

MOCK TEST PAPER
FINAL (OLD) 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) Calculate the price of 3 months PQR futures, if PQR (FV ₹10) quotes ₹220 on NSE and the three months future price quotes at ₹ 230 and the one month borrowing rate is given as 15 percent and the expected annual dividend is 25 percent per annum payable before expiry. Also examine arbitrage opportunities. **(5 Marks)**
- (b) Ms. Kiran had a surplus fund of ₹ 2,00,000 on 31.03.2016. She is interested in constructing a portfolio of shares of the core sectors to be weighted equally in rupee value terms. Her friend Shaila based on her research advised her to purchase following shares:

Company	No. of Shares	Price Per Share
O Ltd.	100	400
H Ltd.	1000	40
A Ltd.	320	125
R Ltd.	400	100
T Ltd.	200	200

On April 1, 2016, the prices of these stocks were as follows:

Company	Price Per Share
O Ltd.	300
H Ltd.	60
A Ltd.	120
R Ltd.	150
T Ltd.	125

You are required to exhibit how Kiran can rebalance her portfolio on 1.4.2016 so that her exposure to individual stock is maintained at original level in terms of rupee value. **(5 Marks)**

- (c) Two companies XYZ Ltd. and ABC Ltd., each issues Commercial Paper (CP) of ₹ 5 million each maturing in 91 days. While XYZ's CP has credit rating of A1 the ABC's CP has A3 from CRISIL. XYZ and ABC CPs are issued at 7.6% and 8.5% respectively.

You are required to determine the compensation for ABC's CP for greater credit risk. Assume number of days a year is 365. **(5 Marks)**

- (d) ABC Ltd. is considering a project in US, which will involve an initial investment of US \$ 1,10,00,000. The project will have 5 years of life. Current spot exchange rate is ₹ 48 per US \$. The risk free rate in US is 8% and the same in India is 12%. Cash inflow from the project is as follows:

Year	Cash inflow
1	US \$ 20,00,000
2	US \$ 25,00,000

3	US \$ 30,00,000
4	US \$ 40,00,000
5	US \$ 50,00,000

Calculate the NPV of the project using foreign currency approach. Required rate of return on this project is 14%. **(5 Marks)**

2. (a) Following are the estimates of the net cash flows and probability of a new project of M/s X Ltd.:

	Year	P=0.3	P=0.5	P=0.2
Initial investment	0	4,00,000	4,00,000	4,00,000
Estimated net after tax cash inflows per year	1 to 5	1,00,000	1,10,000	1,20,000
Estimated salvage value (after tax)	5	20,000	50,000	60,000

Required rate of return from the project is 10%. Find:

- The expected NPV of the project.
- The best case and the worst case NPVs.
- The probability of occurrence of the worst case if the cash flows are perfectly dependent overtime and independent overtime.
- Standard deviation and coefficient of variation assuming that there are only three streams of cash flow, which are represented by each column of the table with the given probabilities.
- Coefficient of variation of X Ltd. on its average project which is in the range of 0.95 to 1.0. If the coefficient of variation of the project is found to be less risky than average, 100 basis points are deducted from the Company's cost of Capital

Should the project be accepted by X Ltd? **(8 Marks)**

- (b) ABC Ltd. has ₹ 300 million, 12 per cent bonds outstanding with six years remaining to maturity. Since interest rates are falling, ABC Ltd. is contemplating of refunding these bonds with a ₹ 300 million issue of 6 year bonds carrying a coupon rate of 10 per cent. Issue cost of the new bond will be ₹ 6 million and the call premium is 4 per cent. ₹ 9 million being the unamortized portion of issue cost of old bonds can be written off no sooner the old bonds are called off. Marginal tax rate of ABC Ltd. is 30 per cent. You are required to analyse the bond refunding decision.

(8 Marks)

3. (a) Engineers Ltd. is in the business of manufacturing nut bolts. Some more product lines are being planned to be added to the existing system. The machinery required may be bought or may be taken on lease. The cost of machine is ₹ 20,00,000 having a useful life of 5 years with the salvage value of ₹ 4,00,000 (consider short term capital loss/gain for the Income tax). The full purchase value of machine can be financed by bank loan at the rate of 20% interest repayable in five equal instalments falling due at the end of each year. Alternatively, the machine can be procured on a 5 years lease, year-end lease rentals being ₹ 6,00,000 per annum. The Company follows the written down value method of depreciation at the rate of 25 per cent. Company's tax rate is 35 per cent and cost of capital is 14 per cent.

- Advise the company which option it should choose – lease or borrow.
- Assess the proposal from the lessor's point of view examining whether leasing the machine is financially viable at 14 per cent cost of capital.

Detailed working notes should be given.

(8 Marks)

- (b) PQR Ltd. has credit sales of ₹ 165 crores during the financial year 2014-15 and its average collection period is 65 days. The past experience suggests that bad debt losses are 4.28% of credit sales.

Administration cost incurred in collection of its receivables is ₹ 12,35,000 p.a. A factor is prepared to buy the company's receivables by charging 1.95% commission. The factor will pay advance on receivables to the company at an interest rate of 16% p.a. after withholding 15% as reserve.

