

**Chapter wise Test (2009)**  
**Treasury and Cash Management**

**Instructions**

- All questions are compulsory.
- Test Duration will be 35 Minutes, starting from 11:00 AM to 11:35 AM
- 5 minutes reading time will be provided before 11, i.e. question paper will be shared by 10:55 AM.
- Share your scanned answer sheets by 11:40 on below link  
<https://forms.gle/wLRZWiTvMELNpCeC6>

1. [5 Marks] You are given below the Profit & Loss Accounts for two years for a company:

**Profit and Loss Account**

	Year 1	Year 2		Year 1	Year 2
	(Rs.)	(Rs.)		(Rs.)	(Rs.)
To Opening stock	32,00,000	40,00,000	By Sales	3,20,00,000	4,00,00,000
To Raw materials	1,20,00,000	1,60,00,000	By Closing stock	40,00,000	60,00,000
To Stores	38,40,000	48,00,000	By Misc. Income	4,00,000	4,00,000
To Manufacturing Expenses	51,20,000	64,00,000			
To Other Expenses	40,00,000	40,00,000			
To Depreciation	40,00,000	40,00,000			
To Net Profit	42,40,000	72,00,000		-	-
	3,64,00,000	4,64,00,000		3,64,00,000	4,64,00,000

Sales are expected to be Rs. 4,80,00,000 in year 3.

As a result, other expenses will increase by Rs. 20,00,000 besides other charges. Only raw materials are in stock. Assume sales and purchases are in cash terms and the closing stock is expected to go up by the same amount as between year 1 and 2. You may assume that no dividend is being paid. The Company can use 75% of the cash generated to service a loan. COMPUTE how much cash from operations will be available in year 3 for the purpose? Ignore income tax.



**Solution****Projected Profit and Loss Account for the year 3**

Particulars	Year 2 Actual (₹ in lakhs)	Year 3 Projected (₹ in lakhs)	Particulars	Year 2 Actual (₹ in lakhs)	Year 3 Projected (₹ in lakhs)
To Materials consumed	140.00	168.00	By Sales	400.00	480.00
To Stores	48.00	57.60	By Misc. Income	4.00	4.00
To Mfg. Expenses	64.00	76.80			
To Other expenses	40.00	60.00			
To Depreciation	40.00	40.00			
To Net profit	72.00	81.60			
	<b>404.00</b>	<b>484.00</b>		<b>484.00</b>	<b>484.00</b>

**Cash Flow:**

Particulars	(₹ in lakhs)
Profit	81.60
Add: Depreciation	<u>40.00</u>
	121.60
Less: Cash required for increase in stock	<u>20.00</u>
<b>Net cash inflow</b>	<b>101.60</b>

Available for servicing the loan: 75% of ₹ 1,01,60,000 or ₹ 76,20,000

**Working Notes:**

- (i) Material consumed in year 1 =  $(32 + 120 - 40)/320 = 35\%$   
 Material consumed in year 2 =  $(40 + 160 - 60)/400 = 35\%$   
 Likely consumption in year 3 =  $480 \times \frac{35}{100} = ₹ 168$  (lakhs)
- (ii) Stores are 12% of sales & Manufacturing expenses are 16% of sales for both the years.

2. [10 Marks] A company was incorporated w.e.f. 1st April, 2021. Its authorised capital was Rs. 1,00,00,000 divided into 10 lakh equity shares of Rs. 10 each. It intends to raise capital by issuing equity shares of Rs. 50,00,000 (fully paid) on 1st April. Besides this, a loan of Rs. 6,50,000 @ 12% per annum will be obtained from a financial institution on 1st April 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 along with interest on the expiry of one year. The company will make payment for the following assets in April.

Particulars	(Rs.)
Plant and Machinery	10,00,000
Land and Building	20,00,000
Furniture	5,00,000
Motor Vehicles	5,00,000

Stock of Raw Materials	5,00,000
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The following further details are available:

(1) Projected Sales (April-September):

	(Rs.)
April	15,00,000
May	17,50,000
June	17,50,000
July	20,00,000
August	20,00,000
September	22,50,000

- (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. 5,00,000.
- (6) Depreciation will be charged @ 10% per annum on cost on all fixed assets.
- (7) Payment of miscellaneous expenses of Rs. 50,000 will be made in April.
- (8) Wages and salaries will be Rs. 1,00,000 each month and will be paid on the first day of the next month.
- (9) Administrative expenses of Rs. 50,000 per month will be paid in the month of their incurrence.
- (10) No minimum cash balance is required.

You are required to PREPARE the monthly cash budget (April-September), the projected Income Statement for the 6 months period and the projected Balance Sheet as on 30th September, 2021.

### Solution

## Monthly Cash Budget (April-September) (₹)

	April	May	June	July	August	September
Opening cash balance	-	10,50,000	-	1,37,500	5,25,000	7,25,000
<b>A. Cash inflows</b>						
Equity shares	50,00,000	-	-	-	-	-
Loans (Refer to working note 1)	6,50,000	1,25,000	-	-	-	-
Receipt from debtors	-	-	15,00,000	17,50,000	17,50,000	20,00,000
Total (A)	56,50,000	11,75,000	15,00,000	18,87,500	22,75,000	27,25,000
<b>B. Cash Outflows</b>						
Plant and Machinery	10,00,000	-	-	-	-	-
Land and Building	20,00,000	-	-	-	-	-
Furniture	5,00,000	-	-	-	-	-
Motor Vehicles	5,00,000	-	-	-	-	-
Stock of raw materials (Minimum stock)	5,00,000	-	-	-	-	-
Miscellaneous expenses	50,000	-	-	-	-	-
Payment to creditors for credit purchases (Refer to working note 2)	-	10,25,000	12,12,500	12,12,500	14,00,000	14,00,000
Wages and salaries	-	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000
Admn. expenses	50,000	50,000	50,000	50,000	50,000	50,000
Total :(B)	46,00,000	11,75,000	13,62,500	13,62,500	15,50,000	15,50,000
Closing balance (A)-(B)	10,50,000	-	1,37,500	5,25,000	7,25,000	11,75,000

