Paper 2: Strategic Financial Management

Test Series: April, 2012

***Q.1** is compulsory. Answer any **five** from the rest.*

Working notes should form part of your answer. Make suitable assumptions wherever required.

Marks

1. *a) Mr. Savan purchased 5 units of XYZ mutual fund at the rate of ` 20 per unit in the beginning of 2012.During the year, he made following incomes:* ***5***

(i) *Dividend income from mutual fund*	*` 0.04 per unit*
(ii) *Capital gains(of which 30% is unrealised)*	*` 0.45*

You are required to calculate:

(i) *Annual return from fund for the year 2012 and*

(ii) *Expense ratio, if expense incurred per unit is ` 0.50.*

b) LMN & Co. submits following data for a bond: ***6***

Face value	*`1000*
Coupon rate	*12%*
Years to maturity	*6*
Redemption value	*`1000*
YTM	*17%*

Calculate:

(i) *Macaulay Duration*

(ii) *Modified Duration.*

c) A three year lease has following information: ***5***

Initial outlay	*` 3.00 Crore*
Tax rate	*40%*
Scrap value at the end of 5th year	*Nil*
Discounting rate after tax	*10%*

Based on above information, calculate lease rentals as per:

(i) *Stepped Up Plan(8% increase per annum)*

(ii) *Deferred Plan (deferment of two years).*

d) Briefly explain Interest Rate Parity and Purchasing Power Parity Theory. ***4***

2. *a) Following is the information regarding two companies belonging to same class of risk:* ***5+3 =8***

	Sun Ltd.	***Moon Ltd.***
Ordinary shares (nos.)	*90,000*	*1,50,000*
Market capitalization	*`1,08,000*	*`1,50,000*
6% Debentures	*` 60,000*	*_*
Earnings before interest	*`18,000*	*`18,000*

All profits after interest are appropriated for dividend declaration.

You are required to:

(i) *Explain how under MM Approach, an investor holding 10% of shares in Sun Ltd. will be better off in switching his holding to Moon Ltd.*

(ii) *Also list out the assumptions necessary to answer (i) above.*

P.T.O.

Marks

b) *KMP Ltd. a manufacturing industry is planning to set up a power generation unit. The project is likely to have a Debt Equity ratio of 0.33. KMP has soughed out three identical companies having electricity generation power plants.* **8**

Company	*Levered Beta*	*Debt/Equity*
ECO Ltd.	1.1	0.30
FLASH Software's Ltd.	1.0	0.20
AB & Co.	0.95	0.30

Assuming that tax rate applicable to KMP Ltd. is 25%, risk free rate, post tax cost of debt and return on market portfolios are 10%, 12% and 15% respectively, you are required to compute:

(i) *Beta of the project and*
(ii) *Cost of equity and overall cost of capital of the project.*

3. a) *The total market value of the equity shares of ONGC is ` 80,00,000 and the debt portion is ` 20,00,000 .It is estimated that the beta of the stock is 1.5 at present and the expected market risk premium is 10%. The treasury bill rate is 6%.* **8**

Required:

(i) *What is the beta of the company's existing portfolio?*
(ii) *Also estimate company's cost of capital and the discount rate for an expansion of the company's present business.*
Make necessary assumptions wherever required.

b) *SPARSH Ltd. submits following information for the base year:* **8**

	`Crores
Revenue	2000
Earnings before interest and taxation	300
Capital expenditure	280
Depreciation	200

The company is expected to grow at a higher rate for four years and after that the growth rate will remain stable at lower level. Company provides following measures at high growth and stable growth which are as follows:

Parameters	*High Growth*	*Stable Growth*
Growth in revenue and operating profit	20%	10%
Growth in capital expenditure and Depreciation	20%	Capital expenditure are offset by depreciation
Risk free rate	10%	9%
β	1.15	1
Return on market portfolio	16%	14%
Post tax cost of debt	9.10%	9.002%
D/E	1:1	2:3

Throughout the life time, working capital is 25% of revenue and tax rate is assumed to be 30%. You are required to calculate the value of SPARSH Ltd.

Marks

4. *a)* *Zee Ltd. has ` 800 lakhs of 10% mortgage bonds outstanding under an open-end scheme. The scheme allows additional bonds to be issued as long as all of the following conditions are met:* ***12***

A. *Interest Coverage before tax should remain greater than 4 ;*
B. *Written Down Value of mortgaged asset remains at 2 times the amount of the mortgage debt;*
C. *Debt – Equity Ratio remains below 5.*

Zee Ltd. has post tax earnings of ` 200 lakhs and it comes under a tax bracket of 40%.
` 4000 lakhs in equity and ` 3000 lakhs in depreciated assets are covered by mortgage.
Assuming that Zee Ltd. has no sinking fund payments till next year and that half of the proceeds Of a new issue would be added to the base of the mortgaged assets, how much more 10% debt could be sold under each of the three conditions?

Also recommend which protective covenant is binding?

b) *The return on stock M and market portfolio for four years are as follows:* ***4***

Year	***Return on stock M(%)***	***Rm (%)***
1	*15*	*6*
2	*10*	*3*
3	*2*	*- 4*
4	*- 11*	*12*

You are required to determine characteristic line for stock M.

5. *a)* *XYZ Ltd. is in need of £ 3,00,000 in 6 months. It presents following information:* ***10***

Spot Rate *: 2.00 $ / £*
Forward Rate*: 1.96 $ / £*

Following are the interest rates of the two countries:

	UK (%)	***US (%)***
6 months deposit	*4.5*	*5*
6 months borrowing	*5*	*5.5*

A call option on £ that expires in 6 months has an exercise price of $ 1.97 and a premium of $ 0.04. Following rate are estimated 6 months hence as under:

Future rate	***Probability***
$ 1.91	*25%*
$ 1.95	*60%*
$ 2.05	*15%*

Which of the following alternatives are most preferable to XYZ Ltd.?

(i) *A forward contract*
(ii) *No hedging*
(iii) *A money market hedge*
(iv) *An option contract.*

Marks

b) *From the following information of MID CAP Securities Ltd., calculate the value of option (Apply Black Scholes Valuation Model):* ***6***

Current price	*` 95*
Strike price	*` 89*
Annual rate of interest	*5%*
Duration of expiry	*3 months*
Volatility of share price	*18%*
Exponential value of 1.25%	*1.01259*
In 1.06/ In 1.07	*0.05827/ 0.06766*

z	***Cumulative Area***
0.81	*0.7910*
0.86	*0.8051*
0.91	*0.8186*

6. a) *A convertible bond has following terms:* ***8***

Face Value	*` 250*
Coupon Rate	*12%*
Market price per share	*` 12*
Straight value of bond	*` 235*
Market price of convertible bond	*` 265*

Calculate:

(i) *Conversion value of bond*

(ii) *Conversion premium per share*

(iii) *Ratio of conversion premium*

(iv) *Conversion parity price of share.*

Each bond can be converted into twenty shares.

b) *AA rated debenture has following yield structure:* ***8***

Period	***Yield (%)***
3 months	*8.50*
6 months	*9.25*
1 year	*10.50*
2 years	*11.25*
3 years	*12.00*

Required:

(i) *Calculate the implicit one – year forward rates in year two and year three.*

(ii) *If the interest rate increases by 50 basis points, what will be the percentage change in the price of the debenture having a maturity of 5 years?*

You are informed that the debenture is fairly priced at the moment at ` 1000.

Marks

7. *Answer any **four** of the following questions:*

a) *The rate of inflation in India is 8% per annum and in China it is 5% per annum. The current spot rate for China in India is ` 42. What will be the expected rate after a year and after four years? (You may apply purchasing power parity theory).* ***4***

b) *Distinguish between Forfeiting and Factoring.* ***4***

c) *Following information pertains to XYZ futures:* ***1+3 =4***

Face value	*` 10*
Spot price	*` 220*
Cost of carry	*` 8.25*
Borrowing rate	*15% per month*
3 months future price	*` 230*

Required:

(i) *What are 'Arbitrage Operations'?*

(ii) *From the above information examine arbitrage opportunities of XYZ futures.*

d) *What are the drawbacks of investment in Mutual Fund?* ***4***

e) *Write a short note on Green Shoe Option.* ***4***