

Test Series : February, 2012

**MOCK TEST PAPER – 1**

**FINAL COURSE : GROUP – I**

**PAPER – 2 : STRATEGIC FINANCIAL MANAGEMENT**

*Question No. 1 is compulsory. Attempt any **five** questions from the remaining **six** questions. Working notes should form part of the answer.*

**Time Allowed – 3 Hours**

**Maximum Marks – 100**

- 1 (a) The share of X Ltd. is currently selling for ₹ 300. Risk free interest rate is 0.8% per month. A three months futures contract is selling for ₹ 312. Develop an arbitrage strategy and show what your riskless profit will be 3 month hence assuming that X Ltd. will not pay any dividend in the next three months. (5 Marks)

- (b) The following spot rates are observed in the foreign currency market.

| Currency          | Foreign currency per U.S.\$ |
|-------------------|-----------------------------|
| Britain Pound     | 00.62                       |
| Dutch Guilder     | 1.90                        |
| Sweden Kroner     | 6.40                        |
| Switzerland Franc | 1.50                        |
| Japan Yen         | 140.00                      |

On the basis of this information, compute to the nearest second decimal the number of :

- a. British pounds than can be acquired for \$100.
- b. Dollars that 50 Dutch guilders (a European Monetary Union legacy currency) will buy.
- c. Swedish krona that can be acquired for \$40.
- d. Dollars that 200 Swiss francs can buy.
- e. Dollars that 1,000 Japanese yen will buy. (5 Marks)
- (c) The Board of Directors of X Ltd. are considering the possible acquisition (by way of merger) of firm Y. The following data are available in respect of both the companies:

| Company | Earnings after Tax<br>(₹ ) | No. of Equity<br>shares | Market value per<br>share (₹ ) |
|---------|----------------------------|-------------------------|--------------------------------|
| X       | 4,00,000                   | 80,000                  | 15                             |
| Y       | 1,20,000                   | 20,000                  | 12                             |

What shall be the new earning per share for Company X, if the proposed merger takes place by exchange of equity share and the exchange ratio is based on the current market prices? (5 Marks)

- (d) A share pays a dividend of ₹ 3.85 and currently selling at ₹ 83. It is expected that one year hence its sale price will be ₹ 90. The Beta of Security is 1.15. The rate of return on Government Securities is 5% and return on Market Index is 12%. Determine whether the security is correctly priced. (5 Marks)
2. (a) Swissloto Co. has an investment proposal, requiring an outlay of ₹ 50,000. The investment proposal is expected to have 2 years' economic life with no salvage value. In year 1, there is a 0.3 probability that cash inflow after tax will be ₹ 30,000 and 0.7 probability that cash inflow after tax will be ₹ 35,000. The probabilities assigned to cash inflows after tax for the year II are as follows:

| The Cash inflow year I  | ₹ 30,000 |             | ₹ 35,000 |             |
|-------------------------|----------|-------------|----------|-------------|
| The Cash inflow year II |          | Probability |          | Probability |
|                         | ₹ 12,000 | 0.3         | ₹ 20,000 | 0.1         |
|                         | ₹ 16,000 | 0.2         | ₹ 25,000 | 0.5         |
|                         | ₹ 22,000 | 0.5         | ₹ 30,000 | 0.4         |

The firm uses a 10% discount rate for this type of investment.

Required:

- (a) What net present value will the project yield if worst outcome is realized? What is the probability of occurrence of this NPV?
- (b) What will be the best and the probability of that occurrence?
- (c) Will the project be accepted? (10 Marks)
- (b) An investor has two portfolios known to be on minimum variance set for a population of three securities A, B and C having below mentioned weights:

|             | WA   | WB   | WC   |
|-------------|------|------|------|
| Portfolio X | 0.30 | 0.40 | 0.30 |
| Portfolio Y | 0.20 | 0.50 | 0.30 |

It is supposed that there are no restrictions on short sales.

- (i) What would be the weight for each stock for a portfolio constructed by investing ₹ 5,000 in portfolio X and ₹ 3,000 in portfolio Y?
- (ii) Suppose the investor invests ₹ 4,000 out of ₹ 8,000 in security A. How he will allocate the balance between security B and C to ensure that his portfolio is on

minimum variance set?

(6 Marks)

3. (a) True Blue Cosmetics Ltd. is an old line producer of cosmetics products made up of herbals. Their products are popular in India and all over the world but are more popular in Europe.

The company invoice in Indian Rupee when it exports to guard itself against the fluctuation in exchange rate. As the company is enjoying monopoly position, the buyer normally never objected to such invoices. However, recently, an order has been received from a whole-saler of France for FFr 80,00,000. The other conditions of the order are as follows:

- (1) The delivery shall be made within 3 months.
- (2) The invoice should be FFr.

Since, company is not interested in losing this contract only because of practice of invoicing in Indian Rupee. The Export Manager Mr. E approached the banker of Company seeking their guidance and further course of action.

The banker provided following information to Mr. E.

- (1) Spot rate 1 FFr = ₹ 6.60
- (2) Forward rate (90 days) of 1 FFr = ₹ 6.50
- (3) Interest rate in India is 9% and in France is 12%.

Mr. E entered in forward contract with banker for 90 days to sell FFr at above mentioned rate.

When the matter comes for consideration before Mr. A, Accounts Manager of company, he approaches you.

