

TOOLS OF FINANCIAL ANALYSIS & PLANNING

Question 1

The following information is available in respect of ABC Ltd.:

- (1) Materials are purchased and received one month before being used and payment is made to suppliers two months after receipt of materials.
- (2) Cash is received from customers three months after finished goods are sold and delivered to them.
- (3) No time lag applies to payments of wages and expenses.
- (4) The following figures apply to recent and future months:

Month	Materials received Rs.	Sales Rs.	Wages and Expenses Rs.
January	20,000	30,000	9,500
February	22,000	33,000	10,000
March	24,000	36,000	10,500
April	26,000	39,000	11,000
May	28,000	42,000	11,500
June	30,000	45,000	12,000
July	32,000	48,000	12,500
August	34,000	51,000	13,000

- (5) Cash balance at the beginning of April is Rs. 10,000.
- (6) All the products are sold immediately they have been made and that materials used and sums spent on wages and expenses during any particular month relate strictly to the sales made during that month.

Prepare cash flow forecast month by month from April to July, profit and loss forecast for four months (April-July) and a movement of funds statement for the four months period (April-July).

(Final-Nov. 1997) (10 marks)

3.2 Financial Management

Answer

Cash forecast from April to July

				Amount in Rs.
	April	May	June	July
Opening Balance	10,000	7,000	4,500	2,500
Collections from debtors	<u>30,000</u>	<u>33,000</u>	<u>36,000</u>	<u>39,000</u>
	<u>40,000</u>	<u>40,000</u>	<u>40,500</u>	<u>41,500</u>
Payments:				
Wages and Expenses	11,000	11,500	12,000	12,500
Payment to suppliers	<u>22,000</u>	<u>24,000</u>	<u>26,000</u>	<u>28,000</u>
	<u>33,000</u>	<u>35,500</u>	<u>38,000</u>	<u>40,500</u>
Closing balance	7,000	4,500	2,500	1,000

Profit and Loss forecast for 4 months April-July

	Rs.
Sales (April to July)	1,74,000
Closing Stock (July Purchase)	<u>32,000</u>
	2,06,000
Less: Opening stock- (March purchase)	24,000
Purchases (April to July)	1,16,000
Wages and Expenses (April to July)	<u>47,000</u>
	<u>1,87,000</u>
Profit for the 4 months period	<u>19,000</u>

Movement of Funds Statement

Stock (Opening)	April	March purchase	24,000
Receivables (Opening)	April	Credit allowed 3 months	
		January Sales	30,000
		February Sales	33,000
		March Sales	<u>36,000</u>
			99,000
Creditors (Opening)	April	Credit received 2 months	
		February Purchase	22,000
		March Purchase	<u>24,000</u>
			<u>46,000</u>
Closing stock (end of July), July Purchase			<u>32,000</u>
Receivable (end of July), May to July Sales			<u>1,35,000</u>
Creditors (end of July), June and July Purchase			<u>62,000</u>

Now movement of funds statement can be worked out as :

Sources:		Rs.
Profit earned during 4 months	19,000	
Add: Increase in creditors (62,000 - 46,000)	16,000	
		35,000
Application:		
Less: Increase in receivables (1,35,000-99,000)	36,000	
Less: Increase in stock (32,000-24,000)	<u>8,000</u>	
		<u>44,000</u>
		(-)9,000
Opening Cash balance		<u>10,000</u>
Hence closing cash balance		<u>1,000</u>

Question 2

The following are the Balance Sheets of Gama Limited for the year ending March 31, 2004 and March 31, 2005:

*Balance Sheet
as on March, 31*

	2004 Rs.	2005 Rs.
Capital and Liabilities		
Share Capital	6,75,000	7,87,500
General Reserves	2,25,000	2,81,250
Capital Reserve (Profit on Sale of investment)	-	11,250
Profit & Loss Account	1,12,500	2,25,000
15% Debentures	3,37,500	2,25,000
Accrued Expenses	11,250	13,500
Creditors	1,80,000	2,81,250
Provision for Dividends	33,750	38,250
Provision for Taxation	78,750	85,500
Total	<u>16,53,750</u>	<u>19,48,500</u>
Assets		
Fixed Assets	11,25,000	13,50,000
Less: Accumulated depreciation	2,25,000	2,81,250
Net Fixed Assets	9,00,000	10,68,750

3.4 Financial Management

Long-term Investments (at cost)	2,02,500	2,02,500
Stock (at cost)	2,25,000	3,03,750
Debtors (net of provision for doubtful debts of Rs. 45,000 and Rs. 56,250 respectively for 2004 and 2005 respectively)	2,53,125	2,75,625
Bills receivables	45,000	73,125
Prepaid Expenses	11,250	13,500
Miscellaneous Expenditure	16,875	11,250
	<u>16,53,750</u>	<u>19,48,500</u>

Additional Information:

- (i) During the year 2004-05, fixed assets with a net book value of Rs. 11,250 (accumulated depreciation, Rs. 33,750) was sold for Rs. 9,000.
- (ii) During the year 2004-05, Investments costing Rs. 90,000 were sold, and also Investments costing Rs. 90,000 were purchased.
- (iii) Debentures were retired at a Premium of 10%.
- (iv) Tax of Rs. 61,875 was paid for 2003-04.
- (v) During the year 2004-05, bad debts of Rs. 15,750 were written off against the provision for Doubtful Debt account.
- (vi) The proposed dividend for 2003-04 was paid in 2004-05.

Required:

Prepare a Funds Flow Statement (Statement of changes in Financial Position on working capital basis) for the year ended March 31, 2005. (PE-II-Nov.2005)(16 marks)

Answer

Computation of Funds from Operation

Profit and loss balance on March 31, 2005	Rs. 2,25,000
Add: Depreciation	90,000
Loss on Sale of Asset	2,250
Misc. Expenditure written off	5,625
Transfer to Reserves	56,250
Premium on Redemption of debentures	11,250
Provision for Dividend	38,250
Provision for Taxation	68,625
	<u>4,97,250</u>

Less: P/L balance on March 31, 2004	1,12,500
Funds from operations	3,84,750

Accumulated Depreciation A/c

To Fixed Asset A/c	33,750	By Bal. b/d	2,25,000
		By P/L A/c	90,000
To Bal. c/d	2,81,250	(Pro (Prov. for dep.)	
		(Bal. Fig.)	
	3,15,000		3,15,000

Fixed Assets A/c

To Bal. b/d	11,25,000	By Accumulated	33,750
		Depreciation A/c	
		By Cash	9,000
To Bank (Purchase of	2,70,000	By P/L (Loss on sale)	2,250
Fixed Asset) (Bal. fig.)			
		By Bal. c/d	13,50,000
	13,95,000		13,95,000

Provision for Tax A/c

To Cash (tax paid)	61,875	By Bal. b/d	78,750
		By P/L A/c (Prov.)	
To Bal. c/d	85,500	(Bal. fig.)	68,625
	1,47,375		1,47,375

Statement of Changes in Working Capital

	March 31, 2004	March 31, 2005	Change in W/C	
				+
<i>Current Assets</i>				-
Stock	2,25,000	3,03,750	78,750	
Debtors	2,53,125	2,75,625	22,500	
Bills Receivables	45,000	73,125	28,125	
Prepaid Expenses	11,250	13,500	2,250	
	5,34,375	6,66,000	1,31,625	-
Less: <i>Current liabilities</i>				

3.6 Financial Management

Accrued Expenses	11,250	13,500	-	2,250
Creditors	1,80,000	2,81,250	-	1,01,250
	<u>1,91,250</u>	<u>2,94,750</u>	<u>1,31,625</u>	<u>1,03,500</u>
Working Capital	3,43,125	3,71,250	-	-
Increase in Working Capital				28,125
			<u>1,31,625</u>	<u>1,31,625</u>

Funds Flow Statement for the year ended March 31, 2005

Sources	Rs.
Working Capital from Operations	3,84,750
Sale of Fixed Assets	9,000
Sale of Investments	1,01,250
Share Capital Issued	1,12,500
Total Funds Provided (A)	Rs. 6,07,500
Uses	Rs.
Purchase of Fixed Assets	2,70,000
Purchase of Investments	90,000
Payment of Debentures (at a premium of 10%)	1,23,750
Payment of Dividends	33,750
Payment of Taxes	61,875
Total Funds Applied (B)	5,79,375
Increase in Working Capital (A-B)	Rs. 28,125

Question 3

Following are the financial statements of Zed Ltd.:

Balance Sheet as on

	March 31, 2007	March 31, 2006
	Rs.	Rs.
<i>Capital and Liabilities:</i>		
Share capital, Rs. 10 par value	1,67,500	1,50,000
Share premium	3,35,000	2,37,500
Reserves and Surplus	1,74,300	1,23,250
Debentures	2,40,000	—

Long-term loans	40,000	50,000
Creditors	28,800	27,100
Bank Overdraft	7,500	6,250
Accrued expenses	4,350	4,600
Income-tax payable	<u>48,250</u>	<u>16,850</u>
	<u>10,45,700</u>	<u>6,15,550</u>

	March 31, 2007 Rs.	March 31, 2006 Rs.
Assets:		
Land	3,600	3,600
Building, net of depreciation	6,01,800	1,78,400
Machinery, net of depreciation	1,10,850	1,07,050
Investment in 'A' Ltd.	75,000	—
Stock	58,800	46,150
Prepaid expenses	1,900	2,300
Debtors	76,350	77,150
Trade Investments	40,000	1,05,000
Cash	<u>77,400</u>	<u>95,900</u>
	<u>10,45,700</u>	<u>6,15,550</u>

*Income Statement
for the year ended March 31, 2007*

	Rs.
Net Sales	13,50,000
Less: Cost of goods sold and operating expenses (including depreciation on buildings of Rs. 6,600 and depreciation on machinery of Rs. 11,400)	<u>12,58,950</u>
Net operating profit	91,050
Gain on sale of trade investments	6,400
Gain on sale of machinery	<u>1,850</u>
Profits before tax	99,300
Income-tax	<u>48,250</u>
Profits after tax	<u>51,050</u>

Additional information:

- (i) Machinery with a net book value of Rs. 9,150 was sold during the year.

3.8 Financial Management

(ii) The shares of 'A' Ltd. were acquired by issue of debentures.

