

SHARES AND MUTUAL FUNDS

2.1 Introduction:

Business organization needs a large capital. When an individual is unable to put the entire capital to start the business, small group of persons come together to raise the required amount.

Promoters of company:- Small group of persons come together to raise the required amount. These persons are called promoters of company. The capital is divided into small parts known as shares.

Shareholders:- The people who purchase the shares are called shareholders of the company. In this way they are the owners or partners in the company.

Director Board of the company:- The Company is managed by a body of persons known as Director Board of the company.

2.2 Stock Exchange:

It is not possible to buy or sell shares of desired company privately. So, it is done through a recognized body of persons at a certain place.

Brokerage:- Brokerage is the commission charged by broker for buying and selling of shares from buyer or seller. If you are buying shares, brokerage is added to the market price and if you selling shares, brokerage is subtracted from the market value.

Share brokers:- Registered bodies play an important role in buying and selling the shares, these persons are known as **share brokers**.

Stock-exchange:- The place at which selling and buying takes place known as stock-exchange.

2.3 Face Value and Market Value:

Face Value:- The face value of a share is the initial value of the share and it is printed on the share certificate and it determines the proportion of shares held in the total share capital of company.

Market Value:-The price at which a share is actually bought or sold is called market value or cash value of the share.

If the performance of the company is likely to be good in the coming years than the shares of such a company are in good demand in the market and that are sold at a price more than the face value and if the performance of a company is not good or it would makes loss then its shares are sold at a price below the face value .this price is called selling price or Market values of a share. Generally, the face value is Rs.10 or Rs.100 brokerage on market value

2.4 Dividend:

When company makes sufficient profit, the part of this profit is distributed among every shareholders depending upon the number of shares hold by them. This distributed profit on each financial year of a company, the Board of directors ascertains the profit and the dividend are distributed from this amount of profit. Generally, two things are taken under consideration for the dividend and that are

- (i) Number of shares
- (ii) Types of shares

2.5 Type of Shares:

There are types of shares.

- (i) Preferential shares
- (ii) Equity shares

[i] Preferential Shares: Shareholders who holds preferential shares have a preference over the profit. The rate of dividend on preferential shares is fixed it does not depend on company's Profit . If in a year company incurred loss and not able to pay the dividend on these shares then the dividend for the said year shall be paid when the company makes sufficient profit in the next coming years. The dividend is calculated on the face value of the shares of a company.

[ii] Equity shares: The shareholders who hold equity shares of a company get the dividend depending upon the profit earn by the company. From the gross profit of the company, all the expenses, government taxes are paid and some

amount is kept as reserve funds, after that the remaining amount is distributed equally on equity shares. Thus, the dividend payable on equity shares is not fixed and it cannot be accumulated. If the company makes good profit, the dividend on equity shares is more than the dividend on preferential shares. Sometime these shares are known as ordinary shares.

2.6 Bonus Shares:

From the amount of profit company sets aside some part every year, known as reserve funds becomes huge. The Board of Directors of such company can decide to capitalize some amount from reserve fund by issuing free shares to the existing shareholders in proportion of their holding. These free shares are known as Bonus shares. Bonus shares are given only to the equity shareholders. Bonus allotted in the ratio of a: b means a free shares for each b shares.

Formulae:-

$$[1] \text{Number of shares} = \frac{\text{Total amount invested}}{\text{Market price of a share}}$$

$$[2] \text{Total dividend} = \frac{\text{Rate of dividend} \times \text{Face value} \times \text{No. of shares}}{100}$$

$$[3] \text{Net gain} = \text{Total sale} + \text{Total dividend} - \text{Total investment}$$

OR

$$\text{Net gain} = \text{Total sale} - \text{Total Purchase}$$

$$[4] \text{Percentage gain} = \frac{\text{Net gain}}{\text{Amount invested}} \times 100$$

$$[5] \text{Rate of return} = \frac{\text{Dividend received per share}}{\text{Investment in one share}} \times 100$$

$$[6] \text{Rate of return} = \frac{\text{Total Dividend}}{\text{Total Investment}} \times 100$$

Examples:

Ex.2.1: Dr. Manmath buys of 10 shares of Rs.100 each at Rs. 125 of company. If the company pays a dividend at 12% what is the percentage return on his investment?

