Retained earning	–	105,000			
	1,530,000	2,010,000		1,530,000	2,010,000

Required: Cash flow statement using direct method to show:

(a) Cash from operating activities
(b) Cash from investing activities
(c) Cash from financing activities [6+3+4+2=15]

Ans: (a) Rs. 2,85,000 (b) Rs. (4,05,000) (c) Rs. 1,50,000

16. 2065 Q.No. 16

The comparative Balance Sheet and Income Statement have been given below:

Liabilities	Year 3 Rs.	Year 4 Rs.	Assets	Year 3 Rs.	Year 4 Rs.
Share capital	200,000	300,000	Plant & machinery	300,000	500,000
Share premium	100,000	150,000	Investment	150,000	100,000
General reserve	194,400	349,400	Book debts	240,000	210,000
Debentures	300,000	200,000	Inventory	150,000	160,000
Bank loan	70,000	120,000	Expenses prepaid	7,500	6,500
Creditors	50,000	40,000	Cash and bank	200,000	340,300
Provision for tax	54,000	60,000			
Outstanding expenses	9,100	12,400			
Depreciation fund	70,000	85,000			
	1,047,500	1,316,800		1,047,500	1,316,800

Income Statement for the year 4

	Rs.	Rs.
Sales revenue		1,200,000
Less: Cost of goods sold		
Opening inventory	150,000	
Add: Purchases	400,000	
Less: Closing inventory	(160,000)	
Add: Wages	200,000	590,000
Gross profit		610,000
Less: Operating expenses		
General expenses	300,000	
Interest	30,000	
Depreciation	35,000	
Premium on redemption of debentures	15,000	
Provision for tax	40,000	420,000
		190,000
Add: Gain on sales of machinery (Cost Rs. 100,000. Accumulated depreciation 20,000)		10,000
		200,000
Less: Loss on sale of investment		5,000
Net income		195,000

Required: Cash flow statement (apply direct method) showing cash from (a) Operating activities (b) Investing activities (c) Financing activities [6+3+4+2=15]

Ans: CFOA = Rs. 260,300; CFIA = Rs. (165,000); CFFA = Rs. 45,000

17. 2066 Q.No. 16

The Income Statement and the Balance Sheets of the company are given below:

Income Statement

Particulars		Rs.
Sales revenue		1,200,000
Less: Cost of goods sold		700,000
Gross profit		500,000
Less: Operating expenses		
Depreciation	160,000	
Other operating expenses	200,000	
Premium on redemption of debenture	20,000	380,000
Net profit before other income		120,000
Add: Profit on sale of plant (Book value, 40,000)		20,000

	140,000
Less: Dividend paid	40,000
Retained profit	100,000

Comparative Balance Sheet

Liabilities & equities	Year 2 Rs.	Year 1 Rs.	Assets	Year 2 Rs.	Year 1 Rs.
Share capital	1,200,000	1,000,000	Plant	1,600,000	1,200,000
Share premium	120,000	100,000	Inventories	200,000	100,000
10% debentures	100,000	200,000	Account receivable	200,000	300,000
Bills payable	80,000	100,000	Cash	100,000	200,000
Accounts payable	300,000	200,000			
Retained earning	300,000	200,000			
	2,100,000	1,800,000		2,100,000	1,800,000

Required: Cash flow statement showing:

1. Cash from operating activities.
2. Cash from investing activities.
3. Cash from financing activities and
4. Cash balance.

[6+3+4+2=15]

Ans: (1) Rs. 3,80,000 (2) (Rs. 5,40,000) (3) Rs. 60,000 (4) Rs. 1,00,000

7. EFFECTS OF DEPRECIATION IN FINANCIAL STATEMENTS OF A COMPANY

Theoretical Questions

1. 2055 Q.No.8 OR

In about five to seven effective sentences, give reasons for changes in profit position, because of changes in depreciation policy. [5]

2. 2056 Q.No.8 OR

"Depreciation Fund Method provides sufficient fund at the time of replacement need of Fixed Assets." Comment the statement in 7 to 10 sentences. [5]

3. 2057 (Cancelled) Q.No.7 OR

Briefly explain the sum of the years' digit method of charging depreciation. [4]

4. 2058Q.No.8 OR

What is depreciation? Write with example the machine hour rate of changing depreciation on machine. [2+3=5]

5. 2061 Q.No.4

Define depreciation. Write in short about the reasons for depreciating fixed assets. [2+3=5]

6. 2062 Q.No.3

Write a short note on straight-line method of depreciation and its advantages. [2+3]

7. 2063 Q.No.3

Write in brief about the different factors, which should be considered for calculating depreciation. [5]

8. 2064 Q.No. 4

State in brief the meaning of sum-of-the-year's Digit method of depreciation and also write how the depreciation amount is determined under this method. [3+2]

9. 2065 Q.No. 4

What is depreciation? Explain briefly the annuity method of depreciation. [2+3]

Numerical Problems

10. 2055 Q.No.6

The following are the particulars relating to the machinery accounts.

i.	Purchase	5 machines at Rs.50000 each
ii.	Date of purchase	Baisakh 1. 20x1
iii.	Depreciation applied	Fixed installment of 20% p.a.
iv.	Salvage value	Rs.10000 each (book value)
v.	Scrapped	One machine realizing Rs.30000 on the last day of Chaitra 20x3
vi.	Accounts closed on	The last day of Chaitra of every year.

Required: Machinery for 20x3

Ans: Balance = Rs. 104,000, Gain on sale = Rs. 4,000

11. 2056 Q.No.7

A machinery was purchased three years ago at a cost of Rs.500000. At that time the life of the machine was estimated for 5 years and the company applied the diminishing balance method of depreciation at the rate of 20%. At the beginning of 4th year the company decided to change the depreciation method into fixed installment method to the book salvage of Rs.50,000. Write up Machinery Account for the remaining two year. [4+2=6]

Ans: Depreciation adjustment =Rs.26,000

12. 2057 (Cancelled) Q.No.8

A workshop acquired a property for 3 year under lease for Rs.125000 in the beginning of 2051. The workshop management decided to purchase insurance policy for the same amount to get sufficient fund for renewal of lease. The annual premium payable is Rs. 40,000. The policy matured at the end of 3rd year.

Required:

i. Depreciation insurance policy account
ii. Depreciation Reserve account [3+3 = 6]

Ans: Gain=Rs.5,000

13. 2057 Q.No.10

A firm is purchased a plant costing Rs.90,000 that produces salvage value of Rs.10,000 after 3 year. The fitting charges incurred is Rs.30,000. A sinking fund is created to replace the plant after 3 year. The amount of depreciation is invested in the purchase of securities that provides 5 percent interest. Calculations of interest are made to the nearest rupee. Sinking fund table reveals that 0.317208 invested each year at 5 percent per annum will accumulate to Rs.1 after 3 year. The investment realized Rs.70,000 at the end of 3rd year.

Required: Sinking fund investment account for three year. [6]

Ans: Annual depreciation Rs.34892.88=Rs.34893 and Interest for 2nd year Rs.1744.65=Rs.1745

14. 2058 Q.No.7

A company purchased plant at a cost of Rs.500,000 in the beginning of Year I. A portion of the plant costing Rs.100000 was sold for Rs.70000 at the end of year III. The useful life of the plant is 5 years. The company used straight line method for charging depreciation. At the end of the 4th year company decided to change the method of depreciation from straight line to diminishing balance method at the rate of 15% applicable from the purchased date.

Required: Machine account for 3rd and 4th year. [3+3=6]

Ans: Balance=Rs.2,08,802.5; Depreciation Adjustment Rs. 85,650 and Gain on sales=Rs.30,000

15. 2059 Q.No.8

Plant account of an industry has debit balance of Rs.340000 on 1.1.20x7.The plants were purchased on 1.7.20x5. Depreciation of 10% per annum was charged on original cost.
The industry has sold a plant costing Rs.100,000 for Rs.72000 on 30.06.20x7. The industry has been using Bickram Sambat Calendar year and decided to close the plant account of 20x7 by applying written down value method of charging depreciation with retrospective effective from 1.7.20x5 using similar rate.

Required: Plant account for 20x7 and 20x8. [5+3=8]

Ans: Balance=Rs.2,07,765 and Loss on Sales=Rs.8,000; Depreciation Adjustment 1,500 (Dr.)

16. 2060 Q.No.8

Four machines of equal value were purchased by a mill at a total cost of Rs. 400,000 on 1.1.20X1. The life of the machines was 10 years. One machine was sold for Rs. 70,000 on 30.6.20X3. Annual accounts were closed on Chaitra 31st of every year. SLM is adopted to depreciate the machines. The mill decided to close at machine account of 20X4 by following diminishing balance method charging 15% p.a. depreciation with retrospective effective from the beginning date.

Required: Machines' account for the two years ending Chaitra 31st, 20X4 [3+2=5]

Ans: Adjusted Depreciation = Rs. 25,762.50 and Loss on Sale - Rs. 5,000; Balance Rs. 15,601.87

17. 2061 Q.No.8

A factory has purchased a plant costing Rs. 275,000 on Baishak 1 of 20X3. The plant will become useless after 3 years of useful life with Rs. 25,000 as terminating value. The factory has invested annual amount of depreciation in the securities that has offered 5 percent per annum interest. The investments were made in the nearest rupee only. The investments in securities has realized Rs. 160,000 after 3 years. Sinking Fund Table explains that Rs. 0.3172 invested annually at 5 percent per annum interest will realize Re. 1 after 3 years.

Required: 1. Sinking fund investment account.
2. Sinking fund account. [4+4]

Ans: Amount to be charged to P&L A/c Rs. 79,300
(b) Amount of interest: 20x4- Rs. 3965 and 20x5- Rs. 8128 (c) Los on investment Rs. 2565

18. 2062 Q.No.8

The following information are given:

1 Jan 2001: The firm acquired a three years lease for Rs. 500,000 and decides to establish a depreciation fund for its replacement. Interest is expected to be earned at 5%.

31 Dec 2003: The investments are sold for Rs. 510,013.50

Additional information:

Sinking fund table shows that Rs. 0.3172 has to be invested every year to produce Re. 1 at the end of three years at 5%.

Required: For the year 2001, 2002 and 2003: ❶ Depreciation fund investment account ❷ Depreciation fund account ❸ Lease account [3+3+2]

Ans: Annual depreciation Rs. 158,600; Profit on sale of investment Rs. 184,883.50; Profit transferred to profit & loss account Rs. 184,870

19. 2063 Q.No.8

A Company acquired a five-year lease for Rs. 400,000 and it was decided to depreciate the lease by Annuity method, calculating interest at 5% per annum. The annuity table shows that the annual amount required to write off Re. 1 in 5 years at 5 percent per annum is Rs 0.230975.

Required: Leasehold account and interest account for 5 years. [5+3]

Ans: Balance at end Rs. 92,390; Interest a/c at end Rs. 4,400

20. 2064 Q.No. 10

The machine account of a factory has opening debit balance of Rs. 32,400 on 01.01.2062. The factory used written down value method of depreciation @ 10% p.a. on the four machines of equal value purchased on 01.01.2060. One machine was sold for Rs. 7,500 on 30.09.2062. A new machine costing Rs. 20,000 was purchased on the next day.

The factory closed the machine account of 2062 by changing the original WDV method of depreciation to straight-line method of depreciation with retrospective effect.

Required: Machine account for 2062 and 2063 [6+2=8]

Ans: Profit and loss a/c = Rs. 300; Balance c/d = Rs. 35,500

21. 2065 Q.No. 10

A firm purchased a machine costing Rs. 100,000 on 1st Baishakh 2060. The useful life of the machine is 3 years after which it is expected to have a salvage value of Rs. 20,000. The firm decided to invest the depreciation amount to earn interest at 5% per annum. Rs. 0.317208 invested at 5% p.a. will give Re. 1 at the end of 3 years as per sinking fund table. At the end of 3rd year, the investments were sold for Rs. 55,000.

Required: (a) Depreciation Fund Investment Account (b) Depreciation Fund Account [4+4]

Ans: (a) Gain on sale of investment = Rs. 2,977.89 (b) P/L a/c Rs. 25,376.64

22. 2066 Q.No. 10

A company purchased four machines for Rs. 160,000 on 1–1–2063. The life of the machines were estimated to be 4 years. At the end of 4th year, it was estimated to fetch Rs. 10,000 as the residual values of the machines. The company used WDV method of charging depreciation @ 25% p.a.

One of the machines was sold for Rs. 10,000 on 30–12–2064.

On 1–1–2065, the company decided to change the method of charging depreciation from WDV method to straight line method charging the similar rate of depreciation with retrospective effect.

Required: Machinery Account for 2063, 2064 and 2065. [3+2+3]

Ans: Loss of sale Rs. 12,500; Balance c/d Rs .35,625; Adj. P/L a/c = Rs. 3,750

8. PRICE LEVEL CHANGES

Theoretical Questions

1. 2056 Q.No.14

What are the benefits of applying current cost accounting approach under price level change?

2. 2060 Q.No.4

Define holding gain and holding loss in monetary items with reference to inflation accounting. [2.5+2.5]

3. 2061 Q.No.3

Write in brief about the gearing adjustment in inflation accounting. [5]

4. 2062 Q.No.4

State the meaning of holding gain on monetary items. How is it ascertained? [2+3]

5. 2063 Q.No.4

State the different advantages of current purchasing power method. [5]

6. 2066 Q.No. 4

What do you mean by current purchasing power method? Write its advantages. [2+3]

Numerical Problems

7. 2055 Q.No.16 OR

Following were the historical Cost(HC) based comparative Balance Sheets for the years ending 2052 & 2053 Income statement for the year ended Chaitra, 2053

HC based comparative Balance Sheets

Liabilities	2052	2053	Assets	2052	2053
Share Capital	50,000	50,000	Plant at cost	12,000	1,20,000
10% Debentures	20,000	35,000	Accumulated depreciation	(48,000)	(60,000)
Creditors	13,000	23,000	Stock	20,000	40,000
Proposed Dividend	6,000	8,000	Book Debt	5,000	18,000
Retained Earning	12,000	21,000	Cash & Bank	4,000	19,000
	1,01,000	1,37,000		1,01,000	1,37,000

HC based Income statement for the year ended Chaitra, 2053

Particulars	Amount	Amount
Sales		1,44,000
Less: Cost of Sales (Excluding Depreciation)		1,11,500
Gross Profit		32,500
Less: Depreciation (10% on Original cost)	12,000	
Interest on Debenture	3,500	15,500
Net Profit		17,000
Add: Opening retained earning		12,000
		29,000
Less: Dividend Proposed		8,000
Closing Retained Earning		21,000

Information to be considered

Prices of plant have risen to 150% since their purchases (Installations) till 2052 & to 180% by the end of 2053.

The cost of purchases increased by 20% during the year.

