



F.Y.B.Com. (SEM-I)

Course: Mathematical And Statistical Techniques-I

Topic: Unit-I: Shares & Mutual Fund

Q. 1 Naveen owned 120 shares at market value of Rs. 375 each and brokerage 0.4%. Calculate the sum he paid for the transaction

Since market value (M.P.) of share = Rs. 375

Brokerage rate = 0.4% /-

total number of share owned = 120

Amount paid to buy 120 share = $375 \times 120 = 45000$

Total brokerage paid to buy 120 share = $45000 \times 0.4\% = 180$

Therefore the total sum he paid for this transaction = Amt. paid to buy 120 shares + total Brokerage paid for 120 shares
= $45000 + 180$
= 45180

Q.2 If Shikha sold 200 shares at market value of Rs. 40/-, with the brokerage of 0.3% then find the sum received by shikha in this transaction?

M.P. of each share = 40

Brokerage rate = 0.3%

Total no. of shares sold= 200

The due to shikha= $40 * 200 = 8000$

Brokerage paid to 200 share= $8000 * 0.3\% = 24$

Therefore the net amount shikha received in this transaction
= $8000 - 24$

= 7976

Q.3 How many share of market value 120 each, can be purchased for 60180 , brokerage being 0.3% ?

M.P. of one share = 120

Brokerage rate = 0.3%

Therefore Brokerage paid on each share= $120 * 0.3\% = 0.36$

Cost price of each share = $120 + 0.36 = 120.36$

No. of share purchased in 60180 = total amount / cost of each share
= $60180 / 120.36$
= 500

Q. 4 How many shares of market value Rs. 900 were sold for the amount 268650 , the brokerage being 0.5%?

M.P. of each share = 900

Brokerage rate = 0.5%

Total amount received = 268650

Brokerage paid on one share = $900 * 0.5\% = 4.5$

S.P. of one share = $900 - 4.5$
 $= 895.5$

Total number of share sold in 26865 = total amount received / S.P. of each share
 $= 268650 / 895.5$
 $= 300$

Q.5 if the market price of a share with face value 100 is Rs. 130, how many shares of the company can be bought for Rs. 3236, brokerage being 0.4%?

M.P. of one share= 130

Brokerage rate = 0.4%

Total Amt. invested = 3236

Price of one share = M.P. Of one share+ brokerage paid

on one share = $130 + (130 \times 0.4\%)$

= $130 + 0.52$

= 130.52

Total number of share bought in Rs. 3236 = Total Amount / Price of one share

= $3236 / 130.52$

= 25

Q.6 A Company paid 97890 to Motilal Oswal for buying the shares of Tech Mahindra at market value of Rs. 650/-. If the brokerage charged by Motilal Oswal was 0.4 %, find the number of share purchased by the company.

M.P of one share of Tech Mahindra= 650

Brokerage on share= @ 0.4%

Total amount paid to Motilal Oswal = 97890

**Amount paid to buy one share of Tech Mahindra by the company to Motilal Oswal = $650 + (650 \times 0.4\%)$
= $650 + 2.6$
= 652.6**

**Total number of share purchased by the company = $97890 / 652.6$
= 150**

Q.8 Pratik owned 300 shares of a company with face value of Rs. 10 each.

Find his annual dividend if the company declare 12% dividend.

Dividend rate = 12%

Face Value = 10

No. of shares 300

$$\begin{aligned}\text{Dividend received on one share} &= \text{Rate of dividend} * \text{F.V. of one share} \\ &= 12\% * 10 \\ &= 1.2\end{aligned}$$

$$\begin{aligned}\text{Total dividend received on 300 shares} &= \text{Dividend received on one share} * \text{no. of share} \\ &= 1.2 * 300 \\ &= 360\end{aligned}$$

OR

$$\begin{aligned}\text{Total dividend received on 300 shares} &= \text{Rate of dividend} * \text{F.V.} * \text{No. of share} \\ &= 12\% * 10 * 300 \\ &= 360\end{aligned}$$

Q.9 Reena invested in shares of a certain company of nominal value Rs. 10. the company declared 7% dividend and she received a total dividend of Rs. 52.50. Find the number of shares she bought?

Nominal Value / F.V. = 10

Rate of Dividend = 7%

Total Dividend received = 52.50

Dividend received on one share = 7% of F.V.
= 7% * 10
= 0.7

Total dividend received = total no. of share * dividend on one share

52.50 = total no. of shares * 0.7

Total no. of share = 75

OR

Total Dividend received = Rate of dividend * F.V * No. of shares

52.50 = 7% * 10 * No. of shares

52.50 / (7% of 10) = No. of shares

No. of shares = 75

Q.10 Riya wants to invest some amount in a company A or company B by purchasing equity shares of face value Rs. 20 each, with market price of Rs. 220 and Rs. 190 respectively.

The companies are expected to declare dividends at 25% and 15% respectively. In which company it is profitable to invest her money?

For Company A

F.V. = 20

M.V. = 220

Dividend rate = 25%

Dividend received on one share =
25% of 20 = 5

For Company B

F.V. = 20

M.V. = 190

Dividend rate = 15%

Dividend received on one share = 15% of 20
= 3

Q.11) Shriram invested Rs. 8500 in shares of face value 10 at 17.
how much dividend will he get if company declared 12% dividend?

$$\begin{aligned}\text{No. of share purchased} &= \text{total investment/MV} \\ &= (8500/17)*100 \\ &= 500\end{aligned}$$

$$\begin{aligned}\text{Dividend on one share} &= 12\% \text{ of } 10 \\ &= 1.2\end{aligned}$$

$$\begin{aligned}\text{Total Dividend on 500 share} &= 500 * 1.2 \\ &= 600\end{aligned}$$



Q.12) Aman purchased 400 shares(face value 10) for 6000. if company issued bonus shares at the beginning of the financial year in the ratio 1:2 (i.e.1 bonus share for every 2 share held) and declared the dividend of 40% on the shares. How many bonus shares did Aman get? What is the face value of the shares held by Aman after the bonus issue? What is the yield on this investment?

No. of shares purchased by Aman = 400

Total bonus share Aman received = $(1/2)*400 = 200$

Total share = 600

Market value of share = $6000/400 = 15$

Dividend received on 1 share = 40% of 10 = 4

Total dividend on 600 share = $600 * 4 = 2400$