J.K. SHAH TEST SERIES

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SUGGESTED SOLUTION

INTERMEDIATE M'19 EXAM

SUBJECT- F.M.

Test Code – CIM 8069

(Date :09.09.2018)

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ANSWER-1

Statement of Working Capital Requirement for PQ Ltd

		Rs.	Rs.
A.	**Current Assets**		
(i)	Inventories :		
	Material (1 Month) $\left(\frac{\text{Rs.}45,00,000}{12 \text{ months}} \text{ x } 1 \text{ month}\right)$	3,75,000	
	Finished goods (1 Month) $\left(\frac{\text{Rs.}1,35,00,000}{12 \text{ months}} \text{ x } 1 \text{ month}\right)$	11,25,000	15,00,000
(ii)	Receivables (Debtors)		
	For Domestic Sales $\left(\frac{\text{Rs.}90,00,000}{12 \text{ months}} \text{ x } 1 \text{ month}\right)$	7,50,000	
	For Export Sales $\left(\frac{\text{Rs.}45,00,000}{12 \text{ months}} \text{ x } 3 \text{ months}\right)$	11,25,000	18,75,000
(iii)	Cash in hand and at bank (Rs.10,00,000 – Rs.5,00,000)		5,00,000
	Total Current Assets		38,75,000
B.	**Current Liabilities :**		
(i)	Payables (Creditors) for materials (2 months) $\left(\frac{\text{Rs.}45,00,000}{12 \text{ months}} \text{ x } 2 \text{ months}\right)$		7,50,000
(ii)	Outstanding wages (0.5 months) $\left(\frac{\text{Rs.}36,00,000}{12 \text{ months}} \text{ x } 0.5 \text{ month}\right)$		1,50,000
(iii)	Outstanding manufacturing expenses $\left(\frac{\text{Rs.}54,00,000}{12 \text{ months}} \text{ x } 1 \text{ month}\right)$		4,50,000
(iv)	Outstanding administrative expenses $\left(\frac{\text{Rs.}12,00,000}{12 \text{ months}} \text{ x } 1 \text{ month}\right)$		1,00,000
(v)	Income tax payable (Rs.15,00,000 ÷ 4)		3,75,000
	Total Current Liabilities		18,25,000
	Net Working Capital (A-B)		20,50,000
	Add : 15% contingency margin		3,07,500
	Total Working Capital required		23,57,500

(6 MARKS)

Working Note: **(2*2=4 MARKS)**

1. Calculation of Cost of Goods Sold and Cost of Sales

	Domestic (Rs.)	Export (Rs.)	Total (Rs.)
Sales	1,20,00,000	54,00,000	1,74,00,000
Less: Gross profit @ 25% on domestic sales and 16.67% on export sales (Working note-2)	(30,00,000)	(9,00,000)	(39,00,000)
Cost of Goods Sold/ Cash Cost of Sales	90,00,000	45,00,000	1,35,00,000

2. Calculation of gross profit on Export Sales:

Let domestic selling price is Rs.100. Gross profit is Rs.25, and then cost per unit is Rs.75

Export price is 10% less than the domestic price i.e. Rs.100 – (1- 0.1) = Rs.90

Now gross profit will be Rs.90 - Rs.75 = Rs.15

Therefore, Gross profit at domestic price will be $\frac{\text{Rs.}15}{\text{Rs.}100} \text{ x } 100 = 15\%$

Or, gross profit at export price will be $\frac{\text{Rs.}15}{\text{Rs.}90} \text{ x } 100 = 16.67\%$

Assumptions

(i) It is assumed that administrative expenses relating to production activities.

(ii) Value of opening and closing stocks are equal.