Required:

Prepare a Funds Flow Statement (Statement of changes in Financial position on Working capital basis) for the year ended March 31, 2007. (PE-II-Nov.2007) (12 marks)

Answer

Schedule of Changes in Working Capital

	March 31, 2007	March 31, 2006	Impact on Working Capital	
			Increase	Decrease
<i>Current Assets</i>				
Stock	58,800	46,150	12,650	—
Prepaid expenses	1,900	2,300	—	400
Debtors	76,350	77,150	—	800
Trade Investments	40,000	1,05,000	—	65,000
Cash	<u>77,400</u>	<u>95,900</u>	<u>—</u>	<u>18,500</u>
	<u>2,54,450</u>	<u>3,26,500</u>	<u>12,650</u>	<u>84,700</u>
<i>Current Liabilities</i>				
Creditors	28,800	27,100	—	1,700
Bank overdraft	7,500	6,250	—	1,250
Accrued expenses	4,350	4,600	250	—
Income tax payable	<u>48,250</u>	<u>16,850</u>	<u>—</u>	<u>31,400</u>
	<u>88,900</u>	<u>54,800</u>	<u>250</u>	<u>34,350</u>
<i>Net Working Capital</i>	1,65,550	2,71,700	12,900	1,19,050
<i>Decrease in net working capital</i>	<u>1,06,150</u>	<u>—</u>	<u>1,06,150</u>	<u>—</u>
	<u>2,71,700</u>	<u>2,71,700</u>	<u>1,19,050</u>	<u>1,19,050</u>

Machinery Account

	Rs.		Rs.
Balance b/d	1,07,050	Sale of machinery (given)	9,150
Purchase of machinery (plug)	24,350	Depreciation (given)	11,400
	<u> </u>	Balance c/d	<u>1,10,850</u>
	<u>1,31,400</u>		<u>1,31,400</u>

Trade Investments Account

	Rs.		Rs.
Balance b/d	1,05,000	Cash (sale of trade investments)	65,000
	<u> </u>	Balance c/d	<u>40,000</u>
	<u>1,05,000</u>		<u>1,05,000</u>

Estimation of Funds flow from Operations

		Rs.
Profits after tax		51,050
Add: Depreciation on Buildings	6,600	
Depreciation on Machinery	<u>11,400</u>	<u>18,000</u>
		69,050
Less: Gain on sale of machinery		<u>1,850</u>
Funds from Operations		<u>67,200</u>

Gain on sale of trade investments has been considered as an operating income. Trade investments have been considered as part of current assets.

Statement of Changes in Financial Position (Working Capital basis)
for the year ended March 31, 2007

	Rs.
<i>Sources:</i>	
Funds from operations	67,200
Sale of machinery on gain (9,150 + 1,850)	11,000
Debentures issued (Rs. 2,40,000 – 75,000)	1,65,000
Investment in 'A' Ltd. financial transaction and hence not affecting working capital	
Issue of share capital (including share premium)	<u>1,15,000</u>
Financial Resources Provided	<u>3,58,200</u>
<i>Uses:</i>	
Purchase of building (6,01,800 + 6,600 – 1,78,400)	4,30,000
Purchase of machinery	24,350
Payment of long-term loan	
	<u>10,000</u>
Financial Resources Applied	<u>4,64,350</u>
Net Decrease in Working Capital	<u>1,06,150</u>

3.10 Financial Management

Question 4

Balance Sheet of OP Ltd. as on 31st March, 2007 and 2008 are as follows:

Liabilities	Amount 31.3.2007 Rs.	Amount 31.3.2008 Rs.	Assets	Amount 31.3.2007 Rs.	Amount 31.3.2008 Rs.
Share capital	20,00,000	20,00,000	Land and Building	15,00,000	14,00,000
General Reserve	4,00,000	4,50,000	Plant and Machinery	18,00,000	17,50,000
Profit and Loss A/c	2,50,000	3,60,000	Investment	4,00,000	3,72,000
10% Debentures	10,00,000	8,00,000	Stock	4,80,000	8,50,000
Bank Loan (long-term)	5,00,000	6,00,000	Debtors	6,00,000	7,98,000
Creditors	4,00,000	5,80,000	Prepaid Expenses	50,000	40,000
Outstanding Expenses	20,000	25,000	Cash and Bank	1,40,000	85,000
Proposed Dividend	3,00,000	3,60,000			
Provision for taxation	<u>1,00,000</u>	<u>1,20,000</u>			
	<u>49,70,000</u>	<u>52,95,000</u>		<u>49,70,000</u>	<u>52,95,000</u>

Additional informations:

- New machinery for Rs. 3,00,000 was purchased but an old machinery costing Rs. 1,45,000 was sold for Rs. 50,000 and accumulated depreciation thereon was Rs. 75,000.*
- 10% debentures were redeemed at 20% premium.*
- Investment were sold for Rs. 45,000, and its profit was transferred to general reserve.*
- Income-tax paid during the year 2007-08 was Rs. 80,000.*
- An interim dividend of Rs. 1,20,000 has been paid during the year 2007-08.*
- Assume the provision for taxation as current liability and proposed dividend as non-current liability.*
- Investment are non-trade investment.*

You are required to prepare:

- Schedule of changes in working capital.*
- Funds flow statement.*

(PE-II-Nov.2008) (12 marks)

Answer**(i) Schedule of Changes in Working Capital**

Particulars	31st March		Working Capital	
	2007 Rs.	2008 Rs.	Increase Rs.	Decrease Rs.
A. Current Assets:				
Stock	4,80,000	8,50,000	3,70,000	—
Debtors	6,00,000	7,98,000	1,98,000	—
Prepaid Expenses	50,000	40,000	—	10,000
Cash and Bank	<u>1,40,000</u>	<u>85,000</u>	—	55,000
Total (A)	<u>12,70,000</u>	<u>17,73,000</u>		
B. Current Liabilities:				
Creditors	4,00,000	5,80,000	—	1,80,000
Outstanding Expenses	20,000	25,000	—	5,000
Provision for Taxation	<u>1,00,000</u>	<u>1,20,000</u>	—	20,000
Total (B)	<u>5,20,000</u>	<u>7,25,000</u>		
Working Capital (A – B)	<u>7,50,000</u>	<u>10,48,000</u>	5,68,000	2,70,000
Increase in Working Capital				<u>2,98,000</u>
Total			<u>5,68,000</u>	<u>5,68,000</u>

**(ii) Funds Flow Statement
for the year ending 31st March, 2008**

Sources of Funds	Amount Rs.	Application of Funds	Amount Rs.
Funds from operations	10,63,000	Redemption of debentures	2,40,000
Bank loan taken	1,00,000	Purchase of machinery	3,00,000
Sale of Machinery	50,000	Dividend paid	3,00,000
Sale of Investment	45,000	Interim Dividend paid	1,20,000
		Increase in working capital	<u>2,98,000</u>
	<u>12,58,000</u>		<u>12,58,000</u>

3.12 Financial Management

Workings:

1. Funds from operations:

Adjusted Profit and Loss A/c

	Rs.	Rs.		Rs.
To General Reserve		33,000	By Balance b/d	2,50,000
To Depreciation			By Funds from operations	10,63,000
On Land and Building	1,00,000		(Balancing figure)	
On Plant & Machinery	<u>2,80,000</u>	3,80,000		
To Loss on Sale of Machine		20,000		
To Premium on Redemption of Debentures		40,000		
To Proposed Dividend		3,60,000		
To Interim Dividend		1,20,000		
To Balance c/d		3,60,000		
		<u>13,13,000</u>		<u>13,13,000</u>

2. **Depreciation on Land and Building** = Rs. 15,00,000 – Rs. 14,00,000
= Rs. 1,00,000.

3. **Loss on Sale of Old Machine** = Cost Rs. 1,45,000 – Rs. 75,000 (Cum-Dep.) –
Rs. 50,000 (Sales value) = Rs. 20,000

4. Depreciation on Plant and Machinery:

Plant and Machinery A/c

	Dr.		Cr.
	Rs.		Rs.
To Balance b/d	18,00,000	By Bank A/c (Sold)	50,000
To Bank A/c (Purchases)	3,00,000	By Profit and Loss A/c (Loss on Sales)	20,000
		By Depreciation (Balancing figure)	2,80,000
		By Balance c/d	<u>17,50,000</u>
	<u>21,00,000</u>		<u>21,00,000</u>

5. Premium on Redemption of Debentures:

Amount of Debenture Redeemed = Rs. 10,00,000 – Rs. 8,00,000
 = Rs. 2,00,000
 Premium = Rs. 2,00,000 × 20/100
 = Rs. 40,000

6. Profit on sale of investment:**Investment A/c**

Dr.

Cr.

	Rs.		Rs.
To Balance b/d	4,00,000	By Bank A/c (Sales)	45,000
To General Reserve (Profit on Sales)	17,000	By Balance c/d	3,72,000
	<u>4,17,000</u>		<u>4,17,000</u>

7. Amount transferred to General Reserve from Profit and Loss A/c:**General Reserve A/c**

Dr.

Cr.

	Rs.		Rs.
To Balance c/d	4,50,000	By Balance b/d	4,00,000
		By Investment A/c	17,000
		By Profit and Loss A/c	<u>33,000</u>
	<u>4,50,000</u>		<u>4,50,000</u>

Question 5

Alcobex Metal Company (AMC) does business in three products P_1 , P_2 and P_3 . Products P_1 and P_2 are manufactured in the company, while product P_3 is procured from outside and resold as a combination with either product P_1 or P_2 . The sales volume budgeted for the three products for the year 2000-2001 (April-March) are as under:

Products	Rs. in lakhs	
P_1	1,200	
P_2	500	
P_3	400	[Dec. 1999 to March, 2000 Rs. 20.00 lakhs P.M. April, 2000 to July, 2000 Rs. 25.00 lakhs P.M. Aug. 2000 to Nov. 2000 Rs. 30.00 lakhs P.M. Dec. 2000 to March, 2001 Rs. 45.00 lakhs P.M.]

Based on the budgeted sales value, the cash flow forecast for the company is prepared based on the following assumptions:

3.14 Financial Management

- (1) Sales realisation is considered at:
 - 50% Current month
 - 25% Second month
 - 25% Third month
- (2) Production Programme for each month is based on the sales value of the next month.
- (3) Raw material consumption of the company is kept at 59% of the month's production.
- (4) 81% of the raw materials consumed are components.
- (5) Raw material and components to the extent, at 25% are procured through import.
- (6) The Purchases budget is as follows:
 - (i) Indigenous raw materials are purchased two months before the actual consumption.
 - (ii) Components are procured in the month of consumption.
 - (iii) Imported raw materials and components are brought three months prior to the month of consumption.
- (7) The company avails of the following credit terms from suppliers:
 - (i) Raw materials are paid for in the month of purchases;
 - (ii) Company gets one month's credit for its components;
 - (iii) For imported raw material and components payments are made one month prior to the dates of purchases.
- (8) Currently the company has a cash credit facility of Rs. 140.88 lakhs
- (9) Expenses are given below and are expected to be constant throughout the year:

Wages and Salaries	Rs. 312 lakhs
Administrative Expenses	Rs. 322 lakhs
Selling and Distribution Expenses	Rs. 53 lakhs
- (10) Dividend of Rs. 58.03 lakhs is to be paid in October.
- (11) Tax of Rs. 23.92 lakhs will be paid in equal installments in four-quarters: i.e., January, April, July and October.
- (12) The term-loan of Rs. 237.32 lakhs is repayable in two equal installments half-yearly. i.e June/December.
- (13) Capital expenditure of Rs. 292.44 lakhs for the year is expected to be spread equally during the 12 months period.

You are required to prepare a Cash Flow Statement (Cash Budget) for the period of June-November, 2000.
(Final-May 2001) (20 marks)

Answer

Alcobex Metal Company
Cash Flow statement (cash budget) for the period of June –November, 2000

(Rs. in lakhs)

	June	July	August	September	October	November	Total cash flow
Opening Balance (Refer to Assumption)	(140.88)	(273.98)	(294.40)	(310.35)	(326.31)	(405.03)	(140.88)
Collection from customers (Refer to working note 1)	166.67	166.67	169.17	170.42	171.67	171.67	1,016.27
Total	25.79	(107.31)	(125.23)	(139.93)	(154.64)	(233.36)	875.39
Payment to supplier (Refer to working note 4)	99.49	101.70	103.5	104.76	104.76	104.76	618.97
Wages and Salaries	26	26	26	26	26	26	56.00
Administrative expenses	26.83	26.83	26.83	26.83	26.83	26.83	160.98
Selling and Distribution	4.42	4.42	4.42	4.42	4.42	4.42	26.52
Dividend					58.03		58.03
Tax	-	5.98	-	5.98	-	-	11.96
Capital Expenditure	24.37	24.37	24.37	24.37	24.37	24.37	146.22
Repayment of term loan	118.66						118.66
Total	299.77	189.30	185.12	186.38	250.39	186.38	1,297.34
Closing balance	(273.98)	(294.40)	(310.35)	(326.31)	(405.03)	(419.74)	(421.95)

Assumptions:

1. Since the opening cash balance as on June, 2000 is not given, it is assumed that the credit facility enjoyed by the company of Rs. 140.88 lakhs is its opening balance.
2. Since the question does not provide relevant information regarding purchase price and

3.16 Financial Management

payment terms to the suppliers in respect of Product P3 which is procured from outside and sold as a combination with either Product P1 or P2. It is assumed that the Product P3 is manufactured within the company and its production programme and production costs are same as to the manufacturing of Products P1 or P2.

- In the working notes some of the calculations are taken from December for the sake of completeness otherwise they are not required.

Working Notes:

1. Collection from debtors:

	Sales	Product P2	Product P3	Total Sales	Current month collection	2 nd month collection	3 rd month collection	Total collection
	(i)			(ii)	(iii)	(iv)	(v)	(vi)=(ii)+(iii)+(iv)
December	100	41.67	20	161.67	80.83	0	0	80.83
January	100	41.67	20	161.67	80.83	40.42	0	121.25
February	100	41.67	20	161.67	80.83	40.42	40.42	161.67
March	100	41.67	20	161.67	80.83	40.42	40.42	161.67
April	100	41.67	25	166.67	83.33	40.42	40.42	164.17
May	100	41.67	25	166.67	83.33	41.67	40.42	165.42
June	100	41.67	25	166.67	83.33	41.67	41.67	166.67
July	100	41.67	25	166.67	83.33	41.67	41.67	166.67
August	100	41.67	30	171.67	85.83	41.67	41.67	169.17
September	100	41.67	30	171.67	85.83	42.92	41.67	170.42
October	100	41.67	30	171.67	85.83	42.92	42.92	171.67
November	100	41.67	30	171.67	85.83	42.92	42.92	171.67
December	100	41.67	45	186.67	93.33	42.92	42.92	179.17
January	100	41.67	45	186.67	93.33	46.67	42.92	182.92
February	100	41.67	45	186.67	93.33	46.67	46.67	186.67
March	100	41.67	45	186.67	93.33	46.67	46.67	186.67
Total	1600	666.67	480	2746.67	1373.33	640.00	593.33	2606.67

2. Production Programme

Months	Sales Value (Refer to working note (i) column (ii))	Total raw material consumption	Components	Other raw material	Imported raw material & components	Indigenous raw material & components	Indigenous raw material	Indigenous components
	(i)	(ii)=59% of (i)	(iii)=81% of (ii)	(iv)=(ii)-(iii)	(v)=25% of (ii)	(vi)=(ii)-(v)	(vii)=75% of (iv)	(viii)=75% of (iii)
December	161.67	95.38	77.26	18.12	23.85	71.54	13.59	57.95
January	161.67	95.38	77.26	18.12	23.85	71.54	13.59	57.95
February	161.67	95.38	77.26	18.12	23.85	71.54	13.59	57.95

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March	166.67	98.38	79.65	18.68	24.58	73.75	14.01	59.74
April	166.67	98.33	79.65	18.68	24.58	73.75	14.01	59.74
May	166.67	98.33	79.65	18.68	24.58	73.75	14.01	59.74
June	166.67	98.33	79.65	18.68	24.58	73.75	14.01	59.74
July	171.67	101.28	82.04	19.24	25.32	75.96	14.43	61.53
August	171.67	101.28	82.04	19.24	25.32	75.96	14.43	61.53
September	171.67	101.28	82.04	19.24	25.32	75.96	14.43	61.53
October	171.67	101.28	82.04	19.24	25.32	75.96	14.43	61.53
November	186.67	110.13	89.21	20.93	27.53	82.60	15.69	66.91
December	186.67	110.13	89.21	20.93	27.53	82.60	15.69	66.91
January	186.67	110.13	89.21	20.93	27.53	82.60	15.69	66.91
February	186.67	110.13	89.21	20.93	27.53	82.60	15.69	66.91
Total	2585.05	1525.15	1235.38	289.76	381.27	1143.86	217.29	926.57

3. Purchase Programme

<i>Months</i>	<i>Indigenous others (Refer to working note 2 above) (column vii)</i>	<i>Indigenous Components (Refer to working note 2 above) (column viii)</i>	<i>Imported others</i>
	<i>(i)</i>	<i>(ii)</i>	<i>(iii)</i>
December	13.59	57.95	24.58
January	14.01	57.95	24.58
February	14.01	57.95	24.58
March	14.01	59.74	24.58
April	14.01	59.74	25.32
May	14.43	59.74	25.32
June	14.43	59.74	25.32
July	14.43	61.53	25.32
August	14.43	61.53	27.53
September	15.69	61.53	27.53
October	15.69	61.53	27.53
November	15.69	66.91	27.53
December	15.69	66.91	-
January	0.00	66.91	-
February	0.00	66.91	-

3.18 Financial Management

4. Payment to Suppliers (Rs. in lakhs)

Months	Indigenous others	Indigenous Components (Previous month paid now)	Imported others and components (Next month purchase advance payment)	Total Payment
December	13.59	0	24.58	13.59
January	14.01	57.95	24.58	96.54
February	14.01	57.95	24.58	96.54
March	14.01	57.95	25.32	96.54
April	14.01	59.74	25.32	99.07
May	14.43	59.74	25.32	99.49
June	14.43	59.74	25.32	99.49
July	14.43	59.74	27.53	101.70
August	14.43	61.53	27.53	103.50
September	15.69	61.53	27.53	104.76
October	15.69	61.53	27.53	104.76
November	15.69	61.53	0.00	104.76
December	15.69	66.91	0.00	82.60
January	0.00	66.91	0.00	66.91
February	0.00	66.91	0.00	66.91
March		66.91	0.00	66.91
		0.00	0.00	

Question 6

XYZ Ltd. Company's Comparative Balance Sheet for 2002 and the Company's Income Statement for the year are as follows:

XYZ Ltd.

Comparative Balance Sheet December 31, 2002 and 2001

(Rs. in crores)	2002		2001
Sources of funds:			
Shareholder's funds			
Share Capital	140	140	
Retained earnings	<u>110</u>	<u>92</u>	232
Loan funds			
Bonus payable	<u>135</u>		<u>40</u>
	<u>385</u>		<u>272</u>
Application of funds			

<i>Fixed Assets</i>					
Plant and Equipment	430		309		
Less: Accumulated depreciation	<u>(218)</u>	212	<u>(194)</u>		115
Investments		60			75
<i>Current Assets</i>					
Inventory	205		160		
Accounts receivable	180		270		
Pre-paid expenses	17		20		
Cash	<u>26</u>	428	<u>10</u>	460	
<i>Less : Current liabilities and provisions</i>					
Accounts payable	230		310		
Accrued liabilities	70		60		
Deferred income-tax provision	<u>15</u>	<u>315</u>	<u>113</u>	<u>8</u>	<u>378</u>
			<u>385</u>		<u>82</u>
					<u>272</u>

XYZ Ltd.
Income Statement
For the year ended December 31, 2002
(Rs. in crores)

Sales	Rs.1,000
Less : Cost of goods sold	<u>530</u>
Gross margin	470
Less : Operating expenses	<u>352</u>
Net operating income	118
<i>Non-operating items:</i>	
Loss on sale of equipment	<u>(4)</u>
Income before taxes	114
Less : Income-taxes	<u>48</u>
Net income	66

Additional information:

- (i) Dividends of Rs.48 crores were paid in 2002.
- (ii) The loss on sale of equipment of Rs.4 crore reflects a transaction in which equipment with an original cost of Rs.12 crore and accumulated depreciation of Rs.5 crore were sold for Rs.3 crore in cash.

Required:

Using the indirect method, determine the net cash provided by operating activities for 2002 and construct a statement of cash flows.
(PE-II-May 2003) (9 marks)

3.20 Financial Management

Answer

**Statement of net cash flows provided by operating activities
by using indirect method for the year ended December 31, 2002**

(Rs. in crores)

Operating Activities

Net Income	66
<i>Adjustment to convert net income to a cash basis</i>	
Depreciation and amortization charges	29
Decrease in accounts receivable	90
Increase in inventory	(45)
Decrease in pre-paid expenses	3
Decrease in accounts payable	(80)
Increase in accrued liabilities	10
Increase in deferred income tax	7
Loss on sale of equipment	4
Net cash provided by operating activities	<u>84</u>

Cash Flow from Investing Activities

Additions to property, building & equipment	(133)
Decrease in long term investments	15
Proceeds from sale of equipment	3
Net cash used in investing activities	<u>(115)</u>

Cash Flows from Financing Activities

Increase in bonds payable	95
Cash dividends paid	<u>(48)</u>
Net cash used in financing activities	<u>47</u>

Net increase in cash & cash equivalents	16
Cash & cash equivalents at the beginning of year	<u>10</u>
Cash & cash equivalents at the end of year	<u>26</u>

Question 7

The following is the income statement XYZ Company for the year 2004:

	(Rs.)
Sales	1,62,700
Add.: Equity In ABC Company's earning	<u>6,000</u>

			1,68,700
Expenses		Rs.	
Cost of goods sold		89,300	
Salaries		34,400	
Depreciation		7,450	
Insurance		500	
Research and development		1,250	
Patent amortisation		900	
Interest		10,650	
Bad debts		2,050	
Income tax:			
Current	6,600		
Deferred	1,550	8,150	
Total expenses			1,54,650
Net income			14,050

Additional information's are:

- (i) 70% of gross revenue from sales were on credit.
- (ii) Merchandise purchases amounting to Rs. 92,000 were on credit.
- (iii) Salaries payable totaled Rs. 1,600 at the end of the year.
- (iv) Amortisation of premium on bonds payable was Rs. 1,350.
- (v) No dividends were received from the other company.
- (vi) XYZ Company declared cash dividend of Rs. 4,000.
- (vii) Changes in Current Assets and Current Liabilities were as follows:

	Increase (Decrease)
	Rs.
Cash	500
Marketable securities	1,600
Accounts receivable	(7,150)
Allowance for bad debt	(1,900)
Inventory	2,700

3.22 Financial Management

<i>Prepaid insurance</i>	700
<i>Accounts payable (for merchandise)</i>	5,650
<i>Salaries payable</i>	(2,050)
<i>Dividends payable</i>	(3,000)

Prepare a statement showing the amount of cash flow from operations.