	2052 Rs.	2053 Rs.
The replacement price of stock was	23332	42000

Required:

a. Amount of Depreciation Adjustment [1.5]
b. Amount of Cost of Sales Adjustment [1.5]
c. Amount of Monetary Working Capital Adjustment [1]
d. Amount of Gearing Adjustment [2]
e. Increase Value of Assets (Including Inventory) [1+1]
f. Total Amount credited to Current Cost Accounting Reserve (CCAR) [2]
g. Income Statement under current cost [2]
h. Balance Sheet under current cost [3]

Ans: a. Rs. 24,000; b. Rs. 5,334 (appr.); c. (Rs. 1,216) nearly; d. Rs. 3,353 nearly; e. (PLANT in 2052 = Rs. 36,000, 2053 = Rs. 48,000) and (INVENTORY in 2052=Rs.3,332, 2053=Rs.2,000) ; f. Rs. 74,765; g. (Rs. 3,765); h. Total = Rs. 187,000

8. 2056 Q.No.11

Following were the HC based comparative Balance Sheets for the years ending 1995 & 1996.

HC based comparative Balance Sheets

Liabilities	1995	1996	Assets	1995	1996
Share Capital	40,000	40,000	Fixed Assets	30,000	27,000
Loan	15,000	20,000	Stock	20,000	28,000
Creditors	15,000	20,000	Debtors	18,000	22,000
Reserves	8,000	12,000	Cash	10,000	15,000
Total	78,000	92,000	Total	78,000	92,000

Additional information:

- Fixed Assets were acquired when the price index was 100. Price Index ion respect of them was 150 at the end of 1996. The fixed assets are to be depreciated @ 10% on original cost.

	1995	1996
The replacement cost of stock was	Rs.23,000	Rs.33,600

- Retail price index at the beginning of 1996 was 100 & at the end of 1996 it was 120.

Required:

i. Amount of additional depreciation to be charged to profit & Loss Account. [2]
ii. Amount to be credited to Current Cost Account Reserve of Fixed Assets. [2]
iii. Amount in respect of Cost of Sales Adjustment. [2]
iv. Amount in respect of Monetary Working Capital Adjustment. [2]

Ans: i. Rs. 1,500; ii. Rs. 13,500; iii. Rs. 4,334 nearly; iv. Rs.466 nearly

9. 2057 (Cancelled) Q.No.16

The following are the HC base balance sheets of N Ltd for the year ending Year 5 and Year 6

Liabilities	Year 5	Year 6	Assets	Year 5	Year 6
Creditors	5,000	5,000	Cash	10,000	20,000
10% Loan	20,000	20,000	Account receivable	10,000	15,000
Share capital	55,000	55,000	Stock	15,000	10,000
Retained earning	—	5,000	Land	20,000	20,000
			Machinery & plant	25,000	25,000
			Less: Depreciation		(5,000)
Total	**80,000**	**85,000**	**Total**	**80,000**	**85,000**

The price index was 100 at the end of the year 5, but it was increased to 200 at the end of year 6. The value of fixed assets is increased by Rs.45,000 and Rs.40,000 in year 5 and year 6 respectively. The value of inventory and depreciation are increased by Rs.4,000 and Rs.5,000 respectively in year 6 only.

Required:

a. Cost of sales adjustments (COSA)

b. Monetary working capital adjustment (MWCA)
c. Gearing adjustment (Ratio)
d. Amount to be adjusted to current cost adjustment (CCAR) [3+3+4+5=15]

Ans: a. Rs. 10,000; b. Rs. 5,000; c. 4.673%; d. Rs. 63,065

10. 2057 Q.No.9

The Income Statement of a company for Chaitra 31st Year 6 is given as under:

Particulars	Amount	Amount
Sales Revenue		1,02,000
Less: Cost of Goods Sold:		
Opening Stock	15,000	
Purchases	25,000	
	40,000	
Less: Closing Stock	10,000	30,000
Gross Profit		72,000
Less: General Expenses (Including interest Rs.1000)		65,000
		7,000
Add: Net Profit		10,000
Retained Profit b/d		17,000

Additional Information:

	Year 6 Baisakh	Year 6 Chaitra
a. General price	125	225

b. Gearing Adjustment (amount) is given as Rs.1,650
c. Depreciation Adjustment comes to Rs.2,500
d. MWCA comes to Rs.2,000

Required:
i. Cost of Sales Adjustment
ii. Current Cost Profit & loss a/c [3+5=8]

Ans: i: Rs. 8,223; ii. Rs.5,927

11. 2058 Q.No.11

The historical cost income statement of a company for the year ending, Chaitra 31st, 2056 is given as follows:

Sales Revenues	Rs.4,50,000
Less: Opening stock	(50,000)
Less: Purchases	(3,00,000)
Add: Closing stock	80,000
Gross profit	1,80,000
Less: Operating Expenses	(60,000)
Income before interest of Tax	1,20,000
Less: Income taxes	(28,000)
Less: Dividend	(30,000)
Retained profit for the year	62,000

Information about price index of the year: Beginning RP Index = 120.
Ending RP Index = 140 Average RP Index = 125

Required: Amount of price level gain or loss. [8]

Ans: Loss = Rs. 10,800

12. 2059 Q.No.9

The opening balance sheet and the income statement of current year of a company are given below:

HC balance Sheet of a company at the beginning of the current year

Liabilities	Amount	Assets	Amount
Sundry Creditors	38,000	Cash at bank	12,000
Expenses to be paid	7,000	Account receivable	18,000
Retained earning	35,000	Prepaid expenses	5,000
Share capital	1,00,000	Inventory	25,000

		Plant & Machinery	2,00,000
		Acc. Depreciation	(80,000)
Total	1,80,000	Total	1,80,000

Income Statement of current year of a company

Sales revenue	Rs. 2,40,000	
Less: Purchases	1,10,000	
Opening stock	25,000	Rs. 1,35,000
Less: Closing stock	30,000	1,05,000
Gross Profit	1,35,000	
Less: Operating Expenses		
Salaries & wages	40,000	
Other expenses (Depreciation 20000)	52,000	92,000
Net Income	43,000	
Retained profit b/d		35,000
Retained profit		78,000

During the year, the general price level rose evenly from 120 to 150.

Required:

a. Price level gain/ loss amount

b. Restated income statement under CPP method. [5+3=8]

Ans: a. Net monetary loss=Rs.3,945, and Retained profit=Rs. 37,583

13. 2060 Q.No.12

A Ltd. Company provides you the following HC base balance sheet for the year ending Chaitra 30, 2055 and addition income for consideration:

HC Balance Sheet, Chaitra, 30 2055

Liabilities	Rs.	Assets	Rs.
Share capital	100,000	Plant at cost	200,000
8% debentures	80,000	Accumulate depreciation	(60,000)
Creditors	20,000	Inventory	50,000
Dividend proposed	15,000	Account receivable	30,000
Provision for tax	12,000	Cash at bank	40,000
Retained profit	33,000		
	260,000		260,000

Additional information:

The plant was purchased when price index was 100 and its price index reached to 160 at the end of Chaitra 30, 2055.

The replacement cost of inventory has been estimated to Rs. 62,000.

