MAY 2010

Roll No...............................

FINAL (NEW COURSE)
GROUP-I PAPER-2
STRATEGIC FINANCIAI
MANAGEMENT

Total No. of Questions—5

Total No. of Printed Pages—6

Time Allowed—3 Hours

Maximum Marks—100

SIM

Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi medium. If a candidate who has not opted for Hindi medium, his answers in Hindi will not be valued.

Answer **all** questions.

Working notes should form part of the answer.

Wherever necessary suitable assumptions may be made by the candidates.

Marks

1. (a) XY Ltd. has under its consideration a project with an initial investment of Rs. 1,00,000. Three probable cash inflow scenarios with their probabilities of occurrence have been estimated as below : 12

Annual cash inflow (Rs.)	20,000	30,000	40,000
Probability	0.1	0.7	0.2

The project life is 5 years and the desired rate of return is 20%. The estimated terminal values for the project assets under the three probability alternatives, respectively, are Rs. 0, 20,000 and 30,000.

You are required to :

(i) Find the probable NPV;

Marks

(ii) Find the worst-case NPV and the best-case NPV; and

(iii) State the probability occurrence of the worst case, if the cash flows are perfectly positively correlated over time.

(b) Mr. A purchased a 3-month call option for 100 shares in XYZ Ltd. at a premium of Rs. 30 per share, with an exercise price of Rs. 550. He also purchased a 3 month put option for 100 shares of the same company at a premium of Rs. 5 per share with an exercise price of Rs. 450. The market price of the share on the date of Mr. A's purchase of options, is Rs. 500. Calculate the profit or loss that Mr. A would make assuming that the market price falls to Rs. 350 at the end of 3 months. 4

(c) Explain briefly, how financial policy is linked to strategic management. 4

2. (a) P Ltd. has decided to acquire a machine costing Rs. 50 lakhs through leasing. Quotations from 2 leasing companies have been obtained which are summarised below : 10

	Quote A	Quote B
Lease term	3 years	4 years
Initial lease rent (Rs. lakhs)	5.00	1.00
Annual lease rent (payable in arrears)		
(Rs. lakhs)	21.06	19.66

P Ltd. evaluates investment proposals at 10% cost of capital and its effective tax rate is 30%. Terminal payment in both cases is negligible and may be ignored.

Make calculations and show which quote is beneficial to P Ltd. Present value factors at 10% rate for years 1-4 are respectively 0.91, 0.83, 0.75 and 0.68. Calculations may be rounded off to 2 decimals in lakhs.

Marks

(b) Based on the following information, determine the NAV of a regular income scheme on per unit basis : 6

	Rs. Crores
Listed shares at Cost (ex-dividend)	20
Cash in hand	1.23
Bonds and debentures at cost	4.3
Of these, bonds not listed and quoted	1
Other fixed interest securities at cost	4.5
Dividend accrued	0.8
Amount payable on shares	6.32
Expenditure accrued	0.75
Number of units (Rs. 10 face value)	20 lacs
Current realizable value of fixed income securities of face value of Rs. 100	106.5
The listed shares were purchased when Index was	1,000
Present index is	2,300
Value of listed bonds and debentures at NAV date	8

There has been a diminution of 20% in unlisted bonds and debentures

Other fixed interest securities are at cost.

(c) How is a stock market index calculated ? Indicate any two important stock market indices. 4

Marks

3. (a) The following information is given for 3 companies that are identical except for their capital structure : 12

	Orange	Grape	Apple
Total invested capital	1,00,000	1,00,000	1,00,000
Debt/assets ratio	0.8	0.5	0.2
Shares outstanding	6,100	8,300	10,000
Pre tax cost of debt	16%	13%	15%
Cost of equity	26%	22%	20%
Operating Income (EBIT)	25,000	25,000	25,000
Net Income	8,970	12,350	14,950

The tax rate is uniform 35% in all cases.

(a) Compute the Weighted average cost of capital for each company.

(b) Compute the Economic Valued Added (EVA) for each company.

(c) Based on the EVA, which company would be considered for best investment ? Give reasons.

(d) If the industry PE ratio is 11x, estimate the price for the share of each company.

(e) Calculate the estimated market capitalisation for each of the Companies.

(b) The rate of inflation in India is 8% per annum and in the U.S.A. it is 4%. The current spot rate for USD in India is Rs. 46. What will be the expected rate after 1 year and after 4 years applying the Purchasing Power Parity Theory. 4

(c) List and briefly explain the main functions of an investment bank. 4

Marks

4. (a) T Ltd. and E Ltd. are in the same industry. The former is in negotiation for acquisition of the latter. Important information about the two companies as per their latest financial statements is given below : 16

	T Ltd.	E Ltd.
Rs. 10 Equity shares outstanding	12 lakhs	6 lakhs
Debt :		
10% Debentures (Rs. lakhs)	580	—
12.5% Institutional Loan (Rs. lakhs)	—	240
Earnings before interest, depreciation and Tax (EBIDTA) (Rs. lakhs)	400.86	115.71
Market Price/share (Rs.)	220.00	110.00

T Ltd. plans to offer a price for E Ltd., business as a whole which will be 7 times EBIDTA reduced by outstanding debt, to be discharged by own shares at market price.

E Ltd. is planning to seek one share in T Ltd. for every 2 shares in E Ltd. based on the market price. Tax rate for the two companies may be assumed as 30%.

Calculate and show the following under both alternatives — T Ltd.'s offer and E Ltd.'s plan :

(i) Net consideration payable.

(ii) No. of shares to be issued by T Ltd.

(iii) EPS of T Ltd. after acquisition.

(iv) Expected market price per share of T Ltd. after acquisition.

(v) State briefly the advantages to T Ltd. from the acquisition.
Calculations (except EPS) may be rounded off to 2 decimals in lakhs.

(b) Briefly explain what is an exchange traded fund. 4

Marks

5. (a) Consider the following data for Government Securities : 8

Face Value (Rs.)	Interest Rate %	Maturity (Years)	Current Price (Rs.)
1,00,000	0	1	91,000
1,00,000	10.5	2	99,000
1,00,000	11.0	3	99,500
1,00,000	11.5	4	99,900

Calculate the forward interest rates.

(b) The following market data is available : 8

Spot USD/JPY 116.00

Deposit rates p.a.	USD	JYP
3 months	4.50%	0.25%
6 months	5.00%	0.25%

Forward Rate Agreement (FRA) for YEN is NIL.

1. What should be 3 months FRA rate at 3 months forward ?

2. The 6 & 12 months LIBORS are 5% & 6.5% respectively. A bank is quoting 6/12 USD FRA at 6.50 – 6.75%. Is any arbitrage opportunity available ?

   Calculate profit in such cases.

(c) Write a short note on Debt Securitisation. 4

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NOV 2010

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MNC

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Question No. **1** is compulsory.

Attempt any **five** questions from the remaining **six** questions.

Working notes should form part of the answer.

Marks

1. (a) Amal Ltd. has been maintaining a growth rate of 12% in dividends. The company has paid dividend @ ₹ 3 per share. The rate of return on market portfolio is 15% and the risk-free rate of return in the market has been observed as 10%. The beta co-efficient of the company's share is 1.2. **5**

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

(b) From the following particulars, calculate the effective rate of interest p.a. as well as the total cost of funds to Bhaskar Ltd., which is planning a CP issue : **5**

Issue Price of CP – ₹ 97,550

Face Value – ₹ 1,00,000

Maturity Period – 3 Months

Issue Expenses :

Brokerage – 0.15% for 3 months

Rating Charges – 0.50% p.a.

Stamp Duty – 0.175% for 3 months

(c) Equity share of PQR Ltd. is presently quoted at ₹ 320. The Market Price of the share after 6 months has the following probability distribution :

Market Price	₹ 180	260	280	320	400
Probability	0.1	0.2	0.5	0.1	0.1

A put option with a strike price of ₹ 300 can be written.

You are required to find out expected value of option at maturity (i.e. 6 months) 5

(d) Calculate Market Price of :

(i) 10% Government of India security currently quoted at ₹ 110, but interest rate is expected to go up by 1%.

(ii) A bond with 7.5% coupon interest, Face Value ₹ 10,000 & term to maturity of 2 years, presently yielding 6%. Interest payable half yearly.

2. (a) Derivative Bank entered into a plain vanilla swap through an OIS (Overnight Index Swap) on a principal of ₹ 10 crores and agreed to receive MIBOR overnight floating rate for a fixed payment on the principal. The swap was entered into on Monday, 2nd August, 2010 and was to commence on 3rd August, 2010 and run for a period of 7 days. 8

Respective MIBOR rates for Tuesday to Monday were :

7.75%, 8.15%, 8.12%, 7.95%, 7.98%, 8.15%

If Derivative Bank received ₹ 317 net on settlement, calculate Fixed rate and interest under both legs.

Notes :

(i) Sunday is Holiday.

(ii) Work in rounded rupees and avoid decimal working.

Marks

(b) MK Ltd. is considering acquiring NN Ltd.. The following information is available : 8

Company	Earnings after tax (₹)	No. of Equity Shares	Market Value Per Share (₹)
MK Ltd.	60,00,000	12,00,000	200.00
NN Ltd.	18,00,000	3,00,000	160.00

Exchange of equity shares for acquisition is based on current market value as above. There is no synergy advantage available.

(i) Find the earning per share for company MK Ltd. after merger, and

(ii) Find the exchange ratio so that shareholders of NN Ltd. would not be at a loss.

3. (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%. 8

(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 ?

Marks

(b) A dealer quotes "All-in-Cost" for a generic swap at 8% against six months libor flat. If the notional principal amount of swap is ₹ 6,00,000, – 8

(i) Calculate semi-annual fixed payment.

(ii) Find the first floating rate payment for (i) above, if the six-month period from the effective date of swap to the settlement date comprises 181 days and that the corresponding libor was 6% on the effective date of swap.

(iii) In (ii) above, if the settlement is on 'NET' basis, how much the fixed rate payer would pay to the floating rate payer ? Generic swap is based on 30/360 days.

4. (a) A valuation done of an established company by a well-known analyst has estimated a value of ₹ 500 lakhs, based on the expected free cash flow for next year of ₹ 20 lakhs and an expected growth rate of 5%. 8

While going through the valuation procedure, you found that the analyst has made the mistake of using the book values of debt and equity in his calculation. While you do not know the book value weights he used, you have been provided with the following information :

(i) Company has a cost of equity of 12%,

(ii) After tax cost of debt is 6%,

(iii) The market value of equity is three times the book value of equity, while the market value of debt is equal to the book value of debt.

You are required to estimate the correct value of the company.

Marks

(b) Rahul Ltd. has surplus cash of ₹ 100 lakhs and wants to distribute 27% of it to the shareholders. The company decides to buyback shares. The Finance Manager of the company estimates that its share price after re-purchase is likely to be 10% above the buyback price – if the buyback route is taken. The number of shares outstanding at present is 10 lakhs and the current EPS is ₹ 3. 8

You are required to determine :

(i) The price at which the shares can be re-purchased, if the market capitalization of the company should be ₹ 210 lakhs after buyback,

(ii) The number of shares that can be re-purchased, and

(iii) The impact of share re-purchase on the EPS, assuming that net income is the same.

5. (a) Consider the following information on two stocks X and Y : 8

Year	Return on X (%)	Return on Y (%)
2008	12	10
2009	18	16

You are required to determine :

(i) The expected return on a portfolio containing X and Y in the proportion of 60% and 40% respectively.

(ii) The standard deviation of return from each of the two stocks.

(iii) The covariance of returns from the two stocks.

(iv) Correlation co-efficient between the returns of the two stocks.

(v) The risk of portfolio containing X and Y in the proportion of 60% and 40%.

Marks

(b) Shashi Co. Ltd. has projected the following cash flows from a project under evaluation : **8**

Year	0	1	2	3
₹ (in lakhs)	(72)	30	40	30

The above cash flows have been made at expected prices after recognizing inflation. The firm's cost of capital is 10%. The expected annual rate of inflation is 5%. Show how the viability of the project is to be evaluated. PVF at 10% for 1 – 3 years are 0.909, 0.826 and 0.751.

6. (a) Given the following information : **8**

Exchange rate – Canadian Dollar 0.666 per DM (Spot)

Canadian Dollar 0.671 per DM (3 months)

Interest rates – DM 8% p.a.

Canadian Dollar 10% p.a.

What operations would be carried out to earn the possible arbitrage gains ?

(b) The following information relates to Maya Ltd. : **8**

Earnings of the company	₹ 10,00,000
Dividend payout ratio	60%
No. of shares outstanding	2,00,000
Rate of return on investment	15%
Equity capitalization rate	12%

(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 ?

Marks

7. Answer any **four** from the following :

(a) (i) What is the meaning of NBFC ? **4**

(ii) What are the different categories of NBFCs ?

(iii) Explain briefly the regulation of NBFCs under RBI Act.

(b) Explain the concept 'Zero date of a Project' in project management. **4**

(c) Give the meaning of 'Caps, Floors and Collars' options. **4**

(d) Distinguish between Open-ended and Close-ended Schemes. **4**

(e) Explain CAMEL model in credit rating. **4**

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GDP

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Question No. **1** is compulsory.

Attempt any **five** from the rest.

Working Notes should form part of the answer.

Marks

1. (a) Mr. Tamarind intends to invest in equity shares of a company the value of which depends upon various parameters as mentioned below : **5**

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 ?

(b) 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 month's" CALL option under the 'Risk neutral' method at the strike rate of ₹ 450 ? Given $e^{0.02} = 1.0202$ **5**

(c) A Mutual Fund is holding the following assets in ₹ Crore : 5

Investments in diversified equity shares	90.00
Cash and Bank Balances	10.00
	100.00

The Beta of the portfolio is 1.1. The index future is selling at 4300 level. The Fund Manager apprehends that the index will fall at the most by 10%. How many index futures he should short for perfect hedging so that the portfolio beta is reduced to 1.00 ? One index future consists of 50 units.