(PE-II-May 2005) (7 marks)

Answer

Statement showing cash flow from Operations

	Rs	Rs
<i>Cash flow from operations</i>		
Cash sales ($30\% \times 1,62,700$)	48,810	
Collection from debtors	1,20,890	
Total cash from operations		1,69,700
<i>Uses of cash from operations</i>		
Payment to suppliers	86,350	
Salaries expense	36,450	
Payment for insurance	1,200	
Research and development	1,250	
Interest payment	12,000	
Income tax payment	6,600	
Total operating cash payment		1,43,850
Net cash flow from operations		25,850

Notes

(1)

<i>Collection from debtors</i>	Rs
Credit sales ($70\% \times 1,62,700$)	1,13,890
Less : Bad debts (2,050 less 1,900)	150
	1,13,740
Add : decrease in accounts receivables	7,150
Collection from debtors on credit sales	1,20,890

(2) Dividends earned Rs 6,000 on equity of ABC Company has not been considered as it has not been received in cash.

(3) Payment to suppliers

Cost of goods sold	Rs 89,300
Add: Increase in inventory	2,700
Purchases	9,200
Less: increase in accounts payable	5,650

	Payment to suppliers	86,350
(4)	Calculation of salaries payment	
	Salary expense	Rs 34,400
	Add : decrease in salary payable	2,050
	Payment of salaries	Rs 36,450
(5)	Insurance payments	
	Insurance	Rs 500
	Add : increase in prepaid insurance	700
	Payment for insurance	Rs 1,200
(6)	Interest payment	
	Interest expenses	Rs 10,650
	Add : Amortisation of bond premium	1,350
	Interest payments	Rs 12,000
(7)	Income tax payments	
	Income tax expense	Rs 8,150
	Less: deferred tax	1,550
		Rs 6,600
	Changes in current tax payable	Nil
	Income tax payments	Rs 6,600

Question 8

From the information contained in Income Statement and Balance Sheet of 'A' Ltd., prepare Cash Flow Statement:

Income Statement for the year ended March 31, 2006

		Rs.
Net Sales	(A)	<u>2,52,00,000</u>
Less:		
Cash Cost of Sales		1,98,00,000
Depreciation		6,00,000
Salaries and Wages		24,00,000
Operating Expenses		8,00,000
Provision for Taxation		<u>8,80,000</u>
	(B)	<u>2,44,80,000</u>

3.24 Financial Management

Net Operating Profit (A – B)	7,20,000
Non-recurring Income – Profits on sale of equipment	<u>1,20,000</u>
	8,40,000
Retained earnings and profits brought forward	<u>15,18,000</u>
	23,58,000
Dividends declared and paid during the year	<u>7,20,000</u>
Profit and Loss Account balance as on March 31, 2006	<u>16,38,000</u>

Balance Sheet as on

Assets	March 31, 2005 (Rs.)	March 31, 2006 (Rs.)
<i>Fixed Assets:</i>		
Land	4,80,000	9,60,000
Buildings and Equipment	36,00,000	57,60,000
<i>Current Assets:</i>		
Cash	6,00,000	7,20,000
Debtors	16,80,000	18,60,000
Stock	26,40,000	9,60,000
Advances	<u>78,000</u>	<u>90,000</u>
	<u>90,78,000</u>	<u>1,03,50,000</u>

Balance Sheet as on

Liabilities and Equity	March 31, 2005 (Rs.)	March 31, 2006 (Rs.)
Share Capital	36,00,000	44,40,000
Surplus in Profit and Loss Account	15,18,000	16,38,000
Sundry Creditors	24,00,000	23,40,000
Outstanding Expenses	2,40,000	4,80,000
Income-tax payable	1,20,000	1,32,000
Accumulated Depreciation		
on Buildings and Equipment	<u>12,00,000</u>	<u>13,20,000</u>
	<u>90,78,000</u>	<u>1,03,50,000</u>

The original cost of equipment sold during the year 2005-06 was Rs. 7,20,000.

(PE-II-Nov. 2006) (10 marks)

Answer

**Cash Flow Statement of Company A Ltd.
for the year ending March 31, 2006**

Cash flows from Operating Activities

	<i>Rs.</i>
Net Profits before Tax and Extra-ordinary Item	16,00,000
Add: Depreciation	<u>6,00,000</u>
Operating Profits before Working Capital Changes	22,00,000
Increase in Debtors	(1,80,000)
Decrease in Stock	16,80,000
Increase in Advances	(12,000)
Decrease in Sundry Creditors	(60,000)
Increase in Outstanding Expenses	<u>2,40,000</u>
Cash Generated from Operations	38,68,000
Income tax Paid	<u>8,68,000</u>
Net Cash from Operations	<u>30,00,000</u>

Cash flows from Investment Activities

	<i>Rs.</i>
Purchase of Land	(4,80,000)
Purchase of Buildings and Equipment	(28,80,000)
Sale of Equipment	<u>3,60,000</u>
Net Cash used in Investment Activities	<u>(30,00,000)</u>

Cash flows from Financing Activities

		<i>Rs.</i>
Issue of Share Capital	8,40,000	
Dividends Paid	<u>(7,20,000)</u>	
Net Cash from Financing Activities		<u>1,20,000</u>
Net increase in Cash and Cash Equivalents		1,20,000
Cash and Cash Equivalents at the beginning		<u>6,00,000</u>
Cash and Cash Equivalents at the end		<u>7,20,000</u>

3.26 Financial Management

Buildings and Equipment Account

	Rs.		Rs.
Balance b/d	36,00,000	Sale of Asset	7,20,000
Cash/Bank (purchase)		Balance c/d	57,60,000
(Balancing figure)	<u>28,80,000</u>		
	<u>64,80,000</u>		<u>64,80,000</u>

Accumulated Depreciation on Buildings and Equipment Account

	Rs.		Rs.
Sale of Asset		Balance b/d	12,00,000
(Accumulated depreciation)	4,80,000	Profit and Loss (Provisional)	6,00,000
Balance c/d	<u>13,20,000</u>		
	<u>18,00,000</u>		<u>18,00,000</u>

Sale of Asset Account

	Rs.
Original Cost	7,20,000
Less: Accumulated Depreciation	<u>4,80,000</u>
Net Cost	2,40,000
Profit on Sale of Asset	<u>1,20,000</u>
Sale Proceeds from Asset Sales	<u>3,60,000</u>

Question 9

X Ltd. has the following balances as on 1st April 2007:

	Rs.
<i>Fixed Assets</i>	<i>11,40,000</i>
<i>Less; Depreciation</i>	<u><i>3,99,000</i></u>
	<i>7,41,000</i>
<i>Stocks and Debtors</i>	<i>4,75,000</i>
<i>Bank Balance</i>	<i>66,500</i>
<i>Creditors</i>	<i>1,14,000</i>
<i>Bills payable</i>	<i>76,000</i>
<i>Capital (Shares of Rs. 100 each)</i>	<i>5,70,000</i>

The Company made the following estimates for financial year 2007-08:

- (i) The company will pay a free of tax dividend of 10% the rate of tax being 25%.
- (ii) The company will acquire fixed assets costing Rs.1,90,000 after selling one machine for Rs. 38,000 costing Rs. 95,000 and on which depreciation provided amounted to Rs. 66,500.
- (iii) Stocks and Debtors, Creditors and Bills payables at the end of financial year are expected to be Rs. 5,60,500, Rs. 1,48,200 and Rs. 98,800 respectively.
- (iv) The profit would be Rs. 1,04,500 after depreciation of Rs. 1,14,000.

Prepare the projected cash flow statement and ascertain the bank balance of X Ltd. at the end of Financial year 2007-08.
(PE-II-May 2008) (8 marks)

Answer

Working:

(i) Cash Flow from operations

	Rs.
Profit for the year	1,04,500
Add: Depreciation (non cash item)	<u>1,14,000</u>
	2,18,500
Less: Profit on sale of machine	<u>9,500</u>
	2,09,000
Add increase in:	
Creditors (Rs. 1,48,200 – Rs. 1,14,000) = Rs. 34,200	
Bills payable (Rs. 98,800 – Rs. 76,000) = Rs. 22,800	<u>57,000</u>
	2,66,000
Less: Increase in stocks & debtors (Rs. 5,60,500 – Rs. 4,75,000)	<u>85,500</u>
Cash from operations	<u>1,80,500</u>

(ii) Payment of Dividend

10% on capital Rs. 5,70,000 = Rs. 57,000

Gross up Amount = $\left(\frac{\text{Rs. } 57,000}{75} \times 100 \right) = \text{Rs. } 76,000$

Total Dividend Rs. 76,000

Tax 25% Rs. 19,000

Payment of Dividend Rs. 57,000

Note: Income Tax on Company's Profit Ignored

3.28 Financial Management

Projected Cash Flow Statement for the Year ending on 31st March, 2008

		Rs.
Bank Balance as on 1 st April, 2007		66,500
Add: Inflow of Cash		
Sale of Machine	Rs. 38,000	
Cash From operation	<u>Rs. 1,80,500</u>	<u>2,18,500</u>
Less: Outflow of Cash		2,85,000
Purchase of Fixed Assets	Rs. 1,90,000	
Payment of Dividend	Rs. 57,000	
Tax Paid	<u>Rs. 19,000</u>	<u>2,66,000</u>
Bank Balance on 31 st March, 2008		<u>19,000</u>

Question 10

A newly established company manufacturing two products furnishes the Cost Sheets as under:

	Products Rs./unit	
	L	B
Direct Materials	40	20
Direct Labour	30	15
Variable Overheads	14	7
Selling Price	100	50

Fixed overheads excluding bank interest amount to Rs. 6,00,000 per annum spread out evenly throughout the year.

Sales forecast is as under:

Product	July	August	Sept.	Oct.	Nov. '98
L (Units)	4,200	4,600	3,600	4,000	4,500
B (Units)	2,100	2,300	1,800	2,000	1,900

Production: 75% of each month's sales will be produced in the month of sale and 25% in the previous month.

Sales Pattern:

L : One-third of sales will be on cash basis on which a cash discount of 2% is allowed.

One-third will be on documents against payment basis.

The documents will be discounted by the bank in the month of sales itself.

Balance of one-third will be on documents against acceptance basis.

The payment under this scheme will be received in the third month.

For e.g. for sales made in September, payment will be received in November.

B.: 80% of the sales will be against cash to be received in the month of sales and the balance 20% will be received next following month.

Direct materials: 50% of the direct materials required for each month's production will be purchased in the previous month and the balance in the month of production itself. The payment will be made in the month next following the purchase.

Direct Wages: 80% of the direct wages will be paid in the month of use of direct labour for production and the balance in the next following month.

Variable overheads: 50% to be paid in the month of incurrence and the balance in the next following month.

Fixed overheads: 40% will be paid in the month of incurrence and the other 40% in the next following month. The balance of 20% represents depreciation.

The bill discounting charges payable to the bank in the month in which the bills are discounted amount to 50 paise per Rs. 100 of bills discounted.

A cash balance of Rs. 1,00,000 will be maintained on 1st July, 1998.

