

MUTUAL FUNDS CLASS 1

CLASS WORK COVERAGE

To streamline our learning process, I've categorized the questions we'll tackle in class into four distinct groups:

1. **Classic:** *These questions are exactly as presented in your book, providing a familiar foundation.*
2. **Transformed:** *Here, we've converted book questions into multiple-choice format to enhance your analytical skills.*
3. **Adapted:** *These are similar to book questions but with altered numbers or names, presented as multiple-choice questions for varied practice.*
4. **Original:** *These are entirely new questions not found in your book, designed to challenge and expand your understanding.*

This structure will help us navigate through a range of problems, ensuring a comprehensive grasp of the material. Looking forward to our next session!

Q. No	Type	Book	Page No.
20	Classic	CW Q BOOK	84
23	Classic	CW Q BOOK	85
24	Classic	CW Q BOOK	85
36	Classic	CW Q BOOK	90

PART III: VARIOUS TYPES OF PLAN**Topic 12 TYPES OF PLAN****Question 20: SSEI CW Book Page No. 84**

Orange purchased 200 units of Oxygen Mutual Fund at Rs. 45 per unit on 31st December, 2009. In 2010, he received Rs. 1.00 as dividend per unit and a capital gains distribution of Rs. 2 per unit.

Required:

- i. Calculate the return for the period of one year assuming that the NAV as on 31st December 2010 was Rs. 48 per unit.
- ii. Calculate the return for the period of one year assuming that the NAV as on 31st December 2010 was Rs. 48 per unit and all dividends and capital gains distributions have been reinvested at an average price of Rs. 46.00 per unit. Ignore taxation.

(Source: ICAI)

ANSWER:

i. Returns for the year

(All changes on a Per -Unit Basis)

Change in Price: Rs. 48 – Rs.45 =	Rs. 3.00
Dividends received:	Rs. 1.00
Capital gains distribution	Rs. 2.00
Total reward	Rs. 6.00

Holding period reward: $(\text{₹}6.00 / \text{₹}45) \times 100 = 13.33\%$

ii. When all dividends and capital gains distributions are re-invested into additional units of the fund @ (Rs. 46/unit)

Dividend + Capital Gains per unit = Rs. 1.00 + Rs. 2.00 = Rs.3.00

Total received from 200 units = Rs. 3.00 x 200 = Rs. 600/-.

Additional Units Acquired = Rs. 600/Rs. 46 = 13.04 Units.

Total No. of Units = 200 units + 13.04 units = 213.04 units.

Value of 213.04 units held at the end of the year = 213.04 units x Rs.48 = Rs. 10225.92

Price Paid for 200 Units at the beginning of the year = 200 units x Rs. 45 = Rs. 9000.00

Holding Period Reward Rs. (10225.92 – 9000.00) = Rs.1225.92

Holding Period Reward = $(\text{₹} 1225.92 / \text{₹}9000) \times 100 = 13.62\%$

PART III: VARIOUS TYPES OF PLAN

Topic 12 TYPES OF PLAN

Question 23: SSEI CW Book Page No. 85

SBI mutual fund has a NAV of ₹ 8.50 at the beginning of the year. At the end of the year NAV increases to ₹ 9.10. Meanwhile fund distributes ₹ 0.90 as dividend and ₹ 0.75 as capital gains.

- What is the fund's return during the year?
- Had these distributions been re-invested at an average NAV of ₹ 8.75 assuming 200 units were purchased originally. What is the return?

(Source: ICAI)

ANSWER:

i. Normal Return for the year (all changes on a per year basis)

Particulars	₹ /Unit
Change in price (₹ 9.10 – ₹ 8.50)	0.60
Dividend received	0.90
Capital gain distribution	0.75
Total Return	2.25

$$\text{Return on investment} = (2.25 / 8.50) \times 100 = 26.47\%$$

ii. If all dividends and capital gain are reinvested into additional units at ₹ 8.75 per unit the position would be.

$$\text{Total amount reinvested} = ₹ 1.65 \times 200 = ₹ 330$$

$$\text{Additional units added} = ₹ 330 / 8.75 = 37.71 \text{ units}$$

$$\text{Value of 237.71 units at end of year} = ₹ 2,163.16$$

$$\text{Price paid for 200 units in beginning of the year} (200 \times ₹ 8.50) = ₹ 1,700$$

$$\text{Return} = \frac{₹ 2,163.16 - ₹ 1,700}{₹ 1,700} = \frac{₹ 463.16}{₹ 1,700} = 27.24\%$$

Question 24: SSEI CW Book Page No. 85

Mr. X, an investor purchased 200 units of ABC Mutual Fund at rate of ₹ 8.50 p.u., one year ago. Over the year Mr. X received ₹ 0.90 as dividend and had received a capital gains distribution of ₹ 0.75 per unit.

