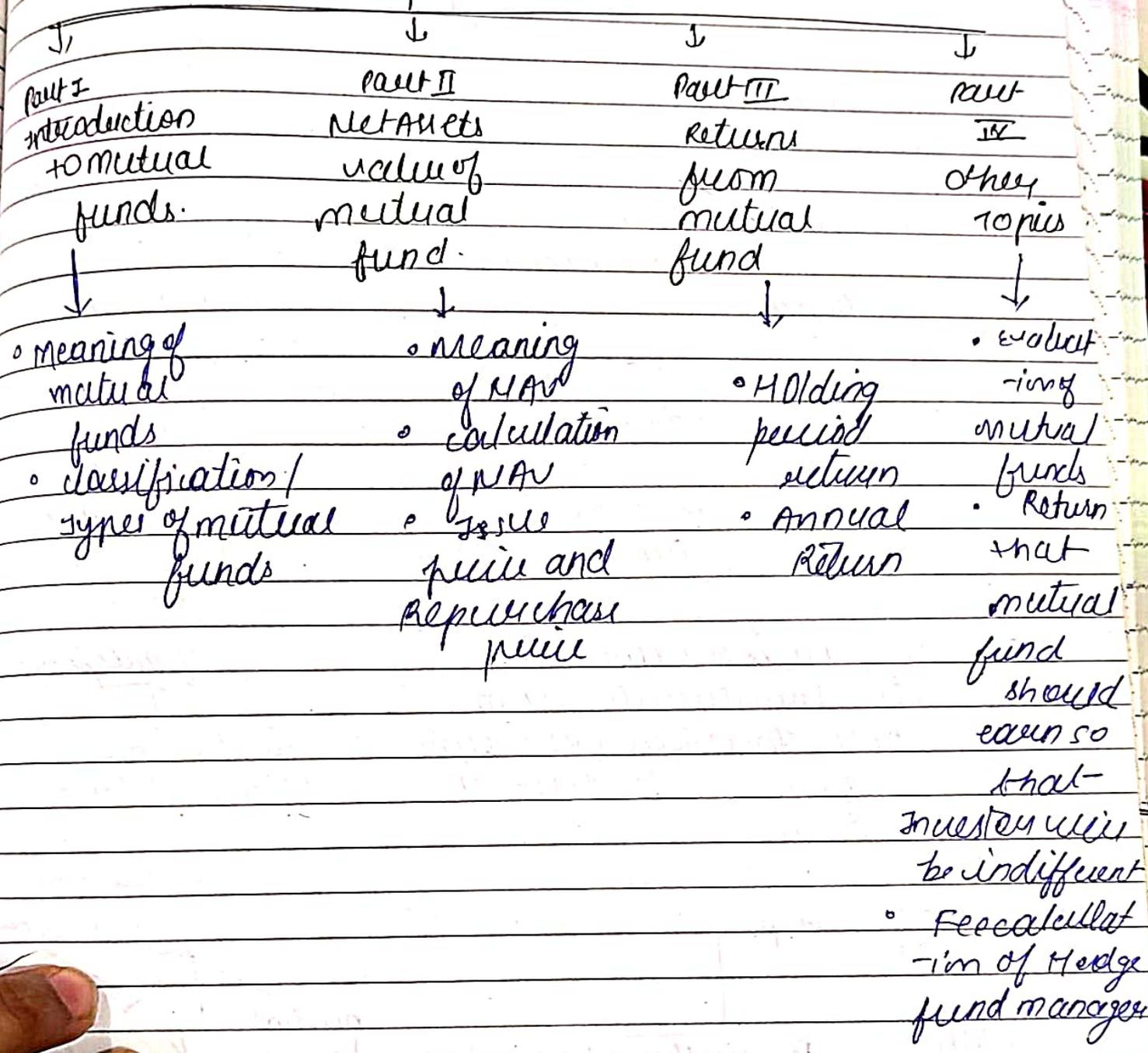


Mutual funds.