Information relating to CCA reserve are:

Depreciation adjustment	Rs. 22,500
COSA	7,500
MWCA	6,200
Gearing adjustment	25.4%
Increase value of plant	Rs. 74,000
Increase value of inventory	Rs. 12,000

Required: a. Amount to be credited to CCAR. b. CC balance sheet. [4+4 = 8]

Ans: a. Rs. 113,005.20; b. Rs. 356,000

14. 2061 Q.No.9

Historical Cost (HC) based income statement of a company is given below:

HC Incomes Statement of a Company for the year ending, year 5

Sales		Rs. 400,000
Less: Cost of goods sold		210,000
Gross profit		190,000
Less: Operating expenses:		
General expenses	30,000	
Depreciation	20,000	

Debenture interest	25,000	75,000
Net profit before tax		115,000
Less: Provision for taxes		55,000
Net profit after tax		60,000
Opening retained profit		35,000
		95,000
Less: Dividend		30,000
Retained profit at end		65,000

Additional Information:

a. Gearing ratio 17.5%
b. Amount of COS A Rs. 22,000
c. Depreciation adjustment amount Rs. 27,000
d. Amount of MWCA Rs. 5,600
e. Increase value of assets to be credited to CCAR.
   (i) Fixed assets Rs. 6,200 (ii) Inventory Rs. 4,500

Required:

1. Amount to be credited to CCAR.
2. Current cost income statement showing CC profit or loss. [3+5=8]

Ans: a. Rs. 55,745; b. Rs. 19,955

15. 2062 Q.No.14 OR

A company held the following assets and liabilities for through out the year 2004.

Cash at bank	Rs. 20,000
Account receivable	30,000
Bills receivable	10,000
Prepaid expenses	5,000
Accounts payable	30,000
Wages payable	5,000
Tax payable	10,000

Retailed price index (RPI) for 2004

Beginning RPI	150
Ending RPI	180

The income statement of the company for the same year revealed the following:

		Rs.
Sales		150,000
Less: Cost of goods sold		
Beginning inventory	20,000	
Purchases	60,000	
Less: Ending inventory	(40,000)	40,000
Wages paid		30,000
Total cost of goods sold		70,000
Gross margin		80,000
Less: Operating expenses:		
Operating expenses		30,000
Interest expenses		5,000
Depreciation		20,000
Total other expenses		55,000
Retained earning		25,000

Required: ❶ Holding gain and loss from monetary assets and liabilities ❷ Reinstatement of income statement in CPP method [3+5]

Ans: (i) Amount of holding loss Rs. 6,272, (ii) Retained profit c/d Rs. 18,809

16. 2063 Q.No. 12 Or

The Balance sheets under Historical Costing System for year 2003 and 2004 have been presented below:

Balance Sheets

	2003 (Rs.)	2004 (Rs.)		2003 (Rs.)	2004 (Rs.)
Equity capital	100,000	100,000	Fixed assets (at cost)	100,000	100,000
Bank overdraft	40,000	25,000	Accumulated dep^n.	(10,000)	(20,000)
Accounts payable	40,000	50,0000	Inventory	30,000	40,000
Outstanding exp.	10,000	5,000	Accounts receivables	80,000	90,000
Reserve and surplus	60,000	70,000	Cash at bank	10,000	10,000
			Bills receivable	40,000	30,000
	250,000	250,000		250,000	250,000

Additional information:

Price index was 100 when fixed assets were purchased. Price index at the end of 2003 was 200 and it reached to 250 at the end of 2004.

Required: ❶ Fixed assets adjustments ❷ Depreciation adjustments ❸ Cost of sales adjustments (COSA) ❹ Monetary working capital adjustment (MWCA) [2×4]

Ans: (i) Rs. 90,000 & Rs. 120,000 (ii) Rs. 20,000 (iii) Rs. 7,750 (iv) Rs. 15,250

17. 2064 Q.No. 14

The HC base income statement of a company is given below:

HC base Income Statement for the year ending 2005

Net operating profit before interest and taxes	Rs. 40,000
Less: Interest on loan	8,000
Profit before tax	32,000
Less: Taxes	12,000
Profit after tax	20,000
Add: Retained profit b/d	70,000
Retained profit c/d	90,000

Additional information:

Total current cost adjustment in total	Rs. 29,500
Gearing ratio	22.5%

Increase in value due to changes in price level on

(i) Fixed assets	Rs. 18,000
(ii) Stock	Rs. 16,000

Required: (a) CC Income Statement (b) CCA Reserve [5+3=8]

Ans: (a) Profit to SHs = Rs. 2,862.50; Retained profit c/d = Rs. 67,137.50 (b) Rs. 56,862.50

18. 2065 Q.No. 14

The extracted from the beginning and closing Balance Sheet of a company are as under:

	Beginning (Rs.)	Ending (Rs.)
Inventory	300,000	450,000
Sundry debtors	412,500	540,000
Sundry creditors	375,000	450,000
Debentures	825,000	750,000
Cash and Bank	150,000	135,000
Equity share capital	750,000	750,000
Reserve and surplus	225,000	300,000

Specific index for inventory, debtors and creditors are:

Beginning	100
Average	110
Ending	120

Fixed assets credited to CCAR: Beginning Rs. 325,000 and ending Rs. 550,000

Required:

(a) Cost of sales adjustment
(b) Monetary working capital adjustment
(c) Gearing ratio [2+2+4=8]

Ans: (a) Rs. 67,500 (b) Rs. 11,250 (c) Rs. 30.79%

19. 2066 Q.No. 13

A firm's income statement for the year ended Chaitra 31, 2064 is as follows:

		Rs.
Sales revenue		136,500
Less: Cost of goods sold		
Beginning inventory	25,000	
Purchases	63,000	
Ending inventory	(18,000)	
	70,000	
Wages	30,000	100,000
Gross profit		36,500
Less: Operating expenses		30,000
Net profit		6,500
Add: Retained profit of the previous year		8,000
		14,500

The gearing adjustment for the period was Rs. 2,000.
The depreciation adjustment of Rs. 3,500 was required.
The MWCA for the period was Rs. 3,000.
The general price indices were 125 of Baishak 2064 and 150 of Chaitra 2064.

Required:

1. Cost of sales adjustment
2. Current cost profit and loss account. [3+5=8]

Ans: (1) Rs. 4,000 (2) Rs. 6,000

9. ACCOUNTING FOR WORKING CAPITAL

Theoretical Questions

1. 2055 Q.No.15

Write about permanent and variable nature of working capita. [5]

2. 2057 Q.No.12

Write any five determinants of working capital. [5]

3. 2058 Q.No.14

Write with suitable example how schedule of net working changes is prepared. [5]

4. 2061 Q.No,1

Define working capital. Write about the methods of determining working capital requirement. [2+3=5]

5. 2064 Q.No. 3

Briefly write the factors, which should be considered while estimating the working capital need of a concern. [5]

Numerical Problems

6. 2055 Q.No.10

Estimated cost per unit and other information are:

Raw materials	Rs.5 per unit
Direct Labour	Rs.10 per unit
Overheads (Cash expenses only)	Rs.5 per unit
Level of production	5,200 units
Raw materials in stock required for	Average 4 weeks
Finished goods in stock for.	Average 1 weeks
Credit allowed to debtors	Average 4 weeks
Credit granted by supplier	Average 2 weeks

Production is carried out for the whole year i.e. 52 weeks. All sales are on credit basis. There is no beginning balance of any items.

Required:

a. Total estimated amount of current assets [3]
b. Total estimated amount of current liabilities [1]
c. Level of net working capital [1] = [5]

Ans: a. Rs. 12,000; b. Rs. 1,000; c. Rs. 11,000

7. 2056 Q.No.8

The following are the trading activities of a business concern. It would like to know the required amount of working capital to continue the activity..