Solution: Dividend is declared on the face value

Face value of one share = Rs. 100

Face value of 10 shares = 10 x 100 = Rs.1000

Market value of one share = Rs. 125

Market value of 10 shares = 10 x 125 = Rs.1250

$$\text{Total dividend} = \frac{\text{Rate of dividend} \times \text{Face value} \times \text{No. of shares}}{100}$$

$$\text{Total dividend} = \frac{100 \times 12 \times 10}{100} = 120$$

We know,

$$\text{Rate of return} = \frac{\text{Total Dividend}}{\text{Total Investment}} \times 100$$

$$\text{Rate of return} = \frac{120}{1250} \times 100$$

Dr. Manmath gets the return at 9.6% on his investment.

Ex.2.2: Mrs. Manisha Lohgaonkar invested Rs. 13568 in 7% shares at Rs. 106 and Rs. 12648 in 11% shares at Rs.124. What is the total income of the man at the end of year?

Solution: For 7% shares:

Market value = Rs. 106

Total amount invested = Rs. 13568

$$\text{Number of shares} = \frac{\text{Total amount invested}}{\text{Market price of a share}}$$

$$\therefore \text{No. of shares} = \frac{13568}{106} = 128$$

He will get 128 shares

$$\text{Total dividend} = \frac{\text{Rate of dividend} \times \text{Face value} \times \text{No. of shares}}{100}$$

$$\text{Total dividend} = \frac{7 \times 100 \times 128}{100} = \text{Rs.}896$$

For 11% shares

Market value = Rs.124

Total amount invested = 12648

$$\text{Number of shares} = \frac{\text{Total amount invested}}{\text{Market price of a share}}$$

$$\therefore \text{No. of shares} = \frac{12648}{124} = 102$$

He will get 102 shares

$$\text{Total dividend} = \frac{\text{Rate of dividend} \times \text{Face value} \times \text{No. of shares}}{100}$$

$$\text{Total dividend} = \frac{11 \times 100 \times 102}{100} = \text{Rs.}1122$$

\therefore Total income of Mrs. Manisha is = 896 + 1122 = Rs. 2018.

Ex.2.3: Mrs. Manisha Lohgaonkar invested Rs.2000 in 10% shares at Rs.125 and Rs.2400 in 15% shares at Rs.120. What is the total income of Mrs. Manisha Lohgaonkar?

Solution: For 10% shares:

Market value = Rs. 125

Total amount invested = Rs. 2000

$$\text{Number of shares} = \frac{\text{Total amount invested}}{\text{Market price of a share}}$$

$$\therefore \text{No. of shares} = \frac{2000}{125} = 16$$

He will get 16 shares

$$\text{Total dividend} = \frac{\text{Rate of dividend} \times \text{Face value} \times \text{No. of shares}}{100}$$

$$\text{Total dividend} = \frac{10 \times 100 \times 16}{100} = \text{Rs.160}$$

For 15% shares:

Market value = Rs. 120

Total amount invested = Rs. 2400

$$\text{Number of shares} = \frac{\text{Total amount invested}}{\text{Market price of a share}}$$

$$\therefore \text{No. of shares} = \frac{2400}{120} = 20$$

He will get 20 shares

$$\text{Total dividend} = \frac{\text{Rate of dividend} \times \text{Face value} \times \text{No. of shares}}{100}$$

$$\text{Total dividend} = \frac{15 \times 100 \times 20}{100} = \text{Rs.300}$$

Total income is Rs.160 + Rs.300 = Rs.460

Ex. 2.4: Which is the better investment 8% at Rs. 80 or 15% at Rs. 120.

