

# Solved Scanner Appendix

**CA Final Gr. I**  
(Solution of November - 2014)

## Paper - 2 Strategic Financial Management

### Chapter - 2 : Project Planning and Capital Budgeting

2014 - Nov [2] (b)

$$\text{Weight for equity} = 0.2$$

$$\text{Weight for debt} = \frac{0.8}{1}$$

While correct weight is 77% of equity and 23% of debt i.e.

$$\text{Thrice of b.v} = 3 = 77\%$$

$$\frac{9}{10} \text{ of b.v} = \frac{0.9}{3.9} = 23\%$$

Cost of capital

$$\begin{aligned} K_e &= 0.20 \times 77\% + 0.10 \times 23\% \\ &= 15.4 + 2.3 \\ &= 17.7\% \end{aligned}$$

$$\begin{aligned} \text{So, correct firm value is} &= \frac{\text{₹ 54 lakhs}}{17.7\% - 9\% = 8.7\%} \\ &= \text{₹ 620.69 lakhs} \end{aligned}$$

Cash flow for Area A

Year	EBDIT	@ 12% - interest	- Depreciation	= PBT	@ 30% PAT	Cash flow + Depreciation
1	(6)	24	300/10 = 30	- 60	- 30	0
2	34	24	30	- 20	- 10	20
3	54	24	30	0	0	30
4	74	24	30	20	10	40
5	108	18	30	60	30	60
6	142	12	30	100	50	80

7	156	6	30	120	60	90
8	230	0	30	200	100	130
9	330	0	30	300	150	180
10	430	0	30	400	200	230

## Cash flows from Area B

Year	EBDIT	- interest @ 10%	- Depreciation	= PBT	PAT @ 40%	Cash flow + Depreciation
1	- 50	20	30	-100	-60	-30
2	50	20	30	0	0	30
3	10	20	30	-40	-24	6
4	20	20	30	-30	-18	12
5	45	15	30	0	0	30
6	100	10	30	60	36	66
7	155	5	30	120	72	102
8	190	0	30	160	96	126
9	230	0	30	200	120	150
10	330	6	30	300	180	210

## Discounted Cash Flow Statement:

	Cash flow	Cash flow	NIF	Discounted Cash flows	
	From A	From B		A	B
1	0	-30	0.87	0	-26.1
2	20	30	0.76	15.2	22.8
3	30	6	0.66	19.8	3.96
4	40	12	0.57	22.8	6.84
5	60	30	0.50	30	15
6	80	66	0.43	34.4	28.38
7	90	102	0.38	34.2	38.76
8	130	126	0.33	42.90	41.58
9	180	150	0.28	50.4	42
10	230	210	0.25	57.5	52.5

Inflows	307.2	225.7
Less cash outflow	(300)	(280)
NPV	<u>7.2</u>	<u>(300.20)</u> (54.3)

Area A is preferable.

### Chapter - 3 : Leasing Decisions

2014 - Nov [7] (b)

#### → Cross border leasing

- Cross -border leasing is a leasing agreement where lessor and lessee are situated in different countries. This raises significant additional issues relating to tax avoidance and tax shelters. It has been widely used in some european countries, to arbitrage the difference in the tax laws of different countries.
- Cross border leasing have been in practice as a means of financing infrastructure development in emerging nations, cross border leasing may have significant applications in financing infrastructure development in emerging nations-such as rail and air transport equipment, telephone and telecommunications equipment and assets incorporated into power generation and distribution systems and other projects that have predictable revenue streams.
- A major objective of cross border lease is to reduce the overall cost of financing.
- Through utilization by the lessor of tax depreciation allowance to reduce its taxable income, The tax savings are passed through to the lesser as a lower cost of finance. The basic requisites are relatively high tax rates in the lessor's country, liberal depreciation roles and either way flexible or very formalistic rules governing tax ownership.

