Unit-I: SAHRES & MUTUAL FUNDS

Notations & terminology for calculation purpose:

Shares	**Mutual Funds**
IPO-Initial public offer	NFO-New fund offer
FV-Face value Rs. 10 if not specified	FV-Face value Rs. 10 if not specified
MV-Market value at which shares are traded/quoted	NAV-Net asset value or Market value at which units are traded
DVND-Dividend calculated on FV = QtyxFVxRate of dividend	
BR-Brokerage calculated on MV = QtyxMVxRate of commission	Load-Brokerage calculated on NAV = QtyxNAVxRate of commission
Purchase value- 1 share= MV+ Rate of commission	Purchase value- 1 unit= NAV+ Rate of entry load
Total purchase value = Qty purchased x MV +Rate of comm	Total purchase value= Qty purchased x NAV +Rate of entry load
Sale value- 1 share= MV- Rate of commission	Sale value- 1 unit= NAV- Rate of exit load
Total sale value = Qty sale x MV -Rate of comm	Total sale value = Qty sale x NAV - Rate of exit load
Commission on shares is compulsory	Load is optional

SAMPLE CALCULATION:

Shares	Mutual Funds
Quantity : 500, FV-Face value Rs. 5/- MV=Market value= 68/- Rate of dividend=25% Commission= 1.25%	Quantity : 500, FV-Face value Rs. 10/- NAV=Market value= 68/- Rate of dividend=25% Entry Load= 1.25%, Exit load= 0.5%
Purchase value- 1 share= 68+ 1.25%= 68.85	Purchase value- 1 unit= 68+ 1.25% =68.85
Total purchase value = 500 x 68 +1.25%= 34425	Total purchase value = 500 x 68 +1.25%= 34425 with load =34000 with no Load
DVND-Dividend calculated on FV = 500x5x25%=625	DVND-Dividend calculated on FV = 500x10x25%1250
BR-Brokerage calculated on MV = 500x68x1.25%=425	Load-Brokerage calculated on NAV = 500x68x1.25%=425 entry load
Sale value- 1 share= 68- 1.25%= 67.15	Sale value- 1 unit= 68- 0.5% =67.64 & 68/- with no exit load
Total sale value = 500 x 68 -1.25%= 33575	Total sale value = 500 x 68 -0.5%= 33830 with load =34000 with no exit Load

SOLVED EXAMPLES

1. Calculate the brokerage @ 1.5% on the purchase of 300 shares @ Rs.65/-.

Solution: Brokerage= QtyxMVxRate of comm= 300x65x1.5%=292.5

2. Calculate the dividend earned @40% on 250 shares of FV 5/- purchased @ 90/-

Solution: Divnd= QtyxFVxRate of divd = 250x5x40%=200

3. If a dividend of Rs. 1250 is earned on 150 shares of FV 2/-. Find the rate of dividend earned.

Solution: Divnd= QtyxFVxRate of divd

1250= 150x2xR

Hence, R= $\frac{1250}{150x2}$ =4.16%

4. Mr. Akash purchased 200 shares of HDFC @ 575/- & sold for 650/- each after receiving a dividend of 40% on FV 5/-. Calculate the % profit to him if he paid 2% brokerage.

Solution:

Qty=200 , Purchase price MV=575, FV=5/-, divd rate=40 % Selling price=650 Brokerage=2% To find:% profit?	
Total purchase value = 200x 575 +2% = 117300 investment	Sale value = 200 x 650 -2%= 127400+ Divd =200 x5x40%= 400 Total income: 127800 income
Profit	127800-117300=10500 on 117300=8.95%

5. Miss. Babita sold 200 Rs 10/- shares @ Rs.90/-.She invested the amount in buying 150 other shares @125/- Find the extra amount required if any, when the brokerage paid was 1.25%

Qty sold=200 @ selling price=90 FV=10/-, Brokerage=1.25%	Qty purchased=150@125 To find :Extra amount if req?
Total sale value =200x90-1.25% = 17775	Purchase value = 150 x 125+1.25%= 18984.375
Extra amount required	18984-17775=1209

6. Miss. Anju invested Rs.54000 in buying certain ten rupee shares @ Rs.90/-. He sold 1/3rd of them @ 125/- after 10 days and the rest @ 110/- at the end of year after receiving a dividend of 10%. Find the gain to her in the transaction.