Solution: (i) 8% at Rs. 80

\therefore For the investment of Rs.80, Dividend is Rs. 8

$$\text{Rate of return} = \frac{\text{Total Dividend}}{\text{Total Investment}} \times 100$$

$$\therefore \text{For the investment Rs.100, Dividend is. } \frac{100 \times 8}{80} = 10$$

\therefore Rate of return is 10%

(ii) 15% at Rs. 120

\therefore For the investment of Rs.120, Dividend is Rs.15

$$\text{Rate of return} = \frac{\text{Total Dividend}}{\text{Total Investment}} \times 100$$

$$\therefore \text{For the investment of Rs.100, Dividend is. } \frac{100 \times 15}{120} = 12.5$$

\therefore Rate of return is 12.5%

∴ 15% at Rs.120 is more profitable than 8% at Rs. 80.

Ex.2.5: Two companies have shares of 12% at 124 and 15% at 150 respective in which of the shares Mrs. Manisha Lohgaonkar should invest the money

Solution: For the first company, Market value of shares is Rs. 124 and rate of dividend is 12%

$$\text{Rate of return} = \frac{\text{Dividend received per share}}{\text{Investment in one share}} \times 100$$

$$\therefore \text{Rate of return} = \frac{12}{124} \times 100 = 9.67$$

for the second company market value of shares is Rs.150 and rate of dividend is 15%

$$\text{Rate of return} = \frac{\text{Dividend received per share}}{\text{Investment in one share}} \times 100$$

$$\therefore \text{Rate of return} = \frac{15}{150} \times 100 = 10$$

∴ Mrs. Manisha should invest the money in the second company

Ex.2.6: Dr. Manmath invested Rs.3100 in 6% shares at Rs.124. How much dividend will he get?

Solution: We have given,

Total amount invested is Rs.3100;

Rate of dividend is 6% p.a.

Face value of share is Rs.100

Market value (purchase price) is Rs.124

$$\text{Number of shres purchased} = \frac{\text{Total amount invested}}{\text{Market value}}$$

$$\text{Number of shres purchased} = \frac{3100}{124}$$

$$\text{Number of shres purchased} = 25$$

$$\text{Total dividend} = \frac{\text{Rate of dividend} \times \text{Face value} \times \text{No. of shares}}{100}$$

$$\text{Total dividend} = \frac{6 \times 100 \times 25}{100} = 150$$

∴ Total Dividend is = Rs.150

EXERCISE

[1] Which is the better investment 10% at Rs 120 or 15% at Rs 140 ?

Answer: 15% at Rs 140 is more profitable

[2] Arun purchased share of Rs 100 for Rs 2000. The company declared a dividend of 40%. After receiving the dividend he sells the share for Rs 2200. find the average income on his investment.

Answer: 12%

[3] An man invested Rs 2000 in 10% shares at 125 of company 'A' and Rs 2400 in 15% shares at 120 of company 'B'. Which investment is more profitable.

Answer: Company 'B' gives more profit.

[4] Dinesh purchased a shares of Rs . 320. The company declared a dividend of 120% . What is the percentage return on his investment ? (face value =100)

Answer: 37.5%

[5] A person purchased 200 share of face value Rs. 10 each of a company for Rs. 3000. He received 12% dividend on these shares. What is the percentage return on this investment?

Answer: 8%

[6] Which investment is more profitable? 20% at Rs. 180. or 25% at Rs. 230.

Answer: 20% at Rs 180 is more profitable

[7] What is the market value of $7\frac{1}{2}\%$ share so that there may be 5% net income after paying 5% tax on the income?

Answer: Rs 142.5

[8] Arun invested Rs3100 in 6% shares at Rs 124. How much dividend will he get?

Answer: Rs.150

[9] Aruna owns 560 shares of a company. The face value of each share is Rs. 25. The company declares a dividend of 9%. Calculate (i) The dividend Aruna would receive and (ii) The rate of interest, on her investment, considering that she bought these shares @ Rs. 30 per share in the market.

