**Homework**

**(Sol-1)**

# ESTIMATION OF WORKING CAPITAL

**Statement of Working Capital requirements (cash cost basis)**

| | | (Rs.) | (Rs.) |
|---|---|---|---|
| **A.** | **Current Asset** | | |
| | Inventory: | | |
| | Raw materials : $\left(\frac{Rs.9,00,000}{12 \text{ months}} \times 1 \text{ month}\right)$ | 75,000 | |
| | Finished Goods : $\left(\frac{Rs.25,80,000}{12 \text{ months}} \times 1 \text{ month}\right)$ | 2,15,000 | |
| | Receivables (Debtors) : $\left(\frac{Rs.29,40,000}{12 \text{ months}} \times 2 \text{ months}\right)$ | 4,90,000 | |
| | Sales Promotion expenses paid in advance $\left(\frac{Rs.1,20,000}{12 \text{ months}} \times 3 \text{ months}\right)$ | 30,000 | |
| | Cash balance | 1,00,000 | 9,10,000 |
| | **Gross Working Capital** | | **9,10,000** |
| **B.** | **Current Liabilities:** | | |
| | Payables: | | |
| | Creditors for materials $\left(\frac{Rs.9,00,000}{12 \text{ months}} \times 2 \text{ months}\right)$ | 1,50,000 | |
| | Wages outstanding $\left(\frac{Rs.7,20,000}{12 \text{ months}} \times 1 \text{ month}\right)$ | 60,000 | |
| | Manufacturing expenses outstanding $\left(\frac{Rs.9,60,000}{12 \text{ months}} \times 1 \text{ month}\right)$ | 80,000 | |
| | Administrative expenses outstanding $\left(\frac{Rs.2,40,000}{12 \text{ months}} \times 1 \text{ month}\right)$ | 20,000 | 3,10,000 |
| | Net working capital (A - B) | | 6,00,000 |
| | Add: Safety margin @ 20% | | 1,20,000 |
| | **Total Working Capital requirements** | | **7,20,000** |

**Working Notes:**

| (i) | **Computation of Annual Cash Cost of Production** | **(Rs.)** |
|---|---|---|
| | Material consumed | 9,00,000 |
| | Wages | 7,20,000 |
| | Manufacturing expenses | 9,60,000 |
| | Total cash cost of production | 25,80,000 |
| **(ii)** | **Computation of Annual Cash Cost of Sales:** | **(Rs.)** |
| | Cash cost of production as in (i) above | 25,80,000 |
| | Administrative Expenses | 2,40,000 |
| | Sales promotion expenses | 1,20,000 |
| | Total cash cost of sales | 29,40,000 |

Since, the cash manufacturing expenses is already given in the question hence, the amount of depreciation need not to be computed. However, if it were required to be then it could be computed as follows:

| | **(Rs.)** |
|---|---|
| Sales | 36,00,000 |
| Less: Gross profit (25% of Rs.36,00,000) | (9,00,000) |
| Cost of Production (including depreciation) | 27,00,000 |
| Less: Cash Cost of Production (as calculated above) | (25,80,000) |
| Depreciation (Balancing figure) | 1,20,000 |

**(Sol-2)**

**(a) Computation of Operating Cycle**

**(1) Raw Material Storage Period (R)**

$$\text{Raw Material Storage Period (R)} = \frac{\text{Average Stock of Raw Material}}{\text{Daily Average Consumption of Raw Material}}$$

$$= \frac{(1,80,000 + 2,00,000)/2}{10,80,000/360} = 63.33 \text{ Days}$$

Raw Material Consumed = Opening Stock + Purchases – Closing Stock

= 1,80,000 + 11,00,000 – 2,00,000 = Rs.10,80,000

**(2) Conversion/Work-in-Process Period (W)**

$$\text{Conversion/Processing Period} = \frac{\text{Average Stock of WIP}}{\text{Daily Average Production Cost}}$$

$$= \frac{(60,000 + 1,00,000)/2}{15,40,000/360} = 18.7 \text{ days}$$

**Production Cost:**

| | | | |
|---|---|---|---|
| Opening Stock of WIP | = | 60,000 | |
| Add: Raw Material Consumed | = | 10,80,000 | |
| Add: Wages | = | | 3,00,000 |
| Add: Production Expenses | = | | 2,00,000 |
| | | | 16,40,000 |
| Less: Closing Stock of WIP | = | | 1,00,000 |
| **Production Cost** | | | **15,40,000** |