Estimate the effective cost of factoring to the company assuming 360 days in a year. **(8 Marks)**

4. (a) M Ltd. belongs to a risk class for which the capitalization rate is 10%. It has 25,000 outstanding shares and the current market price is ₹ 100. It expects a net profit of ₹ 2,50,000 for the year and the Board is considering dividend of ₹ 5 per share.

M Ltd. requires to raise ₹ 5,00,000 for an approved investment expenditure. Show, how the MM approach affects the value of M Ltd. if dividends are paid or not paid. **(8 Marks)**

- (b) There are two Mutual Funds viz. D Mutual Fund Ltd. and K Mutual Fund Ltd. Each having close ended equity schemes. NAV as on 31-12-2014 of equity schemes of D Mutual Fund Ltd. is ₹ 70.71 (consisting 99% equity and remaining cash balance) and that of K Mutual Fund Ltd. is 62.50 (consisting 96% equity and balance in cash).

Following is the other information:

Particular	Equity Schemes	
	D Mutual Fund Ltd.	K Mutual Fund Ltd.
Sharpe Ratio	2	3.3
Treynor Ratio	15	15
Standard deviation	11.25	5

There is no change in portfolios during the next month and annual average cost is ₹ 3 per unit for the schemes of both the Mutual Funds.

If Share Market goes down by 5% within a month, calculate expected NAV after a month for the schemes of both the Mutual Funds.

For calculation, consider 12 months in a year and ignore number of days for particular month.

(8 Marks)

5. (a) On April 1, 2015, an investor has a portfolio consisting of eight securities as shown below:

Security	Market Price	No. of Shares	Value
A	29.40	400	0.59
B	318.70	800	1.32
C	660.20	150	0.87
D	5.20	300	0.35
E	281.90	400	1.16
F	275.40	750	1.24
G	514.60	300	1.05
H	170.50	900	0.76

The cost of capital for the investor is 20% p.a. continuously compounded. The investor fears a fall in the prices of the shares in the near future. Accordingly, he approaches you for the advice to protect the interest of his portfolio.

You can make use of the following information:

- (i) The current NIFTY value is 8500.
- (ii) NIFTY futures can be traded in units of 25 only.
- (iii) Futures for May are currently quoted at 8700 and Futures for June are being quoted at 8850.

You are required to calculate:

- (i) the beta of his portfolio.
- (ii) the theoretical value of the futures contract for contracts expiring in May and June.
Given ($e^{0.03}=1.03045$, $e^{0.04}=1.04081$, $e^{0.05}=1.05127$)
- (iii) the number of NIFTY contracts that he would have to sell if he desires to hedge until June in each of the following cases:
 - (A) His total portfolio
 - (B) 50% of his portfolio
 - (C) 120% of his portfolio.

(8 Marks)

- (b) Cauliflower Limited is contemplating acquisition of Cabbage Limited. Cauliflower Limited has 5 lakh shares having market value of ₹ 40 per share while Cabbage Limited has 3 lakh shares having market value of ₹ 25 per share. The EPS for Cabbage Limited and Cauliflower Limited are ₹ 3 per share and ₹ 5 per share respectively. The managements of both the companies are discussing two alternatives for exchange of shares as follows:

- (i) In proportion to relative earnings per share of the two companies.
- (ii) 1 share of Cauliflower Limited for two shares of Cabbage Limited.

Required:

- (i) Calculate the EPS after merger under both the alternatives.
- (ii) Show the impact on EPS for the shareholders of the two companies under both the alternatives.

(8 Marks)

6. (a) An investor is holding 1,000 shares of Fatlass Company. Presently the rate of dividend being paid by the company is ₹ 2 per share and the share is being sold at ₹ 25 per share in the market. However, several factors are likely to change during the course of the year as indicated below:

	Existing	Revised
Risk free rate	12%	10%
Market risk premium	6%	4%
Beta value	1.4	1.25
Expected growth rate	5%	9%

In view of the above factors whether the investor should buy, hold or sell the shares? And why?

(8 Marks)

- (b) XYZ Ltd. a US firm will need £ 3,00,000 in 180 days. In this connection, the following Information is available:

Spot rate 1 £ = \$ 2.00

180 days forward rate of £ as of today = \$1.96

Interest rates are as follows:

	U.K.	US
180 days deposit rate	4.5%	5%
180 days borrowing rate	5%	5.5%

A call option on £ that expires in 180 days has an exercise price of \$ 1.97 and a premium of \$ 0.04.

XYZ Ltd. has forecasted the spot rates 180 days hence as below:

<i>Future rate</i>	<i>Probability</i>
\$ 1.91	25%
\$ 1.95	60%
\$ 2.05	15%

Which of the following strategies would be most preferable to XYZ Ltd.?

- (i) A forward contract;
- (ii) A money market hedge;
- (iii) An option contract;
- (iv) No hedging.

Show calculations in each case.

(8 Marks)

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

- (a) Explain the Interface of Financial Policy and Strategic Management.
- (b) Operations in foreign exchange market are exposed to a number of risks.
- (c) Merger Failures or Potential Adverse Competitive Effects.
- (d) Zero coupon bonds.
- (e) Different methods for evaluating the performance of Mutual Fund.

(4 × 4 = 16 Marks)