### Chapter - 4 : Dividend Decisions

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

Walter's model

$$\begin{aligned}
 P_0 &= \frac{D}{K_e} + \frac{\frac{r}{K_e} (E - D)}{K_e} \\
 &= \frac{₹8}{0.08} + \frac{\frac{0.10}{0.08} (10 - 8)}{0.08} \\
 &= 100 + 31.25 \\
 &= ₹ 131.25
 \end{aligned}$$

## W.N.1

$$K_e = \frac{1}{\text{P/E ratio}}$$

$$= \frac{1}{12.5\%} = 8\%$$

$$\text{Eps} = \frac{4,00,000}{40,000 \text{ shares}} = ₹ 10 \text{ per share}$$

$$\text{Dps} = \frac{3,20,000}{40,000 \text{ shares}} = ₹ 8 \text{ per share}$$

$$= \frac{4,00,000 \text{ Earnings}}{40,00,000 = \text{equity capital}}$$

$$= 10\%$$

$$(i) \text{ D/P ratio} = \frac{₹ 8}{₹ 10} \times 100 = 80\%$$

as walter's model is in line with the cell or nothing approach and in the present case 'r' is more than 'k<sub>e</sub>' so it's a growth firm, so optimal payout ratio for a growth firm is 'NIL'.

The company's D/P ratio is not optimal.

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

→ As per mm model:

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

(i) If the dividend is not declared

$$150 = \frac{1}{1 + 0.10} \times [0 + P_1]$$

$$150 = \frac{P_1}{1.10}$$

So  $P_1 = ₹ 165$  Market price per share

(ii) If the dividend is declared

$$150 = \frac{1}{1 + 0.10} \times [₹ 9 + P_1]$$

$$150 = \frac{₹ 9 + P_1}{1.10}$$

$$= 165 - 9 = P_1$$

$P_1 = ₹ 156$  Market price per share

In case the firm pays dividend of ₹ 9 per share out of total profits of ₹ 200 lakhs and plans to make new investment of ₹ 500 lakhs, the number of shares to be issued

	(₹ in lakhs)
Total earnings	₹ 200
- Dividend paid	₹ (90)
Retained earnings	₹ 110
Total funds Required	₹ 500
Fresh funds to be raised	₹ 390
Market Price of shares	₹ 156 per share

No. of shares to be issued  $\frac{\text{₹390 lakhs}}{\text{₹156}} = 2.5$  lakh shares

In case if the dividend is not declared

Total Earnings	₹ 200 lakh
Funds Required	<u>₹ 500 lakh</u>
Fresh funds to be raised	₹ 300 lakh
Market price of share	₹ 165

No. of shares to be issued  $\frac{\text{₹300 lakhs}}{\text{₹165}} = 1.82$  lakhs

### Chapter - 5 : Indian Capital Market and Security Analysis

#### 2014 - [1] {C} (b)

- (i) Pre -tax income = ₹ 20 lakh × 5% = ₹ 1,00,000  
 + Expenses ₹ 50,000  
₹ 1,50,000

Yield earned in a year = ₹ 20,00,000 × 9% = ₹ 1,80,000

So Period of investment to earn ₹ 1,50,000

Form earned amount = ₹ 1,80,000

$$= 1,50,000 \times \frac{12}{1,80,000} = 10 \text{ months}$$

- (ii) Break even income

$$= 50,000 \times \frac{12}{1,80,000} = 3.33 \text{ months}$$

#### 2014 - Nov [7] (e)

##### → Insider Trading

- When a person discloses to the other persons about confidential information of the company which can affect the investment decisions, it is called "Insider Trading"

- Insider Trading is punishable because it is not in the nature of fair play. When a financial information or other Potential information of a company is disclosed to the other person, they will always try to take advantage of it. So there will be a lot loss for other investors and further credibility of the company will also be hampered.