**(3) Finished Goods Storage Period (F)**

$$\text{Finished Goods Storage Period} = \frac{\text{Average Stock of Finished Goods}}{\text{Daily Average Cost of Goods Sold}}$$

$$= \frac{(2,60,000 + 3,00,000)/2}{15,00,000/360} = 67.19 \text{ Days}$$

| **Cost of Goods Sold** | **Rs.** |
|---|---|
| Opening Stock of Finished Goods | 2,60,000 |
| Add: Production Cost | 15,40,000 |
| | 18,00,000 |
| Less: Closing Stock of Finished Goods | 3,00,000 |
| | 15,00,000 |

**(4) Debtors Collection Period (D)**

$$\text{Debtors Collection Period} = \frac{\text{Average Debtors}}{\text{Daily Average Sales}} = \frac{(1,50,000 + 2,00,000)/2}{20,00,000/360} = 31.5 \text{ Days}$$

**(5) Creditors Payment Period (C)**

$$\text{Creditors Payment Period} = \frac{\text{Average Creditors}}{\text{Daily Average Purchase}}$$

$$= \frac{(2,00,000 + 2,40,000)/2}{11,00,000/360} = 72 \text{ Days}$$

**(6) Duration of Operating Cycle (O)**

O = R + W + F + D – C

= 63.33 + 18.7 + 67.19 + 31.5 – 72

= 108.73 days

**Computation of Working Capital**

**(i) Number of Operating Cycles per Year**

= 360/Duration Operating Cycle = 360/108.72 = 3.311

| **(ii) Total Operating Expenses** | **Rs.** |
|---|---|
| Total Cost of Production | 15,00,000 |
| Add: Administration Expenses | 1,75,000 |
| Selling Expenses | 75,000 |
| | **17,50,000** |

**(iii) Working Capital Required**

$$\text{Working Capital Required} = \frac{\text{Total Operating Expenses}}{\text{Number of Operating Cycles per year}}$$

$$= \frac{17,50,000}{3.311} = \text{Rs.}5,28,541$$

[Note : The solution can also be solved by taking of 365 days a year.]

**(Sol-3)**

**Estimation of Working Capital Needs**

| | | (Amount in Rs.) | (Amount in Rs.) |
|---|---|---|---|
| **A.** | **Current Assets** | | |
| **(i)** | **Inventories:** | | |
| | Raw material (4 weeks) | | |
| | $\left(\frac{78,000 \text{ units x Rs.}117}{52 \text{ weeks}} \text{ x 4 weeks}\right)$ | 7,02,000 | |
| | WIP Inventory (2 weeks) | | |
| | - Material $\left(\frac{78,000 \text{ units x Rs.}117}{52 \text{ weeks}} \text{ x 2 weeks}\right) \text{ x } 0.80$ | 2,80,800 | |
| | - Labour and Overheads (other than depreciation) | 5,13,000 | |
| | $\left(\frac{78,000 \text{ units x Rs.}129}{52 \text{ weeks}} \text{ x 2 weeks}\right) \text{ x } 0.60$ | | |
| | Finished goods (3 weeks) | | |
| | $\left(\frac{78,000 \text{ units x Rs.}246}{52 \text{ weeks}} \text{ x 3 weeks}\right)$ | 11,07,000 | 26,02,800 |
| (ii) | Receivables (Debtors) (6 weeks) | | |
| | $\left(\frac{78,000 \text{ units x Rs.}246}{52 \text{ weeks}} \text{ x 6 weeks}\right) \text{ x } \frac{4}{5th}$ | | 17,71,200 |
| (iii) | Cash and bank balance | | 2,50,000 |
| | **Total Current Assets** | | **43,43,200** |
| **B.** | **Current Liabilities:** | | |
| (i) | Payables (Creditors) for materials (8 weeks) | | |
| | $\left(\frac{78,000 \text{ units x Rs.}117}{52 \text{ weeks}} \text{ x 8} \rightarrow \text{ weeks}\right)$ | | 14,04,000 |
| (ii) | Outstanding wages (1 week) | | |
| | $\left(\frac{78,000 \text{ units x Rs.}49}{52 \text{ weeks}} \text{ x 1 week}\right)$ | | 73,500 |
| (iii) | Outstanding overheads (2 weeks) | | |
| | $\left(\frac{78,000 \text{ units x Rs.}80}{52 \text{ weeks}} \text{ x 2 weeks}\right)$ | | 2,40,000 |
| | Total Current Liabilities | | 17,17,500 |
| | Net Working Capital Needs (A – B) | | 26,25,700 |