Budgeted Income Statement for six-month period ending 30<sup>th</sup> September

Particulars	(₹)	Particulars	(₹)
To Purchases	83,37,500	By Sales	1,12,50,000
To Wages and Salaries	6,00,000	By Closing stock	5,00,000
To Gross profit c/d	28,12,500		
	<b>1,17,50,000</b>		<b>1,17,50,000</b>
To Admn. expenses	3,00,000	By Gross profit b/d	28,12,500
To Depreciation (10% on ₹ 40 lakhs for six months)	2,00,000		
To Accrued interest on loan (Refer to working note 3)	45,250		
To Miscellaneous expenses	50,000		
To Net profit c/d	22,17,250		
	<b>28,12,500</b>		<b>28,12,500</b>

Projected Balance Sheet as on 30<sup>th</sup> September, 2021

Liabilities		Amount (₹)	Assets			Amount (₹)
Share Capital:			Fixed Assets:			
Authorised capital 10,00,000 equity shares of ₹ 10 each		1,00,00,000	Land and Building Less: Depreciation	20,00,000 <u>1,00,000</u>	19,00,000	
			Plant and Machinery Less: Depreciation	10,00,000 <u>50,000</u>	9,50,000	
Issued, subscribed and paid up capital 5,00,000 equity shares of ₹ 10 each		50,00,000	Furniture Less: Depreciation	5,00,000 <u>25,000</u>	4,75,000	
Reserve and Surplus:			Motor Vehicles Less: Depreciation	5,00,000 <u>25,000</u>	<u>4,75,000</u>	38,00,000
Profit and Loss		22,17,250	Current Assets:			
Long-term loans		7,75,000	Stock		5,00,000	
Current liabilities and provisions:			Sundry debtors		42,50,000	
Sundry creditors	15,87,500		Cash		<u>11,75,000</u>	59,25,000
Accrued interest	45,250					
Outstanding expenses	<u>1,00,000</u>	<u>17,32,750</u>				
		97,75,000				<u>97,75,000</u>

## Working Notes:

Subsequent Borrowings Needed

(₹)

	April	May	June	July	August	September
<b>A. Cash Inflow</b>						
Equity shares	50,00,000					
Loans	6,50,000					
Receipt from debtors	-	-	15,00,000	17,50,000	17,50,000	20,00,000
Total (A)	<u>56,50,000</u>	-	<u>15,00,000</u>	<u>17,50,000</u>	<u>17,50,000</u>	<u>20,00,000</u>
<b>B. Cash Outflow</b>						
Purchase of fixed assets	40,00,000					
Stock	5,00,000					
Miscellaneous expenses	50,000					
Payment to creditors	-	10,25,000	12,12,500	12,12,500	14,00,000	14,00,000
Wages and salaries	-	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000
Administrative expenses	50,000	50,000	50,000	50,000	50,000	50,000

Total	<u>46,00,000</u>	<u>11,75,000</u>	<u>13,62,500</u>	<u>13,62,500</u>	<u>15,50,000</u>	<u>15,50,000</u>
Surplus/ (Deficit)	10,50,000	(11,75,000)	1,37,500	3,87,500	2,00,000	4,50,000
Cumulative balance	10,50,000	(1,25,000)	12,500	4,00,000	6,00,000	10,50,000

1. There is shortage of cash in May of ₹ 1,25,000 which will be met by borrowings in May.

2. Payment to Creditors

Purchases = Cost of goods sold - Wages and salaries

Purchases for April = (75% of 15,00,000) - ₹ 1,00,000 = ₹ 10,25,000

(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 ₹ 1,00,000)

The creditors are paid in the first month following purchases.

Therefore, payment in May is ₹ 10,25,000

The same procedure will be followed for other months.

April (75% of 15,00,000) - ₹ 1,00,000 = ₹ 10,25,000

May (75% of 17,50,000) - ₹ 1,00,000 = ₹ 12,12,500

June (75% of 17,50,000) - ₹ 1,00,000 = ₹ 12,12,500

July (75% of 20,00,000) - ₹ 1,00,000 = ₹ 14,00,000

August (75% of 20,00,000) - ₹ 1,00,000 = ₹ 14,00,000

September (75% of 22,50,000) - ₹ 1,00,000 = ₹ 15,87,500

Minimum Stock ₹ 5,00,000

Total Purchases ₹ 83,37,500

3. Accrued Interest on Loan

12% interest on ₹ 6,50,000 for 6 months 39,000

Add: 12% interest on ₹ 1,25,000 for 5 months 6,250

45,250

3. [5 Marks] A firm maintains a separate account for cash disbursement. Total disbursement are Rs. 1,05,000 per month or Rs. 12,60,000 per year. Administrative and transaction cost of transferring cash to disbursement account is Rs. 20 per transfer. Marketable securities yield is 8% per annum. DETERMINE the optimum cash balance according to William J. Baumol model.

### Solution

$$\text{The optimum cash balance } C = \sqrt{\frac{2 \times ₹12,60,000 \times ₹20}{0.08}} = ₹25,100$$