Prepare a cash budget monthwise for July, August and September, 1998

(Final-May 1998) (20 marks)

Answer

Cash Budget for July, August and September, 1998

Particulars	July '98 Rs.	Aug '98 Rs.	Sept '98 Rs.
(A) Receipts			
Sales (Refer to working note 1)	<u>3,61,200</u>	<u>4,16,600</u>	<u>4,72,000</u>
(B) Payments			
Direct Materials (Refer to working note 2)	1,33,750	2,16,250	2,01,250
Direct Wages (Refer to working note 3)	1,36,875	1,62,750	1,43,625
Variable overheads (Refer to working note 4)	46,813	75,688	70,438
Fixed overheads (Refer to working note 5)	40,000	40,000	40,000
Bill Discounting charges (Refer to working note 6)	700	767	600
	<u>3,58,138</u>	<u>4,95,455</u>	<u>4,55,913</u>

3.30 Financial Management

(C)	Surplus/Deficit of Cash (A-B)	3,062	(78,855)	16,687
(D)	Add: Opening Balance	1,00,000	1,03,062	24,207
(E)	Closing Balance (C+D)	1,03,062	24,207	40,894

Working Notes:

Particulars	June '98 Rs.	July '98 Rs.	August '98 Rs.	Sept. '98 Rs.	Oct. '98 Rs.
1. Sales					
L	-	4,20,000	4,60,000	3,60,000	-
B	-	<u>1,05,000</u>	<u>1,15,000</u>	<u>90,000</u>	-
	-	<u>5,25,000</u>	<u>5,75,000</u>	<u>4,50,000</u>	-
Cash inflow from sales:					
L : 1/3 Cash less discounts	-	1,37,200 (1/3 of Rs. 4,20,000 x 98%)	1,50,267 (1/3 of Rs. 4,60,000 x 98%)	1,17,600 (1/3 of Rs. 3,60,000 x 98%)	-
1/3 D/P discounts	-	1,40,000 (1/3 of Rs. 4,20,000)	1,53,333 (1/3 of Rs. 4,60,000)	1,20,000 (1/3 of Rs. 3,60,000)	-
1/3 DA collection	-	-	-	1,40,000	-
B : 80% cash	-	84,000 (80% of Rs. 1,05,000)	92,000 (80% of Rs. 1,15,000)	72,000 (80% of Rs. 90,000)	-
20% collection	-	-	21,000 (20% of 1,05,000)	23,000 (20% of 1,15,000)	-
Total	-	<u>3,61,200</u>	<u>4,16,600</u>	<u>4,72,600</u>	
2. Production (Qty)					
L. 75%	-	3,150 (75% of 4,200 units)	3,450 (75% of 4,600 units)	2,700 (75% of 3,600 units)	3,000 (75% of 4,000 units)
25%	1,050 (25% of 4,200 units)	1,150 (25% of 4,600 units)	900 (25% of 3,600 units)	1,000 (25% of 4,000 units)	1,125 (25% of 4,500 units)
	-	<u>1,050</u>	<u>4,350</u>	<u>3,700</u>	<u>4,125</u>
B 75%	-	1,575 (75% of 2,100 units)	1,725 (75% of 2,300 units)	1,350 (75% of 1,800 units)	1,500 (75% of 2,000 units)

25%	525 (25% of 2,100units)	575 (25% of 2,300 units)	450 (25% of 1,800 units)	500 (25% of 2,000 units)	475 (25% of 1,900units)
	<u>525</u>	<u>2,150</u>	<u>2,175</u>	<u>1,850</u>	<u>1,975</u>
<i>Direct material requirements: (Rs.)</i>					
L	42,000 (1,050 units x Rs. 40)	1,72,000 (4,300 units x Rs. 40)	1,74,000 (4,350 units x Rs. 40)	1,48,000 (3,700 units x Rs. 40)	1,65,000 (4,125 units x Rs. 40)
B	10,500 (525 units x Rs. 20)	43,000 (2,150 units x Rs. 20)	43,500 (2,175 units x Rs. 20)	37,000 (1,850 units x Rs. 20)	39,500 (1,975 units x Rs. 20)
	<u>52,500</u>	<u>2,15,000</u>	<u>2,17,500</u>	<u>1,85,000</u>	<u>2,04,500</u>
<i>Purchases: (Rs.)</i>					
	26,250 (50% of Rs. 52,500)	1,07,500 (50% of Rs. 2,15,000)	1,08,750 (50% of Rs. 2,17,500)	92,500 (50% of Rs. 1,85,000)	-
	1,07,500 (50% of Rs. 2,15,000)	1,08,750 (50% of Rs. 2,17,500)	92,500 (50% of Rs. 1,85,000)	1,02,250 (50% of Rs. 2,04,500)	-
	<u>1,33,750</u>	<u>2,16,250</u>	<u>2,01,250</u>	<u>1,94,750</u>	
Payment (Rs.)		<u>1,33,750</u>	<u>2,16,250</u>	<u>2,01,250</u>	
<i>3. Direct wages</i>					
L	31,500 (1,050 x Rs. 30)	1,29,000 (4,300 x Rs. 30)	1,30,500 (4,350 x Rs. 30)	1,11,000 (3,700 x Rs. 30)	-
B	7,875 (525 x Rs. 15)	32,250 (2,150 x Rs. 15)	32,625 (2,175 x Rs. 15)	27,750 (1,850 x Rs. 15)	-
	<u>39,375</u>	<u>1,61,250</u>	<u>1,63,125</u>	<u>1,38,750</u>	
<i>Payment:</i>					
20% L	-	7,875 (20% of Rs. 39,375)	32,250 (20% of Rs. 1,61,250)	32,625 (20% of Rs. 1,63,125)	-

3.32 Financial Management

80%	B	-	1,29,000 (80% of Rs. 1,61,250)	1,30,500 (80% of Rs. 1,63,125)	1,11,000 (80% of Rs. 1,38,750)	-
			<u>1,36,875</u>	<u>1,62,750</u>	<u>1,43,625</u>	
4. Variable overheads						
	L	14,700 (1,050 x Rs. 14)	60,200 (4,300 x Rs. 14)	60,900 (4,350 x Rs. 14)	51,800 (3,700 x Rs. 14)	-
	B	3,675 (525 x Rs. 7)	15,050 (2,150 x Rs. 7)	15,225 (2,175 x Rs. 7)	12,950 (1,850 x Rs. 7)	-
		<u>18,375</u>	<u>75,250</u>	<u>76,125</u>	<u>64,750</u>	
Variable overheads payment (Rs.)						
50%	-	37,625 (50% of Rs. 72,250)	38,063 (50% of Rs. 76,125)	32,375 (50% of Rs. 64,750)		-
50%	-	9,188 (50% of Rs. 18,375)	37,625 (50% of Rs. 75,250)	38,063 (50% of Rs. 76,125)		-
	-	<u>46,813</u>	<u>75,688</u>	<u>70,438</u>		
5. Fixed	-	40,000	40,000	40,000		
overheads payment						
6. Bill discounting charges						
Bill discounted	-	1,40,000	1,53,333	1,20,000		-
(Refer to working note 1 above)						
Charges @ 50 paise per Rs. 100	-	700	767	600		-

Question 11

A new manufacturing company is to be incorporated from January 1, 2000. Its authorised capital will be Rs. 2 crores divided into 20 lakh equity shares of Rs. 10 each. It intends to raise capital by issuing equity shares of Rs. 1 crore (fully paid) on 1st January. Besides, a loan of Rs. 13 lakhs @ 12% per annum will be obtained from a financial institution on 1st January and further borrowings will be made at same rate of interest on the first day of the month in which borrowing is required. All borrowings will be repaid alongwith interest on the expiry of one year. The company will make payment for the following assets in January.

	Rs. (in lakhs)
Plant and Machinery	20
Land and Building	40
Furniture	10
Motor Vehicles	10
Stock of Raw Materials	10

The following further details are available:

(1) Projected Sales (January-June):

	(Rs. in lakhs)		(Rs. in lakhs)
January	30	April	40
February	35	May	40
March	35	June	45

- (2) Gross profit margin will be 25% on sales.
- (3) The company will make credit sales only and these will be collected in the second month following sales.
- (4) Creditors will be paid in the first month following credit purchases. There will be credit purchases only.
- (5) The company will keep minimum stock of raw materials of Rs. 10 lakhs.
- (6) Depreciation will be charged @ 10% per annum on cost on all fixed assets.
- (7) Payment of preliminary expenses of Rs. 1 lakh will be made in January.
- (8) Wages and salaries will be Rs. 2 lakhs each month and will be paid on the first day of the next month.
- (9) Administrative expenses of Rs.1 lakh per month will be paid in the month of their incurrence.

Assume no minimum required cash balance.

You are required to prepare the monthly cash budget (January-June), the projected Income Statement for the 6 months period and the projected Balance Sheet as on 30th June, 2000 .

(Final-May 2000) (20 marks)

Answer

Monthly Cash Budget (January-June)

	Jan.	Feb.	March	April	May	June	Total
Opening cash balance	-	21.00	-	2.75	10.50	14.50	-
A. Cash inflows							
Equity shares	100.00	-	-	-	-	-	100.00
Loans	13	2.50	-	-	-	-	15.50

(Refer to working note 1)

3.34 Financial Management

Receipt from debtors	<u> - </u>	<u> - </u>	<u>30.00</u>	<u>35.00</u>	<u>35.00</u>	<u>40.00</u>	<u>140.00</u>
Total (A)	<u>113.00</u>	<u>23.50</u>	<u>30.00</u>	<u>37.75</u>	<u>45.50</u>	<u>54.50</u>	<u>255.50</u>

B. Cash Outflows

Plant and Machinery	20.00	-	-	-	-	-	20.00
Land and Building	40.00	-	-	-	-	-	40.00
Furniture	10.00	-	-	-	-	-	10.00
Motor Vehicles	10.00	-	-	-	-	-	10.00
Stock of raw materials (minimum stock)	10.00	-	-	-	-	-	10.00
Preliminary expenses	1.00	-	-	-	-	-	1.00
Payment to creditors for credit purchases	-	20.50	24.25	24.25	28.00	28.00	125.00
<i>(Refer to working note 2)</i>							
Wages and salaries	-	2.00	2.00	2.00	2.00	2.00	10.00
Admn. expenses	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>6.00</u>
Total : (B)	<u>92.00</u>	<u>23.50</u>	<u>27.25</u>	<u>27.25</u>	<u>31.00</u>	<u>31.00</u>	<u>232.00</u>
Closing balance (A)-(B)	<u>21.00</u>	<u> - </u>	<u>2.75</u>	<u>10.50</u>	<u>14.50</u>	<u>23.50</u>	<u>23.50</u>

Budgeted Income Statement for the six-month period ending 30th June

(Rs. In lakhs)

<i>Particulars</i>	<i>Rs.</i>	<i>Particulars</i>	<i>Rs.</i>
To Purchases	166.75	By Sales	225.00
To Wages and Salaries	12.00	By Closing stock	10.00
To Gross profit c/d	<u>56.25</u>		
	<u>235.00</u>		<u>235.00</u>
To Admn. expenses	6.00	By Gross profit b/d	56.25
To Depreciation (10% on Rs. 80 lakhs for six months)	4.00		
To Accrued interest on loan (Refer to working note 3)	0.905		
To Net profit c/d	<u>45.345</u>		
	<u>56.25</u>		<u>56.25</u>