**(Sol-4)**

**Working Notes:**

1. Raw material inventory: The cost of materials for the whole year is 60% of the Sales value.

$$= \frac{54{,}000 \text{ units x } (60\% \text{ of Rs.}200)}{12 \text{ months}} \text{ x 2 months} = \text{Rs.}10{,}80{,}000$$

2. Work-in-process: (Each unit of production is expected to be in process for one month):

| | | (Rs.) |
|---|---|---|
| (a) | Raw materials in work-in-process (being one month's raw material requirements) | 5,40,000 |
| (b) | Labour costs in work-in-process $\left(\frac{54{,}000 \text{ units x } (10\% \text{ of Rs.}200)}{12 \text{ months}} \text{ x 1 month}\right) \text{ x } 0.5$ | 45,000 |
| (c) | Overheads $\left(\frac{54{,}000 \text{ units x } (20\% \text{ of Rs.}200)}{12 \text{ months}} \text{ x 1 month}\right) \text{ x } 0.5$ | 90,000 |
| | | **6,75,000** |

3. Finished goods inventory: $\frac{54{,}000 \text{ units x } (90\% \text{ of Rs.}200)}{12 \text{ months}} \text{ x 1 month} = \text{Rs.}8{,}10{,}000$

4. Receivables: $\frac{54{,}000 \text{ units x } (90\% \text{ of Rs.}200)}{12 \text{ months}} \text{ x 1.5 month} = \text{Rs.}12{,}15{,}000$

5. Payable to suppliers: $\frac{54{,}000 \text{ units x } (60\% \text{ of Rs.}200)}{12 \text{ months}} \text{ x 1 month} = \text{Rs.}5{,}40{,}000$

6. Direct Wages payable: $\frac{54{,}000 \text{ units x } (10\% \text{ of Rs.}200)}{12 \text{ months}} \text{ x 1 month} = \text{Rs.}90{,}000$

**Calculation of Working Capital Requirement**

| | | (Rs.) | (Rs.) |
|---|---|---|---|
| A. | Current Assets | | |
| (i) | Inventories: | | |
| | - Raw Materials | 10,80,000 | |
| | - Work-in-process | 6,75,000 | |
| | - Finished goods | 8,10,000 | 25,65,000 |
| (ii) | Receivables | | 12,15,000 |
| (iii) | Cash in hand (40% of Rs.6,30,000) | | 2,52,000 |

| | | | |
|---|---|---|---|
| | Total Current Assets | | 40,32,000 |
| B. | Current Liabilities: | | |
| (i) | Payables for raw materials | | 5,40,000 |
| (ii) | Direct wages payables | | 90,000 |
| | | | 6,30,000 |
| | Net Working Capital (A – B) | | 34,02,000 |
| Add: | Safety margin (15% of Net Working Capital) | | 5,10,300 |
| | Working capital requirement | | 39,12,300 |

**(Sol-5)**

**Effect of Alternative Working Capital Policies**

| **Working Capital Policy** | **Conservative (Rs.)** | **Moderate (Rs.)** | **Aggressive (Rs.)** |
|---|---|---|---|
| Sales | 20,00,000 | 20,00,000 | 20,00,000 |
| Earnings before Interest and Taxes (EBIT) | 2,00,000 | 2,00,000 | 2,00,000 |
| Current Assets | 5,00,000 | 4,00,000 | 3,00,000 |
| Fixed Assets | 5,00,000 | 5,00,000 | 5,00,000 |
| Total Assets | 10,00,000 | 9,00,000 | 8,00,000 |
| *Return on Total Assets (EBIT÷ Total Assets) | 20% | 22.22% | 25% |
| Current Assets/Fixed Assets | 1.00 | 0.80 | 0.60 |

The aforesaid calculation shows that the conservative policy provides greater liquidity (solvency) to the firm, but lower return on total assets. On the other hand, the aggressive policy gives higher return, but low liquidity and thus is very risky. The moderate policy generates return higher than Conservative policy but lower than aggressive policy. This is less risky than aggressive policy but more risky than conservative policy.

