

Roll No. ....

Total Number of Questions :

Time Alloted : 3 Hours

Total Number of Printed pages - 7

Maximum Marks - 100

## AMT

### PAPER – 2 : STRATEGIC FINANCIAL MANAGEMENT (OLD SYLLABUS)

Question 1(a)

(5 Marks)

The data given below relates to a convertible bond:

Face value	Rs. 250
Coupon rate	12%
No. of shares per bond	20
Market price of share	Rs. 12
Straight value of bond	Rs. 235
Market price of convertible bond	Rs. 265

Calculate:

- (i) Stock value of bond.
- (ii) The percentage of downside risk.
- (iii) The conversion premium
- (iv) The conversion parity price of the stock.

Question 1(b)

(5 Marks)

A company is long on 10 MT of copper @ Rs. 474 per kg (spot) and intends to remain so for the ensuing quarter. The standard deviation of changes of its spot and future prices are 4% and 6% respectively, having correlation coefficient of 0.75.

What is its hedge ratio? What is the amount of the copper future it should short to achieve a perfect hedge?



**Question 1( c)**

**(5 Marks)**

Gibraltar Limited has imported 5000 bottles of shampoo at landed cost in Mumbai, of US \$ 20 each. The company has the choice for paying for the goods immediately or in 3 months time. It has a clean overdraft limited where 14% p.a. rate of interest is charged.

Calculate which of the following method would be cheaper to Gibraltar Limited.

- (i) Pay in 3 months time with interest @ 10% and cover risk forward for 3 months.
- (ii) Settle now at a current spot rate and pay interest of the overdraft for 3 months.

The rates are as follow :

Mumbai Rs. /\$ spot : 60.25-60.55

3 months swap : 35/25

**Question 1(d)**

**(5 Marks)**

On 01-07-2010, Mr. X Invested Rs. 50,000/- at initial offer in Mutual Funds at a face value of Rs. 10 each per unit. On 31-03-2011, a dividend was paid @ 10% and annualized yield was 120%. On 31-03-2012, 20% dividend and capital gain of Rs. 0.60 per unit was given. Mr. X redeemed all his 6271.98 units when his annualized yield was 71.50% over the period of holding.

Calculate NAV as on 31-03-2011, 31-03-2012 and 31-03-2013. For calculations consider a year of 12 months.

**Question 2(a)**

**(10 Marks)**

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 Rs. 20,00,000 having a useful life of 5 years with the salvage value of Rs. 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 Rs. 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.

- (i) Advise the company which option it should choose – lease or borrow.
- (ii) 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.



**Question 2(b)****(6 Marks)**

The equity shares of XYZ Ltd. are currently being traded at Rs. 24 per share in the market. XYZ Ltd. has total 10,00,000 equity shares outstanding in number; and promoters' equity holding in the company is 40%.

PQR Ltd. wishes to acquire XYZ Ltd. because of likely synergies. The estimated present value of these synergies is Rs. 80,00,000.

Further PQR feels that management of XYZ Ltd. has been over paid. With better motivation, lower salaries and fewer perks for the top management, will lead to savings of Rs. 4,00,000 p.a. Top management with their families are promoters of XYZ Ltd. Present value of these savings would add Rs. 30,00,000 in value to the acquisition.

Following additional information is available regarding PQR Ltd.:

Earnings per share : Rs. 4

Total number of equity shares outstanding : 15,00,000

Market price of equity share : Rs. 40

**Required:**

- (i) What is the maximum price per equity share which PQR Ltd. can offer to pay for XYZ Ltd.?
- (ii) What is the minimum price per equity share at which the management of XYZ Ltd. will be willing to offer their controlling interest?

**Question 3(a)****(8 Marks)**

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

Security	Market Price (Rs.)	No. of Shares	Beta
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



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 Rs. 8500.

(ii) NIFTY futures can be traded in units of 25 only.

(iii) Futures for May are currently quoted at Rs. 8700 and Futures for June are being quoted at Rs. 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

**Question 3(b)**

**(8 marks)**

A mutual fund made an issue of 10,00,000 units of Rs. 10 each on January 01, 2008. No entry load was charged. It made the following investments:

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



During the year, dividends of Rs. 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 Rs. 5,00,000. Also find out the NAV, if the Mutual fund had distributed a dividend of Rs. 0.80 per unit during the year to the unit holders.

**Question 4(a)**

**(8 marks)**

NoBank offers a variety of services to both individuals as well as corporate customers. NoBank generates funds for lending by accepting deposits from customers who are paid interest at PLR which keeps on changing.