### Chapter - 6 : Portfolio Theory

2014 - Nov [3] (b)

(i) Equilibrium Price:

$$\begin{aligned}
 P_0 &= \frac{D_1}{K_e - g} \\
 &= \frac{2 + 7\%}{13.8\% - 7\%} = \frac{2.14}{6.8\%} \\
 &= ₹ 31.47
 \end{aligned}$$

W.N.1

$$\begin{aligned}
 K_e &= R_f + \beta (R_m - R_f) \\
 &= 9\% + 1.2 (13\% - 9\%) \\
 &= 9\% + 4.8\% \\
 &= 13.8\%
 \end{aligned}$$

(1) Inflation premium increase by 2%  
New market return = 13% + 2% = 15%

$$\begin{aligned}
 P_0 &= \frac{D_1}{K_e - g} \\
 &= \frac{2.14}{16.2 - 9\%} = \frac{2.14}{7.2\%} \\
 &= 29.72
 \end{aligned}$$

$$\begin{aligned}
 K_e &= 9 + 1.2 (15 - 9) \\
 &= 16.2\%
 \end{aligned}$$

Growth rate increases by 3%  
New growth rate = 7 + 3 = 10%

$$\begin{aligned}
 K_e &= 9\% + 1.2 (15 - 9) \\
 &= 13.8\%
 \end{aligned}$$

$$\begin{aligned}
 P_0 &= \frac{2 + 10\%}{13.8\% - 10\%} = \frac{2.2}{3.8\%} \\
 &= ₹ 57.89
 \end{aligned}$$

Beta rises to 1.3

$$\begin{aligned}
 K_e &= R_f + \beta (R_m - R_f) \\
 &= 9 + 1.3 (13 - 9)
 \end{aligned}$$

$$\begin{aligned}
 &= 9 + 5.2 \\
 &= 14.2\% \\
 P_0 &= \frac{D_1}{K_e - g} \\
 &= \frac{2 + 7\%}{14.2\% - 7\%} \\
 &= \frac{2.14}{7.2\%} \\
 &= ₹ 29.72
 \end{aligned}$$

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

→ Expected current market price:

$$\begin{aligned}
 &= \frac{D_1}{K_e - g} \\
 &= \frac{3 + 9\%}{18.5\% - 9\%} \\
 &= \frac{3.27}{9.5\%} = ₹ 34.42
 \end{aligned}$$

$$\begin{aligned}
 R_e &= 12\% + 1.3 \times 5\% \\
 &= 12\% + 6.5\% \\
 &= 18.5\%
 \end{aligned}$$

→ Price for the next year

$$= \frac{2.5 + 7\%}{15.6\% - 7\%} = \frac{2.675}{8.6\%} = ₹ 31.10$$

$$\begin{aligned}
 K_e &= 10\% + 1.4 \times 4\% \\
 &= 10\% + 5.6\% \\
 &= 15.6\%
 \end{aligned}$$

→ The price of stock is less than current market price which is ₹ 40

→ As the price of the shares will decrease an investor can sell the shares now and buy later when the price of share decreases.

### Chapter - 7 : Financial Services in India

**2014 - [4] (a)**

#### Saving because of factoring

	(₹ in crores)
1. Additional sales (1,000 × 10%)	₹ 100
2. Bank Debt	₹ 15
3. Administration cost	₹ 10
	<u>₹ 125 crores</u>