Estimated cost of production:

Raw materials		Rs.10 per unit
Direct Labour		Rs.10 per unit
Other expenses (Only cash)		Rs.5 per unit
Total cost	**Rs.25**	

The other information's available are:

Selling price	Rs.50
Level of production	10,400 units
Finished goods in stock	Average 2 weeks
Credit allowed to customer	Average 3 weeks
Credit granted by supplier	Average 4 weeks

The Production is carried out through out the years, Assume All sales on credit basis.

Required: a. Current assets b. Current liabilities c. Level of net working capital [2+2+2]

Ans: a. Current assets=Rs. 25,000; b. Current liabilities=Rs. 8,000; c. Net WC = Rs.17,000

8. 2057 (Cancelled) Q.No.7

The following activities are related to a manufacturing firm. Production anticipated for one-month period 30,000 Kg

Average raw materials required for 10 days

Finished goods to be maintained for 5 days

Credit allowed to creditors for 15 days

Credit allowed to debtors for 10 days

Minimum bank balance required for Rs.20,000

The firm anticipated the following cost per unit Kg

Raw materials	Rs. 200
Direct Labour	Rs. 100
Other expenses	Rs. 50
Total cost	Rs. 350

Assume 30 days a month and estimated selling price per units is Rs.500

Required: Net working capital [4]

Ans: Rs. 42,70,000

9. 2058 Q.No.8

A manufacturing unit of a Ltd Company anticipates the following activities during the following month period:

Anticipated Production	10000 units
Raw materials required to stock	10 days
Finished goods to be maintained	5 days
Credit allowed by creditors	15 days
Credit allowed to debtors	10 days
Minimum cash balance required	Rs.10000

The unit expected the following cost of manufacturing one unit of product.

Raw materials	Rs.24
Direct Labour	Rs.14
Other overheads	Rs.10
Total cost	Rs.48

Previous batch of product was sold at Rs.75 per unit and company does not expect any change in price for this batch also. Assume 30 days in a month.

Required: Net working capital. [2+2+1=5]

Ans: Rs. 2,10,000

10. 2059 Q.No.14

A manufacturing company anticipates the following activities for the next month:

Production and sales 15000 units

The company has adopted the following stores policies:

- Raw materials and finished unit both are required to stock for 10 days each.
- Credit facility granted to debtors for 20 days
- Credit allowed by suppliers 15 days
- Minimum Cash balance required Rs.15000

The production unit anticipated the following costs detail to produce one unit of output:

Raw material of	Rs.25
Direct Labour of	Rs.15
Overheads of	Rs. 5
Total costs	Rs.45

The company sold the previous batch for Rs.70 per unit, and company promises to maintain the same rate for this batch also. Assume 30 days in a month.

Required: Net working capital. [5]

Ans: Rs. 6,27,500

11. 2060 Q.No.15 OR

The following details were provided by a production unit of a manufacturing company for the following month.

a.	Anticipated production and sale.	10,000 units
b.	Credit facility granted by the supplier	20 days
c.	Credit extended to the customers	10 days
d.	Both finished stock and raw materials required to be held in stock	10 days
e.	Minimum cash balance required	Rs. 10,000

On equity the unit provided the following costs detail for one unit of output.

Raw materials 7 kgs. @ Rs. 3kg.

Direct labour 5 hrs. @ Rs. 3/hr.

Other overheads Rs. 6

Previous batch was sold @ Rs. 60 per unit and the company has fixed the same price for this batch also. Assume 30 days a month.

Required: Net working capital. [5]

Ans: Rs. 220,000

12. 2061 Q.No.15 OR

The expected activities of a unit of a manufacturing company for the next month are given below:

Expected production and sales	20,000 units
Finished stock to be maintained	5 days
Raw-material as required on stock	15 days
Credit allowed by creditors	20 days
Credit allowed to debtors	15 days
Minimum cash balance required	Rs. 5,000

The production unit anticipated the manufacturing cost per unit of output is

Raw material of	Rs. 30
Direct labor of	15
Other overheads of	10
Total cost	Rs. 55

The company sold the last stock for Rs. 60 per unit and the company expects the same selling price for the next batch also. Assume 30 days in a month.

Required: Net working capital [5]

Ans: Rs. 638,333

13. 2062 Q.No.12

The estimated cost for 40,000 units of output for the current year is as follows:

Raw material cost	Rs. 168,000
Direct labour cost	Rs. 120,000
Overheads (cash only)	Rs. 96,000

The prevailing practices of the factory which are expected to continue in the next year are as follows:

a. Minimum cash balance expected is Rs. 10,000
b. Raw material stock for ½ month.
c. Manufactured goods are sold after 1½ months
d. Cash sales of manufactured goods is 20 percent and credit period provided is 1 month.
e. Raw materials are purchased on credit and required to be settled within 1½ months.
f. Payments for wages and overheads are made in ½ month interval.

Required:
Net working capital estimation for the next year for the projected production of 60,000 units. [5]

Ans: Net working capital Rs. 85,900

14. 2063 Q.No. 10

The holding period of different items are as follows:
❶ Materials for 15 days ❷ Finished goods for 8 days ❸ Credit period allowed to debtors is 14 days ❹ Credit period granted by creditor is 20 days.
The output expected for 30 days a month is 50,000 units and cash sales represent 60% only.
Production cost per unit

Raw material	Rs. 4.50
Direct wages	Rs. 2.70
Miscellaneous overhead (cash only)	Rs. 1.80

Required: Net working capital estimation maintaining minimum cash balance of 4% of the estimated investment in current assets excluding cash balance. [5]

Ans: Rs. 179,160

15. 2064 Q.No. 13

An industry has projected 12,000 units of output for the coming 30 days month.
The period of holding of different items of current assets and liabilities of the current month are provided below which is assumed to prevail in the coming month also.

Stock of material for	15 days
Finished goods for	3 days

Discharge wages and overheads in 15 days interval.
Credit facility of 20 days was allowed by suppliers.
Customers are given credit facility of 15 days.
The costs of output for one unit of finished goods are as follows:

Materials	Rs. 10
Wages	Rs. 9
Overheads (cash)	Rs. 6

Required: Net working capital [5]

Ans: Net working capital = Rs. 70,000

16. 2065 Q.No. 13

The following information are extracted from the books of account of a company of an activity of 20,000 units of output:

Raw material	Rs. 300,000
Direct labour	Rs. 200,000
Overhead (Cash)	Rs. 80,000

The company has made an arrangement for 36,000 units of output for the coming year. The policy of holding current assets current liabilities remains the same, which are as under:
a. Materials, work-in-progress and finished goods are expected to remain in the stores for an average of 2 months, 1 month and 3 months respectively.
b. Customers are allowed 3 months credit sale and credit period allowed by the supplier is 2 months.
c. Minimum cash balance Rs. 20,000

Required: Net working capital. [5]

Ans: Rs. 629,000

17. 2066 Q.No. 12

The unit cost for 90,000 units of output of a factory @ 100% annual capacity are as follows:

Material cost	Rs. 30
Wages	Rs. 20
Overhead (cash)	Rs. 30
	Rs. 80

The norms of the factory are given for necessary reference.
Material stock for one month.
Finished goods stock for ½ month.
Material supplier allows 1½ months credit.
The factory makes 40% sales in credit by providing one month credit facility.
A contingency provision of 5% is required on net working capital.
Required: Net working capital requirement for the coming year for 70% capacity output. [5]

Ans: Rs. 3,14,212.50

10. ACCOUNTING FOR COST OF CAPITAL

Theoretical Questions

1. 2055 Q.No.13

Write about the cost of capital briefly. [5]

2. 2056 Q.No.15

Write the meaning of weighted average cost of capital by clarifying it with a suitable example. [5]

