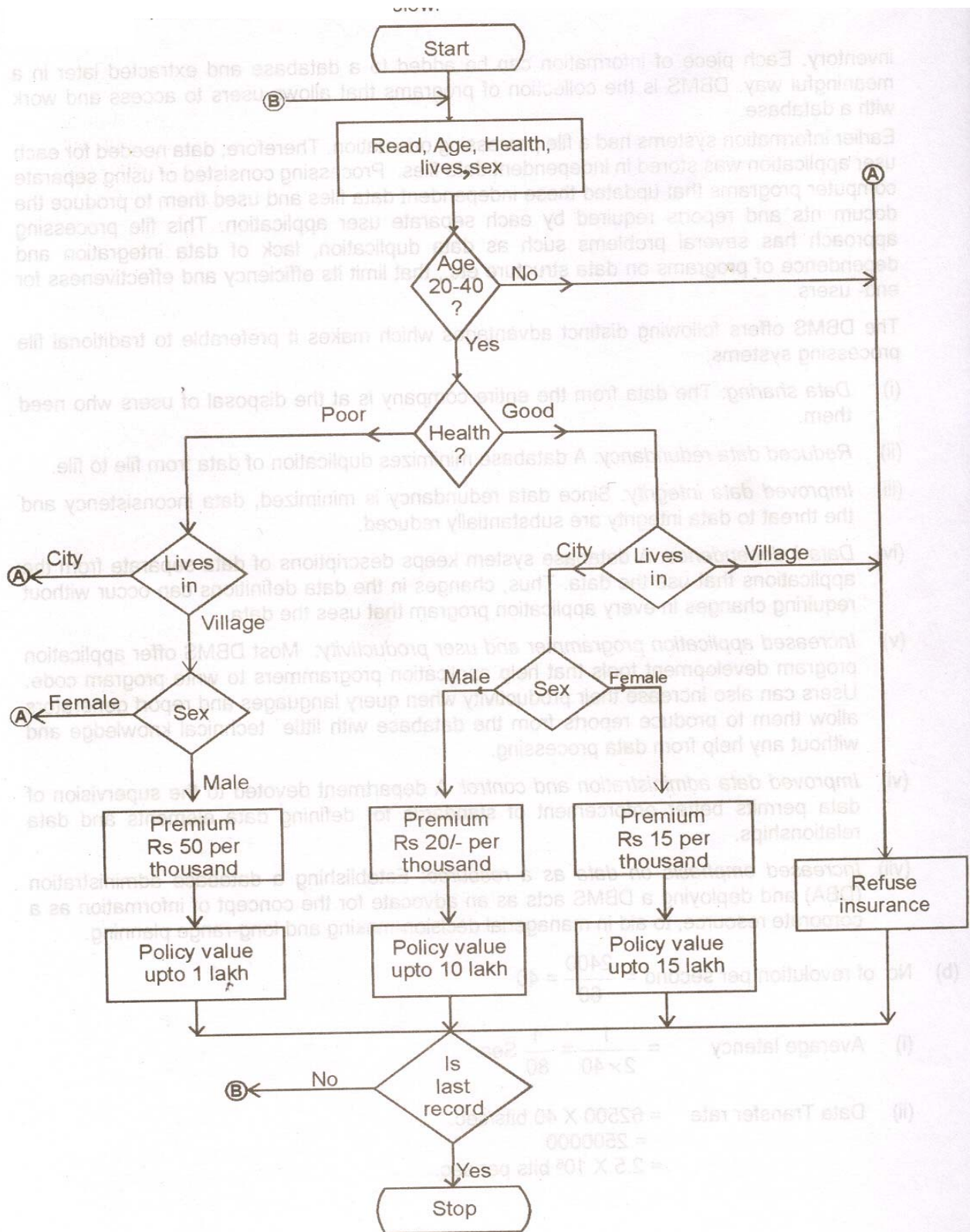
A decision table is divided into four parts:

- (i) **Condition stub:** It contains statements i.e., the factors to be considered in making a decision.
- (ii) **Action stub:** It introduces one or more actions i.e., steps to be taken when a certain combination of conditions exists.
- (iii) **Condition entries:** It lists in its various columns the possible permutations of answers to the questions in the condition stub.
- (iv) **Action entries:** It lists in its columns corresponding to the condition entries, the actions contingent upon the set of answers to the questions in that column.

**b. Hardware and Software**

| <b>Hardware</b>                                                                                                    | <b>Software</b>                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Physical components of a computer system are called hardware.                                                      | Collection of programs designed for specific needs is called software.                                               |
| Input devices, processing unit, output devices and auxiliary storage devices are different categories of hardware. | Software can be divided into three types- application software, system software and general-purpose software.        |
| Keyboard, mouse, printer, CPU, RAM are example of hardware                                                         | Financial Accounting software, operating system, MS-WORD etc. are examples of software.                              |
| Hardware is manufactured/assembled by hardware manufacturing companies/ hardware vendors.                          | Software is developed by software development firms.                                                                 |
| Hardware is independent of software.                                                                               | Software cannot be developed/used without hardware i.e. software is dependent on hardware.                           |
| Hardware repair requires hardware engineer.                                                                        | Software development/modification requires software professionals like application programmer and system programmer. |
| It is bulky and requires more storage space.                                                                       | Software can be copied on CD/DVD, which is lightweight and transportable.                                            |
| Hardware is supported by uninterrupted power supply (UPS).                                                         | Software operation requires requisite hardware.                                                                      |
| Hardware can be assembled, Indian branded or of MNC brand.                                                         | Software can be licensed or pirated.                                                                                 |

5. The required flowchart is given on the next page.



## Section B

6.

