

Test Series : September, 2012

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) A wheat trading company has planned selling of 4,40,000 kg of wheat after 6 months from now. The spot price of wheat is Rs. 19 per kg and 6 months future on the same is trading at Rs. 18.50 per kg with contract size of 2000 kg. The price is expected to fall to as low as Rs. 17.00 per kg 6 months later. What the company can do to mitigate its risk of reduced profit. If company decides to make use of future market what would be effective realised price for its sale when 6 months later the spot and future prices were Rs. 17.50 and Rs. 17.55 respectively. (5 Marks)
- (b) Mr. Gupta is planning to purchase 100 equity shares of X Ltd. He is expecting a return of 15% (before tax) from dividend income with annual growth of 7.5%. Last year company paid a dividend of Rs. 3 per share. Meanwhile he was planning to invest in equity share, he found that consequent upon the announcement of Dividend Distribution Tax (DDT) in the Union Budget, dividend income got exempted from tax in the hand of recipients.
- However, due to this DDT, it is expected that company shall reduce its dividend by Rs. 0.30 per share. Mr. Gupta is in tax bracket of 30%.
- You are requested to find out share price which Mr. Gupta should pay before and after the Budget announcement. (5 Marks)
- (c) TTT Computers Inc. of USA has agreed to purchase 15000 licenses of a software from Germany for 1 million Euro at today's spot price. The treasury department of the company has noted following current spot and forward rates:

	\$/€	€/£
Spot	1.6590	0.6028
30 days forward	1.6540	0.6046
90 days forward	1.6460	0.6075
180 days forward	1.6400	0.6098

On the same day the CEO of the company Mr. Wilson agrees to purchase 15000 more licenses in 3 months at the same price of € 1 million.

You are required to determine:

- (i) The price of licenses in \$ if purchased in Spot Market.
 - (ii) The cost in US\$ of second lot of 15000 licenses, if payment is to be made in 90 days and the spot rate at that time equals today's 90 days forward rate.
 - (iii) Suppose if exchange rate for 1US\$ = 0.50€ in 90 days, how much company will have to pay for these licenses in US\$. (5 Marks)
- (d) The following information is available in respect of Security A.
- | | |
|---|-------|
| Equilibrium Return | 20% |
| Market Return | 15% |
| 7% Treasury Bond Trading at | \$140 |
| Covariance of Market Return and Security Return | 294% |
| Coefficient of Correlation | 0.75 |

You are required to determine the Standard Deviation of Market Return and Security Return. (5 Marks)

2. (a) BidTown Chemicals has received a notice from Pollution Control Board of their city to get installed wastage affluent plant to improve waste generation. The cost of installation of plant is €5 million with a life span of 4 years. After 4 years the plant shall be disposed at 10% of its installation cost.

Due to installation of plant there will be an incremental cash flow, estimated at 2 million p.a. for the four years.

The company has two options to acquire plant:

- (a) Borrow funds at 10% (pre-tax) rate from a bank and acquire machine. The loan is repayable in 4 equal installments.
- (b) Obtain a financial lease of €700000 payable at the end of the year.

At present the company is ungeared with beta 2. If company takes the loan the D/E ratio of company would become 0.30. The company is in tax bracket of 40%. Depreciation is allowable @25% as per WDV method. Further risk free rate of return and market return are 6% and 8% respectively.

Ignoring the tax gain on the loss due to disposal of plant, you are required to calculate which option of acquiring the plant the company should go for. (10 Marks)

- (b) Mr. Tamarind intends to invest in equity shares of a company the value of which depends upon various parameters as mentioned below:

Factor	Beta	Expected value in%	Actual value in %
GNP	1.20	7.70	7.70
Inflation	1.75	5.50	7.00
Interest rate	1.30	7.75	9.00
Stock market index	1.70	10.00	12.00
Industrial production	1.00	7.00	7.50

If the risk free rate of interest be 9.25%, how much is the return of the share under Arbitrage Pricing Theory? (6 Marks)

3. (a) Following information relates to AKC Ltd. which manufactures some parts of an electronics device which are exported to USA, Japan and Europe on 90 days credit terms.

Cost and Sales information:

	Japan	USA	Europe
Variable cost per unit	₹225	₹395	₹510
Export sale price per unit	Yen 650	US\$10.23	Euro 11.99
Receipts from sale due in 90 days	Yen 78,00,000	US\$1,02,300	Euro 95,920

Foreign exchange rate information:

	Yen/₹	US\$/₹	Euro/₹
Spot market	2.417-2.437	0.0214-0.0217	0.0177-0.0180
3 months forward	2.397-2.427	0.0213-0.0216	0.0176-0.0178
3 months spot	2.423-2.459	0.02144-0.02156	0.0177-0.0179

Advice AKC Ltd. by calculating average contribution to sales ratio whether it should hedge it's foreign currency risk or not. (10 Marks)

- (b) A mutual fund company introduces two schemes i.e. Dividend plan (Plan-D) and Bonus plan (Plan-B). The face value of the unit is ₹ 10. On 1-4-2005 Mr. K invested ₹ 2,00,000 each in Plan-D and Plan-B when the NAV was ₹ 38.20 and ₹ 35.60 respectively. Both the plans matured on 31-3-2010.

