

Internal Assessment Test - II

Sub:	Investment Management	Code:	17MBAFM303
Date:	16/10/18	Duration:	90 mins
		Max Marks:	40
		Sem:	III
		Branch:	MBA

Marks	OBE	
	CO	RBT
[02]	CO2	L2
[03 +03]	CO5	L3
[08]	CO5	L3
[02]	CO4	L1
[06]	CO4	L4
[04+04]	CO3	L3
[02]	CO1	L2

1 (a) Differentiate Primary and secondary market

(b) A mutual fund collected Rs 75,00,000 by issuing Rs 750,000 units of Rs 10 each. The amount has been invested in different securities. The market value of these securities is Rs 10,000,000 and the mutual fund has a liability of Rs 600,000. Calculate the NAV of the fund.

A mutual fund has a NAV of Rs 10.60 in the beginning and Rs 10.90 at the end of the period. Calculate the return of the mutual fund. Calculate the return of the mutual fund, when the dividend is Rs 1.50 and there is a capital gain 0.50 paisa.

(c) Mr Anand is having unit in mutual fund for the past 3 years. He wants to evaluate its performance by comparing it to the market.

Particulars	X	Y
Return	70.60	41.40
σ	41.31	19.44
Rf	12	
β	1.12	

Find out the sharpe and Treynor's indices, comment on it.

2a) What is a BSE Sensex

(b) Explain the functions of stock exchange

c) Anand owns Rs 1000 face value of bond with 5 years to maturity. The Bond has an annual coupon of Rs 75. The bond is currently priced at Rs 970. Given an approximate discount rate of 10%. Should Anand hold or sell the bond

What is the value of the bond if Rs 100 is the par value of bond bearing a coupon rate of 12% will mature after 5 years and the discount rate is 15%.

3 (a) Define derivative and list its types

- (b) Discuss the methods of floating new issues . Explain in detail
- (c) Data for 2 mutual funds and 1 market portfolio is given. Assume a risk free rate of 4%.

[06]

[08]

Portfolio	Returns %	σ %	β
DSP Merrill Lynch	22	10	1.21
ICICI	15	6	0.75
BSE Sensex	18	8	1

Evaluate the Portfolio using Sharpe's, Treynor's and Jensen's measures

Part B - Compulsory (01*08=08 marks)

4

- a) Calculate the current yield from the following data
 A bond with par value of Rs 1000
 It bears a coupon rate of 12%
 The bond maturity period is after 10 years
 Its market selling price is Rs 950.

- b) Prem is considering the purchase of a bond currently selling at Rs 878.50 . The bond has 4 years to maturity, with a face value of Rs 1000 and 8% coupon rate. The next annual interest payment is due after one year. The required rate of return is 10%. Calculate:
 The intrinsic (Present value) of the bond. Should Prem buy the bond?
 Calculate YTM.

CO3	L2
CO5	L3
C03	L3
CO3	L3

IAT-2 Solutions [2017-2019].
 Subject: Investment Management 17MBAFM303.
 Date of IAT - 12/10/18. Max Marks. 40. Sem III.

Part A

1a) Differentiate Primary and secondary market-

Basic	Primary market	secondary market.
Issues	It deals with new securities.	It deals with existing securities.
Regulations.	Regulated by SEBI, Companies Act	Regulated by SEBI.
Other name	New Issue market	Second hand market / stock exchange

1b) NAV of the mutual fund.

= $\frac{\text{market value of the securities} - \text{Liabilities if any.}}{\text{No. of equity shares outstanding}}$

No. of equity shares outstanding

$$= \frac{\text{₹ } 1,00,00,000 - 600,000}{750,000}$$

NAV = ₹ 12.53/unit.

b) Mutual fund Price @ beginning : ₹ 10.60

Mutual fund Price @ end : ₹ 10.90

Capital Gain : ₹ 0.50 paisa

Dividend : ₹ 1.50/-

Rate of Return

on mutual fund =

$$\frac{\text{Difference in mutual fund} + \text{Capital Gain} + \text{Dividend}}{\text{NAV Mutual Price @ Beginning}} \times 100$$

$$= \frac{\text{₹ } (10.90 - 10.60) + 0.50 + 1.50}{10.60} \times 100$$

Return = 21.69%

c) Calculation of mutual fund performances.

