

Test Series: March, 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 following data relate to Anand Ltd.'s share price:

Current price per share	₹ 1,800
6 months future's price/share	₹ 1,950

Assuming it is possible to borrow money in the market for transactions in securities at 12% per annum, you are required:
 - (i) to calculate the theoretical minimum price of a 6-months forward purchase; and
 - (ii) to explain arbitrage opportunity. (5 Marks)
 - (b) ABN-Amro Bank, Amsterdam, wants to purchase ₹15 million against US\$ for funding their Vostro account with Canara Bank, New Delhi. Assuming the inter-bank, rates of US\$ is ₹51.3625/3700, what would be the rate Canara Bank would quote to ABN-Amro Bank? Further, if the deal is struck, what would be the equivalent US\$ amount. (5 Marks)
 - (c) A Ltd. (Acquirer company's) equity capital is ₹ 2,00,00,000. Both A Ltd. and T Ltd. (Target Company) have arrived at an understanding to maintain debt equity ratio at 0.30: 1 of the merged company. Pre-merger debt outstanding of A Ltd. stood at ₹ 20,00,000 and T Ltd at ₹ 10,00,000 and marketable securities of both companies stood at ₹ 40,00,000.

You are required to calculate total fund requirements of A Ltd. to acquire T Ltd. against cash payment at mutually agreed price of ₹ 65,00,000. (5 Marks)
 - (d) If the market price of the bond is ₹ 95; years to maturity = 6 yrs: coupon rate = 13% p.a. (paid annually) and issue price is ₹ 100. What is the yield to maturity? (5 Marks)
2. (a) Trouble Free Solutions (TFS) is an authorized service center of a branded 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 through bike 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. (8 Marks)

- (b) A Mutual Fund Co. has the following assets under it on the close of business as on:

Company	No. of Shares	1 st February 2012 Market price per share ₹	2 nd February 2012 Market price per share ₹
L Ltd	20,000	20.00	20.50
M Ltd	30,000	312.40	360.00
N Ltd	20,000	361.20	383.10
P Ltd	60,000	505.10	503.90

Total No. of Units 6,00,000

- (i) Calculate Net Assets Value (NAV) of the Fund.

- (ii) Following information is given:

Assuming one Mr. A, submits a cheque of ₹ 30,00,000 to the Mutual Fund and the Fund manager of this company purchases 8,000 shares of M Ltd; and the balance amount is held in Bank. In such a case, what would be the position of the Fund?

(iii) Find new NAV of the Fund as on 2nd February 2012. (8 Marks)

3. (a) 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:

Future rate	Probability
\$ 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)

- (b) Orange purchased 200 units of Oxygen Mutual Fund at ₹ 45 per unit on 31st December, 2011. In 2012, he received ₹ 1.00 as dividend per unit and a capital gains distribution of ₹ 2 per unit.

Required:

- (i) Calculate the return for the period of one year assuming that the NAV as on 31st December 2012 was ₹ 48 per unit.
- (ii) Calculate the return for the period of one year assuming that the NAV as on 31st December 2012 was ₹ 48 per unit and all dividends and capital gains distributions have been reinvested at an average price of ₹ 46.00 per unit.

Ignore taxation. (8 Marks)

4. (a) Nominal value of 10% bonds issued by a company is ₹100. The bonds are redeemable at ₹110 at the end of year 5.

Determine the value of the bond if required yield is (i) 5%, (ii) 5.1%, (iii) 10% and (iv) 10.1%. (8 Marks)

- (b) Mr. Tempest has the following portfolio of four shares:

Name	Beta	Investment ₹ Lac.
Oxy Rin Ltd.	0.45	0.80
Boxed Ltd.	0.35	1.50
Square Ltd.	1.15	2.25
Ellipse Ltd.	1.85	4.50

The risk free rate of return is 7% and the market rate of return is 14%.

Required.

- (i) Determine the portfolio return.

- (ii) Calculate the portfolio Beta. (8 Marks)

5. (a) Suppose current price of an index is ₹13,800 and yield on index is 4.8% (p.a.). A 6-month future contract on index is trading at ₹14,340.

Assuming that Risk Free Rate of Interest is 12%, show how Mr. X (an arbitrageur) can earn an abnormal rate of return irrespective of outcome after 6 months. You can assume that after 6 months index closes at ₹ 10,200 and ₹ 15,600 and 50% of stock included in index shall pay dividend in next 6 months.

Also calculate implied risk free rate. (8 Marks)

- (b) A Company is planning to acquire a machine costing ₹5,00,000. Effective life of the machine is 5 years. The Company is considering two options. One is to purchase the machine by lease and the other is to borrow ₹5,00,000 from its bankers at 10% interest p.a. The Principal amount of loan will be paid in 5 equal instalments to be paid annually. The machine will be sold at ₹50,000 at the end of 5th year. Following further informations are given:

- (i) Principal, interest, lease rentals are payable on the last day of each year.

- (ii) The machine will be fully depreciated over its effective life.

- (iii) Tax rate is 30% and after tax. Cost of Capital is 8%.

Compute the lease rentals payable which will make the firm indifferent to the loan option. (8 Marks)

6. (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) Using the chop-shop approach (or Break-up value approach), assign a value for Cranberry Ltd. whose stock is currently trading at a total market price of €4 million. For Cranberry Ltd, the accounting data set forth three business segments: consumer wholesale, retail and general centers. Data for the firm's three segments are as follows:

Business Segment	Segment Sales	Segment Assets	Segment Operating Income
Wholesale	€225,000	€600,000	€75,000
Retail	€720,000	€500,000	€150,000
General	€ 2,500,000	€4,000,000	€700,000

Industry data for "pure-play" firms have been compiled and are summarized as follows:

Business Segment	Capitalization/ Sales	Capitalization/ Assets	Capitalization/Operating Income
Wholesale	0.85	0.7	9
Retail	1.2	0.7	8
General	0.8	0.7	4

(8 Marks)

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

- (a) Treasury bills
- (b) External Commercial Borrowings (ECBs)
- (c) Financial restructuring
- (d) Debt Securitisation
- (e) Social Cost Benefit Analysis

(4 × 4 = 16 Marks)