**Projected Balance Sheet
as on 30th June, 2000**

				(Rs. in lakhs)	
<i>Liabilities</i>	<i>Amount (Rs.)</i>	<i>Assets</i>		<i>Amount (Rs.)</i>	
Share Capital:		Fixed Assets:			
Authorised capital		Land and Building	40.00		
20,00,000 equity shares		Less: Depreciation		38.00	
of Rs. 10 each	<u>200.00</u>		<u>2.00</u>		
Issued, subscribed and		Plant and Machinery	20.00		
paid up capital		Less: Depreciation	<u>1.00</u>	19.00	
10,00,000 equity shares					
of Rs. 10 each	100.00	Furniture	10.00		
Reserve and Surplus		Less: Depreciation	<u>0.50</u>	9.50	
Profit and Loss	45.345	Motor Vehicles	10.00		
Long-term loans	15.50	Less: Depreciation	<u>0.50</u>	<u>9.50</u>	76.00
Current liabilities and					
provisions:		Current Assets:			
Sundry creditors	31.75	Stock		10.00	
Accrued interest	0.905	Sundry debtors		85.00	
Outstanding expenses	<u>2.00</u>	Cash		<u>23.50</u>	118.50
	34.655	Miscellaneous			
		expenditure to the			
		extent not written off:			
		Preliminary expenses			<u>1.00</u>
	<u>195.50</u>				<u>195.50</u>

Working Notes:

1. Subsequent Borrowings Needed (Rs. in lakhs)

A. Cash Inflow

Equity shares	100.00					
Loans	13.00					
Receipt from debtors	<u>-</u>	<u>-</u>	<u>30.00</u>	<u>35.00</u>	<u>35.00</u>	<u>40.00</u>
Total (A)	<u>113.00</u>	<u>-</u>	<u>30.00</u>	<u>35.00</u>	<u>35.00</u>	<u>35.00</u>

B. Cash Outflow

Purchase of fixed assets	80.00					
Stock	10.00					
Preliminary expenses	1.00					
Payment to creditors	-	20.50	24.25	24.25	28.00	28.00

3.36 Financial Management

Wages and salaries	-	2.00	2.00	2.00	2.00	2.00
Administrative expenses	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>
Total	<u>92.00</u>	<u>23.50</u>	<u>27.25</u>	<u>27.25</u>	<u>31.00</u>	<u>31.00</u>
Surplus/ (Deficit)	21.00	23.50	2.75	7.75	4.00	9.00
Cumulative balance	21.00	(2.50)	0.25	8.00	12.00	21.00

There is shortage of cash in February of Rs. 25 lakhs which will be met by borrowings on February 1.

2. *Payment to Creditors*

Purchases = Cost of goods sold - Wages and salaries

Purchases for January = (75% of 30 lakhs) - Rs. 2 = Rs. 20.50 lakhs.

(Note: Since gross margin is 25% of sales, cost of manufacture i.e. materials plus wages and salaries should be 75% of sales)

Hence, Purchases = Cost of manufacture minus wages and salaries of Rs. 2 lakhs)

The creditors are paid in the first month following purchases.

Therefore, payment in February is Rs. 20.50 lakhs

The same procedure will be followed for other months.

Total purchases = Rs. 125 lakhs (for Jan-May) + Rs. 31.75 lakhs (for June) + Rs. 10 lakhs (stock)
= Rs. 166.75 lakhs

3. *Accrued Interest on Loan*

12% interest on Rs. 13 lakhs for 6 months	0.78 lakhs
Add: 12% interest on Rs. 2.5 lakhs for 5 months	<u>0.125 lakhs</u>
	<u>0.905 lakhs</u>

Question 12

From the following information, prepare a summarised Balance Sheet as at 31st March, 2002:

Working Capital	Rs. 2,40,000
Bank overdraft	Rs. 40,000
Fixed Assets to Proprietary ratio	0.75
Reserves and Surplus	Rs. 1,60,000
Current ratio	2.5
Liquid ratio	1.5

(PE-II-Nov.2002) (6 marks)

Answer**Working notes:****1. Current assets and Current liabilities computation:**

$$\frac{\text{Current assets}}{\text{Current liabilities}} = \frac{2.5}{1} \text{ or } \frac{\text{Current assets}}{2.5} = \frac{\text{Current liabilities}}{1} = k \text{ (say)}$$

Or Current assets = 2.5 k and Current liabilities = k

Or Working capital = (Current assets – Current liabilities)

Or Rs.2,40,000 = k (2.5 – 1) = 1.5 k

Or k = Rs. 1,60,000

∴ Current liabilities = Rs. 1,60,000

Current assets = Rs.1,60,000 × 2.5 = Rs.4,00,000

2. Computation of stock

$$\text{Liquid ratio} = \frac{\text{Liquid assets}}{\text{Current liabilities}}$$

Or 1.5 = $\frac{\text{Current assets} - \text{Stock}}{\text{Rs.1,60,000}}$

Or 1.5 × Rs.1,60,000 = Rs.4,00,000 – Stock

Or Stock = Rs.1,60,000

3. Computation of Proprietary fund; Fixed assets; Capital and Sundry creditors

$$\text{Proprietary ratio} = \frac{\text{Fixed assets}}{\text{Proprietary fund}} = 0.75$$

∴ Fixed assets = 0.75 Proprietary fund

and Net working capital = 0.25 Proprietary fund

Or Rs.2,40,000/0.25 = Proprietary fund

Or Proprietary fund = Rs.9,60,000

and Fixed assets = 0.75 proprietary fund

$$= 0.75 \times \text{Rs.9,60,000}$$

$$= \text{Rs.7,20,000}$$

Capital = Proprietary fund – Reserves & Surplus

$$= \text{Rs.9,60,000} - \text{Rs.1,60,000}$$

$$= \text{Rs.8,00,000}$$

3.38 Financial Management

$$\begin{aligned}
 \text{Sundry creditors} &= (\text{Current liabilities} - \text{Bank overdraft}) \\
 &= (\text{Rs.1,60,000} - \text{Rs.40,000}) \\
 &= \text{Rs.1,20,000}
 \end{aligned}$$

Construction of Balance sheet (Refer to working notes 1 to 3)

Balance Sheet			
	Rs.		Rs.
Capital	8,00,000	Fixed assets	7,20,000
Reserves & Surplus	1,60,000	Stock	1,60,000
Bank overdraft	40,000	Current assets	2,40,000
Sundry creditors	1,20,000		
	<u>11,20,000</u>		<u>11,20,000</u>

Question 13

With the help of the following information complete the Balance Sheet of MNOP Ltd.:

Equity share capital Rs. 1,00,000

The relevant ratios of the company are as follows:

Current debt to total debt .40

Total debt to owner's equity .60

Fixed assets to owner's equity .60

Total assets turnover 2 Times

Inventory turnover 8 Times

(PE-II-May 2005) (7 marks)

Answer

MNOP Ltd			
Balance Sheet			
Liabilities	Rs	Assets	Rs
Owner equity	1,00,000	Fixed assets	60,000
Current debt	24,000	Cash	60,000
Long term debt	36,000	Inventory	40,000
	<u>1,60,000</u>		<u>1,60,000</u>

Working Notes

1. Total debt = $0.60 \times \text{Owners equity} = 0.60 \times \text{Rs } 1,00,000 = \text{Rs } 60,000$
Current debt to total debt = 0.40 , hence current debt = $0.40 \times 60,000 = 24,000$
2. Fixed assets = $0.60 \times \text{Owners equity} = 0.60 \times \text{Rs } 1,00,000 = \text{Rs } 60,000$
3. Total equity = Total debt + Owners equity = $\text{Rs } 60,000 + \text{Rs } 1,00,000 = \text{Rs } 1,60,000$
4. Total assets consisting of fixed assets and current assets must be equal to Rs 1,60,000 (Assets = Liabilities + Owners equity). Since Fixed assets are Rs 60,000 , hence, current assets should be Rs 1,00,000
5. Total assets to turnover = 2 Times : Inventory turnover = 8 Times
Hence , Inventory /Total assets = $2/8=1/4$, Total assets = 1,60,000
Therefore Inventory = $1,60,000/4 = 40,000$ Balance on Asset side
Cash = $1,00,000 - 40,000 = 60,000$

Question 14

Using the following data, complete the Balance Sheet given below:

Gross Profits	Rs. 54,000
Shareholders' Funds	Rs. 6,00,000
Gross Profit margin	20%
Credit sales to Total sales	80%
Total Assets turnover	0.3 times
Inventory turnover	4 times
Average collection period (a 360 days year)	20 days
Current ratio	1.8
Long-term Debt to Equity	40%

Balance Sheet			
Creditors		Cash	
Long-term debt		Debtors	
Shareholders' funds		Inventory	
		Fixed assets	
	_____		_____
	_____		_____

(PE-II-Nov. 2005)(12 Marks)

3.40 Financial Management

Answer

Gross Profits Rs. 54,000

Gross Profit Margin 20%

$$\therefore \text{Sales} = \frac{\text{Gross Profits}}{\text{Gross Profit Margin}}$$

$$= \text{Rs. } 54,000 / 0.20$$

$$= \text{Rs. } 2,70,000$$

Credit Sales to Total Sales = 80%

$$\therefore \text{Credit Sales} = \text{Rs. } 2,70,000 \times 0.80$$

$$= \text{Rs. } 2,16,000$$

Total Assets Turnover = 0.3 times

$$\therefore \text{Total Assets} = \frac{\text{Sales}}{\text{Total Assets Turnover}}$$

$$= \frac{\text{Rs. } 2,70,000}{0.3}$$

$$= \text{Rs. } 9,00,000$$

Sales – Gross Profits = COGS

$$\therefore \text{COGS} = \text{Rs. } 2,70,000 - 54,000$$

$$= \text{Rs. } 2,16,000$$

Inventory turnover = 4 times

$$\text{Inventory} = \frac{\text{COGS}}{\text{Inventory turnover}} = \frac{2,16,000}{4}$$

$$= \text{Rs. } 54,000$$

Average Collection Period = 20 days

$$\therefore \text{Debtors turnover} = \frac{360}{\text{Average Collection Period}}$$

$$= 360/20=18$$

$$\therefore \text{Debtors} = \frac{\text{Credit Sales}}{\text{Debtors turnover}}$$

$$\begin{aligned}
 &= \frac{\text{Rs. } 2,16,000}{18} \\
 &= \text{Rs. } 12,000 \\
 \text{Current ratio} &= 1.8 \\
 1.8 &= \frac{\text{Debtors} + \text{Inventory} + \text{Cash}}{\text{Creditors}} \\
 1.8 \text{ Creditors} &= (\text{Rs. } 12,000 + \text{Rs. } 54,000 + \text{Cash}) \\
 1.8 \text{ Creditors} &= \text{Rs. } 66,000 + \text{Cash} \\
 \text{Long-term Debt to Equity} &= 40\% \\
 \text{Shareholders Funds} &= \text{Rs. } 6,00,000 \\
 \therefore \text{Long-term Debt} &= \text{Rs. } 6,00,000 \times 40\% \\
 &= \text{Rs. } 2,40,000 \\
 \text{Creditors (Balance figure)} &= 9,00,000 - (6,00,000 + 2,40,000) \\
 &= \text{Rs. } 60,000 \\
 \therefore \text{Cash} &= (60,000 \times 1.8) - 66,000 \\
 &= \text{Rs. } 42,000
 \end{aligned}$$