3. 2057 (Cancelled) Q.No.12

With a suitable example write the meaning of weighted average cost of capital. [5]

4. 2057 Q.No.15

Define cost of capital and also write the method of considering growth factor in computing cost of equity capital. [3+2]

5. 2059 Q.No.4

Write in brief about the weight age cost of capital. [5]

6. 2061 Q.No.15

Write in brief about the cost of capital. [5]

7. 2064 Q.No. 2

Write the meaning of cost of capital and state its importance. [2+3]

8. 2065 Q.No. 3

Explain briefly the cost of capital with suitable examples. [5]

Numerical Problems

9. 2055 Q.No.5

A company has the following capital outstanding:

	Amount (Rs)
Ordinary shares Rs.10	10,00,000
10% Preferences shares	7,00,000
14% Term loans	3,00,000

The market price (current) of the firm's share is Rs.12 and the company expects to pay dividend next year equal to 10%. The tax rate next is expected to continue at 45%.
Required: Overall cost of capital of the company. [8]

Ans: 8.82%

10. 2056 Q.No.4

A company will be collecting of Rs.500000 by issuing 5000, 8% debentures at a discount of 15%, assuming that the company at present pays 30% income tax. The 8% debentures mature after 5 year.
Required: After tax cost of Debt [4]

Ans: 8.32%

11. 2057 Q.No.3 OR

A firm is planning to issue two types of debentures consisting of 1000 "A" redeemable debentures for a period of 10 year and 2000 "B" redeemable debentures for a period of 5 year. A discount of 5% is allowed on issue of "B" Redeemable Debentures. The face values per debenture of both categories are Rs.1000. The rate of interest payable on both is 10%.

Required: Cost of "A" and "B" redeemable debentures. The corporate tax rate is 25%. [4+4]

Ans: 7.50%, and 8.46%

12. 2058 Q.No.4

The capital employed by a recently established company is as stated below:

10000 Debentures of Rs.100 each with a coupon rate of 10%. 14% 5000 Preference shares of Rs.100 each. 25000 Equity shares of Rs.100 each.

The corporate tax rate applicable for the average company is 45%. The company enjoys tax relief for the first three years. The expected dividend per equity share is Rs.20.

Required: Overall cost of capital [4]

Ans: 15.625%

13. 2059 Q.No.12

A company has 50000 equity shares of Rs.100 each fully paid. The company has distributed Rs.600000 dividend in the last year. The average growth rate of dividend is 10% and is expected to remain same for the current year. The company is proposing to offer additional 20000 equity shares of rs.100 each. The prevailing market value per share is Rs.160.

Required:

a. Cost of the existing equity share capital [2]

b. Cost of the proposed additional equity share capital. [3]

Ans: a. 23.20%; b. 18.25%

14. 2060 Q.No.11

The capital composition of a firm is given below:

Equity share capital	Rs. 500,000
15% preference share capital	200,000
10% debentures	300,000

The equity shares are presently selling for Rs. 150.

The firm has paid Rs. 15 per share as dividend maintaining average growth rate of 8%. The firm has been paying 40% tax on income.

Required: Overall cost of capital. [2+3=5]

Ans: 13.8%

15. 2061 Q.No.13

A joint stock company has two categories of debentures.

A. The 12 percent coupon rate 10,000 debentures of Rs. 1,000 issued at a discount of 10% two years ago. The issuance expense was 5% of face value.

B. The 14 percent 20,000 redeemable debentures of Rs. 100 each was issued at a premium of 5% in the beginning of this year. The flotation charge was Rs. 50,000. The redeemable debentures will mature in the beginning of 6th year.

Required: Cost of debentures of the two categories of debenture separately assuming that the company has to discharge 40 percent tax. [2+3=5]

Ans: (A) 8.47% and (B) 8%

16. 2062 Q.No.11

A factory has 5,000 ordinary shares of Rs. 100 each fully paid. The factory has planned to distribute Rs. 60,000 as dividend in the current year. The average annual growth rate of dividend paid on ordinary share capital is 5%. The factory has granted approval to raise Rs.400,000 by issuing 10.5%. Preference shares of Rs. 100 each at a premium of 10%. The brokerage commission negotiated for the purpose is 2% on nominal value of shares. The shares are redeemable after 5 years at 5% premium.

Required: ❶ Cost of ordinary share capital ❷ Cost of preference share capital [2+3]

Ans: (i) Cost of ordinary share capital 17% (ii) Cost of preference share capital 9.3%

17. 2063 Q.No. 11

The sources of capital raised by the company established in the current year as follows:

Equity share capital of Rs. 100 each	Rs. 500,000
Reserve and surplus	Rs. 100,000
10% Preference share capital of Rs. 100 each	Rs. 200,000
8% Debentures of Rs. 1,000 each	Rs. 200,000

The equity shares were issued at 10% premium.
The dividend rate on equity shares capital proposed by BOD is Rs. 15 per share.
The company is in 40% tax bracket.
Required: Weighted average cost of capital. [5]

Ans: 10.46%

18. 2064 Q.No. 15

An investment proposal requiring the investment of Rs. 2,000,000 is proposed to finance using the following sources:

8% Debentures	Rs. 500,000
Equity share capital of Rs. 100 each	700,000
9% Preference share capital of Rs. 100 each	500,000
Retained profit	300,000
	Rs. 2,000,000

The rate of return required to the equity stock holders is 12% and equity stock holders' pays average tax rate @ 25% on their income.
The company is in 40% tax bracket.
Required: Weighted average cost of capital. [5]

Ans: 9%

19. 2065 Q.No. 15

A company has the capital structure comprising of equity share capital of Rs. 100 each, 10% preference share capital and 12% debentures in the ratio of 5:2:3. The expected dividend at the end of the year is Rs. 10 per share. The growth rate is expected to continue at 10%. The company is in tax bracket of 30 percent.
The company is going to meet the need of expansion plan by raising 15% loan form bank. The ratio of capital structure as a result after the execution of the expansion plan would be 5:2:3:6. No change is expected in dividends, growth rate etc:
Required: Weighted average cost of capital of new capital structure. [5]

Ans: WACC = 13.01%

20. 2066 Q.No. 15

Following information has been provided by a company:

No. of 8% preference shares issued	12,000
Legal value of share	Rs. 100
Brokerage/underwriting commission:	2.5% of sales value
Floatation/ issuance cost:	0.5% of sales proceeds
Maturity period:	8 years.

Required: Cost of preference share capital if shares were issued at (1) 10% premium, and (2) 10% discount. [2.5+2.5=5]

Ans: (1) 6.928% (2) 10.23%

11. LONG-TERM PLANNING- CAPITAL BUDGETING

Theoretical Questions

1. 2055 Q.No.12

In about five to seven sentences write what you know about the discounted cash flow technique. [5]

2. 2056 Q.No.13

Why capital budgeting process gives emphases to cash flows instead of net profit? Comment briefly. [5]

3. 2057 (Cancelled) Q.No.13

What do you mean by internal rate of return? Given the choice between NPV and IRR which one will you prefer and why? [2+3=5]

4. 2057 Q.No.14

Write the meaning of accounting rate of return. [5]

5. 2058 Q.No.12

Define payback period an mention at least two advantages of payback period. [2+3=5]

6. 2059 Q.No.2

Define about the discounted cash flow method of evaluating investment proposal. [5]

7. 2059 Q.No.14 OR

Write in brief about the IRR approach to investment analysis. [5]

8. 2060 Q.No.2

Define capital budgeting. Write about the evaluation techniques to analyse profitability of investment. [2+3=5]

9. 2062 Q.No.7 OR

Write briefly about the capital budgeting. [5]

10. 2063 Q.No.2

How is tax effected, when the book salvage value of a machine differs from cash salvage value in replacement decision? Write your answer with suitable examples. [5]

11. 2066 Q.No. 2

"The capital budgeting gives more importance to cash flows than net profit." Discuss. [5]

Numerical Problems

12. 2055 Q.No.8

Advertising Nepal Incorporation has made two offers for advertising in Television for five years, to a newly established firm. The company intends to market a new product that will be launched within few days. The advertising charge for the offer is

a. Deposit a lump sum of Rs.90000 in the beginning.

or

b. Payment of Rs.100000 in four equal annual installments at the end of each year plus Rs.20000 cash deposit in the beginning.