**Expenses for both options:**

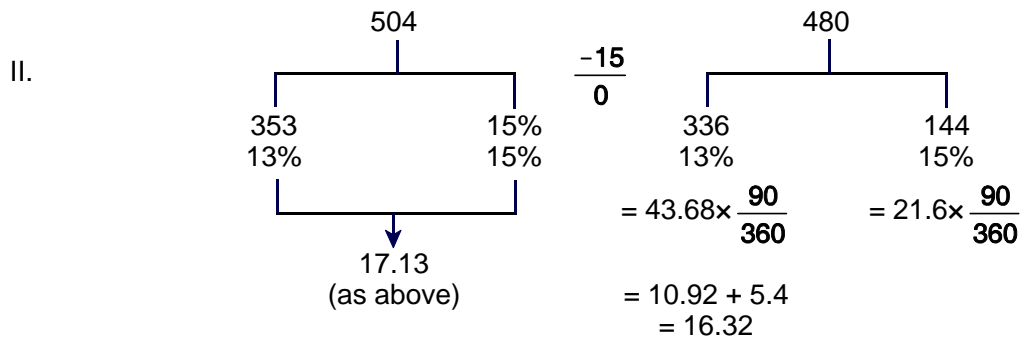
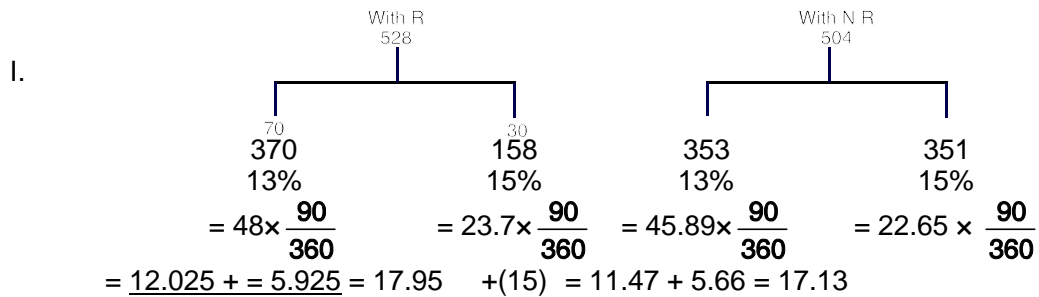
Proposal I

	With recourse	non recourse
Bank Debt		—15
Interest (W.N.2)	(17.95)	(17.13)
Discount	= 600 × 88 × 21% = 110.88	= 600 × 84 × 22 = 110.88
Commission	$\frac{25}{(1,000 \times 2.5)}$	$\frac{45}{(1,000 \times 4.5)}$
	<u>117.93 = A</u>	<u>153.75 = B</u>

**W.N.1**

Debtors = ₹ 1,000 cr. × 60% = 600

**W.N.2** Calculation of interest



Proposal II

	With recourse	non recourse
Bank debts	—	(15)
Interest	17.13	16.32
Discount	= 600 × 84% × 20% = (100.80)	600 × 80% × 21% = (105.84)
Commission	(18)	(36)
Total	<u>101.67 = C</u>	<u>140.52 = D</u>



Options	A	B	C	D
Saving	125	110 (125-15)	125	110 (125-15)
Expenses	<u>117.93</u>	(153.75-15 = <u>138.75</u> )	<u>101.67</u>	(140.52-15= <u>125.52</u> )
	7.07	- 28.75	<u>23.33</u>	- 15.52

∴ Proposal I with recourse is better than all.

### Chapter - 8 : Mutual Funds

2014 - Nov [4] (b) Market value of the investments

Company	shares	M.P.	Market value
N	25,000	× ₹ 20 =	₹ 5,00,000
D	35,000	× ₹ 300 =	₹ 1,05,00,000
S	29,000	× ₹ 380 =	₹ 1,10,20,000
C	40,000	× ₹ 500 =	<u>₹ 2,00,00,000</u>
			₹ 4,20,20,000

#### Less:

Accrued expenses	₹ (2,50,000)
Liabilities	<u>₹ (2,00,000)</u>
Net Assets	₹4,15,70,000
÷	
No of units	<u>10,00,000</u> units
	₹ 1.57 per unit

2014 - Nov [7] (a)

#### → Indication for exiting a mutual fund scheme

1. Consistently under- performs the market if a mutual fund constantly under performs the broad based index, it is time to get out of the scheme.
2. Fund changes its objectives  
Suppose you invest in an income fund because you are looking for regular income but a look at the composition of the portfolio suggest that the fund, unstated, is getting into a growth fund mode.
3. Change one's objective  
If investment is made in say technology fund, and that sector is not performing so, well than it could be better to move out of the fund.