In determining the optimum level of current assets, the firm should balance the profitability – solvency tangle by minimizing total costs – Cost of liquidity and cost of illiquidity.

*Normally we use ROTA = $\frac{PAT}{TA}$ x 100 but in this sum we assume EBIT = PAT.

**(Sol-6)**

**Statement showing W.C. requirement**

| **Particulars** | **Amount (Rs.)** |
|---|---|
| **Current Assets :** | |
| **Stock :** | |
| Raw material (800000 x 3/17) | 2,00,000 |
| WIP | - |
| F.G. | 3,25,000 |
| Debtors (2440000 x 15/12) | 3,05,000 |
| Cash | 60,000 |
| (A) | 8,90,000 |
| **Current Liabilities :** | |
| Creditors (800000 + 200000 x 4/12) | 3,33,333 |
| O/S Wages (600000 x 1/12) | 50,000 |
| O/S O/H (F + A + S) (1365000 x 0.5/12) | 36,875 |
| (B) | (4,40,208) |
| W.C. requirement (A-B) 90% | 4,.49,792 |
| (+) Safety Margin 10% | 49,977 |
| 100% | 4,99,769 |

W.N.

| | | |
|---|---|---|
| Material | 8,00,000 | (20 x 40,000) |
| (+) Wages | 6,00,000 | (15 x 40,000) |
| (+) FOH (V) | 6,00,000 | (15 x 40,000) |
| (F) | 6,00,000 | (10 x 60,000) |
| COP | 26,00,000 | |
| (+) Op. Stock FG | - | |
| (-) Closing Stock – FG $\left(\frac{26,00,000}{40,000} \text{ x } 5000\right)$ | (3,05,000) | |
| COG | 22,75,000 | |
| (+) S&D | | |
| (V) | 1,05,000 | (3 x 35,000) |
| (F) | 60,000 | (1 x 60,000) |
| COS | 24,40,000 | |

**(Sol-7)**

**Statement of Working Capital**

| **Particulars** | **Amount (Rs.)** |
|---|---|
| **Current Assets :** | |
| **Stock** | |
| R/M (6,00,000 x 2/12) | 50,000 |
| FG (166,80,000 x 1/12) | 1,40,000 |
| Cash balance | 80,000 |
| Debtors (1905000 x 2/12) | 3,17,500 |
| Prepaid Sales Exp. (75000 x 3/12) | 18,750 |
| (A) | 6,06,250 |
| **Current Liabilities :** | |
| Creditors (6,00,000 x 2/12) | 1,00,000 |
| O/S Wages (4,80,000 x 1/12) | 40,000 |
| O/S Manufacturing Exps. (6,00,000 x 1/12) | 50,000 |
| O/S Admin. Exp. (1,50,000 x 1/12) | 12,500 |
| (B) | (2,02,500) |
| Working Capital | 4,03,750 |
| (+) SM @ 10% | 40,375 |
| W.C.R. | 4,44,125 |
| **W.N.1 : Cost Structure** | |
| Material | 6,00,000 |
| (+ Wages | 4,80,000 |
| (+) Manufacturing Exps. | 6,00,000 |
| COP | 16,80,000 |
| (+) Admin. Exps. | 1,50,000 |
| (+) Sales Exps. | 75,000 |
| COS | 19,05,000 |

**Homework**

**(Sol-1)**

# RECEIVABLE MANAGEMENT

**Statement showing Evaluation of Credit Policies**

| Particulars | | | Present Policy (1 month) | Proposed Policy (2 months) |
|---|---|---|---|---|
| A. | Expected Profit: | | | |
| | (a) | Net Credit Sales (Sales units × Rs. 40) | 8,40,000 | 9,07,200 |
| | (b) | Less: Total Cost: | | |
| | | Variable (Sales units × Rs. 25) | 5,25,000 | 5,67,000 |
| | | Fixed Cost | 2,10,000 | 2,10,000 |
| | | | 7,35,000 | 7,77,000 |
| | (c) | Expected Profit [(a)-(b)] | 1,05,000 | 1,30,200 |
| B. | Opportunity Cost of Investment in Receivables | | 15,313 | 32,375 |
| C. | Net Benefits [A-B] | | 89,687 | 97,825 |

**Recommendation:** Proposed Policy should be implemented since the net benefit under this policy are higher than those under present policy.