- The market rate of investment is 10 percent.

Required:

Selection of the options by applying NPV approach. [5]

or

In above, five to seven effective sentences, give reasons for changes in profit position, because of changes in depreciation policy.

Ans: TPV of 2nd payment system=Rs.99,250

13. 2056 Q.No.2

Sony Television of Japan approached Sony Television of Nepal for manufacturing a car Television in Nepal with the detail mentioned below:

i. Annual production capacity of 500 sets for five years
ii. The selling price per set expected Rs.10000
iii. The variable cost percentage on sales will be 60% and yearly fixed manufacturing cost excluding depreciation cost will be expected to be Rs.200000
iv. Net working capital requirement of Rs.50000 at the beginning
v. Pre operation and advertisement expenses in the first year will be Rs.50000
vi. The cost of plant and installation expenses will be Rs.3000000 and Rs.500000 respectively
vii. Cash and book salvage values of the machine expected at the end of five year are Rs.150000 and Rs.100000 respectively
viii. The income tax applicable is 30% and expected minimum return is 10%

Required:

a. Net capital requirement in the beginning [1]
b. Annual CFAT (Net cash flow) [2]
c. Terminal cash flow (cash flow in the final year [1]
d. Net present value of project [3]
e. Comment on profitability [1]

Ans: a. (Rs. 36,00,000); b. For Year 1 = Rs. 14,67,000; For Year 2 & 3 = Rs. 5,000; c. Rs. 16,52,000; d. Rs. 20,81,630; e. Profitable

14. 2057 (Cancelled) Q.No.3

A company is considering the replacement of an existing machine. It has Rs.100000 book value at present but its current market value is Rs.80000. The old machine will have zero salvage value in 5 years. The new machine will cost Rs.200000. This new machinery would produce estimated annual operating cash saving of Rs.96000. The estimated useful life of the new machine is 5 years and estimated salvage value at the end of 5 years would be Rs.20000. The company uses straight line method of depreciation. The investment in the new machinery would require additional working capital of Rs.20000. The cash salvage value of old and new machinery in 5 years would be Rs.5000 and Rs.30000 respectively. The corporate tax rate is 30%.

Required:

a. Initial cost of investment
b. Annual cash flow after tax or net cash flow
c. Final year cash flow after tax
d. NPV of differential cash flow at 12% factor [2×4=8]

Ans: a. (Rs. 1,34,000); b. Rs. 72,000; c. Rs. 1,15,500; d. Rs. 1,50,152.50

15. 2057 Q.No.1

A company purchased a machine 5 years ago at a cost of Rs.500,000. The machine had an expected life of 10 years at the time of purchase and depreciated by straight-line method toward a salvage value of Rs. 50,000. A new machine can be purchased for Rs. 700,000. Its Installation cost is Rs.50,000. The new machine being highly automatic would require additional Investment of Rs.50,000 in working capital. During its 5 years life It will reduce cash operating expense by Rs.195,000 per year while the sales will remain the same. At the end of 5 years, the new machine would have a book and cash salvage value of Rs. 50,000 and Rs.60,000 respectively. The old machine can be sold today for Rs.325,000. The firm's tax rate is 30%. The appropriate rate of return will be 12%.

Required:

a. Net cash outlay or net investment
b. Annual cash flow after tax or net cash flow
c. Net cash flow for final year
d. Should the company purchase new machine? [2+2+2+2]

Ans: a. (Rs. 4,90,000); b. Rs. 1,65,000; c. Rs. 2,22,000; d. NPV = Rs. 136,979, e. Yes

16. 2058 Q.No.2

A company is considering to replace an existing machine by a new modern machine. The existing machine is 5 years old and has 5 more years of expected useful life. The new machine also has an estimated 5 years service life with Rs.20000 salvage value in 5 years. The book and cash salvage value of existing machine at present is Rs.50000 and Rs.60000 respectively. The cash salvage value of existing assets after 5 years would be Rs.2000. The new investment requires Rs.10000 additional working capital. The annual cash flow after tax for both machines for 5 years are as under:

		Existing Rs.	New Rs.
	Annual sales	200,000	230,000
Less:	Annual cost	100,000	110,000
	Cash flow before tax	100,000	120,000
Less:	Annual depreciation	10,000	16,000
	Net income before tax	90,000	104,000

Less: Tax (30%)	27,000	31,200
Net income after tax	63,000	72,800
Add back Depreciation	10,000	16,000
Annual cash flow after tax	73,000	88,800

Required:
a. Net cash outlay or net investment
b. Annual differential cash flow after tax or net cash flow
c. Differential CFAT for final year
d. Should the company purchase the new machine if required rate of return is 20%.

[3+1+2+2=8]

Ans: a. (Rs. 53,000); b. Rs. 15,800; c. Rs. 44,400; d. Rs. 5,755

17. 2059 Q.No.11

A spinning mill is working on investment analysis for purchasing an auto-spinning plant.
The necessary particulars about the plant are given below:
The cost of plant is Rs.500000.
Technicians charge for installation works is Rs.100,000.
The extract from pro-forma income statement for the coming five years of machine life is presented below:

Years (in Rs.)	1	2	3	4	5
Sales	600000	600000	500000	200000	500000
Less: Variable manufacturing cost	240000	240000	200000	80000	200000
Fixed " " (excluding depn)	50000	50000	50000	50000	50000

The mill enjoys full tax exemption in the first year and is required to discharge 40% tax on income from the 2nd year onwards. The minimum rate of return expected is 10%.

Required:
a. Initial capital required (1)
b. Annual CFAT including final year (2+1)
c. Using suitable evaluation tool, comment on the probability of the proposed investment (3+1)

Ans: a. (Rs. 6,00,000); b. Rs. 3,10,000, Rs. 2,34,000, Rs. 1,98,000, Rs. 90,000, Rs. 1,98,000; c. NPV = Rs. 208,200, Profitable

18. 2060 Q.No.10

A manufacturing concern is exploring about the impact of phasing out an existing machine for reducing of annual operating expenses.
The proposed new machine will cost Rs. 300,000 for installation.
The annual operating expenses expected is Rs. 80,000.
The expected life of the new machine is 5 years.
The existing machine listed for phasing out has current cash salvage value of Rs. 150,000. The machine was purchased 5 years ago at a cost of Rs. 125,000.
The machine is still expected to run for 5 more years.
The annual operating expenses of the machine is Rs. 160,000 and its expected to remain the same in future also.
The firm has been paying 40 percent tax on income and 30 percent tax on capital profit.
The concern is discharging 15 percent cost of capital.

