

Paper – 14 – Advanced Financial Management

MTP_Paper 14_Syllabus 2012_June 2017_Set 2

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Full Marks: 100

Time allowed: 3 hours

Answer Question No. 1 which is compulsory and carries 20 marks and any five from Question No. 2 to 8.

Section-A [20 marks]

1. (a) Answer all questions each question carries 2 marks

[7×2=14]

- (i) A mutual Fund had a Net Asset Value (NAV) of ₹72 at the beginning of the year. During the year, a sum of ₹6 was distributed as Dividend besides ₹ 4 as Capital Gain distributions. At the end of the year, NAV was ₹ 84. Calculate total return for the year.
- (ii) What is meant by "Hard" and "Soft" infrastructure?
- (iii) List down any two uses for SWAPS.
- (iv) List two direct instruments used by RBI in the implementation of its monetary policy.
- (v) An investor holds two equity shares A and B in equal proportion with the following risk and return:
- $E(R_A) = 26\%$
 $\sigma_A = 20\%$
 $E(R_B) = 22\%$
 $\sigma_B = 24\%$

The return of these securities have a positive correlation of 0.7. Calculate the portfolio return and risk.

(vi) The following information is provided:

	Investment	
	X	Y
Principal ₹	20 lacs	20 lacs
Rate of yield p.a.	12%	12%
Tenor (years)	3	3
Compounding	monthly	continuous
Compounding charges payable at the end of the period	Nil	₹ m per lac

For what minimum value of 'm' will an investor prefer X to Y?

- (vii) Securities A and B have a standard deviation of 10% and 15% respectively. The respective average returns are 12% and 20%. Investor X has limited funds. He wants to compare A and B and choose the safer security. Advise X.

(b) State if each of the following sentences is T (= True) or F (= False), Each Question carries 1 mark. [6×1=6]

- (i) The delta of a stock option is the number of units of stock one should hold per 100 options sold to create a risk-free hedge.

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- (ii) Forward contracts have more potential for default risks than futures.
- (iii) Bridge Finance refers to loans taken by a company from its promoters until loans are disbursed by Financial Institutions.
- (iv) Operating lease can be cancelled by the lessee before the expiry date.
- (v) No prior approval of RBI is required for issue of Commercial Paper.
- (vi) In India, the credit rating symbol for moderate safety is BB.

Section-B

Answer any 5 Questions from the following. Each Question carries 16 Marks.

- 2.(a) A mutual fund made an issue of 8,00,000 units of ₹10 each on 01.04.2014. No entry load was charged. It made the following investments after meeting its issue expenses.

	₹
40,000 Equity Shares of ₹100 @ ₹160	64,00,000
At par:	
8% Government Securities	6,40,000
9% Debentures (unlisted)	4,00,000
10% Debentures (listed)	4,00,000
	78,40,000

During the year, dividend of ₹9,60,000 was received on equity shares. Interest on all types of debt securities was received as and when due. At the end of the year on 31.03.2015, equity shares and 10% debentures were quoted at 175% and 90% of the respective par value. Other investments were at par. The operating expenses during the year amounted to ₹4,00,000.

- (i) Find out the Net Assets Value (NAV) per unit at the end of the year.
- (ii) Find out the NAV if the Mutual Fund had distributed a dividend of ₹0.90 per unit during the year to the unit holders. **[8]**

- 2.(b) The current price (in Dec 2017) of sugar is ₹40 per kg. Sugar Mill SM expects to produce 200 MT of sugar in February 2016. February futures contract due on 20th February is trading at ₹45 per kg. SM wants to hedge itself against a price decline to below ₹45 kg in February. 100% cover is required and each contract is for 10 MT.

- (i) Explain SM's appropriate hedging measure showing cash flows for full value if the price falls to ₹42 per kg in February 2016.
- (ii) What is the position of SM in the futures and in the spot market? **[6+2=8]**
(1 MT = 1,000 kg.)

- 3.(a) Explain four measures taken by the Central Government in the field of infrastructure financing. **[8]**

3. (b)(i) The data pertaining to 5 mutual funds is given below:

Fund	Return	Standard deviation (σ)	Beta (β)
J	13	6	1.50
K	9	2	0.90

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L	11	3	1.20
M	15	5	0.80
N	12	4	1.10

Compute the reward- to- variability/volatility ratios and rank the funds, if the risk-free rate is 6%.

(II) What is the principal business of the following entities?