**Working Note: Calculation of Opportunity Cost**

$$\text{Opportunity Cost} = \text{Total Cost} \times \frac{\text{Collection Period}}{12} \times \text{Rate of Return}$$

$$\text{Present Policy} = \text{Rs.}7,35,000 \times \frac{1}{2} \times \frac{25}{100} = \text{Rs.}15,313$$

$$\text{Present Policy} = \text{Rs.}7,77,000 \times \frac{2}{12} \times \frac{25}{100} = \text{Rs.}32,375$$

**(Sol-2)**

Interest Rate = 24% p.a.

Interest Rate for 30 Days

= 24 x 30/365 = 1.9726%

Hence, value of Re today will become 1.019726 after 30 days

∴ PV today = $\frac{1}{1.019726}$ = 0.780656

Hence discount rate to be offered today for RS 1 to be received after 30 days

= 1 – 0.980656 = 0.019344 @ 1.93%

**(Sol-3)**

**Working Notes:-**

| | | |
|---|---|---|
| Average level of Receivables | = 12,00,000 x 90/360 | 3,00,000 |
| Factoring Commission | = 3,00,000 x 2/100 | 6,000 |
| Factoring Reserve | = 3,00,000 x 10/100 | 30,000 |

Amount Available for Advance = Rs. 3,00,000-(6,000+30,000) 2,64,000

Factor will deduct his interest @ 16% :-

Interest = $\frac{Rs.2,64,000x16x90}{360x100}$ =Rs.10,560

Advance to be paid = Rs. 2,64,000 – Rs. 10,560 = Rs. 2,53,440

**Statement Showing Evaluation of Factoring Proposal**

| | **Particulars** | **Rs.** |
|---|---|---|
| A. | Annual Cost of Factoring to the Firm: | |
| | Factoring Commission (Rs. 6,000 x 360/90) | 24,000 |
| | Interest Charges (Rs. 10,560 x 360/90) | 42,240 |
| | Total | 66,240 |
| B. | Firm's Savings on taking Factoring Service: | Rs. |
| | Cost of Administration Saved | 50,000 |
| | Cost of Bad Debts (Rs. 12,00,000 × 1.5/100) avoided | 18,000 |
| | Total | 68,000 |
| C. | Net Benefit to the Firm (Rs. 68,000 – Rs. 66,240) | 1,760 |

**(Sol-4)**

**Statement showing evaluation of Credit Po**

| **Particulars** | **Present 30 days** | **A 45 days** | **B 60 days** | **C 75 days** | **E 90 days** |
|---|---|---|---|---|---|
| Exp. Profit | | | | | |
| Sales | 5000000 | 56000000 | 6000000 | 6200000 | 6300000 |
| (-) V.C.@ 80% | (4000000) | (4480000) | (4800000) | (4960000) | (5040000) |
| (-) F.C. | (600000) | (600000) | (600000) | (600000) | (600000) |
| | 400000 | 520000 | 600000 | 640000 | 660000 |
| (-) COID (W.N.1) | (76667) | (127000) | (180000) | (231667) | (282000) |
| N.B. | 323333 | 393000 | 420000 | 408333 | 378000 |

COID

Present : 10 = 383333

C = 76667 (383333 x 20%)

A : ID = 635000 (5080000 x 45/350)

C = 127000 (688000 x 20%)

B : ID = 900000 (5000000 x 60/365)

C = 180000 (900000 x 20%)

C : ID = 1158333 (5560000 x 75/360)

C = 231667 (1158333 x 20%)

D : ID = 1410000 (5640000 x 20/360)

C = 282000 (1410000 x 20%)