## 4. Fund manager changes

In the end, whatever the fund group, the man who manages your money matters. If a skilled manager move out to another fund than money should be invested in that fund.

**Chapter - 11 : Foreign Exchange Exposure and Risk Management****2014 - Nov [1] {C} (a)**

Rupee Dollar Selling rate	=	₹ 61.00
Dollar Hong Kong Dollar	=	HK \$ <u>7.5880</u>
Rupee Hong Kong cross rate	$\frac{61.00}{7.5880}$	= <u>8.0390</u>

Amount to be received from the customer (2 crores × 8.025) = ₹ 16.05 crores

Amount paid in the cover made in London market (2 crores × 8.0390) = ₹ 16.078 crores

Net profit/(loss) in Deal ₹ (0.028)(crores)

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

## (i) Pay in 3 months with interest @ 10% and cover risk forward for 3 months

If importer makes payment after 3 months then, he will have to pay interest for 3 months @ 10% p.a. (assumed to be per annum) along with the sum of import bill. Accordingly he will have to buy \$ in forward market. The outflow for this will be as follows:

Amount of Bill	\$ 1,00,000
(5,000 × 20)	
Add: interest @ 10% p.a. for 3 months	<u>\$ 2,500</u>
(\$ 1,00,000 × 10% × 3/12)	\$ 1,02,500

Amount to be paid in Indian Rupee after 3 months under forward purchase contract  
₹ 61,80,750

(US\$ 1,02,500 × 60.30)

**W.N.1**

## (ii) Settle now

If importer pays now, he will have to buy US\$ in spot market by availing overdraft facility. Accordingly, the outflow for this will be as follows.

Amount required to purchase \$ 1,00,000 × 60.55 =	₹ 60,55,000
Add: overdraft interest for 3 months @ 14% p.a. =	₹ <u>2,11,925</u>
	62,66,925

Since outflow of cash is least in (I) option, it should be opted for i.e. pay after 3 months

**W.N.1**

As swap ask is less than buy it will be deducted from the spot value.

i.e. 60.55 - 0.25 = 60.30

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

Net issue size = \$ 15 million  
 Gross Issue size = \$ 15.31 million

$$\left( \frac{\$ 15 \text{ million}}{98\%} \right)$$

Issue price per GDR (in ₹) = ₹ 810  
 (₹ 300 × 90% × 3)

Issue price per GDR (in \$) = \$ 13.5

$$\left( \frac{\text{₹} 810}{60} \times 1\$ \right)$$

$$(a) \text{ No. of GDR to be issued} = \frac{\$ 15.31 \text{ Million}}{\$ 13.5}$$

$$= 1.1341 \text{ Million}$$

$$(b) D_0 \text{ per GDR (in ₹)} = 2 \times 3 = 6$$

$$(\text{₹ } 10 \times 20\%)$$

$$D_1 = 6 + 20\% = 7.2$$

$$\text{Net price per GDR (in ₹)} = 810 \times 98\% = \text{₹ } 793.8$$

$$K_e = \frac{7.2}{793.8} + 0.20$$

$$= 0.2090$$

$$= 20.90\%$$

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

→ A firm dealing with foreign exchange may be exposed to foreign currency exposures. The exposure is the result of possession of assets and liabilities and transactions denominated in foreign currency

- **Transaction Exposure:** A firm may have some contractually fixed payments and receipts in foreign currency. Such as import payables, export receivables, interest payable on foreign currency loans etc. All such items are to be settled in a foreign currency. Unexpected fluctuation in exchange rate will have favourable or adverse impact on its cash flows.
- **Translation Exposure:** It is basically the exposure on the assets and liabilities shown in the balance sheet and which are not going to be liquidated in the near future.
- **Economic Exposure:** It measures the probability that fluctuations in foreign exchange rate will affect the value of the firm. The intrinsic value of a firm is calculated by discounting the expected future cash flows with appropriate discounting rate.