Substantiate your answer assuming the Fund Manager's apprehension will materialize.

(d) Mr. Tempest has the following portfolio of four shares : 5

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.

Marks

2. (a) X Ltd had only one water pollution control machine in this type of block of asset, with no book value under the provisions of the Income Tax Act. 1961 as it was subject to rate of depreciation of 100% in the very first year of installation. **8**

Due to funds crunch, X Ltd decided to sell the machine which can be sold in the market to anyone for ₹ 5,00,000 easily.

Understanding this from a reliable source, Y Ltd came forward to buy the machine for ₹ 5,00,000 and lease it to X Ltd for lease rental of ₹ 90,000 p.a. for 5 years. X Ltd decided to invest the net sale proceed in a risk free deposit, fetching yearly interest of 8.75% to generate some cash flow. It also decided to relook the entire issue afresh after the said period of 5 years.

Another company, Z Ltd also approached X Ltd proposing to sell a similar machine for ₹ 4,00,000 to the latter and undertook to buy it back at the end of 5 years for ₹ 1,00,000 provided the maintenance were entrusted to Z Ltd for yearly charge of ₹ 15,000. X Ltd would utilise the net sale proceeds of the old machine to fund this machine also should it accept this offer.

The marginal rate of tax of X Ltd is 34% and its weighted average cost of capital is 12%.

Which Alternative would you recommend ?
Discounting Factors @ 12%

Year	1	2	3	4	5
	0.893	0.797	0.712	0.636	0.567

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 : 8

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.

3. (a) Abhiman Ltd is a subsidiary of Janam Ltd and is acquiring Swabhiman Ltd which is also a subsidiary of Janam Ltd. The following information is given : 8

	Abhiman Ltd	Swabhiman Ltd
% Shareholding of promoter	50%	60%
Share capital	₹ 200 lacs	100 lacs
Free Reserves and surplus	₹ 900 lacs	600 lacs
Paid up value per share	₹ 100	10
Free float market capitalization	₹ 500 lacs	156 lacs
P/E Ratio (times)	10	4

Marks

Janam Ltd., is interested in doing justice to both companies. The following parameters have been assigned by the Board of Janam Ltd., for determining the swap ratio :

Book value	25%
Earning per share	50%
Market price	25%

You are required to compute

(i) The swap ratio.

(ii) The book value, Earning per share and expected market price of Swabhiman Ltd., (assuming P/E Ratio of Abhiman ratio remains the same and all assets and liabilities of Swabhiman Ltd are taken over at book value)

(b) Jumble Consultancy Group has determined relative utilities of cash flows of two forthcoming projects of its client company as follows : 8

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 ?

Marks

4. (a) Shares of Voyage Ltd are being quoted at a price earning ratio of 8 times. The company retains 45% of its earnings which are ₹ 5 per share. **8(3+3 +2)**

You are required to compute

(1) The cost of equity to the company if the market expects a growth rate of 15% pa.

(2) If the anticipated growth rate is 16% per annum, calculate the indicative market price with the same cost of capital.

(3) If the company's cost of capital is 20% pa and the anticipated growth rate is 19% pa., calculate the market price per share.

(b) An investor purchased 300 units of a Mutual Fund at ₹ 12.25 per unit on 31st December, 2009. As on 31st December, 2010 he has received ₹ 1.25 as dividend and ₹ 1.00 as capital gains distribution per unit. **8**

Required :

(i) The return on the investment if the NAV as on 31st December, 2010 is ₹ 13.00.

(ii) The return on the investment as on 31st December, 2010 if all dividends and capital gains distributions are reinvested into additional units of the fund at ₹ 12.50 per unit.

5. (a) Simple Ltd and Dimple Ltd are planning to merge. The total value of the companies are dependent on the fluctuating business conditions. The following information is given for the total value (debt + equity) structure of each of the two companies. **8**

Business Condition	Probability	Simple Ltd ₹ Lacs	Dimple Ltd ₹ Lacs
High Growth	0.20	820	1050
Medium Growth	0.60	550	825
Slow Growth	0.20	410	590

The current debt of Dimple Ltd is ₹ 65 lacs and of Simple Ltd is ₹ 460 lacs.

Calculate the expected value of debt and equity separately for the merged entity.

(b) Tender Ltd has earned a net profit of ₹ 15 lacs after tax at 30%. Interest cost charged by financial institutions was ₹ 10 lacs. The invested capital is ₹ 95 lacs of which 55% is debt. The company maintains a weighted average cost of capital of 13%. Required, **8**

(a) Compute the operating income.

(b) Compute the Economic Value Added (EVA).

(c) Tender Ltd has 6 lac equity shares outstanding. How much dividend can the company pay before the value of the entity starts declining ?

6. (a) The following information is given for QB Ltd. **8**

Earning per share	₹ 12
Dividend per share	₹ 3
Cost of capital	18%
Internal Rate of Return on investment	22%
Retention Ratio	40%

Calculate the market price per share using

(i) Gordons formula

(ii) Walters formula

Marks

(b) (i) Mention the functions of a stock exchange. **8(4+4)**

(ii) Mention the various techniques used in economic analysis.

7. Answer any **four** from the following : **4 × 4 = 16**

(a) Explain the significance of LIBOR in international financial transactions.

(b) Discuss how the risk associated with securities is effected by Government policy.

(c) What is the meaning of :

(i) Interest rate parity and

(ii) Purchasing power parity ?

(d) What is the significance of an underlying in relation to a derivative instrument ?

(e) What are the steps for simulation analysis ?

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JAC

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1. (a) Orange purchased 200 units of Oxygen Mutual Fund at ₹ 45 per unit on 31^{st} December, 2009. In 2010, he received ₹ 1.00 as dividend per unit and a capital gains distribution of ₹ 2 per unit. **5**

Required :

(i) Calculate the return for the period of one year assuming that the NAV as on 31^{st} December 2010 was ₹ 48 per unit.

(ii) Calculate the return for the period of one year assuming that the NAV as on 31^{st} December 2010 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.

(b) An importer is due to pay the exporter on 28^{th} January 2010, Singapore Dollars of 25,00,000 under an irrevocable letter of credit. It directed the bank to pay the amount on the due date. **5**

Due to go-slow and strike procedures adopted by its staff, the bank was not in a position to remit the amount due. The amount was actually remitted on 4^{th} February 2010.

On the transaction, the bank wants to retain an exchange margin of 0.125 per cent.

Marks

The following were the rates prevalent in the exchange market on the relevant dates :

	28th January	4th February
Rupee/US $1	₹ 45.85 / 45.90	₹ 45.91 / 45.97
London Pound/Dollars	$ 1.7840 / 1.7850	$ 1.7765 / 1.7775
Pound	Sing $ 3.1575 / 3.1590	Sing $ 3.1380 / 3.1390

What is the effect on account of the delay in remittance ? Calculate rate in multiples of .0001.

