Subject: Financial Accounting

Class: B.Com VI Sem

Topic Name: Ratio Analysis

Q1. Formulas:

Related to P & L account: 1) Gross profit Ratio

2)Net Profit ratio

3)Operating Net Profit ratio

4) Operating Ratio

5)Expenses ratio

(all items should be divided by net sale and multiplied by 100)

Ratios related to B/S:

1)Current ratio= $\frac{\text{Current assets}}{\text{Current Liability}}$(current assets=Cash+Debtors+Stock+Prepaid)

(currentliabilities. = Creditors+ O.D.+O.Exp.)

2)Liquidity Ratio= $\frac{\text{Liquid or quick assets}}{\text{Liquid or quick Liability}}$LA=Current assets-stock &LL=Current liabilities-O.D

3)Acid test ratio= $\frac{\text{Current assets} - \text{stock}}{\text{Current liabilities} - \text{Bank O.D}}$

4)Operating Ratio = $\frac{\text{Cost of Goods sold} + \text{Operating Expenses}}{\text{Net Sale}} x100$

COGS =Sale –Gross Profit Or Op.Stock +Purchase+Directwages+Dir.exp-Cl.Stock

Or All expenses debited to Trading A/c –Cl.Stock

5)Debtors Turnover ratio =$\frac{\text{Net credit sale}}{\text{Average debtors or closing debtors}}$(Debtors=Debtors+BR)

6) Debts equity ratio = $\frac{\text{Debts (long term loan +Debenture)}}{\text{Equity (Internal liabilities)}}$

7) Fixed assets Turnover Ratio = $\frac{\text{Cost of goods sold}}{\text{Net fixed assets (after Depre .)}}$

8)Stock turnover ratio = $\frac{\text{Cost of goods sold}}{\text{Average stock}}$

(Op.stock +Purchase+Directexp-Cl. Stock)Average Stock =$\frac{\text{Opening stock} + \text{Closing Stock}}{2}$

9)Working capital turnover ratio =$\frac{COGS}{Working\ Capital\quad (current\ assets - curren\ t\ liabilities\ )}$

10) Stock working capital ratio=$\frac{Closing\ stock}{Working\ Capital}$

11) Average Collection Period= $\frac{Average\ Debtors}{Net\ Credit\ Sale}$x No, of Working days

Q1. The following are Balance Sheet for two companies :-

Particular	Seeta Co.	Geeta Co.
Creditors	36,000	58,000
Bank Overdraft	11,250	14,000
Tax Provision	20,000	15,000
Depreciation Reserve	20,000	50,000
Paid up Capital	2,00,000	3,50,000
Reserve	50,000	60,000
Profit and Loss A/c	12,750	1,03,000
	3,50,000	6,50,000
Book Debt (Debtors)	85,000	1,75,000
Stock	66,000	93,000
Machinery	49,000	92,000
Building	1,20,000	2,40,000
Goodwill	30,000	50,000
	3,50,000	6,50,000
Sales in the Year	8,40,000	10,50,000
Average stock	63,000	1,00,000
Gross Profit	2,10,000	2,50,000

Find out :

1)Stock Turnover Ratio 2) Current Ratio

3) Liquid Ratio 4) Stock Working capital Ratio

5) Gross profit Ratio

Ans:-

		SEETA COMPANY	GEETA COMPANY
(1)Inventory/Stock Turnover Ratio Cogs= Sale –GP	$=\frac{COGS}{Average\ \ Stock}$	$=\frac{6,63,000}{30,000}$=10 Times	$=\frac{8,00,000}{1,00,000}$=8 Times
(2) Current Ratio (Stock+Debtors+Cash+Misc.Assets) (Creditors+B.P.+Other Current Lia.)	$=\frac{Current\ \ Assets}{Current\ \ Liabilities}$	$=\frac{1,51,000}{67,250}$ =2.25:1	$=\frac{2,68,000}{87,000}$ =3.08:1
(3) Quick/Liquidity/Acid Test Ratio (Current assets-Stock & Prepaid exp) (Current Lia.- Overdraft)	$=\frac{Quick\ \ Assets}{Quick\ \ Liabilities}$	$=\frac{85,000}{56,000}$=1.52:1	$=\frac{1,75,000}{73,000}$=2.40:1
(4) Stock working Capital Ratio	$=\frac{Stock}{Working\ \ Capital}$	$=\frac{66,000}{83,750}$=0.79 Times	$=\frac{93,000}{1,81,000}x100$=0.51 Times
(5)Gross Profit Ratio	$=\frac{Gross\ \ Profit}{Sale}$x100	$=\frac{2,10,000}{8,40,000}\ x100$=25%	$=\frac{2,50,000}{10,50,000}$=23.81%

Q2. From the following statement of x Ltd. for the year ending 31st March 2001, You are required to re-arrange the items in the form of financial statement and calculate the following ratios:

(a) Current Ratio

(b) Acid test ratio

(c) Operating ratio

(d)Net profit ratio

(e)Stock turnover ratio

(f) G.P.Ratio

(g)Stock to working Capital ratio

Balance Sheet

As on 31st March 2001

Liabilities	`	Assets	`
Share Capital	5,00,000	Land & Building	5,00,000
5,00,000 shares issued @ `1 per share		Plant & Machinery	2,00,000
		Stock	1,50,000
P/L Account	1,50,000	Sundry Debtors	2,50,000
Sundry Creditors	2,00,000	Cash & Bank Balance	1,50,000
General Reserve	4,00,000		
	12,50,000		12,50,000

Profit & Loss account

For the year ended on 31st March 2001

Particulars	`	Particulars	`
To Stock	2,50,000	By Sales	18,00,000
To Purchase	10,50,000	By Closing Stock	1,50,000
To G.P.	6,50,000		
	19,50,000		19,50,000
To Selling &Distri.Ex.	1,00,000	By G.P.	6,50,000
To Administrative Exp.	2,30,000	By profit on sale of fixed assets	50,000
To Financial Exp.	20,000		
To Net Profit	3,50,000		
	7,00,000		7,00,000

Ans:- In the books of X ltd.

(a) Current Ratio (Stock+Debtors+Cash+Misc.Assets) (Creditors+B.P.+Other Current Lia.)	$=\frac{Current\ \ Assets}{Current\ \ Liabilities}$	$=\frac{5,50,000}{2,00,000}$ =2.75:1
(b) Quick/Liquidity/Acid Test Ratio (Current assets-Stock & Prepaid exp) (Current Lia.- Overdraft)	$=\frac{Quick\ \ Assets}{Quick\ \ Liabilities}$	$=\frac{40,000}{2,00,000}$ =2:1
(c)Operating Ratio	$=\frac{COGS+Op.expenses}{Sale}$x100	$=\frac{15,00,000}{18,00,000}$x365 =83,33%
(d)Net Profit Ratio	$=\frac{Net\ Profit}{Sale}$x100	$=\frac{3,50,000}{18,00,000}$ x100 =19.44%
(e)Inventory/Stock Turnover Ratio	$=\frac{COGS}{Average\ \ Stock}$	$=\frac{11,50,000}{2,00,000}$=5.75 Times
(f)Gross Profit Ratio	$=\frac{Gross\ \ Profit}{Sale}$x100	$=\frac{6,50,000}{18,00,000}$x100 =36.11%
(g) Stock to working capital Ratio	$=\frac{Closing\ \ stock}{Working\ \ Capital}$ (W.C.=Current Assets-Current Liabilities)	$=\frac{1,50,000}{3,50,000}$ =0.43%