Sharpe Index $SI = \frac{R_p - R_f}{\sigma_p}$

X = $\frac{70.60 - 12}{41.31} = 1.41$

Ranking
II

Y = $\frac{41.40 - 12}{19.44} = 1.84$

I

According to Sharpe Index Co. Y performs well.

Treynors. Index.

$T_i = \frac{R_p - R_f}{\beta}$

X = $\frac{70.60 - 12}{1.12} = 52.32$

Ranking
I
II

Y = $\frac{41.40 - 12}{1.12} = 26.25$

2a). BSE SENSEX :

It is the oldest exchange in India. It stands fifth place worldwide. The base year for calculating SENSEX is 1978-79 and the base value is 100/-

5000 top companies are listed in BSE SENSEX.

SENSEX denotes sensitive Index.

b) Functions of stock exchange (6 marks) ③

A detailed explanation on the points listed below is expected:

- Trading in the stock market
- Promotes capital formation
- safety and security in dealing
- Helps in evaluation of securities
- Finance speculation
- Generate employment
- Act as a consultant for corporate investments.

2 c) P: Rs 1000 n: 5yr. r: 10% cmp: 970/- Rs.

$$NPV = C \times PVIFA(r, n) + M \times PVIF(r, n)$$

Coupon value: Rs 75/-

$$NPV = [75 \times PVIFA(10\%, 5yr)] + [1000 \times PVIF(10\%, 5yr)]$$

$$NPV = [75 \times 3.7908] + [1000 \times 0.681]$$

$$NPV = \text{Rs } 905.21$$

When comparing NPV with current market price, since NPV (905.21) < current market price (970) the securities sold at overpriced Hence Anand should not buy the share.

ii) P: Rs 100 n: 5yr r: 12% r: 15% C: Rs 12.

$$NPV = C \times PVIFA(r, n) + M \times PVIF(r, n)$$

$$12 \times PVIFA(15\%, 5yr) + 100 \times PVIF(15\%, 5yr)$$

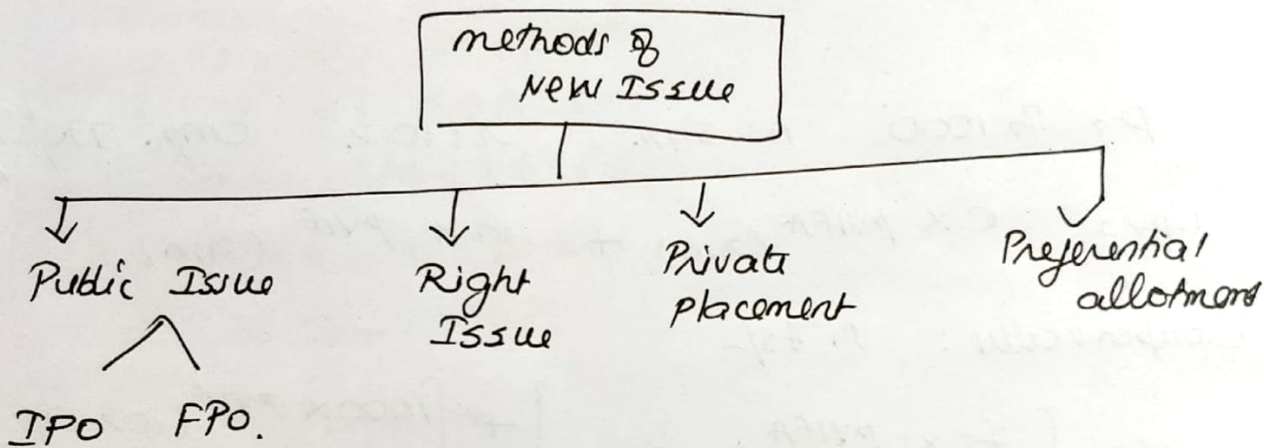
$$NPV = \text{Rs } 89.94$$

3a). Derivative: Derivative is a financial instrument which are derived from underlying asset, it would be an agreement between ~~Buyer~~ and seller.