It is advisable to consider Policy B

**(Sol-5)**

**A. Statement showing the Evaluation of Debtors Policies (Total Approach)**

| | Particulars | Present Policy 30 days Rs. | Proposed Policy A 40 days Rs. | Proposed Policy B 50 days Rs. | Proposed Policy C 60 days Rs. | Proposed Policy D 75 days Rs. |
|---|---|---|---|---|---|---|
| A. | Expected Profit: | | | | | |
| (a) | Credit Sales | 6,00,000 | 6,30,000 | 6,48,000 | 6,75,000 | 6,90,000 |
| (b) | Total Cost other than Bad Debts | | | | | |
| (i) | Variable Costs [Sales x Rs. 2/Rs. 3] | 4,00,000 | 4,20,000 | 4,32,000 | 4,50,000 | 4,60,000 |
| | | | | | | |
| (ii) | Fixed Costs | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 |
| | 4,50,000 | 4,70,000 | 4,82,000 | 5,00,000 | 5,10,000 | |
| (c) | Bad Debts | 6,000 | 9,450 | 12,960 | 20,250 | 27,600 |
| (d) | Expected Profit [(a) – (b) – (c)] | 1,44,000 | 1,50,550 | 1,53,040 | 1,54,750 | 1,52,400 |
| B. | Opportunity Cost of Investments in Receivables | 7,500 | 10,444 | 13,389 | 16,667 | 21,250 |
| C. | Net Benefits (A – B) | 1,36,500 | 1,40,106 | 1,39,651 | 1,38,083 | 1,31,150 |

**Recommendation:** The Proposed Policy A (i.e. increase in collection period by 10 days or total 40 days) should be adopted since the net benefits under this policy are higher as compared to other policies.

**Working Notes:**

**(i) Calculation of Fixed Cost**

**=** [Average Cost per unit – Variable Cost per unit] x No. of Units sold

= [Rs. 2.25 - Rs. 2.00] x (Rs. 6,00,000/3)

= Rs. 0.25 x 2,00,000 = Rs. 50,000

**(ii) Calculation of Opportunity Cost of Average Investments**

$$\text{Opportunity Cost} = \text{Total Cost} \times \frac{\text{Collection period}}{360} \times \frac{\text{Rate of Return}}{100}$$

$$\text{Present Policy} = 4{,}50{,}000 \times \frac{30}{360} \times \frac{20}{100} = 7{,}500$$

$$\text{Policy A} = 4{,}70{,}000 \times \frac{40}{360} \times \frac{20}{100} = 10{,}444$$

$$\text{Policy B} = 4{,}82{,}000 \times \frac{50}{360} \times \frac{20}{100} = 13{,}389$$

$$\text{Policy C} = 5{,}00{,}000 \times \frac{60}{360} \times \frac{20}{100} = 16{,}667$$

$$\text{Policy D} = 5{,}10{,}000 \times \frac{75}{360} \times \frac{20}{100} = 21{,}250$$

B. Another method of solving the problem is Incremental Approach. Here we assume that sales are all credit sales.

| | Particulars | Present Policy 30 days Rs. | Proposed Policy A 40 days Rs. | Proposed Policy B 50 days Rs. | Proposed Policy C 60 days Rs. | Proposed Policy D 75 days Rs. |
|---|---|---|---|---|---|---|
| A. | Incremental Expected Profit: | | | | | |
| (a) | Incremental Credit Sales | | 30,000 | 48,000 | 75,000 | 90,000 |
| (b) | Incremental Costs | | | | | |
| (i) | Variable Costs | 4,00,000 | 20,000 | 32,000 | 50,000 | 60,000 |
| (ii) | Fixed Costs | 50,000 | - | - | - | - |
| (c) | Incremental Bad Debt Losses | 6,000 | 3,450 | 6,960 | 14,250 | 21,600 |
| (d) | Incremental Expected Profit (a – b –c)] | | 6,550 | 9,040 | 10,750 | 8,400 |
| B. | Required Return on Incremental Investments: | | | | | |
| (a) | Cost of Credit Sales | 4,50,000 | 4,70,000 | 4,82,000 | 5,00,000 | 5,10,000 |
| (b) | Collection period | 30 | 40 | 50 | 60 | 75 |
| (c) | Investment in Receivable (a x b/360) | 37,500 | 52,222 | 66,944 | 83,333 | 1,06,250 |
| (d) | Incremental Investment in Receivables | - | 14,722 | 29,444 | 45,833 | 68,750 |

| | | | | | | |
|---|---|---|---|---|---|---|
| (e) | Required Rate of Return (in %) | | 20 | 20 | 20 | 20 |
| (f) | Required Return on Incremental Investments (d x e) | - | 2,944 | 5,889 | 9,167 | 13,750 |
| C. | Net Benefits (A – B) | - | 3,606 | 3,151 | 1,583 | 5,350 |