Balance Sheet (in Rs)			
Creditors (Bal. Fig)	60,000	Cash	42,000
		Debtors	12,000
Long- term debt	2,40,000	Inventory	54,000
Shareholders' funds	6,00,000	Fixed Assets (Bal fig.)	7,92,000
	<u>9,00,000</u>		<u>9,00,000</u>

Question 15

JKL Limited has the following Balance Sheets as on March 31, 2006 and March 31, 2005:

Balance Sheet

	Rs. in lakhs	
	March 31, 2006	March 31, 2005
Sources of Funds:		
Shareholders Funds	2,377	1,472
Loan Funds	<u>3,570</u>	<u>3,083</u>
	<u>5,947</u>	<u>4,555</u>

3.42 Financial Management

Applications of Funds:

Fixed Assets	3,466	2,900
Cash and bank	489	470
Debtors	1,495	1,168
Stock	2,867	2,407
Other Current Assets	1,567	1,404
Less: Current Liabilities	<u>(3,937)</u>	<u>(3,794)</u>
	<u>5,947</u>	<u>4,555</u>

The Income Statement of the JKL Ltd. for the year ended is as follows:

	Rs. in lakhs	
	March 31, 2006	March 31, 2005
Sales	22,165	13,882
Less: Cost of Goods sold	<u>20,860</u>	<u>12,544</u>
Gross Profit	1,305	1,338
Less: Selling, General and Administrative expenses	<u>1,135</u>	<u>752</u>
Earnings before Interest and Tax (EBIT)	170	586
Interest Expense	<u>113</u>	<u>105</u>
Profits before Tax	57	481
Tax	<u>23</u>	<u>192</u>
Profits after Tax (PAT)	34	289

Required:

- (i) Calculate for the year 2005-06:
 - (a) Inventory turnover ratio
 - (b) Financial Leverage
 - (c) Return on Investment (ROI)
 - (d) Return on Equity (ROE)
 - (e) Average Collection period.
- (ii) Give a brief comment on the Financial Position of JKL Limited.

(PE-II-May 2006)(12 marks)

Answer**Ratios for the year 2005-2006****(i) (a) Inventory turnover ratio**

$$\begin{aligned}
 &= \frac{\text{COGS}}{\text{Average Inventory}} \\
 &= \frac{20,860}{\frac{(2,867 + 2,407)}{2}} \\
 &= 7.91
 \end{aligned}$$

(b)

Financial leverage	<i>2005-06</i>	<i>2004-05</i>
$= \frac{\text{EBIT}}{\text{EBIT} - \text{I}}$	$= \frac{170}{57}$	$= \frac{586}{481}$
	$= 2.98$	$= 1.22$

(c) ROI

$$\begin{aligned}
 &= \frac{\text{NOPAT}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Average Capital employed}} \\
 &= \frac{57 \times (1 - .4)}{22,165} \times \frac{22,165}{\frac{(5,947 + 4,555)}{2}} \\
 &= \frac{34.2}{22,165} \times \frac{22,165}{5,251} \\
 &= 0.65\%
 \end{aligned}$$

(d) ROE

$$\begin{aligned}
 &= \frac{\text{PAT}}{\text{Average shareholders' funds}} \\
 &= \frac{34}{\frac{(2,377 + 1,472)}{2}} \\
 &= \frac{34}{1,924.5} \\
 &= 1.77\%
 \end{aligned}$$

3.44 Financial Management

(e) Average Collection Period*

$$\text{Average Sales per day} = \frac{22,165}{365} = \text{Rs. } 60.73 \text{ lakhs}$$

$$\text{Average collection period} = \frac{\text{Average Debtors}}{\text{Average sales per day}}$$

$$= \frac{(1,495 + 1,168)}{2}$$

$$= \frac{1331.5}{60.73}$$

$$= \frac{1331.5}{60.73}$$

$$= 22 \text{ days}$$

***Note:** In the above solution, 1 year = 365 days has been assumed. Alternatively, some candidates may give the solution on the basis 1 year = 360 days.

(ii) Brief Comment on the financial position of JKL Ltd.

The profitability of operations of the company are showing sharp decline due to increase in operating expenses. The financial and operating leverages are becoming adverse.

The liquidity of the company is under great stress.

Question 16

The Financial statements of Excel AMP Graphics Limited are as under:

Balance Sheet As at 31st December, 2001

	2001		2000
Sources of Funds:		(Rs. in crores)	
Shareholders' funds			
Share Capital	1,121		931
Reserves & Surplus	<u>8,950</u>	<u>10,071</u>	<u>7,999</u>
			8,930
Loan Funds:			
Secured Loans	—		259
Finance lease obligations	74		—
Unsecured loans	<u>171</u>	245	<u>115</u>
			<u>374</u>
		<u>10,316</u>	<u>9,304</u>

Applications of Funds:

<i>Fixed Assets</i>			
<i>Gross Block</i>	6,667		5,747
<i>Less: Depreciation</i>	<u>3,150</u>		<u>2,561</u>
<i>Net Block</i>	3,517		3,186
<i>Capital Work-in-progress</i>	<u>27</u>	3,544	<u>28</u>
			3,214
<i>Investments</i>		288	222
<i>Current Assets, Loans & Advances:</i>			
<i>Inventories</i>	2,709		2,540
<i>Sundry debtors</i>	9,468		9,428
<i>Cash & Bank Balances</i>	3,206		662
<i>Loans & Advances</i>	<u>2,043</u>		<u>1,712</u>
	<u>17,426</u>		<u>14,342</u>
<i>Less: Current liabilities & Provisions</i>			
<i>Current liabilities</i>	10,109		7,902
<i>Provisions</i>	<u>513</u>		<u>572</u>
	<u>10,622</u>		8,474
<i>Net Current Assets</i>		6,804	5,868
<i>Net Deferred Tax Liabiliy</i>		<u>(320)</u>	<u>—</u>
		<u>10,316</u>	<u>9,304</u>

Profit and Loss Account
For the year ended 31 December, 2001

	2001	2000
	(Rs. in crores)	
<i>Income:</i>		
<i>Sales & Services</i>	23,436	17,849
<i>Other Income</i>	<u>320</u>	<u>306</u>
	23,756	18,155
<i>Expenditure:</i>		
<i>Cost of Materials</i>	15,179	10,996
<i>Personnel Expenses</i>	2,543	2,293
<i>Other Expenses</i>	3,546	2,815

3.46 Financial Management

Depreciation	419		383	
Less: Transfer from revaluation reserve	<u>7</u>	412	<u>6</u>	377
Interest		<u>164</u>		<u>88</u>
			<u>21,844</u>	<u>16,569</u>
Profit Before Tax			1,912	1,586
Provision for Tax:				
Current Tax			450	371
Deferred Tax			<u>(6)</u>	<u>—</u>
Profit after Tax			<u>1,468</u>	<u>1,215</u>

Required:

- Compute and analyse the return on capital employed (ROCE) in a Du-Pont control chart framework.
- Compute and analyse the average inventory holding period and average collection period.
- Compute and analyse the return on equity (ROE) by bringing out clearly the impact of financial leverage.
(PE-II-Nov.2003) (16 marks)

Answer

(a) Working note:

Computation of Cost of goods sold (COGS), Operating profit before depreciation, interest & tax (OPBDIT), Operating profit before interest and tax (OPBIT), Profit before interest and tax (PBIT), Profit before tax (PBT) and Profit after tax (PAT)

	(Rs. in crores)	
Year	2001	2000
Cost of goods sold (COGS)	21,268	16,104
(Material consumed + Personnel expenses + Other expenses)		
Operating profit before depreciation, interest and tax (OPBDIT)	2,168	1,745
(Income from sales & service – COGS)		
Operating profit before interest and tax (OPBIT)	1,756	1,368
(OPBDIT – depreciation)		
Profit before interest and tax (PBIT)	2,076	1,674
(OPBIT + Other incomes)		
Profit before tax (PBT)	1,912	1,586
(PBIT – Interest)		
Profit after tax (PAT)	1,468	1,215
(PBT – Tax)		

Return on capital employed (ROCE): (Before interest & tax)

$$= \frac{\text{Operating profits before interest and tax}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Capital employed}}$$

$$= \frac{\text{OPBIT}}{\text{Capital employed}}$$

* Capital employed = (Balance sheet total – Capital WIP – Investments – Loans & advances)

	Year	
	2001	2000
ROCE	22.07%	18.63%
(Refer to working note)	$\left(\frac{\text{Rs.1,756}}{\text{Rs.7,958}} \times 100 \right)$	$\left(\frac{\text{Rs.1,368}}{\text{Rs.7,342}} \times 100 \right)$
Operating profit margin	7.49%	7.66%
(Refer to working note)	$\left(\frac{\text{Rs.1,756}}{\text{Rs.23,436}} \times 100 \right)$	$\left(\frac{\text{Rs.1,368}}{\text{Rs.17,849}} \times 100 \right)$
Material consumed / Sales	64.77%	61.61%
Personnel expenses / Sales	10.85%	12.85%
Other expenses / Sales	15.13%	15.77%
Depreciation / Sales	1.76%	2.11%

(b) Computation and analysis of average inventory holding period and average collection period:

	(Rs. ' in crores)	
Year	2001	2000
1. Inventory turnover ratio:	5.6	4.33
(Material consumed/ Closing inventory)	(Rs.15,179/Rs.2,709)	(Rs.10,996/Rs.2,540)
2. Average inventory turnover period:	64 days	83 days
(360 days / Inventory turnover ratio)		
3. Receivables turnover ratio:	2.48	1.89
(Net credit sales/Closing Sundry debtors)	(Rs.23,436/Rs.9,468)	(Rs.17,849/Rs.9,428)
4. Average collection period:	145 days	190 days
(360 days / Receivables turnover ratio)		

(c) ROE = PAT / Shareholders' funds

<u>2001</u>	<u>2000</u>
$= \frac{1,468 \text{ Cr.}}{10,071 \text{ Cr.}}$	$\frac{1,215 \text{ Cr.}}{8,930 \text{ Cr.}}$
$= 14.58 \%$	13.61%

$$\text{ROE} = \text{ROA} + \frac{D}{E} \{ (\text{ROA} - i * (1 - T_c)) \}$$

3.48 Financial Management

ROA (Post tax)	14.34%	12.11%
{(ROCE * (1 – .35))}		
Tax / PBT	23.22%	23.39%
Loan funds / Total funds	2.37%	4.02%
Shareholders Funds / Total funds	97.63%	95.98%

ROE is marginally better than ROA, as debt ratio employed by the company is minimal.