Required: (a) Initial investment. (b) Annual CFAT
(c) Showing necessary calculations, comment on the profitability of phasing out scheme. [1+1+3+1]

Ans: a. (Rs. 182,500); b. Rs. 67,000; c. NPV = Rs. 42,084 and PI = 1.23

19. 2061 Q.No.12

A workshop is trying to install a recently introduced machine that cost Rs. 450,000 by replacing an old machine. The recently introduced machine requires layout expenses of 25,000.
The operation of the new machine is expected to increase annual sales volume by 60 percent for 5 years maintaining the present ratio of operating expenses on sales excluding depreciation.
The details of the old machine chosen for replacement are given below:

Annual sales	Rs. 400,000
Less: Operating expenses excluding depreciation	Rs. 200,000

Depreciation (SLM)	Rs. 40,000
Total expenses	Rs. 240,000
Operating income	Rs. 160,000

The old machine has Rs. 200,000 book value today.
The expected disposal value is Rs. 150,000 if sold today.
The desired rate of return is 12 percent.
The workshop is discharging 45 percent tax liability.

Required: (a) NCO (b) Annual CFAT (c) Evaluating the net benefit (NPV), suggest about the desirability of purchasing the new machine [2+3+1]

Ans: a. (Rs.302,500); b. Rs.90,750; c. Rs. 24,657

20. 2062 Q.No.10

A water-processing factory has finalized feasibility study of water distillation scheme.
The scheme needs installation of plant that operated for 10 years. The catalogue price of the plant is Rs. 700,000. The commissioning and arrangement of plant layout need Rs. 230,000. An additional amount of Rs. 120,000 is needed for the registration of the factory and overall project management. The estimated book salvage value of the plant after 10 years is Rs. 50,000 and the plant will realize cash salvage value of Rs. 80,000 after the lapse of plant life. The estimated sales price per bottle is Rs. 20 and operating cash expense is $4/5^{th}$ of the sales revenue. The targeted annual production and sales is 70,000 bottles. The desired return on investment is 12% p.a. and tax payable by the factory on overall income is 40%.

Required: ❶ Initial capital outlay ❷ Estimated net cash inflows ❸ Estimated final year cash inflows ❹ NPV [2+2+1+3]

Ans: (i) NCO Rs. 10,50,000 (ii) Annual CFAT Rs. 208,000 (iii) Final CFAT Rs. 276,000 (iv) Rs. 147,096

21. 2063 Q.No. 13

An industry is exploring the potentiality of increasing the profitability. Since, the present operating plant is not possible to serve the purpose it is considering for replacement of the existing plant. The present plant is expected to realize Rs. 200,000 cash salvage value from the market. The plant was purchased 3 years ago at a cost of Rs. 180,000. The plant is expected to operate for further 5 years after which it will realize cash salvage value of Rs. 25,000 and zero book salvage value. The plant chosen for replacement of the old plant costs Rs. 800,000 and runs for 5 years leaving Rs. 50,000 as book salvage value. The realizable market value of the plant after 5 years will be Rs. 75,000.
A provision of Rs. 150,000 will be needed for carriage inward and installation of the plant. The operation of the proposed plant will increase the present volume of production and sales of 100,000 units by 40%. The unit sales price of Rs. 18 and annual operating cash expenses per unit of Rs. 12.60 will be remained unchanged. The present rate of 40% tax on ordinary income and 20% on capital profit will remain the same for the period of 5 years. The rate of return expected on investment is 10% p.a.

Required: ❶ Net capital outlay ❷ Estimation of net cash inflows ❸ Estimation of final year cash inflows ❹ IRR [2+2+1+3]

Ans: (i) Rs. 781,000; (ii) Annual CFAT Rs. 192,600 (iii) Rs. 242,600 (iv) 9.051%

22. 2064 Q.No. 12

A business promoters' team has recently completed a feasibility study of its new venture. The feasibility study made provisions of Rs. 530,000 as the cost of the plant suitable for the venture and Rs. 40,000 for erection of the plant. Rs. 50,000 as a provision for pre-operation management cost has been made. An additional provision of Rs. 60,000 for net working capital, which will continue till the operation of plant.
The plant will run for 10 years and straight-line depreciation will be applicable to the book value to Rs. 20,000. However, plant will realize Rs. 75,000 as cash salvage value upon lapse of its economic life. The output expected out of the plant will generate sales revenue of Rs. 625,000. An operating cash cost of Rs. 350,000 and annual fixed costs equal to Rs. 100,000 excluding depreciation of plant will be needed for pre-operation management cost also to be written off in 10 years. The rate of return expected on investment is 12%. The tax rate on the corporate net income is 50%.

Required: (a) Initial investment on the venture (b) Annual CFAT (c) Final year CFAT (d) NPV and comment on the profitability of the venture [2+2+1+3=8]

Ans: (a) NCO = Rs. 6,80,000 (b) Annual CFAT = Rs. 117,500 (c) Final year CFAT = Rs. 2,25,000 (d) NPV = Rs. 18,513

23. 2065 Q.No. 12

A company is considering the replacement of an existing machine. The following details are provided;

a. The purchasing price of the new machine is Rs. 100,000 and an additional Rs. 20,000 will be needed to install the machine and Rs. 30,000 for working capital. The machine is expected to result in incremental annual saving of Rs. 40,000 after charging depreciation and before tax. The book and cash salvage of new machine after 4 years will be Rs. 20,000 and Rs. 30,000 respectively.

b. The book value of the existing machine at present is Rs. 40,000 and it will be zero at the end of 4 years from now. The cash salvage value at present is Rs. 50,000 but in 4 years it will be Rs. 10,000.

c. The after tax minimum required rate of return is 10% and tax rate is 50%. Both machines are depreciated on straight line basis.

Required:

(a) Net cash outlay
(b) Annual differential cash flow after tax
(c) Differential CFAT for final year
(d) Desirability of the new project. [2+2+1+3=8]

Ans: NCO = Rs. 105,000; Annual CFAT = Rs. 35,000; CFAT for final year = Rs. 85,000; NPV = Rs. 40,096.50

24. 2066 Q.No. 11

A business promoter's team has finalized a budget for machine proposed, net working capital and pre-opration management expenses to be made in the initial period of the newly ventured work.

Rs. 875,000 for the machine proposed.

Rs. 120,000 for net working capital to be released after 5 years.

Rs. 75,000 for pre-operation management expenses to be capitalized.

The newly ventured work is expected to produce 150,000 units annually realizing @ Rs. 8.50 per unit on sale for five years.

The projected annual operating cash expenses will be Rs. 900,000 excluding the amount of depreciation chargeable under straight line method leaving Rs. 50,000 book value and capitalized expenses required to be written off within 5 years.

The machine after the lapse of 5 years is expected to realize Rs. 75,000 net of tax cash salvage value.

The cash outlay should meet minimize return of 12%.

The tax chargeable on the income of such type of venture will be 40% which will remain unchanged during the venture period.

Required:

1. Initial investment
2. Annual operating cash flows (OCF)
3. Net cash flows for the final year (Final year OCF)
4. Net present value
5. Comment on the viability of the venture. [1+2+1+3+1=8]

Ans: (1) Rs. 10,70,000 (2) Rs. 2,97,000 (3) Rs. 4,92,000 (4) Rs. 110,953

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FUNDAMENTALS OF FINANCIAL MANAGEMENT

New Syllabus- 2061

Course No. : MGT 215
Nature of the Course: Core (Finance)

Full Marks: 100
Pass Marks: 35

Course Objective

The objective of the course is to provide the students with an understanding of the fundamental concepts, principles, and techniques of financial management and their application in real life situations. It specially aims at imparting the students with necessary basic knowledge and skills required for making financial management decisions.

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