(iii) Receivables are calculated based on cost of goods sold

ANSWER-2

PROFORMA BALANCE SHEET AS AT 31ST DECEMBER, 2010

(Figure in Rs. Lacs)

Liabilities	Amount	Assets	Amount
Share Capital	5.00	Fixed Assets	6.00
Reserve and Surplus	2.50	Stock	2.00
Term Loan (Balance Figure)	1.50	Debtors	2.50
Current Liabilities	2.00	Bank	0.50
	11.00		**11.00**

(2 MARKS)

Working Notes: **(8*1=8 MARKS)**

(a) Current Assets - Current Liabilities = Working Capital

i.e. 2.5 – 1.0	Rs.3,00,000
i.e. 1.5	Rs.3,00,000
i.e. 1	Rs.2,00,000
i.e. 2.	Rs.5,00,000
i.e. Current Assets	Rs.5,00,000
i.e. Current Liabilities	Rs.2,00,000

(b) Debtors and Bank

Liquid Ratio = $\frac{\text{Debtors \& Bank}}{\text{Current Liabilities}} = 1.5$

Therefore, Debtors and Bank = Rs.3,00,000

(c) Stock = Current Assets - Debtor and Bank

i.e., Rs. 5,00,000 - Rs. 3,00,000 = Rs. 2,00,000

(d) Stock Turnover ratio is 6 Ie., Cost of Sales = 6 X stock

Therefore, Cost of sales = 6 X Rs. 2,00,000

= Rs. 12,00,000

(e) Gross Profit Ratio is 20%, therefore, Cost of Goods Sold (Rs. 12,00,000) is 80% of Sales. The Sales of the firm is therefore, Rs. 15,00,000 with a Net Profit is 3,00,000.

(f) The debt collection period is 2 months. So, the debtors are 1 /6 of sales and are therefore, Rs. 2,50,000.

(g) The Bank balance is Rs. 3,00,000-Rs. 2,50,000 (i.e.. debtors) = Rs. 50,000.

(h) The Fixed Assets turnover is 2 and the Cost of Sales is Rs. 12,00,000. Therefore, the Fixed Assets are Rs. 6,00,000.

ANSWER-3

ANSWER-A

Computation of Degree of Operating Leverage (DOL), Degree of Financial Leverage (DFL) and Degree of Combined Leverage (DCL)

	Firm N	**Firm S**	**Firm D**
Output (Units)	17,500	6,700	31,800
Selling Price/Unit	85	130	37
Sales Revenue (A)	14,87,500	8,71,000	11,76,600
Variable Cost/Unit	38.00	42.50	12.00
Less: Variable Cost (B)	6,65,000	2,84,750	3,81,600
Contribution (A-B)	8,22,500	5,86,250	7,95,000
Less: Fixed Cost	4,00,000	3,50,000	2,50,000
EBIT	4,22,500	2,36,250	5,45,000
Less: Interest on Loan	1,25,000	75,000	-
PBT	2,97,500	1,61,250	5,45,000
DOL = $\frac{\text{C}}{\text{EBIT}}$	$\frac{8,22,500}{4,22,500}=1.95$	$\frac{5,86,250}{2,36,250}=2.48$	$\frac{7,95,000}{5,45,000}=1.46$
EFL = $\frac{\text{EBIT}}{\text{PBT}}$	$\frac{4,22,500}{2,95,500}=1.42$	$\frac{2,36,250}{1,61,250}=1.47$	$\frac{5,45,000}{5,45,000}=1.00$
DCL = OL x FL	1.95 x 1.42	2.48 x 1.47	1.46 x 1
OR	= 2.77	= 3.65	= 1.46
DCL = $\frac{\text{Contribution}}{PBT}$	$\frac{8,22,500}{2,97,500}=2.76$	$\frac{5,86,250}{1,61,250}=3.64$	$\frac{7,95,000}{5,45,000}=1.46$

(5 MARKS)

ANSWER-B

(Rs. in lacs)

	Existing	**Proposed**
Earnings before Interest and Tax	15.00	18.00
Less : Interest		
Term Loan (15%)	7.50	7.50
Bank Borrowing (20%)	6.60	11.60
Public Deposit (14%)	2.10	2.10
Total Interest	16.20	21.20
Loss after Interest	(1.20)	(3.20)
	Rs.15 lacs	Rs.18 lacs
Interest Coverage Ratio	Rs.16.20 lacs = 0.925	Rs.21.20 lacs = 0.849

So, it appears that the Interest Coverage ratio will fall and hence revised proposal is not desirable.