(c) A company has a book value per share of ₹ 137.80. Its return on equity is 15% and follows a policy of retaining 60 percent of its annual earnings. If the opportunity cost of capital is 18 percent, what is the price of its share ? [adopt the perpetual growth model to arrive at your solution]. 5

(d) The six months forward price of a security is ₹ 208.18. The rate of borrowing is 8 percent per annum payable at monthly rates. What will be the spot price ? 5

2. (a) 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 : 8

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

(b) Nitrogen Ltd, a UK company is in the process of negotiating an order amounting to €4 million with a large German retailer on 6 months credit. If successful, this will be the first time that Nitrogen Ltd has exported goods into the highly competitive German market. The following three alternatives are being considered for managing the transaction risk before the order is finalized.

(i) Invoice the German firm in Sterling using the current exchange rate to calculate the invoice amount.

(ii) Alternative of invoicing the German firm in € and using a forward foreign exchange contract to hedge the transaction risk.

(iii) Invoice the German first in € and use sufficient 6 months sterling future contracts (to the nearly whole number) to hedge the transaction risk.

Following data is available :

Spot Rate	€1.1750 - €1.1770/£
6 months forward premium	0.60-0.55 Euro Cents
6 months further contract is currently trading at	€1.1760/£
6 months future contract size is	£ 62500
Spot rate and 6 months future rate	€1.1785/£

Required :

(a) Calculate to the nearest £ the receipt for Nitrogen Ltd, under each of the three proposals. 4

(b) In your opinion, which alternative would you consider to be the most appropriate and the reason therefor. 4

Marks

3. (a) Helium Ltd has evolved a new sales strategy for the next 4 years. The following information is given : **10**

Income Statement	**₹ in thousands**
Sales	40,000
Gross Margin at 30%	12,000
Accounting, administration and distribution expense at 15%	6,000
Profit before tax	6,000
Tax at 30%	1,800
Profit after tax	4,200

Balance sheet information	
Fixed Assets	10,000
Current Assets	6,000
Equity	15,000

As per the new strategy, sales will grow at 30 percent per year for the next four years. The gross margin ratio will increase to 35 percent. The Assets turnover ratio and income tax rate will remain unchanged.

Depreciation is to be at 15 percent on the value of the net fixed assets at the beginning of the year.

Company's target rate of return is 14%.

Determine if the strategy is financially viable giving detailed workings.

(b) Pineapple Ltd has issued fully convertible 12 percent debentures of ₹ 5,000 face value, convertible into 10 equity shares. The current market price of the debentures is ₹ 5,400. The present market price of equity shares is ₹ 430.

Calculate :

(i) the conversion percentage premium, and **3**

(ii) the conversion value **3**

Marks

4. (a) Based on the credit rating of the bonds, A has decided to apply the following discount rates for valuing bonds : **8**

Credit rating	Discount rate
AAA	364-day T-bill rate + 3% spread
AA	AAA + 2% spread
A	AAA + 3% spread

He is considering to invest in a AA rated ₹ 1,000 face value bond currently selling at ₹ 1,025.86. The bond has five years to maturity and the coupon rate on the bond is 15 percent per annum payable annually. The next interest payment is due one year from today and the bond is redeemable at par. (Assume the 364-day T-bill rate to be 9 percent).

You are required to :

(i) Calculate the intrinsic value of the bond for A. Should he invest in the bond ?

(ii) Calculate the Current Yield (CY) and the Yield to Maturity (YTM) of the bond.

(b) XYZ Ltd. is considering to acquire an additional computer to supplement its time-share computer services to its clients. It has two options : **8**

(i) To purchase the computer for ₹ 22,00,000

(ii) To lease the computer for three years from a leasing company for ₹ 5,00,000 as annual lease rent plus 10 percent of gross time-share service revenue. The agreement also requires an additional payment of ₹ 6,00,000 at the end of the third year. Lease rent is payable at the year end, and the computer reverts to the lessor after the contract period.

The company estimates that the computer under review now will be worth ₹10,00,000 at the end of third year. Forecast revenues are :

Year	₹
1	22,50,000
2	25,00,000
3	27,50,000

Annual operating costs (excluding depreciation/lease rent of computer) are estimated at ₹ 9,00,000 with an additional ₹ 1,00,000 for start-up and training cost at the beginning of the first year. These costs are to be borne by the lessee. XYZ Ltd. will borrow at 16% interest to finance acquisition of computer; repayments are to be made according to the following schedule :

Year-end	Principal (₹)	Interest (₹)	Total (₹)
1	5,00,000	3,52,000	8,52,000
2	8,50,000	2,72,000	11,22,000
3	8,50,000	1,36,000	9,86,000

The company uses straight line method to depreciate its assets and pays 50 percent tax on its income.

The management of XYZ Ltd. approaches you for advice. Which alternative would you recommend and why ?

5. (a) The following is the Balance-sheet of Grape Fruit Company Ltd as at March 31^{st}, 2011.

Liabilities	(₹ in lakhs)	Assets	(₹ in lakhs)
Equity shares of ₹ 100 each	600	Land and Building	200
14% preference shares of ₹ 100/- each	200	Plant and Machinery	300
13% Debentures	200	Furniture and Fixtures	50
Debenture interest accrued and payable	26	Inventory	150
Loan from bank	74	Sundry debtors	70
Trade creditors	340	Cash at bank	130
		Preliminary expenses	10
		Cost of issue of debentures	5
		Profit and Loss Account	525
	1440		**1440**

The Company did not perform well and has suffered sizable losses during the last few years. However, it is felt that the company could be nursed back to health by proper financial restructuring. Consequently the following scheme of reconstruction has been drawn up :

(i) Equity shares are to be reduced to ₹ 25/- per share, fully paid up;

(ii) Preference shares are to be reduced (with coupon rate of 10%) to equal number of shares of ₹ 50 each, fully paid up.

(iii) Debenture holders have agreed to forgo the accrued interest due to them. In the future, the rate of interest on debentures is to be reduced to 9 percent.

(iv) Trade creditors will forego 25 percent of the amount due to them.

(v) The company issues 6 lakh of equity shares at ₹ 25 each and the entire sum was to be paid on application. The entire amount was fully subscribed by promoters.

(vi) Land and Building was to be revalued at ₹ 450 lakhs, Plant and Machinery was to be written down by ₹ 120 lakhs and a provision of ₹ 15 lakhs had to be made for bad and doubtful debts.

Required :

(i) Show the impact of financial restructuring on the company's activities. **6**

(ii) Prepare the fresh balance sheet after the reconstruction is completed on the basis of the above proposals. **4**

(b) An Indian importer has to settle an import bill for $ 1,30,000. The exporter has given the Indian exporter two options : **6**

(i) Pay immediately without any interest charges.

(ii) Pay after three months with interest at 5 percent per annum.

The importer's bank charges 15 percent per annum on overdrafts. The exchange rates in the market are as follows :

Spot rate (₹ /$) : 48.35 / 48.36

3-Months forward rate (₹ /$) : 48.81 / 48.83

The importer seeks your advice. Give your advice.