You are required to find out:

- Mr. X's holding period return assuming that this no load fund has a NAV of ₹ 9.10 as on today.
- Mr. X's holding period return, assuming all the dividends and capital gains distributions are reinvested into additional units as at average price of ₹ 8.75 per unit.

(Source: ICAI)

ANSWER:

a. Return for the year (all changes on a per unit basis):

Change in Price (Rs.9.10-Rs. 8.50)	Rs. 0.60
Dividends received	Rs. 0.90
Capital gains distributions	Rs. 0.75
Total return	Rs. 2.25

Holding period return = Rs. 2.25/ Rs. 8.50 = 26.47%

b. When all dividends and capital gains distributions are reinvested into additional units of the fund (Rs. 8.75/unit):

Dividends and capital gains per unit: Rs. 0.90 + Rs. 0.75 = Rs. 1.65

Total amount received from 200 units: Rs. 1.65 X 200 = Rs. 330.00

Additional units added: Rs. 330/Rs. 8.75 = 37.7 units

Value of 237.7 units held at end of year: 237.7 units X Rs. 9.10 = Rs. 2,163

Price paid for 200 units at beginning of year 200 units X Rs. 8.50 = Rs. 1,700

Thus, the Holding Period Return would be:

$$\frac{(\text{No. of units at end of Period} \times \text{Ending Price}) - (\text{No. of units at beginning of Period} \times \text{Initial Price})}{\text{No. of units at beginning of Period} \times \text{Initial Price}}$$

$$\text{H.P.R.} = \frac{\text{Rs. 2,163} - \text{Rs. 1,700}}{\text{Rs. 1,700}} = \frac{\text{Rs. 463}}{\text{Rs. 1,700}} = 27.24\%$$

PART IV: PERFORMANCE EVALUATION AND OTHER TOPICS
Topic 15 DIVIDEND EQUALIZATION
Question 36: SSEI CW Book Page No. 90

On 1st April, an open ended scheme of mutual fund had 400 lakh units outstanding with Net Assets Value (NAV) of ₹19. At the end of April, it issued 5 lakh units at an opening NAV plus 2% load, adjusted for dividend equalization. At the end of May, 4 Lakh units were repurchased at the opening NAV less 2% exit load adjusted for dividend equalization. At the end of June, 60% of its available income was distributed.

In respect of April-June quarter, the following additional information is available:

Particulars	₹ in Lakhs
Portfolio value appreciation	515.67
Income of April	31.960
Income of May	46.125
Income for June	58.470

You are required to calculate:

- i. Income available for distribution;
- ii. Issue price at the end of April;
- iii. Repurchase price at the end of May; and
- iv. Net Asset Value (NAV) as on 30th June.

(Source: ICAI)

ANSWER:

Calculation of Income available for Distribution

	Units (Lakh)	Per Unit (₹)	Total (₹ In lakh)
Income from April	400	0.0799	31.960
Add: Dividend equalization collected on issue	5	0.0799	0.3995
	405	0.0799	32.3595
Add: Income from May		0.1139	46.125
	405	0.1938	78.4845
Less: Dividend equalization paid on repurchase	4	0.1938	(0.7752)
	401	0.1938	77.7093
Add: Income from June		0.1458	58.470
	401	0.3396	136.1793
Less: Dividend Paid		0.2038	(81.7076)
	401	0.1358	54.4717

Calculation of Issue Price at the end of April

	₹
Opening NAV	19.00000
Add: Entry Load 2% of ₹ 19	(0.38000)
	19.38000
Add: Dividend Equalization paid on Issue Price	0.07999
	19.45999
	Or 19.46

Calculation of Repurchase Price at the end of May

	₹
Opening NAV	19.0000
Less: Exit Load 2% of ₹ 19	(0.3800)
	18.6200
Add: Dividend Equalization paid on Issue Price	0.1938
	18.8138

Closing NAV as on 30th June

		₹ (Lakh)
Opening Net Asset Value ($₹ 19 \times 400$)		7,600.0000
Portfolio Value Appreciation		515.6700
Issue of Fresh Units (5×19.46)		97.3000
Income Received ($31.960 + 46.125 + 58.470$)		136.5550
		8349.5250
Less: Units repurchased (4×18.8138)	75.2552	
Income Distributed	81.7076	156.9628
Closing Net Asset Value		8,192.5622
Closing Units ($400 + 5 - 4$) lakh		401 lakhs
∴ Closing NAV as on 30 th June		₹ 20.4303