

Test Series: October, 2013

MOCK TEST PAPER – 2

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 current market price of an equity share of Penchant Ltd is ₹ 420. Within a period of 3 months, the maximum and minimum price of it is expected to be ₹ 500 and ₹ 400 respectively. If the risk free rate of interest be 8% p.a., what should be the value of a 3 months Call option under the “Risk Neutral” method at the strike rate of ₹ 450 ? Given $e^{0.02} = 1.0202$ (5 Marks)
- (b) Trouble Free Solutions (TFS) is an authorized service center of a reputed domestic air conditioner manufacturing company. All complaints/service related matters of Air conditioner are attended by this service center. The service center employs a large number of mechanics, each of whom is provided with a motor bike to attend the complaints. Each mechanic travels approximately 40000 kms per annum. TFS decides to continue its present policy of always buying a new bike for its mechanics but wonders whether the present policy of replacing the bike every three year is optimal or not. It is of believe that as new models are entering into market on yearly basis, it wishes to consider whether a replacement of either one year or two years would be better option than present three year period. The fleet of bike is due for replacement shortly in near future.

The purchase price of latest model bike is ₹ 55,000. Resale value of used bike at current prices in market is as follows:

Period	₹
1 Year old	35,000
2 Year old	21,000
3 Year old	9,000

Running and Maintenance expenses (excluding depreciation) are as follows:

Year	Road Taxes Insurance etc. (₹)	Petrol Repair Maintenance etc. (₹)
1	3,000	30,000
2	3,000	35,000
3	3,000	43,000

Using opportunity cost of capital as 10% you are required to determine optimal replacement period of bike. (5 Marks)

- (c) M/s X Ltd. has paid a dividend of ₹ 2.5 per share on a face value of ₹ 10 in the financial year ending on 31st March, 2009. The details are as follows:

Current market price of share	₹ 60
Growth rate of earnings and dividends	10%
Beta of share	0.75
Average market return	15%
Risk free rate of return	9%

Calculate the intrinsic value of the share. (5 Marks)

- (d) The current rate of inflation in country Petland, whose currency is Strap (St) is 65%. With the help of its new Government policy it is expected that this inflation rate shall be reduced by 10% each year of the previous rate. The current spot rate of Strap is St 144/₹ and inflation in India in next 3 years is expected to be 8%, 7% and 6% respectively.

You are required to determine exchange rate of St against ₹ for the next 3 years.

(5 Marks)

2. (a) A firm has an investment proposal, requiring an outlay of ₹ 80,000. The investment proposal is expected to have two years economic life with no salvage value. In year 1, there is a 0.4 probability that cash inflow after tax will be ₹ 50,000 and 0.6 probability that cash inflow after tax will be ₹ 60,000. The probability assigned to cash inflow after tax for the year 2 is as follows:

The cash inflow year 1	₹ 50,000	₹ 60,000
The cash inflow year 2	Probability	Probability
	₹ 24,000 0.2	₹ 40,000 0.4
	₹ 32,000 0.3	₹ 50,000 0.5
	₹ 44,000 0.5	₹ 60,000 0.1

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

Required:

- Construct a decision tree for the proposed investment project and calculate the expected net present value (NPV).
- What net present value will the project yield, if worst outcome is realized? What is the probability of occurrence of this NPV?
- What will be the best outcome and the probability of that occurrence?
- Will the project be accepted?

(Note: 10% discount factor 1 year 0.909; 2 year 0.826)

(8 Marks)

- (b) From the following particulars, calculate the effective interest p.a. as well as the total cost of funds to ABC Ltd., which is planning a CP issue:

Issue Price of CP = ₹ 97,350

Face Value = ₹ 1,00,000

Maturity period = 3 months.

Issue Expenses:

Brokerage: 0.125% for 3 months.

Rating Charges: 0.5% p.a.

Stamp duty: 0.125% for 3 months

(8 Marks)

3. (a) M/s Omega Electronics Ltd. exports air conditioners to Germany by importing all the components from Singapore. The company is exporting 2,400 units at a price of Euro 500 per unit. The cost of imported components is S\$ 800 per unit. The fixed cost and other variables cost per unit are ₹ 1,000 and ₹ 1,500 respectively. The cash flows in Foreign currencies are due in six months. The current exchange rates are as follows:

₹/Euro	51.50/55
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₹/S\$	27.20/25
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After six months the exchange rates turn out as follows:

₹/Euro	52.00/05
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₹/S\$	27.70/75
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- (1) You are required to calculate loss/gain due to transaction exposure.
- (2) Based on the following additional information calculate the loss/gain due to transaction and operating exposure if the contracted price of air conditioners is ₹ 25,000 :

- (i) the current exchange rate changes to

₹/Euro	51.75/80
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₹/S\$	27.10/15
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- (ii) Price elasticity of demand is estimated to be 1.5

- (iii) Payments and receipts are to be settled at the end of six months.