Answer: (i) Rs. 1260 (ii) 7.5%

[10] By investing Rs. 7500 in a company paying 10% dividend, an income of Rs. 500 is received. What price is paid for each Rs.100 share?

Answer: Rs.150

[11] Mukul invests Rs. 9000 in a company paying a dividend of 6% per annum. When a face value Rs. 100 stands at Rs. 150. What is his annual income? He sells 50% of his shares when the price rises to Rs. 200. What is his gain on this transaction?

Answer: Rs. 360 ; Rs. 1500

[12] A person holds 2,000 shares of a company that have a face value of Rs. 100 each. The company pays a 25% dividend annually. Calculate (i) The annual dividend (ii) The percentage return (Correct to nearest integer) if the shares were bought at a 40% premium.

Answer: (i) Rs. 50,000 (ii) 18%

[13] A company with 10,000 shares of nominal value Rs. 100 declares an annual dividend of 8% to the shareholders:

(i) Calculate the total amount of dividend paid by the company.

(ii) Ramesh had bought 90 shares of the company at Rs. 150 per share. Calculate the dividend he receives and the percentage return on his investment.

Answer: (i) Rs. 80,000 (ii) Rs. 720; $5\frac{1}{3}\%$

[14] What sum should a person invest in Rs. 25 shares, selling at Rs. 36, to obtain an income of Rs. 720, if the dividend declared is 12%. Also find (i) the no. of shares bought by the person. (ii) The percentage return on his investment.

Answer: Rs. 8,640 (i) 240 (ii) $8\frac{1}{3}\%$

[15] A person invested Rs. 8,000 and Rs. 10,000 in buying shares of two companies which later on declared dividends of 12% and 8% respectively. He collects the dividends and sells out all his shares at a loss of 2% and 3% respectively on his investment. Find his total earning from the above transaction.

Answer: Rs.1300

[16] A man invests a sum of money in Rs.100 shares paying 15% dividend quoted at 20% premium. If his dividend is Rs. 540, Calculate:

- (i) His total investment
- (ii) The rate of return on his investment.

Answer: (i) Rs. 4,320 (ii) 12.5%

[17] A lady holds 1,800 ; Rs.100 shares of a company that pays 15% dividend annually. Calculate her annual dividend. If she had bought these shares at 40% premium, what percentage return would she get on her investment? Given your answer to the nearest integer.

Answer: Rs.27000 ; 11%

[18] A company with 10,000 shares of Rs.100 each, declares an annual dividend of 5%;

- (i) What is the total amount of dividend paid by the company?
- (ii) What would be the annual income of a man, who has 72 shares, in the company?
- (iii) If he received only 4% on his investment, find the price he paid for each share?

Answer: (i) Rs. 50,000 (ii) Rs. 360 (iii) Rs. 125

[19] Mr. Sharma has 60 shares of nominal value Rs.100 and he decides to sell them when they are at premium of 60%. He invests the proceeds in shares of nominal value of Rs.50, quoted at 4% discount, paying 18% dividend annually. Calculate

- (i) The sale proceeds.

- (ii) The number of shares he buys
- (iii) His annual dividend from these shares.

Answer: (i) Rs. 9,600 (ii) Rs. 200 (iii) Rs. 1,800

[20] A man invests Rs.11,200 in a company paying 6% premium when its Rs.100 shares can be bought for Rs.140. Find

- (i) His annual dividend
- (ii) Percentage income on his investment.

Answer: (i) Rs. 480 (ii) $4\frac{2}{7}\%$

[21] A man bought 1,000 shares each of face value Rs. 5 at Rs.7 per share. At the end of the year, the company from which he bought the shares declared a dividend of 8%. Calculate

- (i) The amount of money invested by the man
- (ii) The percentage return on his outlay correct to one decimal place.