NoBank is also in the business of acting as intermediary for interest rate swaps. Since it is difficult to identify matching client, NoBank acts counterparty to any party of swap.

Sleepless approaches NoBank who have already have Rs. 50 crore outstanding and paying interest @ PLR+80bp p.a. The duration of loan left is 4 years. Since Sleepless is expecting increase in PLR in coming year, he asked NoBank for arrangement of interest of interest rate swap that will give a fixed rate of interest.

As per the terms of agreement of swap NoBank will borrow Rs.50 crore from Sleepless at PLR+80bp per annum and will lend Rs. 50 crore to Sleepless at fixed rate of 10% p.a. The settlement shall be made at the net amount due from each other. For this services NoBank will charge commission @0.2% p.a. if the loan amount. The present PLR is 8.2%.

You as a financial consultant of NoBank have been asked to carry out scenario analysis of this arrangement.

Three possible scenarios of interest rates expected to remain in coming 4 years are as follows:

	Year 1	Year 2	Year 3	Year 4
Scenario 1	10.25	10.50	10.75	11.00
Scenario 2	8.75	8.85	8.85	8.85
Scenario 3	7.20	7.40	7.60	7.70

Assuming that cost of capital is 10%, whether this arrangement should be accepted or not.

**Question 4(b)****(8 Marks)**

XYZ Ltd. is an export oriented business house based in Mumbai. The Company invoices in customers' currency. Its receipt of US \$ 1,00,000 is due on September 1, 2009.

Market information as at June 1, 2009 is:

Exchange Rates	
US \$/Rs.	
Spot	0.02140
1 Month Forward	0.02136
3 Months Forward	0.02127

Currency Futures	
US \$/Rs. Contract size	Rs. 4,72,000
June	0.0212
September	0.02118

	Initial Margin	Interest Rates in India
June	Rs. 10,000	7.50%
September	Rs. 15,000	8.00%

On September 1, 2009 the spot rate US \$/Rs. is 0.02133 and currency future rate is 0.02134. Comment which of the following methods would be most advantageous for XYZ Ltd.

- Using forward contract
- Using currency futures
- Not hedging currency risks.

It may be assumed that variation in margin would be settled on the maturity of the futures contract.

**Question 5(a)****(8 Marks)**

ABC Limited has a capital of Rs. 10 lakhs in equity shares of Rs. 100 each. The shares are currently quoted at par. The company proposes to declare a dividend of Rs. 15 per share at the end of the current financial year. The capitalisation rate for the risk class of which the company belongs is 10%.

What will be the market price of share at the end of the year, if

- a dividend is declared ?
- a dividend is not declared ?
- assuming that the company pays the dividend and has net profits of

Rs. 6,00,000 and makes new investment of Rs. 12,00,000 during the period, how many new shares should be issued? Use the MM model.



**Question 5(b)**

**(8 Marks)**

IPL already in production of Fertilizer is considering a proposal of building a new plant to produce pesticides. Suppose, the PV of proposal is Rs. 100 crore without the abandonment option. However, if market conditions for pesticide turns out to be favourable the PV of proposal shall increase by 30%. On the other hand market conditions remain sluggish the PV of the proposal shall be reduced by 40%. In case company is not interested in continuation of the project it can be disposed off for Rs. 80 crore.

**Question 6(a) (8 marks)**

ABC Ltd. has been maintaining a growth rate of 10 percent in dividends. The company has paid dividend @ Rs.3 per share. The rate of return on market portfolio is 12 percent and the risk free rate of return in the market has been observed as 8 percent. The Beta co-efficient of company's share is 1.5.

You are required to calculate the expected rate of return on company's shares as per CAPM model and equilibrium price per share by dividend growth model.

**Question 6(b)**

**(8 marks)**

An exporter is a UK based company. Invoice amount is \$3,50,000. Credit period is three months. Exchange rates in London are :

Spot Rate (\$/£) 1.5865 – 1.5905

3-month Forward Rate (\$/£) 1.6100 – 1.6140

Rates of interest in Money Market :

	Deposit	Loan
\$	7%	9%
£	5%	8%

Compute and show how a money market hedge can be put in place. Compare and contrast the outcome with a forward contract.

**Question 7 Write any four out of five**

**(4\*4 = 16 Marks)**

- (a) Mention the various techniques used in economic analysis.
- (b) Role of Clearing Houses.
- (c) Write a short note on Inter Bank Participation Certificate.
- (d) Explain briefly the salient features of Foreign Currency Convertible Bonds.
- (e) Explain the Interface of Financial Policy and Strategic Management.