Particulars of dividend and bonus declared over the period are as follows:

Date	Dividend	Bonus Ratio	Net Asset Value (₹)	
	%		Plan D	Plan B
30-09-2005	10		39.10	35.60
30-06-2006		1:5	41.15	36.25
31-3-2007	15		44.20	33.10
15-9-2008	13		45.05	37.25
30-10-2008		1:8	42.70	38.30
27-3-2009	16		44.80	39.10
11-4-2009		1:10	40.25	38.90
31-3-2010			40.40	39.70

What is the effective yield per annum in respect of the above two plans? (6 Marks)

4. (a) Sa Re Gama Electronics is in the business of selling consumer durables. In order to promote its sales it also financing the goods to its customer allowing them to make some cash down payment and balance in installments.

In a deal of LCD TV with selling price of ₹50,000, a customer can purchase it for cash down payment of ₹10,000 and balance amount by adopting any of the following option:

<u>Tenure of Monthly Installments</u>	<u>Equated Monthly Installment (Rs.)</u>
12	3,800
24	2,140

You are required to determine the flat and effective rate of interest for each alternative option. (8 Marks)

- (b) An investor has decided to invest ₹ 1,00,000 in the shares of two companies, namely, ABC and XYZ. The projections of returns from the shares of the two companies along with their probabilities are as follows:

<u>Probability</u>	<u>ABC(%)</u>	<u>XYZ(%)</u>
.20	12	16
.25	14	10
.25	-7	28
.30	28	-2
Expected Return	12.55	12.10
Standard Deviation(σ)	12.95	11.27

You are required to

- (i) Compare the risk and return of these two shares with a Portfolio of these shares in equal proportions.
- (ii) Find out the proportion of each of the above shares to formulate a minimum risk portfolio. (8 Marks)

5. (a) The following information is provided related to the acquiring Firm Mark Limited and the target Firm Mask Limited:

	Firm Mark Limited	Firm Mask Limited
Earning after tax (₹)	2,000 lakhs	400 lakhs
Number of shares outstanding	200 lakhs	100 lakhs
P/E ratio (times)	10	5

Required:

- (i) What is the Swap Ratio based on current market prices?
 - (ii) What is the EPS of Mark Limited after acquisition?
 - (iii) What is the expected market price per share of Mark Limited after acquisition, assuming P/E ratio of Mark Limited remains unchanged?
 - (iv) Determine the market value of the merged firm.
 - (v) Calculate gain/loss for shareholders of the two independent companies after acquisition. (10 Marks)
- (b) Jumble Consultancy Group has determined relative utilities of cash flows of two forthcoming projects of its client company as follows:

Cash Flow in ₹	-15000	-10000	-4000	0	15000	10000	5000	1000
Utilities	-100	-60	-3	0	40	30	20	10

The distribution of cash flows of project A and Project B are as follows :

Project A

Cash Flow (₹)	-15000	-10000	15000	10000	5000
Probability	0.10	0.20	0.40	0.20	0.10

Project B

Cash Flow (₹)	-10000	-4000	15000	5000	10000
Probability	0.10	0.15	0.40	0.25	0.10

Which project should be selected and why ? (6 Marks)

6. (a) Delta Ltd.'s current financial year's income statement reports its net income as ₹ 15,00,000. Delta's marginal tax rate is 40% and its interest expense for the year was ₹ 15,00,000. The company has ₹ 1,00,00,000 of invested capital, of which 60% is debt. In addition, Delta Ltd. tries to maintain a Weighted Average Cost of Capital (WACC) of 12.6%.

(i) Compute the operating income or EBIT earned by Delta Ltd. in the current year.

(ii) What is Delta Ltd.'s Economic Value Added (EVA) for the current year?

(iii) Delta Ltd. has 2,50,000 equity shares outstanding. According to the EVA you computed in (ii), how much can Delta pay in dividend per share before the value of the company would start to decrease? If Delta does not pay any dividends, what would you expect to happen to the value of the company?

(8 Marks)

(b)	BSE	5000
	Value of portfolio	₹10,10,000
	Risk free interest rate	9% p.a.
	Dividend yield on Index	6% p.a.
	Beta of portfolio	1.5

We assume that a future contract on the BSE index with four months maturity is used to hedge the value of portfolio over next three months. One future contract is for delivery of 50 times the index.

Based on the above information calculate:

(i) Price of future contract.

(ii) The gain on short futures position if index turns out to be 4,500 in three months.

(8 Marks)

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

- CAMEL model in credit rating.
- Process of Debt Securitization.
- Takeover strategies other than tender offer.
- Euro Convertible Bonds.
- Methods of evaluation in brief.

(4×4 Marks = 16 Marks)