Answer: (i) Rs. 7,000 (ii) 5.7%

[22] A owns 500 shares of Rs. 10 each. Find A's income, if 14% dividend is declared on these shares in a certain year.

Answer: (i) Rs.700

[23] A man bought 360 ten – rupees shares paying 12% premium. He sold them when the price rose to Rs.21 and invested the proceeds in five – rupees shares paying 4.5% per annum at Rs.3.5 per share. Find the annual change in his income.

Answer: (i) Gain Rs.54

[24] A person invests Rs.4,368 and buys certain hundred rupee shares at Rs. 91. He sells out shares worth Rs. 2,400 when they have risen to Rs.95 and the remainder when they have fallen to Rs.85. Find the gain or loss on the total transaction.

Answer: Loss Rs.48

[25] A man invests Rs. 2,688 in buying shares of nominal values Rs. 24 and selling at 12% premium. The dividend on the shares is 15% per annum.

- (i) Calculate the number of shares he buys
- (ii) Calculate the dividend he receives annually.

Answer: (i) Rs. 100 (ii) Rs. 360

Mutual Funds:

An investment programme funded by shareholder's, that trades in diversified holding and professionally managed is called as mutual funds.

Mutual fund can be considered basket of investments. Each basket holds dozens or hundreds of stocks or bonds. Mutual fund can be summarized in simplicity, diversity and accessibility. **A mutual fund is basically at less risk as compared to shares.** All the profits or losses of the fund are shared by all the investors in the same proportion as the amount of contribution made by them. Mutual fund investments are subject to market risk.

There are thousands of Mutual funds, but they can be divided into stock funds and bond funds.

All mutual funds fall into two broad categories:

[i] Open ended funds [ii] Closed ended funds.

[i] Open-ended Fund:

In open ended fund, there is no limit to the number of units purchased and sold. It is collective investment scheme which can be issue and redeem share at any time. This scheme does not have a fixed maturity period. In order to determine the value of a share in open-ended fund at any time, a number called Net Asset Value (NAV) is used. Investor can buy and sells his units at Net Asset Value (NAV) which are declared on a daily basis. The majority of mutual funds are open-ended.

[ii] Closed-ended Fund:

In closed-ended fund will issue a fixed number of shares are issued to the public. The price of share in a closed-ended fund is determined by market-

demand. Closed ended funds are not redeemable and usually listed on a recognized stock exchange. This fund also known as “Closed-end investment” or “closed-end mutual fund.” These mutual funds scheme disclose N.A.V. generally or weekly basis.

Net Asset Value (N.A.V.)

A mutual funds price per share or unit is called Net Asset Value (N.A.V.). All mutual funds buy and sells, orders are processed at the N.A.V of the trade date. N.A.V. may represent the value of the total equity.

Entry Load and Exit load:-

In a Mutual Fund, some Asset Management companies have sale charges or loads on their funds, i.e., entry load and Exit load to compensate for distribution cost.

Entry load is charged at the time, an investor purchase the units. Whereas, exit load is charged at the time of sale of all units

For Ex. If the N.A.V. is ` 100 and entry load is 2% then the purchased price of 1 unit is ` 102. Similarly, if the N.A.V. is ` 100 and exit load is 2% then selling price of 1 unit is ` 98. i.e. If units are purchase the entry load are added and for selling units exit load are subtracted

Mutual Funds Formulae:

$$\text{Number of unit purchased} = \frac{\text{Amount Invested}}{\text{N.A.V. of 1 unit}}$$

$$\text{Average Purchased price of 1 unit} = \frac{\text{Total Purchased Price of 1 unit}}{\text{No.of periods}}$$

$$\text{Actual Purchase amount of 1 unit} = \text{NAV} + \text{Entry load}$$

$$\text{Actual Purchase amount of 1 unit} = \text{N.A.V.} + \left(\frac{\text{Entry load}}{100} \times \text{N.A.V.} \right)$$

