# Solved Scanner Appendix

## IPCC Gr. I

## November - 2014

**Paper - 3 : Cost Accounting and Financial Management**

**Part — A (Cost Accounting)**

**Chapter - 1 : Basic Concepts**

**2014 - Nov [5]** (a)

(i) Job costing
(ii) Batch costing
(iii) Single / output costing
(iv) Multiple costing.

**Chapter - 2 : Material Cost**

**2014 - Nov [1]** (a)

**(i)** Calculation of maximum consumption.

Re-order level = maximum usage × maximum time
1,60,000 = maximum consumption x 8
maximum consumption = 20,000

**Note: (i)**

Maximum - time

$$\text{Avg. time} = \frac{\textit{minimum time} + \textit{maximum time}}{2}$$

$$6 = \frac{\textit{minimum time} + \textit{maximum time}}{2}$$

minimum time + maximum time = 12 .....(1)
Difference between
minimum - maximum = 4 .....(2)
2 minimum = 16
minimum time = 8
maximum = 12 - 8 = 4.

**(ii)** Calculation of minimum consumption:
maximum level = ROL + ROQ - [minimum usage x minimum time]
1,90,000 = 1,60,000 + 90,000 = [8 x minimum consumption]

$$\text{minimum consumption} = \frac{60,000}{4}$$

= 15,000.

**Chapter - 3 : Employee Cost**
**2014 - Nov [7]** (e)
Labour turnover is an organization is the rate of change in the composition of labour force during a specified period measured against a suitable index.

$$\text{LTR} = \frac{\text{No. of employee's Seprated/Replaced}}{\text{Average No. of employee's}}$$

**Chapter - 4 : Overheads**
**2014 - Nov [5]** (b)
**Treatment of over & under absorption of overheads:**
Overhead expenses are usually applied to production on the basis of pre-determined rates. Production overheads are to be determined in advance as follows for fixing selling price, quote tender price and formulate budget etc.

$$\text{pre-determined OHs rate} = \frac{\text{Estimated/Normal OHs for the period}}{\text{Budgeted Number of units during the period}}$$

The actual OHs rate will rarely coincide with the pre-determined OHs rate, due to variation in pre-determined OHs rate and actual OHs rate of over absorption costing Profit & Loss A/c will be credited by OHs and if under absorption costing Profit & Loss A/c will be debited by OHs.

**Chapter - 5 : Integrated & Non-Integrated Accounts**
**2014 - Nov [4]** (a) **Stores Ledger**

| | ₹ | | ₹ |
|---|---|---|---|
| To Balance b/d | 54,000 | By WIP | 2,88,000 |
| To Purchase (A/c) | 2,88,000 | By Overhead Control | 36,000 |
| To WIP | 1,44,000 | By Costing Profit & Loss | 10,800 |
| | | By Balance c/d | 1,51,200 |
| | 4,86,000 | | 4,86,000 |

**Work in Progress Control A/c**

| | ₹ | | ₹ |
|---|---|---|---|
| To Balance B/d | 1,08,000 | By Overhead Control A/c | 4,32,000 |
| To Wages | 1,08,000 | By Balance c/d | 72,000 |
| To stores | 2,88,000 | | |
| | 5,04,000 | | 5,04,000 |

**Overhead Control A/c**

| | ₹ | | ₹ |
|---|---|---|---|
| To Stores Ledger | 2,88,000 | By Balance c/d | 12,96,000 |
| To WIP | 4,32,000 | | |
| To Wages (I.D.) | 1,26,000 | | |
| To CCL | 4,50,000 | | |
| | 12,96,000 | | 12,96,000 |

**Costing Profit & Loss A/c**

| | ₹ | | ₹ |
|---|---|---|---|
| To COGS | 5,04,000 | By Cost Ledger Control | 5,79,600 |
| | | (5,04,000 x 15%) | |
| To CCL (Profit) | 75,600 | By Cost Ledger Control | |
| | 5,79,600 | | 5,79,600 |

**Note: 1 Cost Ledger Control A/c (CLC)**

| | | | |
|---|---|---|---|
| To Costing Profit & Loss | 10,800 | By OHS Control | 4,50,000 |
| To Costing Profit & Loss | 5,79,600 | By Stores Ledger | 2,88,000 |

| | | | | | |
|---|---|---|---|---|---|
| To Balance c/d | 3,81,600 | By Wages | | |
| | | Direct | 1,08,000 | |
| | | Indirect | 1,26,000 | 2,34,000 |
| | 9,72,000 | | | 9,72,000 |

**Chapter - 8 : Contract Costing**
**2014 - Nov [2]** (a)
**1. Contract A/c in the Books of Z Ltd. for 31.3.14**

| Particulars | Amount ₹ | Particulars | Amount ₹ |
|---|---|---|---|
| To Material Purchase | 1,60,000 | By WIP: | |
| To Material issued | 5,00,000 | By Work certified | 35,00,000 |
| To Wages & Salary (7,00,000+ 20,000 - 10,000) | 7,10,000 | By Work un-certified | 40,000 |
| To Drawing & Maps | 60,000 | By Material return | 30,000 |
| To Sundry Expenses | 15,000 | | |
| To Electricity Charges | 25,000 | By Material return | 20,000 |
| To Plant hire Expenses | 60,000 | By Material at site | 30,000 |
| To Sub-contract Cost | 20,000 | | |
| To Notional Profit | 20,70,000 | | |
| | 36,20,000 | | 36,20,000 |
| To WIP Reserve | 10,35,000 | By Notional Profit | 20,70,000 |
| To Profit & Loss (N.1) | 10,35,000* | | |
| | 20,70,000 | | 20,70,000 |

→ % of work certified

$$= \frac{WC}{CP}$$

$$= \frac{35,00,000}{50,00,000}$$

= 70%

* **Note: 1** Profit Transferred to Profit & Loss

$$= \frac{2}{3} \times \text{Notional Profit} \times \frac{\text{Cash receive}}{WC}$$

$$= \frac{2}{3} \times 20,70,000 \times \frac{35,00,000 \times 75\%}{35,00,000}$$

= ₹ 10,35,000

**2.**

**Dr. Contractee's A/c Cr.**

| | ₹ | | ₹ |
|---|---|---|---|
| To Balance c/d | 26,25,000 | By Bank A/c (35,00,000 × 75%) | 26,25,000 |
| | 26,25,000 | | 26,25,000 |

**Chapter - 10 : Process Costing**

**2014 - Nov [6]** (b)

**Process A's A/c**

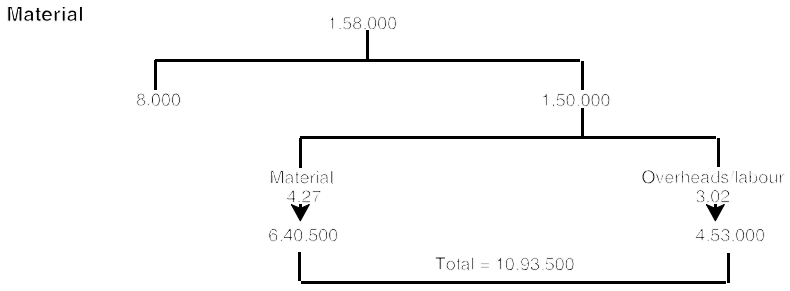
| | | ₹ | | | ₹ |
|---|---|---|---|---|---|
| To Opening WIP | 8,000 | 75,000 | By Abnormal loss | 4,500 | 30,087 |
| To Input | 1,82,000 | 7,37,500 | By Process B | 1,58,000 | 11,68,500 |
| To Wages | | 3,40,600 | By Closing WIP | 18,000 | 1,24,813* |
| To OHS | | 1,70,300 | By Normal loss (5%) | 9,500 | |
| | 1,90,000 | 13,23,400 | | 1,90,000 | 13,23,400 |

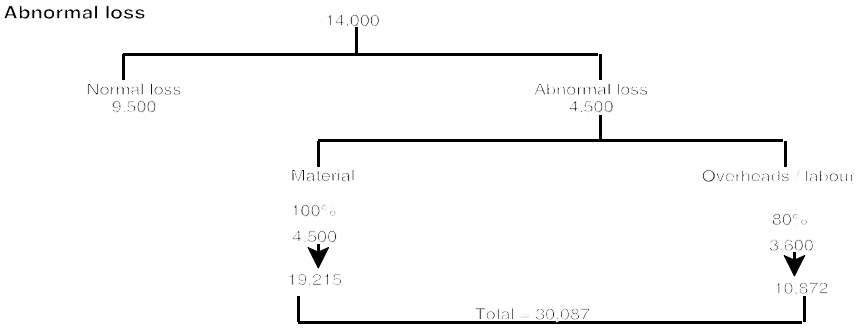
* Difference between cost is adjusted to closing WIP this difference arise due to the point decimal.

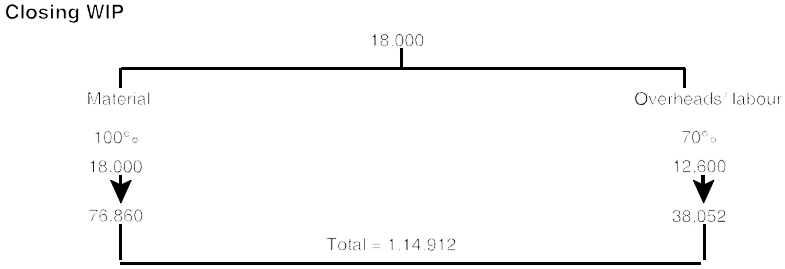
Finish Goods + Opening WIP = 10,93,500 + 75,000 = 11,68,500

Abnormal loss = 30,087

Closing WIP = 1,14,912






**Chapter - 13 : Marginal Costing**

**2014 - Nov [1]** (b)

(i) Break Even Point = $\frac{FC}{contribution}$

= $\frac{4,80,000}{20}$

= 24,000 units

= 24,000 x 30

= ₹ 7,20,000

(ii) Profit where sales = 50,000 units

$50,000 = \frac{FC + Profit}{C}$

$50,000 = \frac{4,80,000 + P}{20}$

P = 10,00,000 - 4,80,000 = 5,20,000.

**Note: 1**

Suppose, Variable cost = x

Fixed cost = y

30 x 16,000 - 16,000x = y - 1,60,000 .....(1)

30 x 40,000 + 40,000x = y + 3,20,000 .....(2)

∴ 4,80,000 - 16,000x = 12,00,000 - 40,000x - 3,20,000 - 1,60,000

∴ 4,80,000 - 16,000x = 7,20,000 - 40,000x

∴ - 16,000 + 40,000x = 2,40,000

∴ $x = \frac{2,40,000}{24,000}$

∴ x = 10

∴ y = 4,80,000

**Note: 2**

Contribution = S - V

= 30 - 10

= 20

(iii) If fixed cost 1,50,000

$= \frac{FC}{C}$

$= \frac{1,50,000}{20}$

= 7,500 units.

**Chapter - 14 : Budgets and Budgetary Control**

**2014 - Nov [3]** (a)

→ Expense Budget for RST Ltd.

| Particulars | | 50% | 60% |
|---|---|---|---|
| | | 30,000 units | 36,000 units |
| Sales [200 P.U.] → (A) | | 60,00,000 | 72,00,000 |
| *Less:* | Direct material [75 × 110%] | 24,75,000 | 29,70,000 |
| | Direct wages [25 × 110%] | 8,25,000 | 9,90,000 |
| | Direct expenses [25 x 110%] | 4,95,000 | 5,94,000 |
| | Variable OHS [25 x 110%] | 8,25,000 | 9,90,000 |

| | | |
|---|---|---|
| Factory Expenses: | | |
| Fixed [60,000 x 5 x 115%] | 3,45,000 | 3,45,000 |
| Variable [15 x 110%] | 4,95,000 | 5,94,000 |
| Selling & Distribution [Fixed (2 x 60,000 × 115%)] | 1,38,000 | 1,38,000 |
| Variable [8 x110%] | 2,64,000 | 3,16,800 |
| Office & Administration Expenses [100% fixed] | 3,45,000 | 3,45,000 |
| Total cost → (B) | 62,07,000 | 72,82,800 |
| → Profit/Loss (A - B)= C | (2,07,000) | (82,800) |

At 50% level of production loss is of ₹ 2,07,000 whereas at 60% level it decline and at ₹ 82,800 loss incurred.

## Part — B (Financial Management)

**Chapter - 2 : Time Value of Money**

**2014 - Nov [7]** (a)

The present value of money to be received at a future date is determined by discounting the future value of the interest rate that the money could earn over the period. This is the process of discounting. Thus, money in the future is worth less than similar money today.

**Chapter - 3 : Financial Analysis and Planning**

**2014 - Nov [2]** (b)

**Cashflow Statement in the Books of Star Ltd.**

| Particulars | Amount ₹ | Amount ₹ |
|---|---|---|
| **(i) Cashflow from Operating Activities:** | | |
| Profit during the year | | 2.7 |
| (+/-) Adjusting.... | | |
| - Provision for taxation | 2.4 | |
| - Provision for dividend | 6.0 | |
| - Depreciation : Plant & Machinery | 3.75 | |
| : Building | 1.2 | |

| | | | |
|---|---|---|---|
| | - Profit on Sale of Plant & Machinery | (0.45) | |
| | Cashflow from OA Before working capital changes | 12.9 | |
| | **Working Capital Changes:** | | |
| | Decrease in Creditors | (3.6) | |
| | Decrease in Debtors | 6.0 | |
| | Increase in Stock | (6.0) | |
| | Working Capital Changes | (3.6) | |
| | Cashflow from OA | 9.3 | |
| | Tax paid | (1.5) | |
| | Total of (A) | 7.8 | |
| **(ii)** | **Cashflow from Investing Activities:** | | |
| | - Purchase of Plant & Machinery | (10.35) | |
| | - Building | (7.2) | |
| | - Purchase of investment | (3.0) | |
| | - Sale of Plant & Machinery | 1.05 | |
| | Cashflow from Investing Activities → (B) | (19.5) | |
| **(iii)** | **Cashflow from Financing Activities:** | | |
| | - Issue of Shares | 6.00 | |
| | - Issue of Debenture | 6.00 | |
| | - Dividend Paid | (3.00) | |
| | Cashflow from Financing Activities → (C) | 9.00 | |
| | Total Cashflow (A+B+C) + 2.7 | | 0 |
| | Opening Cash & Cash Equivalent: | | 6 |
| | Closing Cash & Cash Equivalent: | | 6 |

**Note: 1**

Dr. **Plant and Machinery A/c** Cr.

| | ₹ | | ₹ |
|---|---|---|---|
| To Balance b/d | 15,00,000 | By Depreciation | 3,75,000 |
| To Profit & Loss A/c | 45,000 | By Cash | 1,05,000 |
| To Cash | 10,35,000 | By Balance c/d | 21,00,000 |
| | 25,80,000 | | 25,80,000 |

* Dividend provision for previous year paid in current year is assumed.

**2014 - Nov [3]** (b)

**Balance Sheet of a firm:**

| **Liabilities** | | **Amount ₹** | **Assets** | **Amount ₹** |
|---|---|---|---|---|
| Capital | 27,00,000 | | Fixed assets | 28,00,000 |
| Reserves & Surplus | 9,00,000 | 36,00,000 | Current assets | 16,00,000 |
| | | | Debtor 7L | |
| | | | Stock 6L | |
| Current liabilities | | 8,00,000 | Cash 3L | |
| | | 44,00,000 | | 44,00,000 |

**Note: 1 Net Working Capital:**

₹ 8,00,000 = Current assets - current liabilities

₹ 8,00,000 = 2CL - CL

CL = 8,00,000

CA = 2 CL

= 2 (8,00,000)

CA = 16,00,000

**Note: 2 Liquid Ratio**

$$1.25 = \frac{CA - Stock}{CL}$$

$$1.25 = \frac{16,00,000 - Stock}{8,00,000}$$

∴ Stock = 16,00,000 - 10,00,000

∴ Stock = ₹ 6,00,000

**Note: 3 Stock Turnover ratio:**

7 times = $\frac{COGS}{Avg.\ Stock*}$ * Absence of information about opening stock considering closing stock as Avg. Stock.

7 = $\frac{COGS}{6,00,000}$

COGS = 42,00,000
GP = COGS × 33.33%
= 42,00,000 × 33.33%
GP = 14,00,000
Sales = COGS + GP
= 42,00,000 + 14,00,000
Sales = ₹ 56,00,000

**Note: 4 Sales to Fixed assets**

$2 = \frac{Sales}{FA}$

$\therefore$ F.A. = $\frac{56,00,000}{2}$

$\therefore$ F.A. = 28,00,000

**Note: 5 Networth**

Networth = Total Assets - CL
= 28,00,000 + 16,00,000 - 8,00,000
= ₹ 36,00,000
Capital = 36,00,000 x 0.75 = ₹ 27,00,000
R&S = 36,00,000 x 0.25 = ₹ 9,00,000.

**Chapter - 4 : Financing Decisions - Cost of Capital & Capital Structure**

**2014 - Nov [1] {C}** (c), (d)

**(c)** Alpha Ltd. Required 80,00,000

| **Particulars** | **Alternate I** | **Alternate II** |
|---|---|---|
| Equity Shares | 60,00,000 | 40,00,000 |
| 12% Debentures | 20,00,000 | 40,00,000 |
| **Total fund** | 80,00,000 | 80,00,000 |
| Interest @ 12% | 2,40,000 | 4,80,000 |
| Taxation @ 30% | | |

Indifference: Plan I & Plan II

$\frac{(EBIT - Int.)(1-t)}{N1} = \frac{(EBIT - Int.)x(1-t)}{N2}$

$$\therefore \quad \frac{(EBIT - 2,40,000)(1 - 30\%)}{6,00,000} = \frac{EBIT - 4,80,000\ x\ (1 - 30\%)}{4,00,000}$$

$$\therefore \quad \frac{(EBIT - 2,40,000)\ x\ 0.7}{6,00,000} = \frac{(EBIT - 4,80,000)\ x\ 0.7}{4,00,000}$$

$$\therefore \quad \frac{0.7\ EBIT - 1,68,000}{6,00,000} = \frac{0.7\ EBIT - 3,36,000}{4,00,000}$$

∴ 2,80,000 EBIT - 67,200 lacs = 4,20,000 EBIT - 2,01,600 lacs

EBIT = ₹ 9,60,000.

**(d)** Calculation of value of firms A Ltd. & B Ltd.

**Market value of A Ltd. [unlevered]:**

$$= \frac{EBIT(1 - t)}{ke}$$

$$= \frac{2,50,000(1 - 0.30)}{20\%}$$

$$= \frac{1,75,000}{20\%}$$

= ₹ 8,75,000.

**Market value of B Ltd. [levered]:**

= Vu + DT

= 8,75,000 + 3,00,000

= ₹ 11,75,000

Calculation of WACC

**A Ltd.**

| | | |
|---|---|---|
| Equity | 8,75,000 | - 20% |
| Debt | - | - 0% |
| WACC → | | 20% |

**B. Ltd.**

| | | | | |
|---|---|---|---|---|
| Equity | 1,75,000 | 0.149 | 0.20 | 0.0298 |
| Debt | 10,00,000 | 0.851 | 0.12 | 0.1021 |
| | 11,75,000 | 1 | - | 0.1319 |

WACC = 13.19%.

**Chapter - 5 : Business Risk, Financial Risk & Leverage**

**2014 - Nov [4]** (b)

**Note: 1 Calculation of EBIT :**

$$= \frac{2,80,000}{70\%}$$

= 4,00,000 EBT

| | | | |
|---|---|---|---|
| ∴ | 4,00,000 + t | = | EBIT |
| ∴ | EBIT | = | 4,00,000 + (7,00,000 × 12%) |
| | | = | 4,84,000 |
| | Operating Expenses | = | 4,84,000 × 1.5 |
| | | = | 7,26,000 – Depreciation |
| | | = | 7,26,000 – 96,800 |
| | | = | 6,29,200 |
| | EBIT | = | 4,84,000 |
| | *Less:* Interest | = | 84,000 |
| | EBT | | 4,00,000 |
| | *Less:* Tax | = | 1,20,000 |
| | EAT | | 2,80,000 |

Sales = Operating Expenses + EBIT
= 6,29,200 + 4,84,000
= 11,13,200

**(i) Calculation of Operating Leverage :**

$$= \frac{\text{Contribution}^*}{\text{EBIT}}$$

$$= \frac{5,80,800}{4,84,000}$$

= 1.2

**Financial Leverage :**

$$= \frac{\text{EBIT}}{\text{PBT}}$$

$$= \frac{4,84,000}{4,00,000}$$

= 1.21

| | | |
|---|---|---|
| *Contribution | = | Sales – Variable Cost |
| | = | 11,13,200 – [6,29,200 – 96,800] |
| | = | 11,13,200 – 5,32,400 |
| | = | 5,80,800 |

**(ii) Preference Dividend Coverage Ratio**

$$= \frac{\text{EAT}}{\text{Preference Dividend Liability}}$$

$$= \frac{2,80,000}{[5,00,000 \times 10\%]}$$

= 5.6

Equity Dividend Coverage Ratio

$$= \frac{\text{PAT} - \text{Preference dividend}}{\text{Equity Liability}}$$

$$= \frac{2,80,000 - 50,000}{[8,00,000 \times 15\%]}$$

$$= \frac{2,30,000}{[8,00,000 \times 15\%]}$$

$$= \frac{2,30,000}{1,20,000}$$

= 1.92

**(iii) Price Earning Ratio:**

P/E ratio = $\frac{\text{MP}}{\text{EPS}}$

$$= \frac{23}{\text{EAT/No. of shares}} = \frac{23}{2,80,000/80,000}$$

= 6.57

Earning Yield Ratio

$$= \frac{\text{EPS}}{\text{MP}} \times 100$$

$$= \frac{3.5}{23} \times 100$$

= 15.22

**2014 - Nov [7]** (b)

**Business Risk:**

Business Risk refers to the risk associated with the firm's operations. It is the uncertainty about future operating income.

**Financial Risk:**

If refers to the additional risk placed in the firm's share holders as a result of debt use.

**Chapter - 6 : Types of Financing**

**2014 - Nov [5]** (d)

Difference between Operating & Financial Lease:

- **Operating Lease:**
  (i) Operating lease is the lease whose term is short compared to the useful life of the assets or piece of equipment.
  (ii) Here, contract of lease allow for the use of an assets but does not convey the right of ownership of the assets.
- **Financial Lease:**
  (i) Financial lease is the lease whose term is long compared to it useful life of the assets or piece of equipment.
  (ii) Here, after completion of period of lease, leasee having right to purchase the assets.

**2014 - Nov [7]** (d)

Following are the types of packing credit:

(i) Cash credit
(ii) Bank over draft
(iii) Bills Discounting
(iv) Line of credit
(v) Letter of credit
(vi) Bank guarantees.

**Chapter - 8 : Capital Budgeting and Investment Decisions**

**2014 - Nov [7]** (c)

"Internal rate of return" for an investment proposal is the discount rate that equates the present value of the expected net cash flows with the initial cash 'outflows'.

**Chapter - 10 : Treasury & Cash Management**

**2014 - Nov [5]** (c)

**Different kinds of float with reference to cash management are as under:**

(i) **Billing float:**
This is the time formal document that a seller prepares and send to the purchaser as the payment request for goods sold or services provided.

(ii) **Mail float:**
This is the time when a cheque is being processed by post office, messanger service or other means of delivery.

(iii) **Cheque processing float:**
This is the time for the seller to sort, record & deposit the cheque after it has been received by the company.

(iv) **Bank processing float:**
This is the time from the deposit of the cheque to the crediting of funds in the seller's A/c.

**Chapter - 12 : Management of Receivables**
**2014 - Nov [6]** (a)
**Statement showing beneficial alternative**

| | Present | alt I | alt II |
|---|---|---|---|
| Sales | 30,00,000 | 30,00,000 | 30,00,000 |
| *Less:* Bad debts | 1,50,000 | 1,20,000 | 90,000 |
| *Less:* Collection Expenses | 30,000 | 60,000 | 95,000 |
| *Less:* Interest @ 15% | 61,644 $\left[30 \text{ lacs} \times \frac{50}{365}\right]$ | 49,315 $\left[30 \text{ lacs} \times \frac{40}{365}\right]$ | 36,986 $\left[30 \text{ lacs} \times \frac{30}{365}\right]$ |
| Profit | 27,58,356 | 27,70,685 | 27,78,014 |

It is assumed that interest is 15%. According to above calculation it can be said that alternative II is mere beneficial with compared to other alternatives.



✿