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

C. Another method of solving the problem is by computing the Expected Rate of Return.

$$\text{Expected Rate of Return} = \frac{\text{Incremental Expected Profit}}{\text{Incremental Investment in Receivables}} \times 100$$

$$\text{For Policy A} = \frac{\text{Rs.6,550}}{\text{Rs.14,722}} \times 100 = 44.49\%$$

$$\text{For Policy B} = \frac{\text{Rs.9,040}}{\text{Rs.29,444}} \times 100 = 30.0\%$$

$$\text{For Policy C} = \frac{\text{Rs.10,750}}{\text{Rs.45,833}} \times 100 = 23.45\%$$

$$\text{For Policy D} = \frac{\text{Rs.8,400}}{\text{Rs.68,750}} \times 100 = 12.22\%$$

**Recommendation:** The Proposed Policy A should be adopted since the Expected Rate of Return (44.49%) is more than the Required Rate of Return (20%) and is highest among the given policies compared.

**(Sol-6)**

**Statement showing evaluation of credit policy**

**(in Lakh Rs.)**

| Particulars | Present (20 d) | P-I (30 d) | P-II (40 d) | P-III (50 d) | P-IV (60 d) |
|---|---|---|---|---|---|
| EP | | | | | |
| Saus | 60 | 65 | 70 | 74 | 75 |
| (-) V.C.@70% | (42) | (45.5) | (49) | (51.8) | (52.5 |
| (-) F.C. | (8) | (8) | (3) | (8) | (8) |
| | 10 | 11.5 | 15 | 14.2 | 14.5 |
| (-) COID | (0.600) | (1.115) | (1.583) | (2.076) | (2.520) |
| N.B. | 9.306 | 10.385 | 11417 | 12.124 | 18.979 |

COID : Present : 10 : 42 + 8 = 50 x 20/360 = 2.778

(=2.778 x 25% = 0.694)

P-I : ID = 45 : 5 + 8 = 53.5% 30.360 = 4.458

(4.458 x 25% = 1.115)

P-II : ID = 49 + 8 = 57 x 40/360 = 6.33

(= 6.33 x 25% = 1.583

P-III : ID = 541.8 + 8 = 59.6 x 50/360 = 8.306

(= 8.306 x 25% = 2.076)

P-IV : ID = 52.5 + 8 = 60.5 x 60/360 = 10.083

(= 10.083 x 25% = 2.521)

Company should consider policy III, (50 d credit) as it will give higher N.B.

**(Sol-7)**

**Statement showing evaluation of Credit Policy**

**(in lakh Rs.)**

| **Particulars** | **Present** | **P-I** | **P-2** |
|---|---|---|---|
| EP | | | |
| Sales | 87.5 | 105 | 118 |
| (-) VC @70% | (61.25) | (735) | (82.6) |
| (-) Bad Debts | (2.63) | (5.25) | (7.88) |
| | 23.62 | 26.25 | 27.52 |
| (-) COID (W.N.1) | (2.625) | (4.2) | (5.90) |
| N.B. | 20.995 | 22.05 | 21.62 |

COID

Present : ID = 8.75

C = 2.625 (8.75 x 30%)

P-1 : ID = 14 (73.5 x 1/525)

C = 4.2 (14 x 30%)

P-II : ID = 19.67 (82.6 x

C = 5.90 (19.67 x 50%)