Change in N.A.V. = N.A.V. at the end of year - N.A.V. at beginning of year

Absolute change in NAV

$$= \frac{(\text{Percentage change in N.A.V.})}{100} \times (\text{N.A.V. at beginning of year})$$

$$(\text{Percentage change in N.A.V.}) = \frac{(\text{Absolute change in NAV})}{(\text{N.A.V. at beginning of year})} \times 100$$

(N.A.V. at the end of the year)

$$= (\text{Absolute change in NAV}) + (\text{N.A.V. at beginning of year})$$

Examples:

Ex.2.1: Dr. Manmath invested 90,000 in TATA M.F. When N.A.V. of 150. If there is no entry load, Find how many units, has he bought?

Solution: Given:

Amount Invested = 90,000; N.A.V. = 150 each

Note that here there is no entry load

$$\therefore \text{Number of unit purchased} = \frac{\text{Amount Invested}}{\text{N.A.V. of 1 unit}}$$

$$\text{Number of unit purchased} = \frac{92000}{150} = 600 \text{ units}$$

He bought 600 units

Ex.2.2: Mrs Manisha Lohgaonkar invested 80,000 in XYZ M.F. When N.A.V. of 98. How many units she bought. If entry load is 2%.

Solution: Given:

Amount Invested = 80,000; N.A.V. = 98 ; Entry load = 2%

\therefore Actual Purchase amount of 1 unit = NAV + Entry load

$$\text{Actual Purchase amount of 1 unit} = 98 + \left(\frac{2}{100} \times 98 \right) = 99.96$$

$$\text{Number of unit purchased} = \frac{\text{Amount Invested}}{\text{N.A.V. of 1unit}}$$

$$\text{Number of unit purchased} = \frac{80000}{99.96} = 800.32 \text{ units}$$

She bought 800.32 units

Ex.2.3: If HDF funds N.A.V. was 58 at the beginning of the year and 70 at the end of the year. Find (i) Absolute change in N.A.V. (ii) Percentage change in N.A.V.

Solution:- We have given,

N.A.V. at the beginning of the year is 58

N.A.V. at the end of the year is 70

∴ [i] Absolute Change in N.A.V. = N.A.V. at the end of year - N.A.V. at beginning of year

$$\therefore \text{Absolute Change in N.A.V.} = 70 - 58 = 12$$

$$[\text{ii}] \text{ Percentage change in N.A.V.} = \frac{(\text{Absolute change in NAV})}{(\text{N.A.V. at beginning of year})} \times 100$$

$$\text{Percentage change in N.A.V.} = \frac{12}{58} \times 100$$

$$\text{Percentage change in N.A.V.} = 20.69\%$$

Ex.2.4: If a M. F. had a N.A.V. of 60 at the beginning of the year and if percentage increases in NAV during the year was 15%. Find absolute change in N.A.V.

NAV at the beginning of the year = 60

Percentage change in NAV = 15%

We know,

Absolute change in NAV

$$= \frac{(\text{Percentage change in N.A.V.})}{100} \times (\text{N.A.V. at beginning of year})$$

$$\text{Absolute change in NAV} = \frac{15}{100} \times (60) = 9$$

Systematic Investment Plan (SIP):-

This is plan where investors make regular, equal payment into a mutual fund. In this plan, investor can benefit by buying more units when the price falls and less units when the price rises. This scheme helps reduce the average cost per unit of investment, through a method called Average Rupee cost or Rupee cost Averaging. Also, in this plan investor may choose to increase or decrease the investment amount.

In India, a recurring payment can be set for SIP using Electronic Clearing Services (ECS). SIP is like a recurring deposit in a bank, where you put a fixed amount every month.

Example:-

Ex.2.1: Mrs. Manisha invested 2,000 every month for 4 month in Post office systematic Investment plan (SIP). The N.A.V.'s on these particular dates were 25, 28, 26.75 and 30 respectively. After 1 year, he sold all the units when N.A.V. was 29. Find average (mean) price of one unit and his net profit or loss.