Types of derivatives are: Future contract, forward contract
Swap contract, Options contract

3b. methods of floating new Issues. (6 marks)

detailed explanation of all the methods of floatation of new Issues is expected.



3c) Jensen's Predictive ability of mutual fund performance (8 marks)

Beta. $J_i =$

$$R_p - R_f = \alpha_p + \beta (R_m - R_f)$$

$$25.36 - 9 = \alpha_p + 0.23 (36.74 - 9)$$

$$16.36 = \alpha_p + 0.23 (27.74)$$

$$16.36 = \alpha_p + 6.38$$

$$\alpha_p = 10$$

$$J_i = \frac{\alpha}{\beta} = \frac{10}{0.23} = 43.48$$

ICICI

$$R_p - R_f = \alpha + \beta (R_m - R_f)$$

$$36.28 - 9 = \alpha + 0.52 (36.74 - 9)$$

$$27.28 = \alpha + 0.52 (27.74)$$

$$27.28 = \alpha + 14.42$$

$$\alpha = 27.28 - 14.42$$

$$\alpha = 12.85$$

$$\beta = \frac{\alpha}{\beta}$$

$$= \frac{12.85}{0.52} = 24.71$$

Alliance

$$R_p - R_f = \alpha + \beta (R_m - R_f)$$

$$45.56 - 9 = \alpha + 0.63 (36.74 - 9)$$

$$36.56 = \alpha + 0.63 (27.74)$$

$$36.56 = \alpha + 17.74$$

$$\alpha = 36.56 - 17.74$$

$$\alpha = 19.09$$

$$\beta = \frac{\alpha}{\beta}$$

$$= \frac{19.09}{0.63} = 30.30$$

Jensen's measure.	Rank
Brita = 43.39	I
ICICI = 24.71	III
Alliance = 30.301	II

Part B

491

P = Rs 1000.

Comp: 950

CR: 12%

Coupon value = $\frac{12}{100} \times 1000$

CV: Rs 120

Current yield =

$\frac{\text{Coupon value}}{\text{Current market price}}$

$$= \frac{120}{950} \times 100 = \underline{\underline{12.67\%}}$$

b). P: ₹ 1000. CMP: ₹ 878.50

$r = ?$ $n = 4$.

$$\text{Coupon value} = \frac{8}{100} \times 1000$$

Calculate YTM

YTM can be calculated using Trial and Error method

Let's try $r = 12\%$ and check whether.

at this discount rate NPV = CMP.

$$\text{NPV} = C \times \text{PVIFA}(r, n) + M \times \text{PVIF}(r, n)$$

$$80 \times \text{PVIFA}(12\%, 4\text{yr}) + 1000 \times \text{PVIF}(12\%, 4\text{yr})$$

$$\text{NPV} = (80 \times 3.0373) + (1000 \times 0.6355)$$

$$\text{NPV} = ₹ 878.50/-$$

Since YTM is ~~an~~ 12% because at this discount rate NPV = CMP.

Also, calculation to check whether Prem should Buy or sell the bond.

$$\text{NPV} = ₹ 878.50$$

calculation of NPV @ $r = 10\%$.

$$\text{NPV} = C \times \text{PVIFA}(r, n) + M \times \text{PVIF}(r, n)$$

$$80 \times \text{PVIFA}(10\%, 4\text{yr}) + 1000 \times \text{PVIF}(10\%, 4\text{yr})$$

$$\text{NPV} = (80 \times 3.1699) + (1000 \times 0.6830)$$

$$\text{NPV} = ₹ 936.59$$

Since $\text{NPV} > \text{CMP}$ we can Buy the Bond
₹ 936.59 ₹ 878.50.