Marks

6. (a) A Portfolio Manager (PM) has the following four stocks in his portfolio : **8**

Security	No. of Shares	Market Price Per Share (₹)	β
VSL	10,000	50	0.9
CSL	5,000	20	1.0
SML	8,000	25	1.5
APL	2,000	200	1.2

Compute the following :

(i) Portfolio beta.

(ii) If the PM seeks to reduce the beta to 0.8, how much risk free investment should he bring in ?

(iii) If the PM seeks to increase the beta to 1.2, how much risk free investment should he bring in ?

(b) ABC established the following spread on the Delta Corporation's stock : **8**

(i) Purchased one 3-month call option with a premium of ₹ 30 and an exercise price of ₹ 550.

(ii) Purchased one 3-month put option with a premium of ₹ 5 and an exercise price of ₹ 450.

The current price of Delta Corporation's stock is ₹ 500. Determine ABC's profit or loss if the price of Delta Corporation's stock.

(a) stays at ₹ 500 after 3 months.

(b) falls to ₹ 350 after 3 months.

(c) rises to ₹ 600.

7. Write short notes on any **four** of the followings : **4 × 4 = 16**

(a) Capital Rationing

(b) Embedded derivatives

(c) Depository participant

(d) Money market mutual fund

(e) Leading and lagging

(f) Take over by reverse bid

FINAL
GROUP-I PAPER-2
STRATEGIC FINANCIAL
MANAGEMENT

Roll No. ....

Total No. of Questions – 7 | Total No. of Printed Pages – 7

Time Allowed – 3 Hours | MAY 2012 | Maximum Marks – 100

TIP

Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi medium, his/her answers in Hindi will not be valued.

Question No. 1 is **compulsory**.

Attempt any **five** questions from the remaining **six** questions.

Working notes should form part of the answer.

Marks

1. (a) LMN & Co. plans to issue Commercial Paper (CP) of ₹ 1,00,000 at a price of ₹ 98,000. **5**

Maturity Period : 4 Months

Expenses for issue of CP are :

(i) Brokerage 0.10%

(ii) Rating Charges 0.60% and

(iii) Stamp Duty 0.15%

Find the effective interest rate per annum and the cost of Fund.

(b) On 31-8-2011, the value of stock index was ₹ 2,200. The risk free rate of return has been 8% per annum. The dividend yield on this Stock Index is as under : **5**

Month	Dividend paid
January	3%
February	4%
March	3%
April	3%
May	4%
June	3%

July	3%
August	4%
September	3%
October	3%
November	4%
December	3%

Assuming that interest is continuously compounded daily, find out the future price of contract deliverable on 31-12-2011.

Given : $e^{0.01583} = 1.01593$

(c) The price of a bond just before a year of maturity is \$ 5,000. Its redemption value is \$ 5,250 at the end of the said period. Interest is \$ 350 p.a. The Dollar appreciates by 2% during the said period. Calculate the rate of return. **5**

(d) A company is long on 10 MT of copper @ ₹ 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. **5**

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

2. (a) A machine used on a production line must be replaced at least every four years. Costs incurred to run the machine according to its age are : **10**

Age of the Machine (years)

	0	1	2	3	4
Purchase price (in ₹)	60,000				
Maintenance (in ₹)		16,000	18,000	20,000	20,000
Repair (in ₹)		0	4,000	8,000	16,000
Scrap Value (in ₹)		32,000	24,000	16,000	8,000

Future replacement will be with identical machine with same cost. Revenue is unaffected by the age of the machine. Ignoring inflation and tax, determine the optimum replacement cycle. PV factors of the cost of capital of 15% for the respective four years are 0.8696, 0.7561, 0.6575 and 0.5718.

Marks

(b) In December, 2011 AB Co.'s share was sold for ₹ 146 per share. A long term earnings growth rate of 7.5% is anticipated. AB Co. is expected to pay dividend of ₹ 3.36 per share. 6

(i) What rate of return an investor can expect to earn assuming that dividends are expected to grow along with earnings at 7.5% per year in perpetuity ?

(ii) It is expected that AB Co. will earn about 10% on book Equity and shall retain 60% of earnings. In this case, whether, there would be any change in growth rate and cost of Equity ?

3. (a) LMN Ltd is considering merger with XYZ Ltd. LMN Ltd's shares are currently traded at ₹ 30.00 per share. It has 3,00,000 shares outstanding. Its earnings after taxes (EAT) amount to ₹ 6,00,000. XYZ Ltd has 1,60,000 shares outstanding and its current market price is ₹ 15.00 per share and its earnings after taxes (EAT) amount to ₹ 1,60,000. The merger is decided to be effected by means of a stock swap (exchange). XYZ Ltd has agreed to a proposal by which LMN Ltd will offer the current market value of XYZ Ltd's shares. 8

Find out :

(i) The pre-merger earnings per share (EPS) and price/earnings (P/E) ratios of both the companies.

(ii) If XYZ Ltd's P/E Ratio is 9.6, what is its current Market Price ? What is the Exchange Ratio ? What will LMN Ltd's post-merger EPS be ?

(iii) What should be the exchange ratio, if LMN Ltd's pre-merger and post-merger EPS are to be the same ?

Marks

(b) DEF Ltd has been regularly paying a dividend of ₹ 19,20,000 per annum for several years and it is expected that same dividend would continue at this level in near future. There are 12,00,000 equity shares of ₹ 10 each and the share is traded at par. 8

The company has an opportunity to invest ₹ 8,00,000 in one year's time as well as further ₹ 8,00,000 in two year's time in a project as it is estimated that the project will generate cash inflow of ₹ 3,60,000 per annum in three year's time which will continue for ever. This investment is possible if dividend is reduced for next two years.

Whether the company should accept the project ? Also analyze the effect on the market price of the share, if the company decides to accept the project.

4. (a) Indira has a fund of ₹ 3 lacs which she wants to invest in share market with rebalancing target after every 10 days to start with for a period of one month from now. The present NIFTY is 5326. The minimum NIFTY within a month can at most be 4793.4. She wants to know as to how she should rebalance her portfolio under the following situations, according to the theory of Constant Proportion Portfolio Insurance Policy, using "2" as the multiplier : 8

(1) Immediately to start with.

(2) 10 days later–being the 1st day of rebalancing if NIFTY falls to 5122.96.

(3) 10 days further from the above date if the NIFTY touches 5539.04.

For the sake of simplicity, assume that the value of her equity component will change in tandem with that of the NIFTY and the risk free securities in which she is going to invest will have no Beta.

Marks

(b) X Ltd has an internal rate of return @ 20%. It has declared dividend @ 18% on its equity shares, having face value of ₹ 10 each. The pay out ratio is 36% and Price Earning Ratio is 7.25. Find the cost of equity according to Walter's Model and hence determine the limiting value of its shares in case the payout ratio is varied as per the said model. **8**

5. (a) NP and Co. has imported goods for US $ 7,00,000. The amount is payable after three months. The company has also exported goods for US $ 4,50,000 and this amount is receivable in two months. For receivable amount a forward contract is already taken at ₹ 48.90. **8**

The market rates for ₹ and Dollar are as under :

Spot	₹ 48.50/70
Two months	25/30 points
Three months	40/45 points

The company wants to cover the risk and it has two options as under :

(A) To cover payables in the forward market and

(B) To lag the receivables by one month and cover the risk only for the net amount. No interest for delaying the receivables is earned. Evaluate both the options if the cost of Rupee Funds is 12%. Which option is preferable ?