Note: there was no entry and exit load

Solution:-

Amount Investment is 2000 per month

Given that no entry and exit load

$$\text{Average mean price of 1 unit} = \frac{\text{Total Amount Invested}}{\text{Total no. of unit purchased}}$$

| Month | Amount Invested | N.A.V. | Number of unit purchased = $\frac{\text{Amount Invested}}{\text{N.A.V. of 1 unit}}$ |
|-------|-----------------|--------|--|
| 1 | 2000 | 25 | 80 |
| 2 | 2000 | 28 | 71.4285 |
| 3 | 2000 | 26.75 | 74.7663 |
| 4 | 2000 | 30 | 66.6666 |
| Total | 8000 | | 292.861 |

$$\text{Average mean price of 1 unit} = \frac{8000}{292.861} = 27.3166$$

Selling price of 1 unit is 29 and therefore, selling price of all units is $29 \times 292.861 = 8492.9806$.

We know,

Net Profit = Selling Price – Purchase Cost

$$\text{Net Profit} = 8492.9806 - 8000 = 492.9806$$

Ex.2.2: Mrs. Manisha invested 5,000 every month for 5 month in XYZ systematic Investment plan (SIP). The N.A.V.'s on these particular dates were

35, 41, 40, 45 and 50 respectively the entry load was 2%. After 9 months she sold all the units when N.A.V. of 48.

Solution:-

Amount Investment is 5000 per month

Given that entry load is 2% and Exit load is 0

Actual Purchase amount of 1 unit = NAV + Entry load

| Entr y load | Amount Invested | N.A.V . | Entry Load $\frac{(N.A.V.)}{100} \times 2$ | N.A.V. of 1 unit(N.A.V. + Entry load) | Number of unit purchased $= \frac{\text{Amount Invested}}{\text{N.A.V. of 1unit}}$ |
|-------------------|--------------------|------------|--|---|---|
| 35 | 2000 | 35.7 | 0.7 | 35.7 | 140.056 |
| 41 | 2000 | 41.82 | 0.82 | 41.82 | 119.560 |
| 40 | 2000 | 40.8 | 0.8 | 40.8 | 122.549 |
| 45 | 2000 | 45.9 | 0.9 | 45.9 | 108.932 |
| 50 | 2000 | 51 | 1 | 51 | 98.039 |
| Total | 10000 | 215.22 | | 215.22 | 589.136 |

$$\text{Mean price of 1 unit} = \frac{\text{Total Amount Invested}}{\text{Total no. of unit purchased}}$$

$$\text{Mean price of 1 unit} = \frac{25000}{589.136} = 42.435$$

$$\text{Mean Purchased price of 1 unit} = \frac{\text{Total Purchased Price of 1 unit}}{\text{No.of periods}}$$

$$\text{Mean Purchased price of 1 unit} = \frac{215.22}{5} = 43.044$$

Selling price of 1 unit is 48 and therefore, selling price of all units is 48 x 589.136= 28278.528

We know,

Net Profit = Selling Price – Purchase Cost

Net Profit = 28278.528-25000 = 3278.528

EXERCISE:-

[1] Mrs. Manisha Lohgaonkar 4,000 every month for 6 months in S.I.P. The N.A.V.'s on these particular dates were 50, 53, 56, 55 and 60 respectively. After one year he sold all the units when NAV was 58. Find his net profit or loss.

Answer: Total No. of unit purchased = 440.366

Profit/Gain = 1,541.228

[2] Miss. Anjali invested 3,000 every month for 4 months in UBI systematic Investment plan (SIP) with N.A.V. of 42, 40, 43 and 45 respectively. The entry load was 1%. After 10 months she sold all the units when NAV of 50 find average (mean) price of 1 unit. Also find her net profit or loss.

Answer: Average price of 1 unit = 42.847