Test Series: May 2020

MOCK TEST PAPER 1

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) XYZ Limited borrows £ 15 Million of six months LIBOR + 10.00% for a period of 24 months. The company anticipates a rise in LIBOR, hence it proposes to buy a Cap Option from its Bankers at the strike rate of 8.00%. The lump sum premium is 1.00% for the entire reset periods and the fixed rate of interest is 7.00% per annum. The actual position of LIBOR during the forthcoming reset period is as under:

Reset Period	LIBOR
1	9.00%
2	9.50%
3	10.00%

You are required to show how far interest rate risk is hedged through Cap Option.

For calculation, work out figures at each stage up to four decimal points and amount nearest to £. **(5 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%. **(5 Marks)**

(c) A firm had been paid dividend at Rs. 2 per share last year. The estimated growth of the dividends from the company is estimated to be 5% p.a. Determine the estimated market price of the equity share if the estimated growth rate of dividends (i) rises to 8%, and (ii) falls to 3%. Also find out the present market price of the share, given that the required rate of return of the equity investors is 15.5%. **(5 Marks)**

(d) From the following details relating to a project, analyse the sensitivity of the project to changes in initial project cost, annual cash inflow and cost of capital:

Initial Project Cost (Rs.)	1,20,000
Annual Cash Inflow (Rs.)	45,000
Project Life (Years)	4
Cost of Capital	10%

To which of the three factors, the project is most sensitive? (Use annuity factors: for 10% 3.169 and 11% 3.103). **(5 Marks)**

2. (a) An Indian company obtains the following quotes (Rs./$)

Spot:	35.90/36.10
3 - Months forward rate:	36.00/36.25
6 - Months forward rate:	36.10/36.40

The company needs $ funds for six months. Determine whether the company should borrow in $ or Rs. Interest rates are :

3 - Months interest rate :	Rs. : 12%, $: 6%
6 - Months interest rate :	Rs. : 11.50%, $: 5.5%

Also determine what should be the rate of interest after 3-months to make the company indifferent between 3-months borrowing and 6-months borrowing in the case of:

(i) Rupee borrowing

(ii) Dollar borrowing

Note: For the purpose of calculation you can take the units of dollar and rupee as 100 each.

(8 Marks)

(b) ABC Ltd. is contemplating have an access to a machine for a period of 5 years. The company can have use of the machine for the stipulated period through leasing arrangement or the requisite amount can be borrowed to buy the machine. In case of leasing, the company received a proposal to pay annual end of year rent of Rs. 2.4 lakhs for a period of 5 years.

In case of purchase (which costs Rs.10,00,000/-) the company would have a 12%, 5 years loan to be paid in equated installments, each installment becoming due to the beginning of each years. It is estimated that the machine can be sold for Rs.2,00,000/- at the end of 5th year. The company uses straight line method of depreciation. Corporate tax rate is 30%. Post tax cost of capital of ABC Ltd. is 10%.

You are required to advice

(i) Whether the machine should be bought or taken on lease.

(ii) Analyse the financial viability from the point of view of the lessor assuming 12% post tax cost of capital.

	PV of Rs. 1 @ 10% for 5 years	PV of Rs. 1 @ 12% for 5 years
1	0.909	0.893
2	0.826	0.797
3	0.751	0.712
4	0.683	0.636
5	0.621	0.567

(8 Marks)

3. (a) X Ltd. is studying the possible acquisition of Y Ltd. by way of merger. The following data are available in respect of both the companies.

Particulars	X Ltd.	Y Ltd.
Market Capitalization (Rs.)	75,00,000	90,00,000
Gross Profit Ratio	20%	20%
Inventory Turnover Ratio	5 times	4 times
Debtor Turnover Ratio	3 times	5 times

12% Debenture (Rs.)	10,00,000	-
10% Debenture (Rs.)	-	14,40,000
No. of Equity Shares	1,00,000	60,000
Operating Expenses	86%	78%
Corporate Tax Rate	30%	30%
Closing Stock (Rs.)	15,00,000	5,00,0000
Debtors (Rs.)	10,00,000	8,00,000

You are required to calculate:

(i) Swap ratio based on EPS & MPS respectively as weightage of 40% and 60%.

(ii) Post Merger EPS

(iii) Post Merger market price assuming same PE Ratio of X Ltd.

(iv) Post Merger gain or loss in EPS. **(12 Marks)**

(b) Wonderland Limited has excess cash of Rs. 20 lakhs, which it wants to invest in short term marketable securities. Expenses relating to investment will be Rs. 50,000.

The securities invested will have an annual yield of 9%.

The company seeks your advice

(i) as to the period of investment so as to earn a pre-tax income of 5%.

(ii) the minimum period for the company to breakeven its investment expenditure overtime value of money. **(4 Marks)**

4. (a) M/s Atlantic Company Limited with a turnover of Rs. 4.80 crores is expecting growth of 25% for forthcoming year. Average credit period is 90 days. The past experience shows that bad debt losses are 1.75% on sales. The Company's administering cost for collecting receivable is Rs. 6,00,000/-.