- (i) Asset Financial Company (AFC)
- (ii) Investment Company (IC)
- (iii) Infrastructure Debt Fund – NBFC (IDF – NBFC)

[5+3=8]

4.(a) A Ltd has an expected return of 22% and standard deviation of 40%. B Ltd. has an expected return of 24% and standard deviation of 38%. A Ltd. has a beta of 0.86 and B Ltd. has a beta of 1.24. The correlation coefficient between the return of A Ltd. and B Ltd. is 0.72. The standard deviation of the market return is 20%. Suggest:

- (i) Is investing in B Ltd. better than investing in A Ltd.?
- (ii) If you invest 30% in B Ltd. and 70% in A Ltd., what is your expected rate of return and portfolio standard deviation?
- (iii) What is the market portfolios expected rate of return and how much is the risk-free rate?
- (iv) What is the beta of portfolio if A Ltd.'s weight is 70% and B Ltd.'s weight is 30%?

[8]

4.(b) Compute Return under CAPM and the Average Return of the Portfolio from the following information:

Investment	Initial Price	Dividends	Market Price at the end of the year	Beta Risk Factor
A. Cement Ltd	25	2	50	0.80
Steel Ltd	35	2	60	0.70
Liquor Ltd	45	2	135	0.50
B. Govt. of India Bonds	1,000	140	1005	0.99

Risk Free Return = 14%

[8]

5. (a) Compute the theoretical price of the following securities for 6 months:

Securities of	A Ltd	B Ltd.	C Ltd.
Spot Price	₹5,450	₹450	₹1,050
Dividend Expected	₹60	₹25	₹60
Dividend Receivable in	2 months	3 months	4 months
6 month's futures contract rate	₹5,510	₹490	₹1,070

You may assume a risk-free interest rate of 9% p. a.

- (i) What action do you recommend to benefit from futures contract?
- (ii) What will be the impact on the theoretical forward prices if the risk-free interest rate is taken lower than 9%?

[8+2=10]

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5.(b) The equity share of VCC Ltd. is quoted at ₹210. A 3-month call option is available at a premium of ₹6 per share and a 3-month put option is available at a premium of ₹5 per share. Ascertain the net pay offs to the option holder of a call option and a put option.

- (i) The strike price in both cases is ₹220, and
 (ii) The share price on the exercise day is ₹ 200, 210, 220, 230, and 240.

Also indicate the price range at which the call and the put options may be gainfully exercised. **[6]**

6.(a) The following market data is available:

Spot USD/JPY 116		
Deposit rates p.a.	USD	JPY
3 months	4.50%	0.25%
6 months	5.00%	0.25%

Forward Rate Agreement (FRA) FOR Yen is Nil.

1. The 6&12 months LIBORS are 5% & 6.5% respectively. A bank is quoting 6/12 USD FRA at 6.50-6.75%. Is any arbitrage opportunity available?
 Calculate profit in such case. **[8]**

6.(b) Explain the major sources for raising foreign currency finances. **[8]**

7.(a) A company wish to acquire an asset costing ₹1,00,000. The company has an offer from a bank to lend @ 18%. The principal amount is repayable in 5 years end installments. A leasing Company has also submitted a proposal to the Company to acquire the asset on lease at yearly rentals of ₹ 280 per ₹ 1,000 of the assets value for 5 years payable at year end. The rate of depreciation of the asset allowable for tax purposes is 20% on W.D.V with no extra shift allowance. The salvage value of the asset at the end of 5 years period is estimated to be ₹1,000. Whether the Company should accept the proposal of Bank or leasing company, if the effective tax rate of the company is 50%? The Company discounts all its cash flows at 18%.

P.V factor at 18%

Year-end	1	2	3	4	5
PV factor @ 18%	0.847	0.718	0.609	0.516	0.437

[12]

7.(b) An investor is seeking the price to pay for a security, whose standard deviation is 4.00 per cent. The correlation coefficient for the security with the market is 0.8 and the market standard deviation is 2.2 per cent. The return from government securities is 5.2 per cent and from the market portfolio is 9.8 percent. The investor knows that, by calculating the required return, he can then determine the price to pay for the security. What is the required return on the security? **[4]**

8. Answer any four questions: **[4×4=16]**

(a) Write short note on constituents of Capital Market. **[4]**

(b) What Makes Commodity Trading attractive? **[4]**

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- (c)** Write short notes on Green Shoe Option. [4]
(d) Describe the role of RBI as Governments' Debt Manager. [4]
(e) Features of Global Depository Receipt (GDR). [4]