You as a Forex consultant is required to comment on:

- (i) Whether there is an arbitrage opportunity exists or not.
- (ii) Whether the action taken by Mr. E is correct and if bank agrees for negotiation of rate, then at what forward rate company should sell FFr to bank. (10 Marks)

- (b) The following are the data on four mutual funds:

| Fund        | Return | Standard Deviation | Beta ( $\beta$ ) |
|-------------|--------|--------------------|------------------|
| Dhan Raksha | 16     | 8                  | 1.50             |
| Dhan Varsha | 12     | 6                  | 0.90             |
| Dhan Vredhi | 14     | 5                  | 1.40             |
| Dhan Mitra  | 18     | 10                 | 0.75             |

What is the reward-to-variability/volatility ratio and the ranking if the risk-free rate is 7 percent? (6 Marks)

4. (a) A company is considering engaging a factor, the following information is available:
- (i) The current average collection period for the Company's debtors is 80 days and  $\frac{1}{2}\%$  of debtors default. The factor has agreed to pay money due after 60 days and will take the responsibility of any loss on account of bad debts.
  - (ii) The annual charge for the factoring is 2% of turnover payable annually in arrears. Administration cost saving is likely to be ₹ 1,00,000 per annum.
  - (iii) Annual sales, all on credit, are ₹ 1,00,00,000. Variable cost is 80% of sales price. The Company's cost of borrowing is 15% per annum. Assume the year is consisting of 365 days.

Should the Company enter into a factoring agreement? (8 Marks)

- (b) Expected returns on two stocks for particular market returns are given in the following table:

| Market Return | Aggressive | Defensive |
|---------------|------------|-----------|
| 7%            | 4%         | 9%        |
| 25%           | 40%        | 18%       |

You are required to calculate:

- (i) The Betas of the two stocks.
  - (ii) Expected return of each stock, if the market return is equally likely to be 7% or 25%.
  - (iii) The Security Market Line (SML), if the risk free rate is 7.5% and market return is equally likely to be 7% or 25%.
  - (iv) The Alphas of the two stocks. (8 Marks)
5. (a) The market value of two companies Sun Ltd. and Moon Ltd. are ₹ 175 lac and ₹ 75 lac respectively. The share capital of Sun Ltd. consists of 3.5 lac ₹ 10/- ordinary shares and that of Moon Ltd. consist of 2.2 lac ordinary shares of ₹ 10/- each.

Sun Ltd. is proposing to takeover Moon Ltd. The pre-merger earnings are ₹ 19 lac for Sun Ltd. and ₹ 10 lac for Moon Ltd. The merger is expected to result into a synergy gains of ₹ 4 lac in the form of Post tax cost savings. The Pre-merger P/E Ratios are 10 for Sun Ltd. and 8 for Moon Ltd. The possible combined P/E Ratios are 9 and 10.

You are required to calculate.

- (i) Minimum combined P/E ratio to justify the merger.
- (ii) Exchange ratio of shares if combined P/E ratio is 9. (10 Marks)

- (b) Armada Leasing Company is considering a proposal to lease out a school bus. The bus can be purchased for ₹ 5,00,000 and, in turn, be leased out at ₹ 1,25,000 per year for 8 years with payments occurring at the end of each year:
- Estimate the internal rate of return for the company assuming tax is ignored.
  - What should be the yearly lease payment charged by the company in order to earn 20 per cent annual compounded rate of return before expenses and taxes?
  - Calculate the annual lease rent to be charged so as to amount to 20% after tax annual compound rate of return, based on the following assumptions:
    - Tax rate is 40%;
    - Straight line depreciation;
    - Annual expenses of ₹ 50,000; and
    - Resale value ₹ 1,00,000 after the turn.

[Given  $PVAF_{18\%,8} = 4.078$  and  $PVAF_{20\%,8} = 3.837$ ]

(6 Marks)

6. (a) X Ltd., has 8 lakhs equity shares outstanding at the beginning of the year 2012. The current market price per share is ₹ 120. The Board of Directors of the company is contemplating ₹ 6.4 per share as dividend. The rate of capitalisation, appropriate to the risk-class to which the company belongs, is 9.6%:
- Based on M-M Approach, calculate the market price of the share of the company, when the dividend is – (a) declared; and (b) not declared.
  - How many new shares are to be issued by the company, if the company desires to fund an investment budget of ₹ 3.20 crores by the end of the year assuming net income for the year will be ₹ 1.60 crores?
- (8 Marks)
- (b) Sensex futures are traded at a multiple of 50. Consider the following quotations of Sensex futures in the 10 trading days during February, 2009:

| Day     | High    | Low     | Closing |
|---------|---------|---------|---------|
| 4-2-09  | 3306.4  | 3290.00 | 3296.50 |
| 5-2-09  | 3298.00 | 3262.50 | 3294.40 |
| 6-2-09  | 3256.20 | 3227.00 | 3230.40 |
| 7-2-09  | 3233.00 | 3201.50 | 3212.30 |
| 10-2-09 | 3281.50 | 3256.00 | 3267.50 |
| 11-2-09 | 3283.50 | 3260.00 | 3263.80 |
| 12-2-09 | 3315.00 | 3286.30 | 3292.00 |
| 14-2-09 | 3315.00 | 3257.10 | 3309.30 |
| 17-2-09 | 3278.00 | 3249.50 | 3257.80 |
| 18-2-09 | 3118.00 | 3091.40 | 3102.60 |

Abshishek bought one sensex futures contract on February, 04 at closing price. The average daily absolute change in the value of contract is ₹ 10,000 and standard deviation of these changes is ₹ 2,000. The maintenance margin is 75% of initial margin.

You are required to determine the daily balances in the margin account and payment on margin calls, if any. (8 Marks)

7. Write short notes on any of **four** of the following:

- (a) Main functions of an investment bank.
- (b) Debt Securitisation.
- (c) External Commercial Borrowings.
- (d) Financial Restructuring.
- (E) Linkage of Financial Policy to Strategic Management. (4 × 4 = 16 Marks)