**Chapter - 12 : Mergers, Acquisitions & Restructuring****2014 - Nov [1] {C} (c)**

True cost of acquisition

(a) No. of shares issued = 10 lakhs × 0.5	=	5,00,000
(b) Theoretical post market price (W.N.1)	=	₹ 58
(c) Value of consideration = a × b	=	₹ 2,90,00,000
(d) Market value of target company [10 lakhs × ₹ 25]	=	₹ <u>2,50,00,000</u>
(e) True cost of Acquisition = [c - d]	=	₹ <u>40,00,000</u>

**(W.N.1)**

Theoretical post merger price:

$$\frac{V_n + V_B + \text{Synergy gain}}{\text{Share of Acquiring company} + \text{shares issued to target company}}$$

$$= \frac{₹1,000 \text{ lakhs } (20 \times 50) + ₹250 \text{ lakhs } (10 \times 25) + ₹200 \text{ lakhs}}{20 \text{ lakhs} + 5 \text{ lakhs}}$$

$$= ₹ \frac{1,450 \text{ lakhs}}{25 \text{ lakhs}} = ₹ 58 \text{ per share}$$

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

Cost of capital by applying free cash flow to firm model:

$$\text{Value of firm} = V_0 = \frac{\text{FCFF}_1}{K_e - g_n}$$

FCFF<sub>1</sub> = Expected FCFF in the year 1K<sub>e</sub> = cost of capitalg<sub>n</sub> = growth rate forever

$$\text{Thus, } ₹ 1,800 \text{ lakhs} = \frac{₹54 \text{ lakhs}}{x - 9\%}$$

= So, K<sub>e</sub> = 12%

Now, let x be the weight of debt and given cost of equity = 20% and cost of debt = 10%

Then = 20% (1 - x) + 10% x = 12%

$$= 0.20 - 0.20x + 0.10x = 0.12$$

$$= 0.20 - 0.12 = 0.20x - 0.10x$$

$$0.08 = 0.10x$$

$$x = 0.80 = \text{book value weight for debt}$$

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

Particulars	Cauliflower	Cabbage
Shares	5,00,000	3,00,000
MV Per share	₹ 40	₹ 25
EPS	₹ 5	₹ 3

(i) Exchange of share on the basis of EPS

	Cauliflower	Cabbage
Earnings (EPS × No. of shares)	25,00,000	9,00,000 = 34,00,000
New shares issued	5,00,000	1,80,000 = 6,80,000
New EPS	$(3,00,000 \times \frac{3}{5})$	₹ 5 per share

(ii) Exchange ratio based on 05 : 1

Earnings	25,00,000	9,00,000	= 34,00,000
New shares issued	5,00,000	1,50,000	= 6,50,000
New EPS			₹ 5.23 per share

(iii) Impact on EPS  
for (i) case

	New EPS	Adjusted EPS	Impact
Cauliflower	₹ 5	₹ 5	No Impact
Cabbage	₹ 5	$3 \times \frac{5}{3} = ₹ 5$	No Impact

for (ii) case

	New EPS	Adjusted EPS	Impact
Cauliflower	₹ 5.23	₹ 5	₹ 0.23 gain
Cabbage	₹ 5.23	$3 \times \frac{2}{1} = ₹ 6$	₹ (0.77) loss

**2014 - Nov [7] (c)**→ **Takeover by reverse bid**

- Under normal circumstances a 'take over' would mean that a larger company acquires a smaller company. However, there could be exceptional circumstances wherein a smaller company gains control of a large one such a situation is referred to as 'take over by Reverse bid'

Take over by reverse bid could happen where already a significant per cent of the shareholding is held by the transfer company, to exploit economics of scale to enjoy better trading advantage and other similar reasons. The concept of take over by reverse bid has been successfully employed in schemes formulated for revival and rehabilitation of sick Industrial Companies.

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