It has decided to take factoring services of Pacific Factors on terms that factor will by receivable by charging 2% commission and 20% risk with recourse. The Factor will pay advance on receivables to the firm at 16% interest rate per annum after withholding 10% as reserve.

Calculate the effective cost of factoring to the firm. (Assume 360 days in a year). **(8 Marks)**

(b) A Rice Trader has planned to sell 22000 kg of Rice after 3 months from now. The spot price of the Rice is Rs. 60 per kg and 3 months future on the same is trading at Rs. 59 per kg. Size of the contract is 1000 kg. The price is expected to fall as low as Rs. 56 per kg, 3 months hence. What the trader can do to mitigate its risk of reduced profit? If he decides to make use of future market, what would be the effective realized price for its sale when after 3 months, spot price is Rs. 57 per kg and future contract price for 3 months is Rs. 58 per kg? **(8 Marks)**

5. (a) The following data are available for three bonds A, B and C. These bonds are used by a bond portfolio manager to fund an outflow scheduled in 6 years. Current yield is 9%. All bonds have face value of Rs.100 each and will be redeemed at par. Interest is payable annually.

Bond	Maturity (Years)	Coupon rate
A	10	10%
B	8	11%
C	5	9%

(i) Calculate the duration of each bond.

(ii) The bond portfolio manager has been asked to keep 45% of the portfolio money in Bond A. Calculate the percentage amount to be invested in bonds B and C that need to be purchased to immunise the portfolio.

(iii) After the portfolio has been formulated, an interest rate change occurs, increasing the yield to 11%. The new duration of these bonds are: Bond A = 7.15 Years, Bond B = 6.03 Years and Bond C = 4.27 years.

Is the portfolio still immunized? Why or why not?

(iv) Determine the new percentage of B and C bonds that are needed to immunize the portfolio. Bond A remaining at 45% of the portfolio.

Present values be used as follows :

Present Values	t_1	t_2	t_3	t_4	t_5
$PVIF_{0.09,t}$	0.917	0.842	0.772	0.708	0.650

Present Values	t_6	t_7	t_8	T_9	t_{10}
$PVIF_{0.09,t}$	0.596	0.547	0.502	0.460	0.4224

(12 Marks)

(b) A mutual fund that had a net asset value of Rs.16 at the beginning of a month, made income and capital gain distribution of Rs. 0.04 and Rs. 0.03 respectively per unit during the month, and then ended the month with a net asset value of Rs.16.08. Calculate monthly and annual rate of return.

(4 Marks)

6. (a) You, a foreign exchange dealer of your bank, are informed that your bank has sold a T.T. on Copenhagen for Danish Kroner 10,00,000 at the rate of Danish Kroner 1 = Rs. 6.5150. You are required to cover the transaction either in London or New York market. The rates on that date are as under:

Mumbai-London	Rs. 74.3000	Rs. 74.3200
Mumbai-New York	Rs. 49.2500	Rs. 49.2625
London-Copenhagen	DKK 11.4200	DKK 11.4350
New York-Copenhagen	DKK 07.5670	DKK 07.5840

In which market will you cover the transaction, London or New York, and what will be the exchange profit or loss on the transaction? Ignore brokerages. **(6 Marks)**

(b) A multinational company is planning to set up a subsidiary company in India (where hitherto it was exporting) in view of growing demand for its product and competition from other MNCs. The initial project cost (consisting of Plant and Machinery including installation) is estimated to be US$ 500 million. The net working capital requirements are estimated at US$ 50 million. The company follows straight line method of depreciation. Presently, the company is exporting two million units every year at a unit price of US$ 80, its variable cost per unit being US$ 40.

The Chief Financial Officer has estimated the following operating cost and other data in respect of proposed project:

(i) Variable operating cost will be US $ 20 per unit of production;

(ii) Additional cash fixed cost will be US $ 30 million p.a. and project's share of allocated fixed cost will be US $ 3 million p.a. based on principle of ability to share;

(iii) Production capacity of the proposed project in India will be 5 million units;

(iv) Expected useful life of the proposed plant is five years with no salvage value;

(v) Existing working capital investment for production & sale of two million units through exports was US $ 15 million;

(vi) Export of the product in the coming year will decrease to 1.5 million units in case the company does not open subsidiary company in India, in view of the presence of competing MNCs that are in the process of setting up their subsidiaries in India;

(vii) Applicable Corporate Income Tax rate is 35%, and

(viii) Required rate of return for such project is 12%.

Assuming that there will be no variation in the exchange rate of two currencies and all profits will be repatriated, as there will be no withholding tax, estimate Net Present Value (NPV) of the proposed project in India.

Present Value Interest Factors (PVIF) @ 12% for five years are as below:

Year	1	2	3	4	5
PVIF	0.8929	0.7972	0.7118	0.6355	0.5674

(10 Marks)

7. Write short notes on any four of following

(a) Various processes of strategic decision making **(4 Marks)**

(b) Reverse Merger **(4 Marks)**

(c) Steps in Simulation Analysis **(4 Marks)**

(d) CAMEL Model in Credit Rating **(4 Marks)**

(c) Determinants of Dividend Policy **(4 Marks)**