(b) A has portfolio having following features : **8**

Security	β	Random Error σ_{ei}	Weight
L	1.60	7	0.25
M	1.15	11	0.30
N	1.40	3	0.25
K	1.00	9	0.20

You are required to find out the risk of the portfolio if the standard deviation of the market index (σ_m) is 18%.

Marks

6. (a) Sumana wanted to buy shares of EIL which has a range of ₹ 411 to ₹ 592 a month later. The present price per share is ₹ 421. Her broker informs her that the price of this share can sore up to ₹ 522 within a month or so, so that she should buy a one month CALL of EIL. In order to be prudent in buying the call, the share price should be more than or at least ₹ 522 the assurance of which could not be given by her broker. **8**

Though she understands the uncertainty of the market, she wants to know the probability of attaining the share price ₹ 592 so that buying of a one month CALL of EIL at the execution price of ₹ 522 is justified. Advice her. Take the risk free interest to be 3.60% and $e^{0.036} = 1.037$.

(b) A Mutual Fund Co. has the following assets under it on the close of business as on : **8**

Company	No. of shares	1st February 2012 Market price per share	2nd 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.

Marks

7. Write short notes on any **four** of the following : 4×4 =16

(a) Zero coupon bonds

(b) Interest swap

(c) Inter-Bank Participation Certificate

(d) Meaning and Advantages of Netting

(e) Nostro, Vostro and Loro Accounts

Roll No. ……………………….. | FINAL
GROUP-I PAPER-2
STRATEGIC FINANCIAL MANAGEMENT

Total No. of Questions – 7 | Total No. of Printed Pages – 8

Time Allowed – 3 Hours | NOV 2012 | Maximum Marks – 100

TEA

Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi medium, his/her answers in Hindi will not be valued.

Question No. 1 is compulsory

Candidates are also required to answer any **five** questions from the remaining **six** questions.

Wherever necessary suitable assumptions may be made and disclosed by way of a note.

Working Notes should form part of the answer.

Marks

1. (a) X Ltd. earns ₹ 6 per share having a capitalization rate of 10 percent and has a return on investment of 20%. According to Walter's model, what should be the price of the share at 25% dividend payout ? **4×5 =20**

(b) Calculate the Current price and the Bond equivalent yield (using simple compounding) of a money market instrument with face value of ₹ 100 and discount yield of 8% in 90 days. Take 1 year = 360 days.

(c) The following information is extracted from Steady Mutual Fund's Scheme :

– Asset Value at the beginning of the month – ₹ 65.78

– Annualised return – 15%

– Distributions made in the nature of Income & Capital gain (per unit respectively) – ₹ 0.50 and ₹ 0.32

You are required to :

(1) Calculate the month end net asset value of the mutual fund scheme (limit your answers to two decimals).

(2) Provide a brief comment on the month end NAV.

Marks

(d) The US dollar is selling in India at ₹ 55.50. If the interest rate for a 6 months borrowing in India is 10% per annum and the corresponding rate in USA is 4% :

(i) Do you expect that US dollar will be at a premium or at discount in the Indian Forex Market ?

(ii) What will be the expected 6-months forward rate for US dollar in India ? and

(iii) What will be the rate of forward premium or discount ?

2. (a) H Ltd. agrees to buy over the business of B Ltd. effective 1st April, 2012. **12**

The summarized Balance Sheets of H Ltd. and B Ltd. as on 31st March 2012 are as follows :

Balance Sheet as at 31st March, 2012 (in Crores of Rupees)		
Liabilities :	**H Ltd.**	**B Ltd.**
Paid up Share Capital :		
– Equity Shares of ₹ 100 each	350.00	
– Equity Shares of ₹ 10 each		6.50
Reserves & Surplus	950.00	25.00
Total	**1,300.00**	**31.50**
Assets :		
Net Fixed Assets	220.00	0.50
Net Current Assets	1,020.00	29.00
Deferred Tax Asset	60.00	2.00
Total	**1,300.00**	**31.50**

H Ltd. proposes to buy out B Ltd. and the following information is provided to you as part of the scheme of buying :

(1) The weighted average post tax maintainable profits of H Ltd. and B Ltd. for the last 4 years are ₹ 300 crores and 10 crores respectively.

Marks

(2) Both the companies envisage a capitalization rate of 8%.

(3) H Ltd. has a contingent liability of ₹ 300 crores as on 31st March, 2012.

(4) H Ltd. to issue shares of ₹ 100 each to the shareholders of B Ltd. in terms of the exchange ratio as arrived on a Fair Value basis. (Please consider weights of 1 and 3 for the value of shares arrived on Net Asset basis and Earnings capitalization method respectively for both H Ltd. and B Ltd.)

You are required to arrive at the value of the shares of both H Ltd. and B Ltd. under :

(i) Net Asset Value Method

(ii) Earnings Capitalisation Method

(iii) Exchange ratio of shares of H Ltd. to be issued to the shareholders of B Ltd. on a Fair value basis (taking into consideration the assumption mentioned in point 4 above.)

(b) With the help of the following information of Jatayu Limited compute the Economic Value Added : **4**

Capital Structure	:	Equity capital ₹ 160 lakhs
		Reserves and Surplus ₹ 140 lakhs
		10% Debentures ₹ 400 lakhs
Cost of equity	:	14%
Financial Leverage	:	1.5 times
Income Tax Rate	:	30%

Marks

3. (a) You as an investor had purchased a 4 month call option on the equity shares of X Ltd. of ₹ 10, of which the current market price is ₹ 132 and the exercise price ₹ 150. You expect the price to range between ₹ 120 to ₹ 190. The expected share price of X Ltd. and related probability is given below : **8**

Expected Price (₹)	120	140	160	180	190
Probability	.05	.20	.50	.10	.15

Compute the following :

(1) Expected Share price at the end of 4 months.

(2) Value of Call Option at the end of 4 months, if the exercise price prevails.

(3) In case the option is held to its maturity, what will be the expected value of the call option ?

(b) Z Ltd. importing goods worth USD 2 million, requires 90 days to make the payment. The overseas supplier has offered a 60 days interest free credit period and for additional credit for 30 days an interest of 8% per annum. **8**

The bankers of Z Ltd offer a 30 days loan at 10% per annum and their quote for foreign exchange is as follows :

		₹
Spot 1 USD	–	56.50
60 days forward for 1 USD	–	57.10
90 days forward for 1 USD	–	57.50

You are required to evaluate the following options :

(I) Pay the supplier in 60 days, or

(II) Avail the supplier's offer of 90 days credit.