Investment = purchase value= 54000 , Purchase price MV=90, FV=10/

Sale value=125 for 1/3 & @110 for 2/3 Divnd =10% on FV To find:% profit?	
Total purchase value 54000= Qtyx90 hence, Qty= $\frac{54000}{90}$ =600 shares	Sale value = 1/3(600 x110)+ 1/3(600 x110)= + Divd on 2/3rd shares =2/3(600 x10x10%)= 400 Total income: 127800 income
Profit	127800-54000=10500 on 117300=8.95%

EXAMPLES ON MUTUAL FUND

1. Calculate the amount of entry load applicable @ 2.25% on the purchase of 500 units at NAV Rs. 48.55/-.

Solution: Entry load = QtyxMVxRate of comm= 500x48.55x2.25%=546.1875

2. Mr Akash sold 400 units of HDFC mutual fund at NAV Rs. 125/- & purchased SBI mutual fund at NAV Rs.78.25/-. Find the no of units purchased when load of 2.5% was applied in both the transactions.

Qty sold=400 @ selling price NAV=125 Purchase price NAV=78.25/-, Load (both) =2.5% **To find : Qty purchased=?**	
Total sale value =400x125-2.5% =48750= Purchase value	Purchase value =48750, 1 unit value =78.25+2.5%=80.20 = Qty x78.25+2.5% OR Hence, Qty= $\frac{48750}{78.25+2.5\%}=\frac{48750}{80.20}$ =607.85

3. Anand invested Rs.1Lac in the gift fund of HDFC Mutual fund at NAV of Rs. 28/-.He sold the units at NAV Rs.32/-after receiving a dividend @ 25%. Find the net % gain to him, if the load was 2.25% on both the transaction

Investment = purchase value= 1Lac , Purchase NAV=28, FV=10/- Sale NAV=32 Divnd =25% on FV To find:% gain?

Total purchase value 100000 = Qtyx28 hence, Qty= $\frac{100000}{28+2.25\%}$ =3568.56 units	Sale value = 3568.56 x32-2.25%=111624.55 + Divnd on FV =3568.56x10x25%= 8921.4 Total income: 120545.95
% gain	120545.95-1Lac=20545.95 on 1Lac =20.54%

EXAMPLES FOR PRACTICE

1. Mr. Ajay invested Rs.45000 in buying certain ten rupee shares @ Rs.90/-.He sold half of them @ 100/- after 10 days and the rest @ 80/- at the end of year after receiving a dividend of 10%. Find the gain or loss to Mr. Ajay in the transaction.
2. Calculate the sale value of 500 shares @ Rs. 45/- if brokerage 0.3%.is applied.
3. Calculate the amount of brokerage paid on the purchase of 250 shares of FV Rs.10/-@ Rs.75/- when brokerage charged is 0.35%. Also calculate the purchase value.
4. Calculate the amount of dividend @ 40% earned on 200 shares of F.V. Rs 5/- which were purchased at Rs.55/- each.
5. Mr. Rajesh bought 500 shares of FV 5/- @ Rs.150/-. He sold 40% of them @ 180/- and the rest @ 225/- at the end of year after receiving a dividend of 25%. Find the net % gain to Mr. Rajesh in the transaction. Brokerage of 1.5 % is applied on both the transaction.
6. Mr. Shah invested Rs.43680/- in buying certain ten rupee shares @ Rs.91/-. He sold half of them @ 100/- and the rest @ 80/- at the end of year after receiving a dividend of 10%. Find the gain or loss to Mr. Shah in the transaction.
7. The NAV of a mutual fund increased from 48 to 64 within a year. Calculate the rate of growth.
8. Calculate the amount entry load @1.5%.applied on the purchase of 200 units of a Mutual Fund at NAV Rs.75/-
9. A person invest Rs.1,00,000 in the gift fund of HDFC Mutual fund on 11/2/2007. Find the no of units purchased by him at NAV Rs. 15/- with entry load of 2.5%.
10. Suppose a scheme with 1,000 units ha the following items in its balance sheet: Unit Capital Rs. 10,000; Investments at market value Rs. 25,000; Other assets Rs. 3,500;

Other liabilities Rs. 2,000; Issue expenses not written off Rs. 500; Reserves Rs. 17,000. What would be its NAV?