PADUA COLLEGE OF COMMERCE AND MANAGEMENT

Nanthur, Mangalore - 575 004

INTERNAL EXAMINATION ANSWER SHEET

Name of the student : Keerthi

Class : IIIrd B.com A'

Subject : Financial Management

Signature of the invigilator :

Roll No : 160138

Date : 03.04.2019

No. of additional sheets used : 3

Signature of the student : Keerthi

Question Numbers & Marks Table

Q.No	a	b	c	d	e	f	g	h	i	j	total
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
11.											
12.											
13.											
14.											
15.											
16.											
Name and Signature of the Valuator									Grand Total		56

Start writing from here

Section - C

7) When there is Tax and market price is 100

① Cost of Equity:

$$Ke = \frac{D}{P} \times 100$$

$= D = 100 \times 20\% = 20$ $\quad P = 100$

$$= \frac{20}{100} \times 100$$

$Ke = 20\%$

(a) Debentures:

$$K_d = \frac{I\ (1-T)}{P} \times 100$$

$I = 100 \times 12\% = \frac{12}{2}$

$T = 0.40$ $\quad P = 100$

$$= \frac{12\ (1-0.40)}{100} \times 100$$

$$= \frac{12\ (0.60)}{100} \times 100$$

$K_d = 7.2\%$

(b) Term Loans:

$$K_d = \frac{I\ (1-T)}{P} \times 100$$

$I = 100 \times 15\% = \frac{15}{2}$ $\quad T = 0.40$

$$= \frac{15\ (1-0.40)}{100} \times 100$$

$$= \frac{15(0.60)}{100} \times 100$$

$K_d = 9\%$

$$K = \frac{(\text{Equity Share Capital} \times K_e) + (\text{Debentures} \times K_d) + (\text{Term L}}{\text{TOTAL funds}}$$

$$= \frac{(400 \times 20\%) + (400 \times 7.2\%) + (1200 \times 9\%)}{2000} \times 100$$

$$= \frac{80 + 28.8 + 108}{2000} \times 100$$

$$= \frac{216.8}{2000} \times 100$$

$K = 10.84\%$

II When there is Tax and market price is 160

① Equity:

$K_e = \frac{D}{P} \times 100$

$P = 160 \quad D = 20$

$= \frac{20 \times 100}{160}$

$K_e = 12.5\%$

② Loans:

(a) $K_d = \frac{I\,(1-T)}{P} \times 100 \quad P = 100$

$= \frac{15\,(1-0.40)}{100} \times 100$

$= \frac{15\,(0.60)}{100} \times 100$

$K_d = 9\%$

② Debentures:

$K_d = \frac{I\,(1-T)}{P} \times 100 \quad P = 100$

$= \frac{12\,(1-0.40)}{100} \times 100$

$= \frac{12\,(0.60)}{100} \times 100$

$K_d = 7.2\%$

$\therefore K = \frac{(\text{Eq. share Capital} \times K_e) + (\text{debenture} \times K_d) + (\text{loan} \times K_d)}{\text{TOTAL funds}} \times 100$

$= \frac{(400 \times 12.5\%) + (400 \times 7.2\%) + (1200 \times 9\%)}{2000} \times 100$

$= \frac{50 + 28.8 + 108}{2000} \times 100$

$= \frac{186.8}{2000} \times 100$

$K = 9.34\%$

(iii) When there is no Tax and market Price is 100

(1) Equity:-

$K_e = \frac{D}{P} \times 100$ $\quad D = 20$

$= \frac{20}{100} \times 100$

$K_e = 20\%$

(2) Debentures

$K_d = \frac{I}{P}(1-T) \times 100$ $\quad T = 0, \quad I = \frac{12}{2}$

$= \frac{12}{100}(1-0) \times 100$

$= \frac{12(1)}{100} \times 100$

$K_d = 12\%$

(3) Loans:

$K_d = \frac{I}{P}(1-T) \times 100$ $\quad T = 0 \quad I = 15$

$= \frac{15}{100}(1-0) \times 100$

$= \frac{15(1)}{100} \times 100$

$K_d = 15\%$

$K = \frac{(\text{Eq. Share Capital} \times K_e) + (\text{Debentures} \times K_d) + (\text{Loans} \times K_d)}{\text{TOTAL funds}} \times 1$

$= \frac{(400 \times 20\%) + (400 \times 12\%) + (1200 \times 15\%)}{2000} \times 100$

$= \frac{80 + 48 + 180}{2000} \times 100$

$= \frac{308}{2000} \times 100$

$K = 15.4\%$

(iv) When there is no Tax and market price is 160:

(1) Equity:

$K_e = \frac{D}{P} \times 100$ $\quad P = 160 \quad D = 20$

$= \frac{20}{160} \times 100 =$

$K_e = 12.5\%$

(2) Debentures:

$K_d = \frac{I}{P}(1 - T) \times 100$

$= 12 \frac{(1-0)}{100} \times 100$

$= \frac{12(1)}{100} \times 100$

$K_d = 12\%$

(3) Loans:

$K_d = \frac{I}{P}(1 - T) \times 100$

$= 15 \frac{(1-0)}{100} \times 100$

$K_d = 15\%$

$K = \frac{(\text{Eq. Share Capital} \times K_e) + (\text{debentures} \times K_d) + (\text{loans} \times K_d)}{\text{TOTAL funds}} \times 100$

$= \frac{(400 \times 12.5\%) + (400 \times 12.4) + (1200 \times 15\%)}{2000} \times 100$

$= \frac{50 + 48 + 180}{2000} \times 100$

$= \frac{278}{2000} \times 100$

$K = 13.9\%$

24

Section-B:

4) Step:1:-

Computation of estimation of Operating cycle

Particulars	

1) Raw material conversion Period:

$$= \frac{\text{Stock of Raw material}}{\text{Raw material consumed}} \times 365$$

$$= \frac{220000}{3650000} \times 365$$

22

2) Work in progress conversion Period:

$$= \frac{\text{Stock of WIP}}{\text{Cost of production}} \times 365$$

$$= \frac{810000}{10950000} \times 365$$

27

3) Finished goods Conversion Period:

$$= \frac{\text{Stock of finished goods}}{\text{cost of goods sold}} \times 365$$

$$= \frac{840000}{14500000} \times 365$$

21

4) Debtors

$$= \frac{\text{Book debts Avg. debtors}}{\text{Credit Sales}} \times 365$$

$$= \frac{450000}{18250000} \times 365$$

9

∴ Gross Operating Cycle 79

(-) Payment deferral Period

$$= \frac{\text{Avg. Creditors}}{\text{Raw material Consumed}} \times 365$$

$$= \frac{60000}{3650000} \times 365$$

6

∴ Net Operating Cycle 73

Step 2: No. of Net operating cycle in a year

$$= \frac{365}{\text{Net operating cycle}}$$

$$= \frac{365}{73} = 5$$

Step 3: Working Capital Required:

= Cost of goods sold / No. of net (working) operating cycle in a year

= 14500000 / 5

= ₹ 2900000

12

5) Computation of estimation of working capital required

Particulars	Amt
A) Current Assets:	
1) Inventory	
i) Stock of Raw material (104000 x 80 x 1/12)	693333
ii) Stock of WIP	
a) Raw material (104000 x 80 x 0.5/12 x 100%)	346667
b) Wages (104000 x 30 x 0.5/12 x 50%)	65000
c) overheads: (104000 x 60 x 0.5/12 x 50%)	130000
iii) Stock of finished goods (104000 x 170 (80+30+60) x 1/12)	1473333
2) Debtors (104000 x 170 x 1/4 x 2/12)	736667
3) Cash in hand	25000
	3470000
B) Current liabilities	
1) Creditors (104000 x 80 x 1/12)	693333
2) lag in payment of wages (104000 x 30 x 1.5/52)	90000
3) lag in payment of overheads (104000 x 60 x 1/12)	520000
∴ Net working capital	2166667