Marks

4. (a) Eagle Ltd. reported a profit of ₹ 77 lakhs after 30% tax for the financial year 2011-12. An analysis of the accounts revealed that the income included extraordinary items of ₹ 8 lakhs and an extraordinary loss of ₹ 10 lakhs. The existing operations, except for the extraordinary items, are expected to continue in the future. In addition, the results of the launch of a new product are expected to be as follows : **8**

	₹ in lakhs
Sales	70
Material costs	20
Labour costs	12
Fixed costs	10

You are required to :

(i) Calculate the value of the business, given that the capitalization rate is 14%.

(ii) Determine the market price per equity share , with Eagle Ltd.'s share capital being comprised of 1,00,000 13% preference shares of ₹ 100 each and 50,00,000 equity shares of ₹ 10 each and the P/E ratio being 10 times.

(b) Mr. FedUp wants to invest an amount of ₹ 520 lakhs and had approached his Portfolio Manager. The Portfolio Manager had advised Mr. FedUp to invest in the following manner : **8**

Security	Moderate	Better	Good	Very Good	Best
Amount (in ₹ lakhs)	60	80	100	120	160
Beta	0.5	1.00	0.80	1.20	1.50

You are required to advise Mr. FedUp in regard to the following, using Capital Asset Pricing Methodology :

(i) Expected return on the portfolio, if the Government Securities are at 8% and the NIFTY is yielding 10%.

(ii) Advisability of replacing Security 'Better' with NIFTY.

Marks

5. (a) Following Financial Data for Platinum Ltd. are available : 8

For the year 2011 :	(₹ in lakhs)
Equity Shares (₹ 10 each)	100
8% Debentures	125
10% Bonds	50
Reserves and Surplus	200
Total Assets	500
Assets Turnover Ratio	1.1
Effective Tax Rate	30%
Operating Margin	10%
Required rate of return of investors	15%
Dividend payout ratio	20%
Current market price of shares	₹ 13

You are required to :

(i) Draw income statement for the year

(ii) Calculate the sustainable growth rate

(iii) Compute the fair price of the company's share using dividend discount model, and

(iv) Draw your opinion on investment in the company's share at current price.

Marks

(b) Tiger Ltd. is presently working with an Earning Before Interest and Taxes (EBIT) of ₹ 90 lakhs. Its present borrowings are as follows : **8**

	₹ in lakhs
12% term loan	300
Working capital borrowings :	
From Bank at 15%	200
Public Deposit at 11%	100

The sales of the company are growing and to support this, the company proposes to obtain additional borrowing of ₹ 100 lakhs expected to cost 16%.The increase in EBIT is expected to be 15%.

Calculate the change in interest coverage ratio after the additional borrowing is effected and comment on the arrangement made.

6. (a) Yes Ltd. wants to acquire No Ltd. and the cash flows of Yes Ltd. and the merged entity are given below : **8**

(in ₹ lakhs)

Year	1	2	3	4	5
Yes Ltd.	175	200	320	340	350
Merged Entity	400	450	525	590	620

Earnings would have witnessed 5% constant growth rate without merger and 6% with merger on account of economies of operations after 5 years in each case. The cost of capital is 15%.

The number of shares outstanding in both the companies before the merger is the same and the companies agree to an exchange ratio of 0.5 shares of Yes Ltd. for each share of No Ltd.

PV factor at 15% for years 1-5 are 0.870, 0.756, 0.658, 0.572, 0.497 respectively.

You are required to :

(i) Compute the Value of Yes Ltd. before and after merger.

(ii) Value of Acquisition and

(iii) Gain to shareholders of Yes Ltd.

Marks

(b) Given the following information : 8

Current Dividend	₹ 5.00
Discount Rate	10%
Growth rate	2%

(i) Calculate the present value of the stock.

(ii) Is the stock over valued if the price is ₹ 40, ROE = 8% and EPS = ₹ 3.00. Show your calculations under the PE Multiple approach and Earnings Growth model.

7. Answer any **four** from the following : 4×4 =16

(a) Interface of Financial Policy and Strategic Management

(b) Commercial Paper

(c) American Depository Receipt

(d) Advantages of holding securities in 'Demat' form

(e) Synergy in the context of Mergers and Acquisitions

Roll No. .... FINAL GROUP-I PAPER-2 STRATEGIC FINANCIAL MANAGEMENT

MAY 2013

Total No. of Questions – 7

Total No. of Printed Pages – 11

Time Allowed – 3 Hours

Maximum Marks – 100

EMR

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Question No. **1** is compulsory.

Attempt any **five** questions from the remaining **six** questions.

Wherever appropriate, suitable assumption/s should be made and indicated in answer by the candidate.

Working notes should form part of the answer.

Marks

1. (a) A Bank sold Hong Kong Dollars 40,00,000 value spot to its customer at ₹ 7.15 and covered itself in London Market on the same day, when the exchange rates were : **5**

US$ = HK$ 7.9250 7.9290

Local interbank market rates for US$ were

Spot US$ 1 = ₹ 55.00 55.20

You are required to calculate rate and ascertain the gain or loss in the transaction. Ignore brokerage.

You have to show the calculations for exchange rate up to four decimal points.

Marks

(b) ABC Limited is considering acquisition of DEF Ltd., which has 3.10 crore shares issued and outstanding. The market price per share is ₹ 440.00 at present. ABC Ltd.'s average cost of capital is 12%. The cash inflows of DEF Ltd. for the next three years are as under : **5**

Year	₹ in crores
1	460.00
2	600.00
3	740.00

You are required to calculate the range of valuation that ABC Ltd. has to consider.

Take P.V.F. (12%, 3) = 0.893, 0.797, 0.712

(c) Ramesh owns a plot of land on which he intends to construct apartment units for sale. No. of apartment units to be constructed may be either 10 or 15. Total construction costs for these alternatives are estimated to be ₹ 600 lakhs or ₹ 1025 lakhs respectively. Current market price for each apartment unit is ₹ 80 lakhs. The market price after a year for apartment units will depend upon the conditions of market. If the market is buoyant, each apartment unit will be sold for ₹ 91 lakhs, if it is sluggish, the sale price for the same will be ₹ 75 lakhs. Determine the current value of vacant plot of land. Should Ramesh start construction now or keep the land vacant ? The yearly rental per apartment unit is ₹ 7 lakhs and the risk free interest rate is 10% p.a. **5**

Assume that the construction cost will remain unchanged.

Marks

(d) XYZ Limited borrows £ 15 Million of six months LIBOR + 10.00% for a period of 24 months. The company anticipates a rise in LIBOR, hence it proposes to buy a Cap Option from its Bankers at the strike rate of 8.00%. The lump sum premium is 1.00% for the entire reset periods and the fixed rate of interest is 7.00% per annum. The actual position of LIBOR during the forthcoming reset period is as under : 5

Reset Period	**LIBOR**
1	9.00%
2	9.50%
3	10.00%

You are required to show how far interest rate risk is hedged through Cap Option.

For calculation, work out figures at each stage up to four decimal points and amount nearest to £. It should be part of working notes.