- a. **Strategic actions are always in reaction to the changes in environment.**

**Incorrect:** Strategic actions are typically a blend of (1) proactive actions on the part of managers to improve the company's market position and financial performance and (2) as needed reactions to unanticipated developments and fresh market conditions and developments.

- b. **A core competence is a unique strength of an organization which may not be shared**

**Correct:** A core competence is a unique strength of an organization which may not be shared by others. If business is organized on the basis of core competence, it is likely to generate competitive advantage. A core competence provides potential access to a wide variety of markets. Core competencies should be such that it is difficult for competitors to imitate them.

- c. **Managers must list and analyse all environmental influences for proper strategic understanding.**

**Incorrect:** The environment encapsulates many different influences. The difficulty is in making sense of this diversity in a way which can contribute to strategic decision making. Listing all conceivable environmental influences may be possible, but it may not be of much use.

7a

**SWOT analysis**

SWOT analysis is a tool used by organizations for evolving strategic options for the future. The term SWOT refers to the analysis of strength, weaknesses, opportunities and threats facing a company. Strengths and weaknesses are identified in the internal environment, whereas opportunities and threats are located in the external Environment.

**Strength:** Strength is an inherent capability of the organization which it can use to gain strategic advantage over its competitor.

**Weakness:** A weakness is an inherent limitation or constraint of the organization which creates strategic disadvantage to it.

**Opportunity:** An opportunity is a favorable condition in the external environment which enables it to strengthen its position.

**Threat:** An unfavorable condition in the external environment which causes a risk for, or damage to the organization's position.

b

**Business process reengineering**

Business process reengineering refers to the analysis and redesign of workflows both within and between the organization and the external entities. Its objective is to improve performance in terms of time, cost, quality, and responsiveness to customers. It implies giving up old practices and adopting the improved ones. It is an effective tool of realizing new strategies.

Improving business processes is paramount for businesses to stay competitive in today's marketplace. New technologies are rapidly bringing new capabilities to businesses, thereby rising the strategically options and the need to improve business processes dramatically. Even the competition has become harder. In today's market place, major changes are required to just stay even. It has become a matter of survival for most companies.

8.

**Turnaround Management is the formulation and implementation of a strategic plan** and a set of actions aimed towards corporate renewal and restructuring, during times of severe corporate financial distress. Rising competition, business cycles and economic volatility have created a climate where no business can take viability for granted. Turnaround strategy is a highly targeted effort to return an organization to profitability and increase positive cash flows to a sufficient level. Organizations those have faced a significant crisis that has negatively affected operations require turnaround strategy. Turnaround strategy is used when both threats and weaknesses adversely affect the health of an organization so much that its basic survival is a question. When organization is facing both internal and external pressures making things difficult then it has to find something which is entirely new, innovative and different. Being organization's first objective is to survive and then grow in the market; turnaround strategy is used when

organization's survival is under threat. Once turnaround is successful the organization may turn to focus on growth.

**Action plan for turnaround strategy**

- (i) **Assessment of current problems:** The first step is to assess the current problems and get to the root causes and the extent of damage the problem has caused. Once the problems are identified, the resources should be focused toward those areas essential to efficiently work on correcting and repairing any immediate issues.
- (ii) **Analyze the situation and develop a strategic plan:** Before you make any major changes; determine the chances of the business's survival. Identify appropriate strategies and develop a preliminary action plan. For this one should look for the viable core businesses, adequate bridge financing and available organizational resources. Analyze the strengths and weaknesses in the areas of competitive position. Once major problems and opportunities are identified, develop a strategic plan with specific goals and detailed functional actions.
- (iii) **Implementing an emergency action plan:** If the organization is in a critical stage, an appropriate action plan must be developed to stop the bleeding and enable the organization to survive. The plan typically includes human resource, financial, marketing and operations actions to restructure debts, improve working capital, reduce costs, improve budgeting practices, prune product lines and accelerate high potential products. A positive operating cash flow must be established as quickly

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- (iv) **Restructuring the business:** The financial state of the organization's core business is particularly important. If the core business is irreparably damaged, then the outlook for the entire organization may be bleak. Prepare cash forecasts, analyze assets and debts, review profits and analyze other key financial functions to position the organization for rapid improvement. During the turnaround, the "product mix" may be changed, requiring the organization to do some repositioning. Core products neglected over time may require immediate attention to remain competitive. Some facilities might be closed; the organization may even withdraw from certain markets to make organization leaner or target its products toward a different niche. The 'people mix' is another important ingredient in the organization's competitive effectiveness. Reward and compensation systems that encourage dedication and Creativity encourage employees to think profits and return on investments.
- (v) **Returning to normal:** In the final stage of turnaround strategy process, the organization should begin to show signs of profitability, return on investments and enhancing economic value-added. Emphasis is placed on a number of strategic efforts such as carefully adding new products and improving customer service, creating alliances with other organizations, increasing the market share, etc.