10

Section - A

1] Cost of equity (growth)

$$K_e = \left[\frac{D}{P} \times 100\right] + G$$

A:

$D = 10 \times 40\% = \frac{4}{2}$ $\quad P = 83$ $\quad G = 3$

$$= \left[\frac{4}{83} \times 100\right] + 3$$

$K_e = 7.82\%$

B:

$D = 10 \times 15\% = 1.5$ $\quad P = 19$ $\quad G = 7$

$$= \left[\frac{1.5}{19} \times 100\right] + 7$$

$K_e = 14.89\%$

C:

$D = 20 \times 10\% = \frac{2}{2}$ $\quad P = 40$ $\quad G = 8$

$$= \left[\frac{2}{40} \times 100\right] + 8$$

$K_e = 13\%$

D:

$D = 20 \times 80\% = \frac{16}{2}$ $\quad P = 115$ $\quad G = 6$

$$= \left[\frac{16}{115} \times 100\right] + 6$$

$K_e = 19.91\%$

2] Debentures (redeemable):

$$K_d = \frac{I\,(1-T) + \left[\frac{R-P}{n}\right]}{\frac{R+P}{2}} \times 100$$

$I = 10 \times 2\% = \frac{0.2}{2}$

$I = 0.60$

Premium

$R = 100 \times 10\% \times \frac{1}{2}$ $\quad P = \frac{10}{2}$.

$100 + 12 = \frac{11}{2}$.

$$k_d = \frac{0.2\ (1 - 0.60) + \left[\frac{11 - 10}{5}\right]}{\frac{11 + 10}{2}} \times 100$$

$$= \frac{0.2\ (0.40) + 0.2}{10.5} \times 100$$

$$= \frac{0.28}{10.5} \times 100$$

$k_d = 2.67\%$

At Par:

$$k_d = \frac{0.2\ (1 - 0.60) + \left[\frac{10 - 10}{5}\right]}{\frac{10 + 10}{2}} \times 100$$

$$= \frac{0.2\ (0.40) + 0}{10} \times 100$$

$$= \frac{0.08}{10} \times 100$$

$k_d = 0.8\%$

Section B:

Q1 (a) Preference Shares:

$k_p = \frac{D}{P} \times 100$ $\quad D = 100 \times 13.5\%$

$= \frac{13.5}{100} \times 100$

$k_p = 13.5\%$

(b) Irredeemable Bond:

$k_d = \frac{I\ (1 - T)}{P} \times 100$ $\quad T = 0.50$

$I = 100 \times 8\% = \frac{8}{2}$

$= 8\ \frac{(1 - 0.50)}{100} \times 100$

$k_d = 4\%$

(c) bond:

$$k_d = \frac{I(1-T) + \left[\frac{R-P}{n}\right]}{\frac{R+P}{2}} \times 100$$

$$= \frac{130(1-0.50) + \left[\frac{1000-902.5}{5}\right]}{\frac{1000+902.5}{2}} \times 100$$

$$= \frac{130(0.50) + 19.5}{951.25} \times 100$$

$k_d = 8.88\%$

$I = 1000 \times 13\% = 130$

$R = 1000$

$P = TP - IE$

$= 950 - (950 \times 5\%)$

$= 950 - 47.5$

$= 902.5$

(d) Preference share (Redeem)

$$k_p = \frac{D + \left[\frac{R-P}{n}\right]}{\frac{R+P}{2}} \times 100$$

$D = 10 \times 12\% = 1.2$

$$= \frac{1.2 + \left[\frac{11-10}{5}\right]}{\frac{11+10}{2}} \times 100$$

$$= \frac{1.2 + 0.2}{10.5} \times 100$$

$k_p = 13.33\%$

(e) Equity:

$$k_e = \frac{D}{P} \times 100$$

$$= \frac{22}{100} \times 100$$

$k_e = 22\%$