(5 MARKS)

ANSWER-4

Computation of Operating and Financial Leverage

Actual Production and Sales: 60% of 10,000 = 6,000 units

Contribution per unit: Rs. 30 – Rs. 20 = Rs. 10

Total Contribution: 6,000 · Rs. 10 = Rs. 60,000

Financial Plan Situation	**XY**		**XM**	
	A	**B**	**A**	**B**
	Rs.	**Rs.**	**Rs.**	**Rs.**
Contribution (C)	60,000	60,000	60,000	60,000
Less: Fixed Cost	20,000	25,000	20,000	25,000
Operating Profit or EBIT	40,000	35,000	40,000	35,000
Less: Interest	4,800	4,800	1,200	1,200
Earnings before tax (EBT)	35,200	30,200	38,800	33,800
Operating Leverage = $\frac{C}{EBIT}$	60,000	60,000	60,000	60,000

Financial Leverage = $\frac{\text{EBIT}}{EBT}$	40,000 =1.5 40,000 35,200 = 1.14	35,000 =1.71 35,000 30,200 = 1.16	40,000 =1.5 40,000 38,800 = 1.03	35,000 =1.71 35,000 33,800 = 1.04

(10 MARKS)

ANSWER-5

Working Notes: **(12*0.5 = 6 MARKS)**

(i) Cost of Goods Sold = Sales – Gross Profit (= 25% of Sales)

= Rs. 30,00,000 – Rs. 7,50,000

= Rs. 22,50,000

(ii) Closing Stock = Cost of Goods Sold / Stock Turnover

= Rs. 22,50,000/6 = Rs. 3,75,000

(iii) Fixed Assets = Cost of Goods Sold / Fixed Assets Turnover

= Rs. 22,50,000/1.5

= Rs. 15,00,000

(iv) Current Assets : Current Ratio = 1.5 and Liquid Ratio = 1

Stock = 1.5 – 1 = 0.5

Current Assets = Amount of Stock x 1.5/0.5

= Rs. 3,75,000 x 1.5/0.5 = Rs. 11,25,000

(v) Liquid Assets (Debtors and Cash) = Current Assets – Stock

= Rs. 11,25,000 – Rs. 3,75,000

= Rs. 7,50,000

(vi) Debtors = Sales x Debtors Collection period /12

= Rs. 30,00,000 x 2 /12

= Rs. 5,00,000

(vii) Cash = Liquid Assets – Debtors

= Rs. 7,50,000 – Rs. 5,00,000 = Rs. 2,50,000

(viii) Net worth = Fixed Assets /1.2

= Rs. 15,00,000/1.2 = Rs. 12,50,000

(ix) Reserves and Surplus

Reserves and Share Capital = 0.6 + 1 = 1.6

Reserves and Surplus = Rs. 12,50,000 x 0.6/1.6

= Rs. 4,68,750

(x) Share Capital = Net worth – Reserves and Surplus

= Rs. 12,50,000 – Rs. 4,68,750

= Rs. 7,81,250

(xi) Current Liabilities = Current Assets/ Current Ratio

= Rs. 11,25,000/1.5 = Rs. 7,50,000

(xii) Long-term Debts

Capital Gearing Ratio = Long-term Debts / Equity Shareholders' Fund

Long-term Debts = Rs. 12,50,000 x 0.5 = Rs. 6,25,000

(a) Preparation of Balance Sheet of a Company

Balance Sheet

Liabilities	**Amount (Rs.)**	**Assets**	**Amount (Rs.)**
Equity Share Capital	7,81,250	Fixed Assets	15,00,000
Reserves and Surplus	4,68,750	Current Assets	
Long-term Debts	6,25,000	Stock	3,75,000
Current Liabilities	7,50,000	Debtors	5,00,000
		Cash	2,50,000
	26,25,000		**26,25,000**

(2 MARKS)

(b) Statement Showing Working Capital Requirement

		Rs.
A.	**Current Assets**	
	(i) Stocks	3,75,000
	(ii) Receivables (Debtors) (Rs.5,00,000 ÷ 1.25)	4,00,000
	(iii) Cash in hand and at bank	2,50,000
	Total Current Assets	10,25,000
B.	**Current Liabilities**	
	Total Current Liabilities	7,50,000
	Net Working Capital (A-B)	2,75,000
Add.	Provision for contingencies ($1/9^{th}$ of Net Working Capital)	30,556
	Working Capital requirement	3,05,556

(2 MARKS)