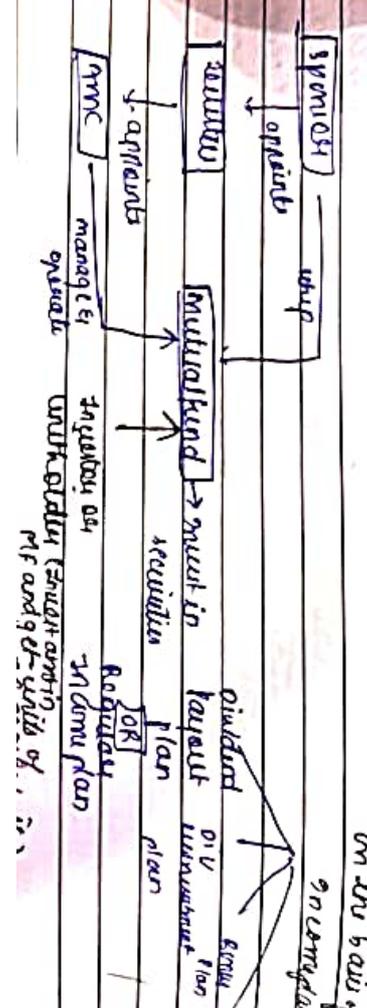
- (i) Dividend payout plan: all are distributed in a certain value
- (ii) Dividend reinvestment plan: MF and unit holders MF and unit holders
- (iii) Bonus plan: no dividend or interest units are in new part I → introduction to mutual fund

Meaning of mutual funds

investors can invest in securities (stock, debentures, bonds)

through share market
 through mutual funds
 through open ended funds
 through equity share funds

mutual fund is a trust that collects investments from multiple investors (through issue of units) for investment securities



Part II -> Net Assets Value of mutual fund

Meaning of NAV

NAV is the value of per unit of MF held by an investor (unit holder)

It is calculated on daily basis (calculator at end of each day)

Calculation of NAV of MF

steps to be followed to calculate net asset value of mutual funds:-

Step 1: calculate NAV of the mutual fund (at market value)

market value of investment
 (+) A/c called income (eg. div, interest, etc.)
 (-) closing cash balance

NAV = $\frac{\text{NAV of MF} \times \text{No of units}}{\text{No of units of MF}}$

Step 2: calculate NAV of the mutual fund

NAV = $\frac{\text{NAV of MF} \times \text{No of units of MF}}{\text{No of units of MF}}$

(i) dividend payout plan & dividend distributed on a regular basis
(ii) dividend reinvestment plan & it is reinvested in AMP and with all other shareholders

(iii) Bonus plan & Bonus units are issued to shareholders
(iv) Bonus plan & No dividend or bonus units are issued.
Preference to mutual fund

DATE _____
PAGE _____

Meaning of mutual funds

↓

Investors can invest in

securities (shares, debentures, bonds etc.)



Classification

Types of mutual funds

↓

on the basis of structure

diversity through stock
diversity through mutual

Industry

open ended funds

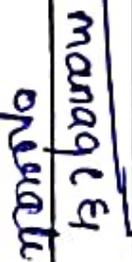
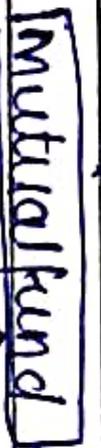
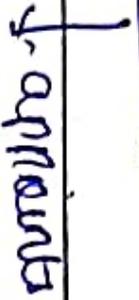
closed funds

mutual fund
 assets investments (where
 multiple investors (through
 issue of units) pay out in
 securities

Equity
 scheme
 Debt
 scheme
 Hybrid
 scheme

on the basis of

Investment



recruitment

plan

plan

investor or

Regular
 Annuity plan

with older investment
 MF and get units of
 MF again + it)

Dividend

Dividend
 Investment
 Plan

FOR
 Regular

(ii) Calculation of closing cash balance (if not given)

Amount received on issue of units	xxx	Amnt
(-) Initial expenses	(xxx)	
(-) Initial investment in stock	(xxx)	
(+) Amount received from sale of	xxx	
(+) Amnt paid for purchase of stock	(xxx)	
(+) Income received on investment	xxx	
(-) Realised surplus distributed	(xxx)	
Cap. income & dividend or income distributed		
(-) Opening gain arising on sale of securities	(xxx)	
(-) Opening exp. paid (eg. fund charge)	(xxx)	
(-) Amount received on issue of shares	xxx	
(+) Amount paid on repurchase of shares	(xxx)	
(+) Closing cash balance	xxx	

(iii)

If details of assets & liabilities of MF not given in question, then closing NAV of MF is calculated as follows:

Opening NAV of mutual fund (also opening cap. AMU) xxx

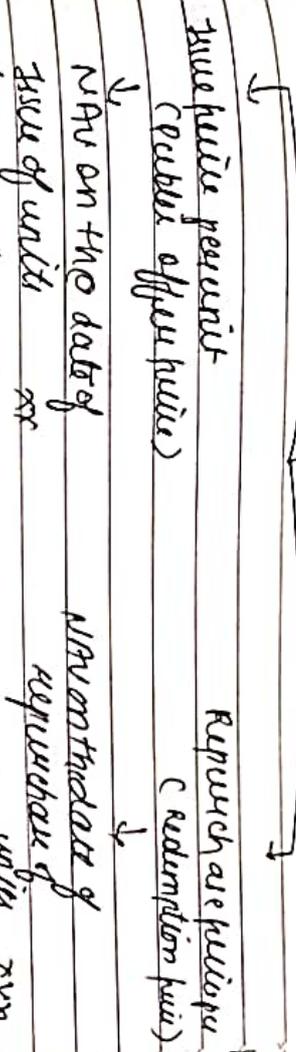
(+) Opening investment value xxx

(-) Opening depreciation (depreciation) xxx

(iv) Amount received on issue of securities

(+) Amnt paid on Repurchase of units	xxx	
(+) Income earned during the period	xxx	
(-) Income received from sale of stock	(xxx)	
(-) Amnt paid for purchase of stock	(xxx)	
Closing net assets of mutual fund	xxx	
Closing NAV - closing net assets of the MF		
Closing no. of units of MF		

True Value & Repurchase Value per unit of MF :-



True Value per unit (Net Assets of MF) xxx

NAV on the date of issue of units xxx

(+) Entry load (100% of NAV @ 1% NAV) xxx

(-) Exit load (100% of NAV) xxx

NAV on the date of issue of units xxx

(+) Dividend on issue of units xxx

NAV on the date of repurchase of units xxx

(-) Exit load (100% of NAV) xxx

NAV on the date of repurchase of units xxx

QMP Note calculation of dividend equivalities

By preparing statement of mutual funds income available for distribution

particulars
 no of units
 amt
 per unit
 total

Income earned by MF
 no of units of MF
 op date
 (A) same
 calculate

(+) Dividend equivalent included on issue

no of units
 amt
 no of units
 amt
 total
 calculate
 total

(+) Income earned by MF in part period
 total
 calculate
 total

(-) Dividend unpaid

no of units
 amt
 no of units
 amt
 total
 calculate
 total

(2) Income earned by MF in next period

total
 calculate
 total
 remaining income
 total
 calculate
 total

Part III Returns From MF units

holding period
 return/yield
 Annual
 yield/annualized yield/average yield percentage

(1) It means total return (in %) earned by investor (unit holder) worth netted fund throughout the period for their investment
 Annual Return
 (1.0) =

(ii) Calculation of holding period return (HPR):
 HPR = $\frac{\text{Total yield amount} \times 100}{\text{Investment value at beginning}}$
 HPR = $\frac{\text{Total yield amount} \times 100}{\text{Investment value at beginning}}$

In case of dividend payout (regular income) Plan.
 HPR = $\frac{\text{Total yield amount} \times 100}{\text{Investment value at beginning}}$
 Here total yield: (Investment value at end - investment value at beginning) + Interest received during the period

Investment value at end = value of units at end (including dividends received) x NAV at end.

Note If issue price and repurchase price is available in either of them, then will be used instead of NRV as above formula

◦ Investment value at beginning
(No of units at beg × market beginning)

◦ Income received as capital gain
~~and~~ ~~or~~ ~~dividend~~ and dividend

No of units
× income received p.u.

→ Income of dividend reinvestment plan, B multiplier and growth plan.

HPR = $\frac{\text{Total yield at market} + \text{Investment value at Beg}}{\text{Investment value at Beg}}$

Total yield
- Investment value at end - Investment value at beginning

Invest value at end - (initially purchased units

+ units received weekly
div reinvestment as

(reinvestment plan)

× NRV at end

Investment value at Beg = No of units at beg (initially purchased units × NRV at beg)

Part-VI: Other Topics

1. Evaluation of mutual funds:
- Testing fund's return
- How m/c should earn

3. Recalculator of Hedge fund manager

1. Evaluation of mutual fund

T Expense ratio

T Tracking error

It indicates how much of mutual fund's assets are used towards operating exp like consultant's and mgmt's office exp, advertising expense ratio (%)

• It is used for calculating deviation in return on mutual fund from return on benchmark it is following

Expense ratio (%)
Total exp of m/c during the period

$$\text{Tracking error} = \frac{\sum (d_i - \bar{d})^2}{n}$$

(op cost + clearing cost)

d = differential return
(Return on mf - Return on benchmark)

d = avg of diff. return
n = No of differential returns

2. Return that mutual fund should earn so that investor will be indifferent on direct investment through stock market or indirect investment through mutual fund

$$\frac{\text{Return earned by investor on direct invt through stock market (\%)} + \text{Annual Requiring exp in MF (\%)}}{1 - \text{initial exp in MF (\%)}}$$

3. Fee calculation of Hedge fund manager:-

• Hedge fund is a type of mutual fund which is less regulated than others

- These are structured as a private entity which does not reveal anything about its operations.
- It have selected clients for whom hedge fund manager aims to generate high returns.

So Hedge fund manager charges following two types of fee from its clients:

