MUTUAL FUNDS

1. Evaluating Performance of Mutual Funds.

$$\text{Net Assets Value (NAV)} = \frac{\text{Net Assets of Scheme}}{\text{Number of Units.}}$$

Net Assets of the Scheme.

Market-Value of Investments	xxx
Receivables	xxx
Other Accrued Incomes	xxx
Other Assets	xxx
Payables	(xxx)
Other Liabilities	(xxx)
Accrued Expenses	(xxx)

Entry load : unit cost will be high!
Exit load : Amount paid by company at the time of Repurchasing units → Price will come down with the % of exit load.

IRR Technique in case of Mutual Fund
NAV = PVCI − PVCO

Fall in NAV by any distribution made by MF Co. to Investors.

NFO (New Fund Offer) — just like IPO in case of equity share.

Dividend Reinvestment Plan
Company give 'units' instead of amount of dividend.
$\rightarrow \dfrac{\text{Amount of Dividend}}{\text{NAV on the date of dividend}}$

BONUS PLAN
Company give free units to existing unitholders.

GROWTH PLAN
NAV increases with the time and you can value your investment with existing units at the closing NAV.

2. Cost of Mutual Funds
(i) Initial expenses
(ii) Recurring expenses.

Return of Investor = (Return of MF − Recurring exp)(1 − Initial expenses)

3. Computation of Returns / Holding Period Returns

$$\frac{(NAV_1 - NAV_0) + D_1 + CG_1}{NAV_0} \times 100.$$

$(NAV_1 - NAV_0)$ = Unrealised Capital Gain
NAV_0 = Base NAV
D_1 = Dividend
CG_1 = Realised Capital Gain.

4. Ratio's used to evaluate the Performance of Mutual Fund.

(a) Sharpe Ratio (S) $= \dfrac{(\text{Return Portfolio} - \text{Return Risk Free Invt})^*}{\text{Standard Deviation Portfolio}}$

* Numerator may be denoted as 'a'.

(b) Treynor Ratio $= \dfrac{R_P - R(F)}{\beta_P}$ OR $\dfrac{a}{\beta_P}$

TB

β_P = Beta of Portfolio.

(c) Jensen's Alpha = Return Portfolio − Expected Return.

Q20 Investment in shares of diff cos. MPs as on 01/Feb/12 & 02/02/12 is given. and on 01/02/12 an investor give ₹39,00,000 Cheque which is invested by fund: NAV as on 01/02, Revised NAV as on 01/02 and New NAV as on 02/02/12.

Q24 dividend Reinvestment plan

01.07.07 — 31.03.08 — 31.12.09 — 31.12.10
Yield for 9 MONTHS — D — 1. NAV_1
D — Total units — 2 NAV_2
Total units given Yield for 33 Mths — 3. NAV_3

1. No's × NAV_1 = Total value of fund.
2. Existing units + New units = Total units
3. NAV = $\dfrac{\text{Total Value of fund}}{\text{Total No's of units}}$

Equation $10487.80 + \dfrac{20,975.60}{NAV_2} = 11,296.11$: do not take LCM → 11,296.11 − 10487.80 ⇒ 808.31

Q29 Different Plans:- Dividend Reinvestment Plan → initial 10,000 units will become 14906.16 units at the end → Multiply with closing NAV → you got Total Sale Consideration → deduct (0.2%) STT → then deduct STCG : For STCG → units which are sold within 1 yr × Adjusted selling price − Purchase Price : Sale Price means closing NAV adjusted with STT.

Q32 The current Realisable value of FIXED INCOME SECURITIES of face value of ₹100 is ₹106.5
Q33 The operating expenses paid during the year amounted to ₹2.24 lakhs.
Both lines are NOT TO BE USED in Answer as per PM.

Q34

APRIL		MAY		JUNE	
300 units @18.75	Income 22.950	6 units Issue	Income 34.425	3 units Repurchased	Income 45450
		Load + Div. Equalisation + ⇓ compute		Load − Div. Eq. + ⇓ compute	

70% of Available Income DISTRIBUTED
⇓
Compute Income available for Distribution. & NAV as on date.

Q36
NAV → Equity Part (99%) → Δ in Market → hence this will also effected → How much effected → depends upon Beta → for Beta calculation RATIO's are given.
NAV → Cash Part (1%) → Cost per MONTH given: 3/12 × 0.25 → Cash will also Δ after 1 Mth.

Q38 CONSTANT RATIO PLAN (Portfolio Rebalancing Technique)

Stock Portfolio NAV 1	Value of Buy-hold strategy 2	Value of Conservative Portfolio 50% 3	Value of Aggressive Portfolio 4 50%	Total Value 3+4	Revaluation Action	Total No's of Units in Aggressive Portfolio.
40	2,00,000	NO Δ 1,00,000 Rigid है	1,00,000 effect ले लेगा	2,00,000	—	2500
change 37.5% → 25	Δ 37.5% → 1,25,000	1,00,000	Δ 37.5% → 62500	162500	—	2500
Now Balance करो	1,25,000	81,250 50%	81,250 50%	162500 100%	Buy 750 units ⇓ $\frac{81250-62500}{25}$	3250.

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