J.K. SHAH®
TEST SERIES
Evaluate Learn Succeed

SUGGESTED SOLUTION

CS PROFESSIONAL JUNE '19

SUBJECT- F.M.

Test Code - CSP 3001

BRANCH - () (Date :)

Head Office : Shraddha, 3rd Floor, Near Chinai College, Andheri (E), Mumbai – 69.
Tel : (022) 26836666

Answer : 1

(A)

Balance Sheet

Liabilities		Rs.	Assets		Rs.
Net worth :			Fixed Assets		15,00,000
- Share Capital	7,81,250		Current Assets		
- Reserve & Surplus	4,68,750	12,50,000	- Stock	3,75,000	
Long Term Debts		6,25,000	- Debtors	5,00,000	
Current Liabilities		7,50,000	- Cash & Bank (Bal. fig)	2,50,000	11,25,000
		26,25,000			**26,25,000**

Statement showing working capital requirement :

Current Assets	11,25,000
(-) Current Liabilities	(7,50,000)
Gross Working Capital	3,75,000
(+) Contingency @ 10% of net working capital (3,75,000 × 10/90)	41,667
Net working capital	4,16,667

Calculation of stock :

Sales	30,00,000
(-) Gross Profit 25%	(7,50,000)
Cost of goods sold	22,50,000

Stock turnover ratio = $\frac{Cost\ of\ goods\ sold}{Stock}$

$6 = \frac{22,50,000}{x}$

x = Stock = 3,75,000

Calculation of current assets & current liabilities

Current Ratio = $\frac{Current\ Assets}{Current\ Liabilities}$

$1.5 = \frac{x}{y}$

1.5 y = x

Liquid Ratio = $\frac{Current\ Asset - Stock}{Current\ Liabilities}$

$1 = \frac{1.5\ y - 3,75,000}{y}$

1y = 1.5y – 3,75,000

0.5y = 3,75,000

y = Current Liabilities = 7,50,000

Current Assets = 7,50,000 × 1.5 = 11,25,000

Calculation of debtors :

Debt collection period = $\frac{Debtors}{Credit\ Sales} \times 12$

2 = $\frac{x}{30,00,000} \times 12$

x = Debtors = 5,00,000

Calculation of fixed assets :

Fixed assets to turnover ratio = $\frac{Cost\ of\ goods\ sold}{Fixed\ assets}$

1.5 = $\frac{22,50,000}{x}$

x = Fixed assets = 15,00,000

Calculation of net worth :

Fixed assets to net worth = $\frac{Fixed\ Assets}{Net\ Worth}$

1.20 = $\frac{15,00,000}{x}$

x = Net worth = 12,50,000

Calculation of long term debts :

Capital Gearing Ratio = $\frac{Long\ Term\ Debts}{Shareholders\ Funds}$

0.5 = $\frac{x}{12,50,000}$

x = Long Term Debts = 6,25,000

Calculation of reserve & capital

Reserve to Capital = $\frac{Reserve}{Capital}$

0.6 = $\frac{x}{y}$

0.6 y = x

Capital + Reserve = Net worth

y + x = 12,50,000

y + 0.6y = 12,50,000

1.6y = 12,50,000

y = Capital = 7,81,250

x = Reserve = 7,81,250 × 0.6 = 4,68,750

[15 Marks]

(B) This ratio is calculated as follows :

$$\text{Current ratio} = \frac{Current\ Assets}{Current\ Liabilties\ \&\ Provisions}$$

The ideal Current Ratio is taken as 2 : 1.

This ratio measures the **short – term solvency** of the company.

Current Assets are those assets, which can be converted into cash within a year.

Current Liabilities and provisions are those liabilities that are payable within a year.

Significance : A very high current ratio will have adverse impact on the profitability of the organization. A high current ratio may be due to high level of inventory, inefficiency in collection of debtors, high balances in cash and bank accounts without proper investments. Thus it is correct to say that firm having high current ratio may not necessarily be treated as being favourably placed as regards payment of its current liabilities.

[5 Marks]

Answer : 2

(A) In formulating a firm's working capital policy, an important consideration is the trade – off between profitability and risk. In other words, the level of a firm's Net Working Capital has a bearing on its profitability as well as risk. The term profitability here means profits after expenses. The term risk is defined as the probability that a firm will become technically insolvent so that it will not be able to meet its obligations when they become due for payment.

The risk of becoming technically insolvent is measured using net working capital. It is assumed that the **greater the amount of Net Working Capital, the less risky the firm is, and vice – versa.** The relationship between liquidity, Net Working Capital and risk is such that if either net working capital or liquidity increases, the firm's risk decreases.

What proportion of current assets should be financed by current liabilities and how much by long term sources will depend, apart from liquidity – profitability trade off, on the risk perception of the management. Two broad policy alternatives, in this respect are :

(a) **A conservative current asset financing policy :** It relies **less on short term bank financing and more on long term sources.** No doubt it reduces the risk that the firm will be unable to repay its short term debt periodically, but enhances the cost of financing.

(b) **As aggressive current Asset Financing Policy :** It relies heavily on short term bank finance and seeks to reduce dependence on long term financing. It exposes the firm to a higher degree of risk, but reduces the average cost of financing thereby resulting in higher profits.

[5 Marks]

(B) No. of units = 7,00,000/ 10 = 70,000 units.

Particulars	ABC Ltd.	PQR Ltd.
Sales	7,00,000	7,00,000
(-) Variable Cost	(4,90,000)	(4,90,000)
Contribution	2,10,000	2,10,000
(-) Fixed costs	(1,70,000)	(1,70,000)
EBIT	40,000	40,000
(-) Interest	-	(20,000)
EBT	40,000	20,000
(-) Tax @ 30%	(12,000)	(6,000)
PAT	28,000	14,000
Operating leverage	5.25	5.25
Financial leverage	1.00	2.00
Combined leverage	5.25	10.5

(1) High operating leverage shows higher burden of fixed cost consequently higher business risk. As both companies has similar operating leverage hence both has same business risk.

(2) High financial leverage shows higher burden of interest cost consequently higher financial risk. As PQR Ltd. has higher financial leverage hence it has high financial risk as compared to ABC Ltd.

(3) High combined leverage shows combined effect of higher burden of fixed and interest cost consequently higher business & financial risk. As PQR Ltd. has higher combined leverage hence it has high business risk & financial risk as compared to ABC Ltd.

[5 Marks]

Answer : 3

(A) **Operating leverage is the ratio of net operating income before fixed charges to net operating income after fixed charges.** Operating leverage indicates the tendency of operating profits (EBIT) to vary disproportionately with sales. It is related to fixed cost. If the **fixed costs are high, the operating leverage will also be high.** A high operating leverage indicates high risky situation as it consists of large fixed costs.

Financial leverage is the ratio of the percentage increase in earnings per share (EPS) to the percentage increase in earnings before interest and taxes (EBIT). It indicates the tendency of EBT to vary disproportionately with operating profit (i.e. EBIT). High financial leverage indicates high burden of interest.

Risky Situation : High operating leverage combined with high financial leverage will constitute risky situation.

Normal Situation : One should be high and another should be low i.e. if company has a low operating leverage, financial leverage can be higher and vice versa.

Ideal Situation : Both Should be low.

[5 Marks]

(B) In problem statement of profit & loss is not properly presented as no interest is deducted before deduction of tax. Further, interest cannot said to be included in "Operating expenses" as interest on loan is financial expenses and not operating expenses. Thus, profit before interest and tax is taken Rs. 6,14,000 and accordingly problem is solved.

Particulars	Calculations	Rs.
EBIT		6,14,000
Less : Interest	(15,00,000 × 18%)	(2,70,000)
EBT		3,44,000
Less : Tax @ 40%	(3,44,000 × 40%)	(1,37,600)
Profit After Tax (PAT)		2,06,400
Add : Interest (1 – t)	[2,70,000 (1 – 0.4)]	1,62,000
Net Operating Profit After Tax (NOPAT)		3,68,400
Less : Cost of Capital	(See Working note)	(5,24,200)
Economic Value Added		(1,55,800)

Working Note:

Equity share capital	(10,00,000 × 20%)	2,00,000
Long term debt	(15,00,000 × 20%)	3,00,000
Bank overdrafts	(1,21,000 × 20%)	24,200
		5,24,200

[5 Marks]

Answer : 4

(A) In the company, dividend policy is determined by the Board of directors having taken into consideration a number of factors which include legal restrictions imposed by the Government to safeguard the interests of various parties or the constituents of the company.

The main consideration are as follows :

(1) **Legal :** As regards cash dividend policy several legal constraints bear upon it – a firm may not pay a dividend which will impair capital. **Dividend must be paid out of firm's earnings.** Contract for bonds or loans may restrict dividend payments. The purpose of legal restriction is to **ensure that the payment of dividend may not cause insolvency.**

(2) **Financial :** There are financial constraints to Dividend Policy. A firm can pay dividend only to the extent that it has cash to disburse. **A firm can't pay dividend when it does not have adequate liquidity.**

(3) **Economic constraints :** Besides, there are economic constraints also. The question arise, **does the value of dividend affects the value of the firm.** If the answer to it is yes then there must be some optimum level of dividend, which maximizes the market price of the firm's stock.

(4) **Nature of business :** A company having regular earnings may like to have a **stable and consistent dividend policy.**

(5) **Existence of the company :** The length of existence of the company affects dividend policy. With their long standing experience, the company may have a better dividend policy than the new companies.

(6) **Type of Company :** The type of company whether a private Limited company or a public limited company affects dividend decisions. In a closely held company, a view may be taken for acquiescence and conservative policy may be followed but for a public limited company with wide spread of shareholder, a more progressive and promising dividend policy will be the better decision.

(7) **Financial needs :** Needs of the Company for additional capital affects the dividend policy. The extent to which the profits are required to be invested in the company for business growth is the main consideration in dividend decisions. Working capital position of a company is an important condition that affects the dividend policy as no company would declare a dividend to undermine its financial strength and threaten its solvency.

(8) **Market conditions :** Business cycles, boom and depression, affects dividend decisions. In a depressed market, higher dividend creates better image of the company. During the boom the company may like to save more, create reserves for growth and expansion or meeting its working capital requirements.

(9) **Financial arrangement :** In case of financial arrangements being entered into or being planned like merger or amalgamation with another company, liberal policy of dividend distribution is followed to make the share stock more attractive.

(10) **Change in Government policies :** Changes in Government Policies particularly those **affecting earnings of the company are also taken into consideration in settling dividend decisions.** For example, higher rate of taxation will definitely affect company earnings and carry impact on dividend decisions. Besides, fiscal, industrial, labour, industrial policies do affect in different magnitude the dividend decisions of individual corporate enterprises.

[5 Marks]

(B) Calculation of price of share under MM Model :

$$P_0 = \frac{D_1 + P_1}{1 + K_e}$$

(a) If dividend is not declared :

$$150 = \frac{0 + P_1}{1+0.12}$$

P_1 = .168

(b) If dividend is declared :

$$150 = \frac{8 + P_1}{1+0.12}$$

$168 = 8 + P_1$

P_1 = .160

Calculation of number of shares to be issued :

Particulars	If dividend is not declared	If dividend is declared
Net Income	2,00,00,000	2,00,00,000
(-) Dividend	-	(80,00,000)
Retained earnings	2,00,00,000	1,20,00,000
New investment	4,00,00,000	4,00,00,000
Amount to be raised by issued of new shares	2,00,00,000	2,80,00,000
Market price per share	168	160

Number of shares to be issued	1,19,047.62	1,75,000

Verification of MM Model :

Particulars	**If dividend is not declared**	**If dividend is declared**
Existing shares	10,00,000	10,00,000
New shares to be issued	1,19,047.62	1,75,000
Total Number of shares	11,19,047.62	11,75,000
Market price per share	168	160
Total Market value at the end of year	18,80,00,000	18,80,00,000

[5 Marks]