(8 Marks)

- (b) A mutual fund made an issue of 10,00,000 units of ₹ 10 each on January 01, 2008.

No entry load was charged. It made the following investments:

Particulars	₹
50,000 Equity shares of ₹ 100 each @ ₹ 160	80,00,000
7% Government Securities	8,00,000
9% Debentures (Unlisted)	5,00,000
10% Debentures (Listed)	<u>5,00,000</u>
	<u>98,00,000</u>

During the year, dividends of ₹ 12,00,000 were received on equity shares. Interest on all types of debt securities was received as and when due. At the end of the year equity shares and 10% debentures are quoted at 175% and 90% respectively. Other investments are at par.

Find out the Net Asset Value (NAV) per unit given that operating expenses paid during the year amounted to ₹ 5,00,000. Also find out the NAV, if the Mutual fund had distributed a dividend of ₹ 0.80 per unit during the year to the unit holders. (8 Marks)

4. (a) AMK Ltd. an Indian based company has subsidiaries in U.S. and U.K.

Forecasts of surplus funds for the next 30 days from two subsidiaries are as below:

U.S.	\$12.5 million
U.K.	£ 6 million

Following exchange rate information is obtained:

	\$/₹	£/₹
Spot	0.0215	0.0149
30 days forward	0.0217	0.0150

Annual borrowing/deposit rates (Simple) are available.

₹	6.4%/6.2%
\$	1.6%/1.5%
£	3.9%/3.7%

The Indian operation is forecasting a cash deficit of ₹500 million.

It is assumed that interest rates are based on a year of 360 days.

- (i) Calculate the cash balance at the end of 30 days period in ₹ for each company under each of the following scenarios ignoring transaction costs and taxes:
- (a) Each company invests/finances its own cash balances/deficits in local currency independently.

(b) Cash balances are pooled immediately in India and the net balances are invested/borrowed for the 30 days period.

(ii) Which method do you think is preferable from the parent company's point of view?

(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:

- The Betas of the two stocks.
- Expected return of each stock, if the market return is equally likely to be 7% or 25%.
- The Security Market Line (SML), if the risk free rate is 7.5% and market return is equally likely to be 7% or 25%.
- The Alphas of the two stocks.

(8 Marks)

5. (a) A company is considering engaging a factor, the following information is available:

- 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.
- 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.
- 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) A Inc. and B Inc. intend to borrow \$200,000 and \$200,000 in ₹ respectively for a time horizon of one year. The prevalent interest rates are as follows:

Company	₹ Loan	\$ Loan
A Inc	5%	9%
B Inc	8%	10%

The prevalent exchange rate is \$1 = ₹120.

They entered in a currency swap under which it is agreed that B Inc will pay A Inc @ 1% over the ₹ Loan interest rate which the later will have to pay as a result of the agreed currency swap whereas A Inc will reimburse interest to B Inc only to the extent of 9%.

Keeping the exchange rate invariant, quantify the opportunity gain or loss component of the ultimate outcome, resulting from the designed currency swap. (8 Marks)

6. (a) The following information pertains to M/s XY Ltd.

Earnings of the Company	₹ 5,00,000
Dividend Payout ratio	60%
No. of shares outstanding	1,00,000
Equity capitalization rate	12%
Rate of return on investment	15%

- (i) What would be the market value per share as per Walter's model?
- (ii) What is the optimum dividend payout ratio according to Walter's model and the market value of Company's share at that payout ratio? (6 Marks)
- (b) The following information is provided relating to the acquiring company Efficient Ltd. and the target Company Healthy Ltd.

	Efficient Ltd.	Healthy Ltd.
No. of shares (F.V. ₹ 10 each)	10.00 lakhs	7.5 lakhs
Market capitalization	500.00 lakhs	750.00 lakhs
P/E ratio (times)	10.00	5.00
Reserves and Surplus	300.00 lakhs	165.00 lakhs
Promoter's Holding (No. of shares)	4.75 lakhs	5.00 lakhs

Board of Directors of both the Companies have decided to give a fair deal to the shareholders and accordingly for swap ratio the weights are decided as 40%, 25% and 35% respectively for Earning, Book Value and Market Price of share of each company:

- (i) Calculate the swap ratio and also calculate Promoter's holding % after acquisition.
- (ii) What is the EPS of Efficient Ltd. after acquisition of Healthy Ltd.?
- (iii) What is the expected market price per share and market capitalization of Efficient Ltd. after acquisition, assuming P/E ratio of Firm Efficient Ltd. remains unchanged.
- (iv) Calculate free float market capitalization of the merged firm. (10 Marks)
7. Write short notes on any of **four** of the following:
- (a) Concept of 'Zero date of a Project' in project management
- (b) Euro Convertible Bonds
- (c) Buy-Outs
- (d) Random Walk Theory
- (e) Features of Financial and Operating Lease (4 × 4 Marks = 16 Marks)