**Homework**

**(Sol-1)**

# CASH BUDGET

**Cleared Funds Forecast**

| | 7 Jan 14 (Monday) Rs. | 8 Jan 14 (Tuesday) Rs. | 9 Jan 14 (Wednesday) Rs. | 10 Jan 14 (Thursday) Rs. | 11 Jan 14 (Friday) Rs. |
|---|---|---|---|---|---|
| **Receipts** | | | | | |
| W Ltd | 1,30,000 | 0 | 0 | 0 | 0 |
| X Ltd | 0 | 0 | 0 | 1,80,000 | 0 |
| (a) | 1,30,000 | 0 | 0 | 1,80,000 | 0 |
| **Payments** | | | | | |
| A Ltd | 45,000 | 0 | 0 | 0 | 0 |
| B Ltd | 0 | 0 | 75,000 | 0 | 0 |
| C Ltd | 0 | 0 | 95,000 | 0 | 0 |
| Wages | 0 | 0 | 0 | 0 | 12,000 |
| Salaries | 56,000 | 0 | 0 | 0 | 0 |
| Petty Cash | 200 | 0 | 0 | 0 | 0 |
| Stationery | 0 | 0 | 300 | 0 | 0 |
| (b) | 1,01,200 | 0 | 1,70,300 | 0 | 12,000 |
| Cleared excess Receipts over payments (a) – (b) | 28,800 | 0 | (170,300) | 80,000 | (12,000) |
| Cleared balance b/f | 200,000 | 228,800 | 228,800 | 58,500 | 238,500 |
| Cleared balance c/f (c) | 2,28,800 | 2,28,800 | 58,500 | 2,38,500 | 2,26,500 |
| Uncleared funds float | | | | | |
| Receipts | 180,000 | 180,000 | 180,000 | 0 | 0 |
| Payments | (170,000) | (170,300) | 0 | (6,500) | (6,500) |
| (d) | 10,000 | 9,700 | 180,000 | (6,500) | (6,500) |
| Total book balance c/f (c) + (d) | 2,38,800 | 2,38,500 | 2,38,500 | 2,32,000 | 2,20,000 |

**(Sol-2)**

**Workings:**

Collection from debtors:

**(Amount in Rs. )**

| | February | March | April | May | June | July | August | September |
|---|---|---|---|---|---|---|---|---|
| Total sales | 1,20,000 | 1,40,000 | 80,000 | 60,000 | 80,000 | 1,00,000 | 80,000 | 60,000 |
| Credit sales (80% of total sales) | 96,000 | 1,12,000 | 64,000 | 48,000 | 64,000 | 80,000 | 64,000 | 48,000 |
| Collections: One month | | 72,000 | 84,000 | 48,000 | 36,000 | 48,000 | 60,000 | 48,000 |
| Two months | | | 24,000 | 28,000 | 16,000 | 12,000 | 16,000 | 20,000 |
| Total collections | | | 1,08,000 | 76,000 | 52,000 | 60,000 | 76,000 | 68,000 |

**Monthly Cash Budget for Six months, April to September, 2014**

**(Amount in Rs. )**

| **Receipts:** | **April** | **May** | **June** | **July** | **August** | **September** |
|---|---|---|---|---|---|---|
| Opening balance | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |
| Cash sales | 16,000 | 12,000 | 16,000 | 20,000 | 16,000 | 12,000 |
| Collection from debtors | 1,08,000 | 76,000 | 52,000 | 60,000 | 76,000 | 68,000 |
| Total cash available (A) | 1,44,000 | 1,08,000 | 88,000 | 1,00,000 | 1,12,000 | 1,00,000 |
| **Payments:** | | | | | | |
| Purchases | 48,000 | 64,000 | 80,000 | 64,000 | 48,000 | 80,000 |
| Wages & salaries | 9,000 | 8,000 | 10,000 | 10,000 | 9,000 | 9,000 |
| Interest on debentures | 3,000 | — | — | 3,000 | — | — |
| Tax payment | — | — | — | 5,000 | — | — |
| Total payments (B) | 60,000 | 72,000 | 90,000 | 82,000 | 57,000 | 89,000 |
| Minimum cash balance desired | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |
| Total cash needed (C) | 80,000 | 92,000 | 1,10,000 | 1,02,000 | 77,000 | 1,09,000 |
| Surplus - deficit (A-C) | 64,000 | 16,000 | (22,000) | (2,000) | 35,000 | (9,000) |
| Investment/financing | | | | | | |
| Temporary Investments | (64,000) | (16,000) | — | — | (35,000) | — |
| Liquidation of temporary investments or temporary borrowings | — | — | 22,000 | 2,000 | — | 9,000 |
| Total effect of investment/financing (D) | (64,000) | (16,000) | 22,000 | 2,000 | (35,000) | 9,000 |
| Closing cash balance (A+D-B) | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |