MOCK TEST PAPER – 2

INTERMEDIATE (IPC): GROUP – I

PAPER – 3: COST ACCOUNTING AND FINANCIAL MANAGEMENT

SUGGESTED ANSWERS/HINTS

1 (a) (i) Minimum stock of Pi

Re-order level – (Average consumption × Average time required to obtain delivery)

= 8,000 kg. – (400 units × 5 kg. × 2 weeks) = 4,000 kg.

(ii) Maximum stock of Qu

Re-order level – (Min. Consumption × Min. delivery period) + Re-order quantity

= 4,750 kg. – (350 units × 2 kg. × 3 weeks) + 5,000 kg.

= 9,750 - 2,100 = 7,650 kg.

(iii) Re-order level of Ar

Maximum delivery period × Maximum Usage

= 4 weeks × (450 units × 3 kg.) = 5,400 kg.

OR

= Minimum stock of Ar + (Average consumption × Average delivery time)

= 2,000 kg. + [(400 units × 3 kg.) × 3 weeks] = 5,600 kg.

(iv) Average stock level of Pi

= Minimum stock level of Pi + $\frac{1}{2}$ Re-order quantity

= 4,000 kg. + $\frac{1}{2}$ 10,000 kg. = 4,000 + 5,000 = 9,000 kg.

OR

$= \frac{\text{Minimum stock + Maximum stock}}{2}$ (Refer to Working Note)

$= \frac{4,000 + 16,250}{2}$ = 10,125 kg.

Working note

Maximum stock of Pi = ROL + ROQ – (Minimum consumption × Minimum delivery period)

= 8,000 kg. + 10,000 kg. – [(350 units × 5 kg.) × 1 week] = 16,250 kg.

(b) Working Notes:

(i) Total Productive hours = Estimated Working hours – Machine Maintenance hours

= 2,200 hours – 200 hours = 2,000 hours

(ii) Depreciation per annum $= \frac{\text{Rs. 1,00,000 - Rs. 10,000}}{\text{10 years}}$ = Rs. 9,000

(iii) Chemical solution cost per annum = Rs. 200 × 50 weeks = Rs.10,000

(iv) Wages of attendants (per annum) = $\frac{\text{Rs. 1,200 × 50 weeks}}{\text{6 machines}}$ = Rs.10,000

Calculation of Machine hour rate

Particulars	Amount (Rs.) (per annum)	Amount (Rs.) (per hour)
A. Standing Charge		
(i) Wages of attendants	10,000	
(ii) Departmental and general works overheads	20,000	
Total Standing Charge	30,000	
Standing Charges per hour $\left(\frac{30,000}{2,000}\right)$		15.00
B. Machine Expense		
(iii) Depreciation	9,000	4.50
(iv) Electricity $\left(\frac{\text{Rs. 0.9×16 units × 1,900 hours}}{\text{2,000 hours}}\right)$	-	13.68
(v) Chemical solution	10,000	5.00
(vi) Maintenance cost	12,000	6.00
Machine operating cost per hour (A + B)		**44.18**

(c) Computation of Rate of Interest and Revised Maturity Value

Principal = Rs. 20,000

Amount = Rs. 23,880

20,000 = $\frac{Rs.\ 23,880}{(1+i)^6}$

P_n = A × $(PVF_{n,\ i})$

Rs. 20,000 = 23,880 $(PVF_{6,\ i})$

0.8375 = $(PVF_{6,\ i})$

According to the Table on Present Value Factor $(PVF_{6,\ i})$ of a lump sum of Re. 1, a PVF of 0.8375 for half year at interest (i) = 3 percent. Therefore, the annual interest rate is 2 × 0.03 = 6 percent.

I = 3% for half year

I = 6% for full year.

Therefore, Rate of Interest = 6% per annum

Revised Maturity Value $= 20,000\left(1 + \frac{6}{100} \times \frac{1}{4}\right)^{3\times 4}$

$= 20,000\left(1 + \frac{3}{200}\right)^{12} = 20,000\ (1.015)^{12}$

$= 20,000 \times 1.1956$

Revised Maturity Value = Rs. 23,912

(d) Company X

$$\text{Return on Capital Employed} = \frac{\text{Net Profit}}{\text{Capital Employed}}$$

Capital Employed in this case is equal to Total Assets.

$$\text{Net Profit} = \frac{3,25,000 \times 4}{100} = \text{Rs. } 13,000$$

$$\text{Total Assets} = \frac{3,25,000}{5} = \text{Rs. } 65,000$$

$$\text{Return on Capital employed} = \frac{13,000 \times 100}{65,000} = 20\%$$

Company Y

$$\text{Sales} = \frac{5,720 \times 100}{25} = \text{Rs. } 22,880$$

$$\text{Net Profit} = \frac{22,880 \times 17}{100} = \text{Rs. } 3,890$$

$$\text{Return on Capital Employed} = \frac{3,890 \times 100}{55,500} = 7\%$$

2. (a) (i) Statement Showing "Flexible Budget for 3,200 units Activity Level"

Particulars	**Amount (Rs.)**	**Amount (Rs.)**
Sales $\left(\frac{\text{Rs. } 12,00,000}{4,000 \text{ units}} \times 3,200 \text{ units}\right)$		9,60,000
Less: Variable Cost		
Direct Material (3,200 units × 3 kg. p.u. × Rs. 30 per kg.)	2,88,000	
Direct Labour (3,200 units × 1 hr. p.u. × Rs. 72 per hr.)	2,30,400	
Variable Overhead (3,200 units × 1 hr. p.u. × Rs. 44 per hr.)	1,40,800	(6,59,200)
Contribution		3,00,800
Less: Fixed Overhead		1,80,000
Profit		1,20,800

(ii) Computation of Variances

Material Usage Variance = Standard Cost of Standard Quantity for Actual Production – Standard Cost of Actual Quantity

= (SQ × SP) – (AQ × SP)

Or

= (SQ – AQ) × SP

= [(3,200 units × 3 kg.) – 10,000 kg.] × Rs. 30.00

= Rs. 12,000(A)

Labour Rate Variance = Standard Cost of Actual Time – Actual Cost

= (SR × AH) – (AR × AH)

Or

= (SR – AR) × AH

$= \left[\left(\text{Rs. } 72 - \frac{\text{Rs. } 2,25,600}{3,100 \text{ hrs.}}\right) \times 3,100 \text{ hrs.}\right]$

= Rs. 2,400 (A)

(b) Working Notes:

Fixed Assets A/c

	(Rs.)		(Rs.)
To Balance b/d	24,00,000	By Sale of Machinery A/c	1,92,000
To Cash Purchases (Bal. figure)	6,42,000	By Balance c/d	28,50,000
	30,42,000		30,42,000

Sale on Machinery A/c

	(Rs.)		(Rs.)
To Fixed Assets (original cost)	1,92,000	By Provision for Depreciation (provided till date)	1,05,000
		By Cash (sales)	75,000
		By Loss (P & L A/c)	12,000
	1,92,000		1,92,000

Provision for Depreciation on Fixed Assets A/c

	(Rs.)		(Rs.)
To Sale of Machinery a/c	1,05,000	By Balance b/d	6,90,000
To Balance c/d	8,70,000	By Profit & Loss A/c	2,85,000
	9,75,000		9,75,000

Statement of Funds generated from Operations

	(Rs.)	(Rs.)
Profit & Loss A/c (Carried forward to B/S)		2,25,000
Add: Fixed Assets (loss on sales)	12,000	
Depreciation	2,85,000	
Premium on redemption of Debentures {(Rs. 6,00,000 - Rs. 4,20,000) × 3/100}	5,400	
Preliminary expenses written off	30,000	
Provision for Income-tax	2,55,000	
Proposed Dividend	1,08,000	
Transfer to General Reserve	90,000	7,85,400
		10,10,400
Less: Profit and Loss A/c Opening Balance	1,80,000	
Increase in Opening Stock value (Rs. 1,62,000 × 10/90)	18,000	1,98,000
Funds generated from operation		**8,12,400**

Funds flow Statement of Trevon Ltd. for the year ended 31-03-2021

	(Rs.)
Sources of Funds:	
Issue of Shares	3,00,000
Sale of Investments	60,000
Sale of Machinery	75,000

Funds generated from operations		8,12,400
	Total	**12,47,400**

Application of Funds:	
Purchase of Fixed Assets	6,42,000
Redemption of Debentures with 3% Premium (Rs. 1,80,000 × 103/100)	1,85,400
Dividend paid for the last year (Rs. 90,000 – Rs. 12,000 unpaid dividend)	78,000
Taxes paid belonging to last year	2,70,000
Increase in Working Capital (balancing figure)	72,000
Total	**12,47,400**

Statement of Changes in Working Capital

Particulars	**2019-20 (Rs.)**	**2020-21 (Rs.)**	**+ (Rs.)**	**- (Rs.)**
Current Assets (including Rs. 18,000 on account of revaluation of stock)	8,58,000	9,90,000	1,32,000	-
Current Liabilities	3,60,000	3,90,000	-	30,000
Net Working capital	4,98,000	6,00,000	-	-
Increase in Working Capital	1,02,000	-	-	1,02,000
	6,00,000	6,00,000	1,32,000	1,32,000

3. (a) Costing Profit and Loss Account

Particulars	**Amount (Rs.)**	**Particulars**	**Amount (Rs.)**
To Direct Material consumed	22,40,000	By Sales	48,00,000
To Direct Wages	12,00,000	By Closing Work-in-process	96,000
Prime Cost	34,40,000	By Closing Finished stock $\left(\frac{Rs.41,28,000 - Rs.96,000}{52,000\,units} \times 4,000\right)$	3,10,154
To Factory overheads (20% of prime cost)	6,88,000		
	41,28,000		
To Administrative overheads (Rs.4.80 × 52,000* units)	2,49,600		
To Selling & distribution overheads (Rs.6.40×48,000 units)	3,07,200		
To Net profit (balancing figure)	5,21,354		
	52,06,154		52,06,154

* Units produced = Units sold + Closing stock - Opening stock
= 48,000 + 4,000 - 0 = 52,000 units

Financial Profit and Loss Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Direct Material consumed	20,00,000	By Sales	48,00,000
To Direct Wages	12,00,000	By Dividend received	40,000
To Factory overheads	6,40,000	By Interest on fixed deposit	8,000
To Administrative overheads	2,80,000	By Closing Work-in-process	96,000
To Selling & distribution overheads	3,84,000	By Closing Finished stock	3,20,000
To Bad debts	32,000		
To Preliminary expenses	16,000		
To Legal charges	4,000		
To Net profit (balancing figure)	7,08,000		
	52,64,000		52,64,000

Reconciliation Statement

	Particulars	Amount (Rs.)	Amount (Rs.)
	Net profit as per Financial Profit & Loss A/c		7,08,000
Add:	Administrative overheads (2,80,000 - 2,49,600)	30,400	
	Selling & Distribution overheads (3,84,000 - 3,07,200)	76,800	
	Bad debts	32,000	
	Preliminary expenses	16,000	
	Legal charges	4,000	1,59,200
			8,67,200
Less:	Difference in value of materials consumed (22,40,000 - 20,00,000)	2,40,000	
	Factory overheads (6,88,000 - 6,40,000)	48,000	
	Dividend received	40,000	
	Interest on fixed deposit	8,000	
	Closing stock (3,20,000 - 3,10,154)	9,846	(3,45,846)
	Profit as per Costing Profit & Loss A/c		5,21,354

(b) (i) Calculation of Net Initial Cash Outflow:

	(Rs.)	(Rs.)
Cost of new machine		5,25,000
Less: Sale proceeds of existing machine	90,000	
Savings of tax on loss on sale of existing machine {Rs. 1,87,500 - Rs. 90,000) x 0.3}	29,250	1,19,250
Net initial cash outflow		**4,05,750**

(ii) Calculation of annual depreciation:

On existing machine = $\frac{\text{Rs.}3,75,000}{10 \text{ years}} = \text{Rs.}37,500$ p.a.

On new machine $= \frac{\text{Rs.5,25,000-Rs.60,000}}{\text{5 years}} = \text{Rs.93,000 p.a.}$

(iii) Calculation of annual cash inflows from operations

Particulars	Years	
	1-4 (Rs.)	5 (Rs.)
Savings in Variable Cost	2,40,000	2,40,000
Less: Savings in Depreciation (Rs. 93,000 - Rs. 37,500)	55,500	0*
Savings before tax	1,84,500	2,40,000
Less: Tax @ 30%	55,350	72,000
Savings after Tax	1,29,150	1,68,000
Add: Savings in Depreciation	55,500	0
Incremental Cash Inflows	1,84,650	1,68,000

* No depreciation to be charged in the year of sale of machine.

(iv) Calculation of Net Present Value

Particulars	Period (Year)	Cash Flow (Rs.)	P/V Factor @ 11%	Present Value (Rs.)
Net Initial Cash Outflow	0	(4,05,750)	1.00	(4,05,750)
Incremental Cash Inflow	1 – 4	1,84,650	3.103	5,72,969
Incremental Cash Inflow	5	1,68,000	0.593	99,624
Salvage value of new machine	5	60,000	0.593	35,580
Tax saving on Loss on sale of new machine	5	27,900 {(Rs.1,53,000**-Rs.60,000) x 0.3}	0.593	16,545
Net Present Value (NPV)				**3,18,968**

** **WDV of new machine at the end of Year 5**

Cost of New Machine	Rs. 5,25,000
Less: Depreciation charged for 4 years (Rs. 93,000 x 4)	Rs. 3,72,000
	Rs. 1,53,000

Comment: It is advisable to replace the existing machine since NPV is positive.

4. (a) (i) Calculation of Absolute Ton-km for the next month:

Journey	Distance (in km)	Weight-Up (in MT)	Ton-km	Weight-Down (in MT)	Ton-km	Total
	(a)	(b)	(c)=(a)×(b)	(d)	(e) =(a)×(d)	(f) = (c) + (e)
Delhi to Kochi	2,700	15	40,500	7	18,900	59,400
Delhi to Guwahati	1,890	13	24,570	0	0	24,570

Delhi to Vijayawada	1,840	16	29,440	0	0	29,440
Delhi to Varanasi	815	11	8,965	0	0	8,965
Delhi to Asansol	1,280	13	16,640	5	6,400	23,040
Delhi to Chennai	2,185	11	24,035	9	19,665	43,700
Total	10,710	79	1,44,150	21	44,965	1,89,115

Total absolute Ton-Km = 1,89,115 ton-km

(ii) Calculation of cost per ton-km:

Particulars	Amount (Rs.)	Amount (Rs.)
A. Running cost:		
- Diesel Cost {Rs.15 × (10,710 × 2)}	3,21,300	
- Engine oil cost $\left(\frac{Rs.4,200}{14,000km} \times 21,420km\right)$	6,426	
- Cost of loading of goods {Rs.200 × (79+21)}	20,000	
- Depreciation $\left(\frac{\text{Rs.}20,00,000}{7,20,000\,\text{km}} \times 21,420\,\text{km}\right)$	59,500	4,07,226
B. Repairs & Maintenance Cost $\left(\frac{\text{Rs.}12,000}{10,000\,\text{km}} \times 21,420\,\text{km}\right)$		25,704
C. Standing Charges		
- Drivers' salary (Rs.20,000 × 5 trucks)	1,00,000	
- Cleaners' salary (Rs.7,000 × 5 trucks)	35,000	
- Supervision and other general expenses	15,000	1,50,000
Total Cost (A + B + C)		5,82,930
Total absolute ton-km		1,89,115
Cost per ton-km		3.08

(b) Working Notes:

1.	Computation of Depreciation		Rs.
	Sales		12,00,000
	Less: Gross profit margin at 20%		2,40,000
	Total Manufacturing cost		9,60,000
	Less: Materials consumed	3,00,000	
	Wages	2,40,000	5,40,000
	Manufacturing expenses		4,20,000
	Less: Cash manufacturing expenses		3,00,000
	Depreciation		1,20,000

2.	Computation of total cash costs		Rs.
	Manufacturing costs		9,60,000
	Less: Depreciation		1,20,000
	Cash Manufacturing costs		8,40,000

	Add: Administrative expenses	75,000	
	Selling expenses	37,500	1,12,500
	Total cash costs		9,52,500

Statement showing the Requirements of Working Capital of Kady Ltd.

(Cash Cost basis)

Particulars		**Rs.**
A. Current Assets		
(i) Debtors (on total cash costs) $\left(\frac{\text{Rs.}9,52,500}{12\text{months}} \times 2\text{months}\right)$		1,58,750
(ii) Inventories:		
Materials $\left(\frac{\text{Rs.}3,00,000}{12\text{months}} \times 1\text{ month}\right)$	25,000	
Finished goods (on cash manufacturing costs) $\left(\frac{\text{Rs. }8,40,000}{12\text{months}} \times 1\text{ month}\right)$	70,000	95,000
(iii) Prepaid Selling expenses $\left(\frac{\text{Rs. }37,500}{4}\right)$		9,375
(iv) Cash in hand		40,000
Total Current Assets		3,03,125
B. Current liabilities		
(i) Creditors $\left(\frac{\text{Rs. }3,00,000}{12\text{months}} \times 2\text{ months}\right)$		50,000
(ii) Outstanding wages $\left(\frac{\text{Rs. }2,40,000}{12\text{months}} \times 1\text{ month}\right)$		20,000
(iii) Outstanding manufacturing expenses $\left(\frac{\text{Rs. }3,00,000}{12\text{months}} \times 1\text{ month}\right)$		25,000
(iv) Outstanding administrative expenses $\left(\frac{\text{Rs. }75,000}{12\text{months}} \times 1\text{ month}\right)$		6,250
Total Current liabilities		1,01,250
Net working capital **(A-B)**		2,01,875
Add: Safety margin 15%		30,281
Total Working Capital Required		2,32,156

5. (a) Effect of overtime payment on productivity: Overtime work should be resorted to only when it is extremely essential because it involves extra cost. The overtime payment increases the cost of production in the following ways:

(i) The overtime premium paid is an extra payment in addition to the normal rate.

(ii) The efficiency of operators during overtime work may fall and thus output may be less than normal output.

(iii) In order to earn more the workers may not concentrate on work during normal time and thus the output during normal hours may also fall.

(iv) Reduced output and increased premium of overtime will bring about an increase in cost of production.

(b) Practical applications of Marginal costing:

(i) Pricing Policy: Since marginal cost per unit is constant from period to period, firm decisions on pricing policy can be taken particularly in short term.

(ii) Decision Making: Marginal costing helps the management in taking a number of business decisions like make or buy, discontinuance of a particular product, replacement of machines, etc.

(iii) Ascertaining Realistic Profit: Under the marginal costing technique, the stock of finished goods and work-in-progress are carried on marginal cost basis and the fixed expenses are written off to profit and loss account as period cost. This shows the true profit of the period.

(iv) Determination of production level: Marginal costing helps in the preparation of break-even analysis which shows the effect of increasing or decreasing production activity on the profitability of the company.

(c) The venture capital financing refers to financing and funding of the small scale enterprises, high technology and risky ventures. Some **common methods of venture capital financing are as follows**:

(i) Equity financing: The venture capital undertakings generally requires funds for a longer period but may not be able to provide returns to the investors during the initial stages. Therefore, the venture capital finance is generally provided by way of equity share capital. The equity contribution of venture capital firm does not exceed 49% of the total equity capital of venture capital undertakings so that the effective control and ownership remains with the entrepreneur.

(ii) Conditional Loan: A conditional loan is repayable in the form of a royalty after the venture is able to generate sales. No interest is paid on such loans. In India Venture Capital Financers charge royalty ranging between 2 to 15 per cent; actual rate depends on other factors of the venture such as gestation period, cash flow patterns, riskiness and other factors of the enterprise. Some Venture Capital financers give a choice to the enterprise of paying a high rate of interest (which could be well above 20 per cent) instead of royalty on sales once it becomes commercially sound.

(iii) Income Note: It is a hybrid security which combines the features of both conventional loan and conditional loan. The entrepreneur has to pay both interest and royalty on sales but at substantially low rates. IDBI's Venture Capital Fund provides funding equal to 80-87.5% of the project's cost for commercial application of indigenous technology or adopting imported technology to domestic applications.

(iv) Participating Debenture: Such security carries charges in three phases- in the start- up phase, no interest is charged, next stage a low rate of interest is charged upto a particular level of operations, after that, a high rate of interest is required to be paid.

(d) Responsibilities of Chief Financial Officer (CFO): The chief financial officer of an organisation plays an important role in the company's goals, policies, and financial success. His main responsibilities include:

(i) Financial analysis and planning: Determining the proper amount of funds to be employed in the firm.

(ii) Investment decisions: Efficient allocation of funds to specific assets.

(iii) Financial and capital structure decisions: Raising of funds on favourable terms as possible, i.e., determining the composition of liabilities.

(iv) Management of financial resources (such as working capital).

(v) Risk Management: Protecting assets.

6. (a) Statement Showing Profit on Sale of 90,000 units

	(Rs.)	(Rs.)
Selling Price per unit		80
Less: Variable Cost per unit		
Material	32	
Conversion Cost	24	
Dealers' Margin	8	64
Contribution per unit		16
Total Contribution (90,000 units × Rs. 16)		14,40,000
Less: Fixed Cost		10,00,000
Profit		4,40,000

In both the proposed suggestions, the fixed costs remain unchanged. Therefore, the present profit of Rs. 4,40,000 can be maintained by maintaining the total contribution at the present level i.e. Rs. 14,40,000.

(i) Reducing Selling Price by 5 %.

New Selling Price (Rs. 80 − 5% of Rs. 80) = Rs. 76

New Dealer's Margin (10% of Rs. 76) = Rs. 7.60

New Variable Cost (Rs. 32 + Rs. 24 + Rs. 7.60) = Rs. 63.60

New Contribution per unit (Rs. 76 − Rs. 63.60) = Rs. 12.40

Level of Sales required for present level of Profits $= \frac{\text{Total Contribution Required}}{\text{New Contribution per unit}}$

$= \frac{\text{Rs. } 14,40,000}{\text{Rs. } 12.40}$

= 1,16,129 units

(ii) Increasing Dealer's Margin by 20%.

New Dealer's Margin after increasing it by 20% = Rs. 8 + (20% of Rs. 8)

= Rs. 9.60

New Variable Cost (Rs. 32 + Rs. 24 + Rs. 9.60) = Rs. 65.60

Contribution (Rs. 80 − Rs. 65.60) = Rs. 14.40

Level of sales required for present level of Profits $= \frac{\text{Total Contribution Required}}{\text{New Contribution per unit}}$

$= \frac{\text{Rs. } 14,40,000}{\text{Rs. } 14.40}$

= 1,00,000 units

Conclusion:

The second proposal, *i.e.,* increasing the Dealer's Margin, is recommended because:

1. The contribution *per unit* is higher which is Rs. 14.40 in comparison to Rs. 12.40 in the first proposal; and
2. The sales (in units) required to earn the same level of profit are lower. They are at 1,00,000 units as against 1,16,129 units in the first proposal. This means a lower sales effort and less finance would be required for implementing proposal (ii) as against proposal (i). Of course, under proposal (ii) the company can earn higher profits than at present level if it can increase its sales beyond 1,00,000 units.

(b) (i) Net Sales = Rs. 45 crores

EBIT = Net sales x 12%

= Rs. 45 crores x 12% = Rs. 5.4 crores

$$\text{ROI (calculated on Capital Employed)} = \frac{\text{EBIT}}{\text{Capital Employed}}$$

$$= \frac{5.4}{15+3+9} \times 100 = 20\%$$

Particulars	Rs. in crores
EBIT	5.40
Less: Interest on Debt (Rs. 9 crores x 15%)	1.35
EBT	4.05
Less: Tax @ 25%	1.01
EAT	3.04
Less: Preference dividend (Rs. 3 crores x 13%)	0.39
Earnings available for Equity Shareholders	2.65
Return on equity = $\frac{\text{Rs. 2.65 crores}}{\text{Rs. 15 crores}}$ x 100 = 17.67%	

Segments due to the presence of Preference Share capital and Borrowing (Debentures)

Segment of ROE due to preference capital:

= [0.20 (1- 0.25) - 0.13] x 0.3 = 0.006

Segment of ROE due to Debentures:

= [0.20 (1 - 0.25) - 0.15 (1 - 0.25)] x 0.9 = 0.038

or 0.6% + 3.8% = 4.4%

Weighted Average Cost of Capital

Source	Amount (Rs.)	Weight	Cost (%)	WACC (%)
Equity	15	0.56	17.67	9.90
Preference shares	3	0.11	13.00	1.43
Debt	9	0.33	11.25	3.71
	27	1.00		**15.04**

(ii) Financial Leverage $= \frac{\text{EBIT}}{\text{EBIT - Interest - Preference dividend}}$

$= \frac{5.4}{5.4 - 1.35 - 0.39} = 1.475$

Combined Leverage = DFL x DOL

4.5 = 1.475 x DOL

$\therefore$ DOL $= \frac{4.5}{1.475}$

Operating Leverage = 3.05

7. (a) Apportionment of Joint Cost amongst Joint Products using:

Market value at the point of separation: This method is used for apportionment of joint costs to joint products up-to the split off point. It is difficult to apply if the market value of the product at the point of separation is not available. It is useful method where further processing costs are incurred disproportionately.

Net realizable value Method: From the sales value of joint products (at finished stage) the followings are deducted:

– Estimated profit margins

– Selling & distribution expenses, if any

– Post split off costs.

The resultant figure so obtained is known as net realizable value of joint products. Joint costs are apportioned in the ratio of net realizable value.

(b)

S. No.	Industry	Method of Costing	Suggestive Unit of Cost
(i)	Interior Decoration	Job Costing	Assignment
(ii)	Furniture	Job Costing	Number
(iii)	Brick Works	Single Costing	1000 units/ units
(iv)	Sugar company having its own sugarcane field	Process Costing	Tonne

(c) Over-capitalization and its Causes and Consequences

It is a situation where a firm has more capital than it needs or in other words assets are worth less than its issued share capital, and earnings are insufficient to pay dividend and interest.

Causes of Over Capitalization

Over-capitalisation arises due to following reasons:

(i) Raising more money through issue of shares or debentures than company can employ profitably.

(ii) Borrowing huge amount at higher rate than rate at which company can earn.

(iii) Excessive payment for the acquisition of fictitious assets such as goodwill etc.

(iv) Improper provision for depreciation, replacement of assets and distribution of dividends at a higher rate.

(v) Wrong estimation of earnings and capitalization.

Consequences of Over-Capitalisation

Over-capitalisation results in the following consequences:

(i) Considerable reduction in the rate of dividend and interest payments.

(ii) Reduction in the market price of shares.

(iii) Resorting to "window dressing".

(iv) Some companies may opt for reorganization. However, sometimes the matter gets worse and the company may go into liquidation.

(d) Advantages of Payback Period:

1. It is easy to compute.
2. It is easy to understand as it provides a quick estimate of the time needed for the organization to recoup the cash invested.
3. The length of the payback period can also serve as an estimate of a project's risk; the longer the payback period, the riskier the project as long-term predictions are less reliable. In some industries with high obsolescence risk like software industry or in situations where an organization is short on cash, short payback periods often become the determining factor for investments.

Limitations of Payback Period:

1. It ignores the time value of money. As long as the payback periods for two projects are the same, the payback period technique considers them equal as investments, even if one project generates most of its net cash inflows in the early years of the project while the other project generates most of its net cash inflows in the latter years of the payback period.
2. A second limitation of this technique is its failure to consider an investment's total profitability; it only considers cash flows from the initiation of the project until its payback period and ignores cash flows after the payback period.
3. Lastly, use of the payback period technique may cause organizations to place too much emphasis on short payback periods thereby ignoring the need to invest in long-term projects that would enhance its competitive position.

(e) (i)

Sl No.	True / Not True	Reason
(i)	Not true	Safety stock is held for meeting the unpredictable fluctuation in the demand and supply. It varies with the fluctuations in demand and not with level of demand.
(ii)	True	If the batch size is large, number of orders in a year will be lower. Hence stock moves to lowest point (re-order level) fewer times a year. Hence danger of stock out will be less. Thus, to protect against stock out, a large batch size is a must.

(ii) The finance function is most important for all business enterprises. It remains a focus of all activities. It starts with the setting up of an enterprise. It is concerned with raising of funds, deciding the cheapest source of finance, utilization of funds raised, making provision for refund when money is not required in the business, deciding the most profitable investment, managing the funds raised and paying returns to the providers of funds in proportion to the risks undertaken by them. Therefore, it aims at acquiring sufficient funds, utilizing them properly, increasing the profitability of the organization and maximizing the value of the organization and ultimately the shareholder's wealth.