Question 17

The following accounting information and financial ratios of PQR Ltd. relate to the year ended 31st December, 2006:

2006

I Accounting Information:

Gross Profit	15% of Sales
Net profit	8% of sales
Raw materials consumed	20% of works cost
Direct wages	10% of works cost
Stock of raw materials	3 months' usage
Stock of finished goods	6% of works cost
Debt collection period	60 days
All sales are on credit	

II Financial Ratios:

Fixed assets to sales	1 : 3
Fixed assets to Current assets	13 : 11
Current ratio	2 : 1
Long-term loans to Current liabilities	2 : 1
Capital to Reserves and Surplus	1 : 4

If value of fixed assets as on 31st December, 2005 amounted to Rs. 26 lakhs, prepare a summarised Profit and Loss Account of the company for the year ended 31st December, 2006 and also the Balance Sheet as on 31st December, 2006. (PE-II-May 2007) (12 marks)

Answer

(a) Working Notes:

(i) Calculation of Sales

$$\frac{\text{Fixed Assets}}{\text{Sales}} = \frac{1}{3}$$
$$\therefore \frac{26,00,000}{\text{Sales}} = \frac{1}{3} \Rightarrow \text{Sales} = \text{Rs. } 78,00,000$$

(ii) Calculation of Current Assets

$$\frac{\text{Fixed Assets}}{\text{Current Assets}} = \frac{13}{11}$$

$$\therefore \frac{26,00,000}{\text{Current Assets}} = \frac{13}{11} \Rightarrow \text{Current Assets} = \text{Rs. } 22,00,000$$

(iii) Calculation of Raw Material Consumption and Direct Wages

	Rs.
Sales	78,00,000
Less: Gross Profit	<u>11,70,000</u>
Works Cost	<u>66,30,000</u>
Raw Material Consumption (20% of Works Cost)	Rs. 13,26,000
Direct Wages (10% of Works Cost)	Rs. 6,63,000

(iv) Calculation of Stock of Raw Materials (= 3 months usage)

$$= 13,26,000 \times \frac{3}{12} = \text{Rs. } 3,31,500$$

(v) Calculation of Stock of Finished Goods (= 6% of Works Cost)

$$= 66,30,000 \times \frac{6}{100} = \text{Rs. } 3,97,800$$

(vi) Calculation of Current Liabilities

$$\frac{\text{Current Assets}}{\text{Current Liabilities}} = 2$$

$$\frac{22,00,000}{\text{Current Liabilities}} = 2 \Rightarrow \text{Current Liabilities} = \text{Rs. } 11,00,000$$

(vii) Calculation of Debtors

$$\text{Average collection period} = \frac{\text{Debtors}}{\text{Credit Sales}} \times 365$$

$$\frac{\text{Debtors}}{78,00,000} \times 365 = 60 \Rightarrow \text{Debtors} = \text{Rs. } 12,82,191.78 \text{ or Rs. } 12,82,192$$

(viii) Calculation of Long term Loan

$$\frac{\text{Long term Loan}}{\text{Current Liabilities}} = \frac{2}{1}$$

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$$\frac{\text{Long term loan}}{11,00,000} = \frac{2}{1} \Rightarrow \text{Long term loan} = \text{Rs. } 22,00,000.$$

(ix) Calculation of Cash Balance

		Rs.
Current assets		22,00,000
Less: Debtors	12,82,192	
Raw materials stock	3,31,500	
Finished goods stock	<u>3,97,800</u>	<u>20,11,492</u>
Cash balance		<u>1,88,508</u>

(x) Calculation of Net worth

Fixed Assets		26,00,000
Current Assets		<u>22,00,000</u>
Total Assets		48,00,000
Less: Long term Loan	22,00,000	
Current Liabilities	<u>11,00,000</u>	<u>33,00,000</u>
Net worth		<u>15,00,000</u>

Net worth = Share capital + Reserves = 15,00,000

$$\frac{\text{Capital}}{\text{Reserves and Surplus}} = \frac{1}{4} \Rightarrow \text{Share Capital} = 15,00,000 \times \frac{1}{5} = \text{Rs. } 3,00,000$$

$$\text{Reserves and Surplus} = 15,00,000 \times \frac{4}{5} = \text{Rs. } 12,00,000$$

Profit and Loss Account of PQR Ltd. for the year ended 31st December, 2006

Particulars	Rs.	Particulars	Rs.
To Direct Materials	13,26,000	By Sales	78,00,000
To Direct Wages	6,63,000		
To Works (Overhead)	46,41,000		
Balancing figure			
To Gross Profit c/d (15% of Sales)	<u>11,70,000</u>		
	<u>78,00,000</u>		<u>78,00,000</u>

To	Selling and Distribution Expenses (Balancing figure)	5,46,000	By	Gross Profit b/d	11,70,000
To	Net Profit (8% of Sales)	<u>6,24,000</u>			
		<u>11,70,000</u>			<u>11,70,000</u>

**Balance Sheet of PQR Ltd.
as at 31st December, 2006**

<i>Liabilities</i>	<i>Rs.</i>	<i>Assets</i>	<i>Rs.</i>
Share Capital	3,00,000	Fixed Assets	26,00,000
Reserves and Surplus	12,00,000	Current Assets:	
Long term loans	22,00,000	Stock of Raw Material	3,31,500
Current liabilities	11,00,000	Stock of Finished Goods	3,97,800
		Debtors	12,82,192
		Cash	<u>1,88,508</u>
	<u>48,00,000</u>		<u>48,00,000</u>

Question 18

Using the following information, complete the Balance Sheet given below:

- | | | | |
|-------|---|---|---------|
| (i) | Total debt to net worth | : | 1 : 2 |
| (ii) | Total assets turnover | : | 2 |
| (iii) | Gross profit on sales | : | 30% |
| (iv) | Average collection period | : | 40 days |
| | (Assume 360 days in a year) | | |
| (v) | Inventory turnover ratio based on cost of goods sold and year-end inventory | : | 3 |
| (vi) | Acid test ratio | : | 0.75 |

*Balance Sheet
as on March 31, 2007*

<i>Liabilities</i>	<i>Rs.</i>	<i>Assets</i>	<i>Rs.</i>
Equity Shares Capital	4,00,000	Plant and Machinery	—
Reserves and Surplus	6,00,000	and other Fixed Assets	
Total Debt:		Current Assets:	

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<i>Current Liabilities</i>	—	<i>Inventory</i>	—
		<i>Debtors</i>	—
	_____	<i>Cash</i>	_____
	_____		_____

(PE-II-Nov. 2007) (8 marks)

Answer

Networth = Capital + Reserves and surplus

$$= 4,00,000 + 6,00,000 = \text{Rs. } 10,00,000$$

$$\frac{\text{Total Debt}}{\text{Networth}} = \frac{1}{2}$$

$$\therefore \text{Total debt} = \text{Rs. } 5,00,000$$

$$\text{Total Liability side} = 4,00,000 + 6,00,000 + 5,00,000$$

$$= \text{Rs. } 15,00,000$$

$$= \text{Total Assets}$$

$$\text{Total Assets Turnover} = \frac{\text{Sales}}{\text{Total assets}}$$

$$2 = \frac{\text{Sales}}{15,00,000}$$

$$\therefore \text{Sales} = \text{Rs. } 30,00,000$$

$$\text{Gross Profit on Sales} : 30\% \text{ i.e. Rs. } 9,00,000$$

$$\therefore \text{COGS} = \text{Rs. } 30,00,000 - \text{Rs. } 9,00,000$$

$$= \text{Rs. } 21,00,000$$

$$\text{Inventory turnover} = \frac{\text{COGS}}{\text{Inventory}}$$

$$3 = \frac{21,00,000}{\text{Inventory}}$$

$$\therefore \text{Inventory} = \text{Rs. } 7,00,000$$

$$\text{Average collection period} = \frac{\text{Average debtors}}{\text{Sales / day}}$$

$$40 = \frac{\text{Debtors}}{30,00,000 / 360}$$

$$\therefore \text{Debtors} = \text{Rs. } 3,33,333.$$

$$\text{Acid test ratio} = \frac{\text{Current Assets} - \text{Stock}}{\text{Current liabilities}}$$

$$0.75 = \frac{\text{Current Assets} - 7,00,000}{5,00,000}$$

$$\therefore \text{Current Assets} = \text{Rs. } 10,75,000.$$

$$\therefore \text{Fixed Assets} = \text{Total Assets} - \text{Current Assets}$$

$$= 15,00,000 - 10,75,000 = \text{Rs. } 4,25,000$$

$$\text{Cash and Bank balance} = \text{Current Assets} - \text{Inventory} - \text{Debtors}$$

$$= 10,75,000 - 7,00,000 - 3,33,333$$

$$= \text{Rs. } 41,667.$$

Balance Sheet as on March 31, 2007

<i>Liabilities</i>	<i>Rs.</i>	<i>Assets</i>	<i>Rs.</i>
Equity Share Capital	4,00,000	Plant and Machinery and other	
Reserves & Surplus	6,00,000	Fixed Assets	4,25,000
Total Debt:		Current Assets:	
Current liabilities	5,00,000	Inventory	7,00,000
		Debtors	3,33,333
		Cash	<u>41,667</u>
	<u>15,00,000</u>		<u>15,00,000</u>

Question 19

Distinguish between Cash Flow and Fund Flow statement. (PE-II-Nov.2002, May 2004) (3 marks)

Answer

The points of distinction between cash flow and funds flow statement are as below:

Cash flow statement

- (i) It ascertains the changes in balance of cash in hand and bank.
- (ii) It analyses the reasons for changes in balance of cash in hand and bank
- (iii) It shows the inflows and outflows of cash.

Funds flow statement

- (i) It ascertains the changes in financial position between two accounting periods.
- (ii) It analyses the reasons for change in financial position between two balance sheets
- (iii) It reveals the sources and application of funds.

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- (iv) It is an important tool for short term analysis.
- (iv) It helps to test whether working capital has been effectively used or not.
- (v) The two significant areas of analysis are cash generating efficiency and free cash flow.

Question 20

Discuss any three ratios computed for investment analysis. (PE-II--Nov.2004) (3 marks)

Answer

Three ratios computed for investment analysis are as follows;

- (i) Earning per share = $\frac{\text{Profit after tax}}{\text{Number of equity shares outstanding}}$
- (ii) Dividend yield ratio = $\frac{\text{Equity dividend per share} \times 100}{\text{Market price per share}}$
- (iii) Return on capital employed = $\frac{\text{Net profit before interest and tax} \times 100}{\text{Capital employed}}$

Question 21

Discuss the financial ratios for evaluating company performance on operating efficiency and liquidity position aspects. (PE-II-Nov. 2006) (4 marks)

Answer

Financial ratios for evaluating performance on operational efficiency and liquidity position aspects are discussed as:

Operating Efficiency: Ratio analysis throws light on the degree of efficiency in the management and utilization of its assets. The various activity ratios (such as turnover ratios) measure this kind of operational efficiency. These ratios are employed to evaluate the efficiency with which the firm manages and utilises its assets. These ratios usually indicate the frequency of sales with respect to its assets. These assets may be capital assets or working capital or average inventory. In fact, the solvency of a firm is, in the ultimate analysis, dependent upon the sales revenues generated by use of its assets – total as well as its components.

Liquidity Position: With the help of ratio analysis, one can draw conclusions regarding liquidity position of a firm. The liquidity position of a firm would be satisfactory, if it is able to meet its current obligations when they become due. Inability to pay-off short-term liabilities affects its credibility as well as its credit rating. Continuous default on the part of the business leads to commercial bankruptcy. Eventually such commercial bankruptcy may lead to its sickness and dissolution. Liquidity ratios are current ratio, liquid ratio and cash to current liability ratio. These ratios are particularly useful in credit analysis by banks and other suppliers of short-term loans.