9a

**Acquisitions**

Acquisition of or merger with an existing concern is an instant means of achieving the expansion. It is an attractive and tempting proposition in the sense that it circumvents the time, risks and skills involved in screening internal growth opportunities, seizing them and building up the necessary resource base required to materialize growth.

Organizations consider merger and acquisition proposals in a systematic manner, so that the marriage will be mutually beneficial, a happy and lasting affair. Apart from the urge to grow, acquisitions and mergers are resorted to for purposes of achieving a measure of synergy between the parent and the acquired enterprises.

Synergy may result from such bases as physical facilities, technical and managerial skills, distribution channels, general administration, research and development and so on. Only positive synergistic effects are relevant in this connection which denote that the positive effects of the merged resources are greater than the sum of the effects of the individual resources before merger or acquisition.

Some of the recent / popular instances of acquisition are listed below:

Tata's acquisition of Anglo Dutch steelmaker Corus

Tata's acquisition of British Jaguar Land Rover

Mittal Steel's takeover of Arcelor

HPCL's acquisition of Kenya Petroleum Refinery Ltd.

Hindalco's acquisition Canada based Novelis.

b

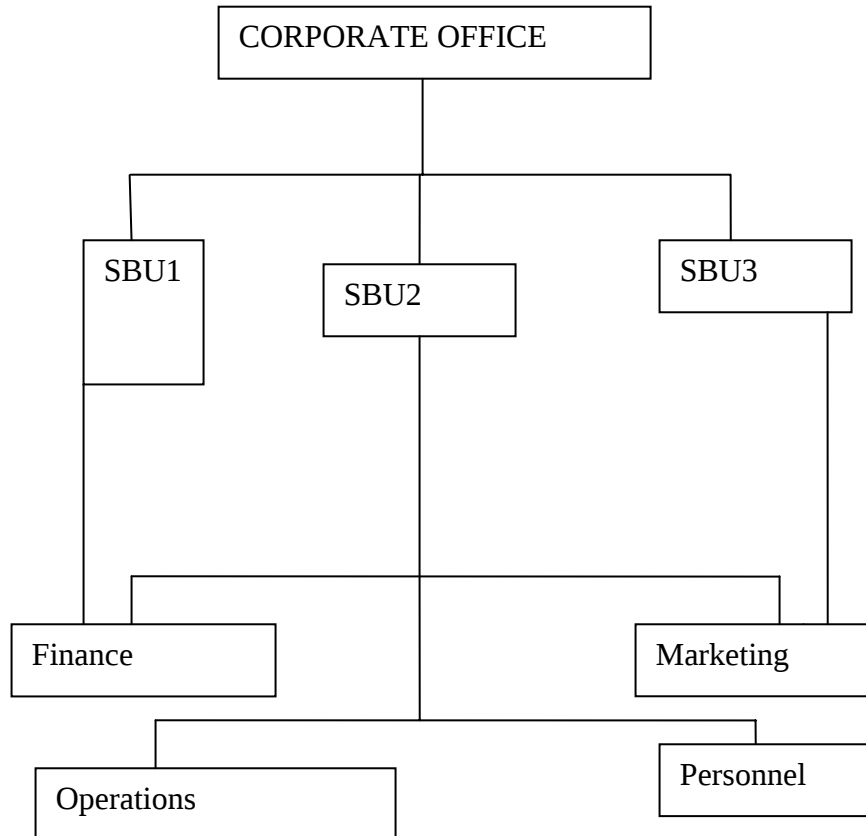
**Marketing mix forms** an important part of overall competitive marketing strategy. The marketing mix is the set of controllable marketing variables that the firm blends to produce the response it wants in the target market. The marketing mix consists of everything that the firm can do to influence the demand for its product. These variables are often referred to as the "4 Ps." The 4 Ps stand for product, price, place and promotion. An effective marketing program blends all of the marketing mix elements into a coordinated program designed to achieve the company's marketing objectives by delivering value to consumers.

A company trying to keep the prices of new brand of ice creams too low is trying to penetrate the market. In penetration prices are initially kept at relatively low levels. This

is done to attract customers. It is expected that the price sensitive customers will switch to the new brand because of the lower price. The strategy helps in increasing market share or sales volume.

10.

- a. The various levels can Corporate Level, SBU Level and Functional Level
- b. The structure can be as follows:



m

- c. The various strategy levels are :  
Corporate level  
SBU or Business Level Strategy  
Functional Level strategy.
- d. These companies need multiple strategies in order to segregate different units or segments each performing a common set of activities. Many companies organize on the basis of operations divisions or simply divisions. These divisions may also be known as profit centre or strategic business units.