2. (a) XYZ Ltd. is planning to procure a machine at an investment of ₹ 40 lakhs. The expected cash flow after tax for next three years is as follows : 8

₹ (in lakh)

Year – 1		**Year – 2**		**Year-3**	
CFAT	**Probability**	**CFAT**	**Probability**	**CFAT**	**Probability**
12	.1	12	.1	18	.2
15	.2	18	.3	20	.5
18	.4	30	.4	32	.2
32	.3	40	.2	45	.1

The Company wishes to consider all possible risks factors relating to the machine.

Marks

The Company wants to know :

(i) the expected NPV of this proposal assuming independent probability distribution with 7% risk free rate of interest.

(ii) the possible deviations on expected values.

(b) On January 1, 2013 an investor has a portfolio of 5 shares as given below : **8**

Security	Price	No. of Shares	Beta
A	349.30	5,000	1.15
B	480.50	7,000	0.40
C	593.52	8,000	0.90
D	734.70	10,000	0.95
E	824.85	2,000	0.85

The cost of capital to the investor is 10.5% per annum.

You are required to calculate :

(i) The beta of his portfolio.

(ii) The theoretical value of the NIFTY futures for February 2013.

(iii) The number of contracts of NIFTY the investor needs to sell to get a full hedge until February for his portfolio if the current value of NIFTY is 5900 and NIFTY futures have a minimum trade lot requirement of 200 units. Assume that the futures are trading at their fair value.

Marks

(iv) The number of future contracts the investor should trade if he desires to reduce the beta of his portfolios to 0.6.

No. of days in a year be treated as 365.

Given : $\ln(1.105) = 0.0998$

$e^{(0.015858)} = 1.01598$

3. (a) Mr. Suhail has invested in three Mutual Fund Schemes as given below : 10

Particulars		Scheme A	Scheme B	Scheme C
Date of investment		1-4-2011	1-5-2011	1-7-2011
Amount of Investment	₹	12,00,000	4,00,000	2,50,000
Net Asset Value (NAV) at entry date	₹	10.25	10.15	10.00
Dividend received up to 31-7-2011	₹	23,000	6,000	Nil
NAV as at 31-7-2011	₹	10.20	10.25	9.90

You are required to calculate the effective yield on per annum basis in respect of each of the three Schemes to Mr. Suhail up to 31-7-2011.

Take one year = 365 days.

Show calculations up to two decimal points.

Marks

(b) ABC Limited has a capital of ₹ 10 lakhs in equity shares of ₹ 100 each. The shares are currently quoted at par. The company proposes to declare a dividend of ₹ 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 6

(i) a dividend is declared ?

(ii) a dividend is not declared ?

(iii) assuming that the company pays the dividend and has net profits of ₹ 6,00,000 and makes new investment of ₹ 12,00,000 during the period, how many new shares should be issued ? Use the MM model.

4. (a) X Limited, just declared a dividend of ₹ 14.00 per share. Mr. B is planning to purchase the share of X Limited, anticipating increase in growth rate from 8% to 9%, which will continue for three years. He also expects the market price of this share to be ₹ 360.00 after three years.

You are required to determine :

(i) the maximum amount Mr. B should pay for shares, if he requires a rate of return of 13% per annum. 4

(ii) the maximum price Mr. B will be willing to pay for share, if he is of the opinion that the 9% growth rate can be maintained indefinitely and require 13% rate of return per annum. 2

Marks

(iii) the price of share at the end of three years, if 9% growth rate is achieved and assuming other conditions remaining same as in (ii) above. **2**

Calculate rupee amount up to two decimal points.

	Year-1	Year-2	Year-3
FVIF @ 9%	1.090	1.188	1.295
FVIF @ 13%	1.130	1.277	1.443
PVIF @ 13%	0.885	0.783	0.693

(b) On 1-4-2012 ABC Mutual Fund issued 20 lakh units at ₹ 10 per unit. Relevant initial expenses involved were ₹ 12 lakhs. It invested the fund so raised in capital market instruments to build a portfolio of ₹ 185 lakhs. During the month of April 2012 it disposed off some of the instruments costing ₹ 60 lakhs for ₹ 63 lakhs and used the proceeds in purchasing securities for ₹ 56 lakhs. Fund management expenses for the month of April 2012 was ₹ 8 lakhs of which 10% was in arrears. In April 2012 the fund earned dividends amounting to ₹ 2 lakhs and it distributed 80% of the realized earnings. On 30-4-2012 the market value of the portfolio was ₹ 198 lakhs. **8**

Mr. Akash, an investor, subscribed to 100 units on 1-4-2012 and disposed off the same at closing NAV on 30-4-2012. What was his annual rate of earning ?

Marks

5. (a) M/s. Earth Limited has 11% bond worth of ₹ 2 crores outstanding with 10 years remaining to maturity. **6**

The company is contemplating the issue of a ₹ 2 crores 10 year bond carrying the coupon rate of 9% and use the proceeds to liquidate the old bonds.

The unamortized portion of issue cost on the old bonds is ₹ 3 lakhs which can be written off no sooner the old bonds are called. The company is paying 30% tax and it's after tax cost of debt is 7%. Should Earth Limited liquidate the old bonds ?

You may assume that the issue cost of the new bonds will be ₹ 2.5 lakhs and the call premium is 5%.

(b) XY Limited is engaged in large retail business in India. It is contemplating for expansion into a country of Africa by acquiring a group of stores having the same line of operation as that of India. **10**

The exchange rate for the currency of the proposed African country is extremely volatile. Rate of inflation is presently 40% a year. Inflation in India is currently 10% a year. Management of XY Limited expects these rates likely to continue for the foreseeable future.

Estimated projected cash flows, in real terms, in India as well as African country for the first three years of the project are as follows :

	Year-0	**Year-1**	**Year-2**	**Year-3**
Cash flows in Indian ₹ (000)	– 50,000	– 1,500	– 2,000	– 2,500
Cash flows in African Rands (000)	– 2,00,000	+ 50,000	+ 70,000	+ 90,000

XY Ltd. assumes the year 3 nominal cash flows will continue to be earned each year indefinitely. It evaluates all investments using nominal cash flows and a nominal discounting rate. The present exchange rate is African Rand 6 to ₹ 1.

You are required to calculate the net present value of the proposed investment considering the following :

(i) African Rand cash flows are converted into rupees and discounted at a risk adjusted rate.

(ii) All cash flows for these projects will be discounted at a rate of 20% to reflect it's high risk.

(iii) Ignore taxation.

	Year-1	Year-2	Year-3
PVIF @ 20%	.833	.694	.579

6\. (a) Longitude Limited is in the process of acquiring Latitude Limited on a share exchange basis. Following relevant data are available : 8

		Longitude Limited	Latitude Limited
Profit after Tax (PAT)	₹ in Lakhs	140	60
Number of Shares	Lakhs	15	16
Earning per Share (EPS)	₹	8	5
Price Earnings Ratio (P/E Ratio)		15	10

(Ignore Synergy)

You are required to determine :

(i) Pre-merger Market Value per Share, and

(ii) The maximum exchange ratio Longitude Limited can offer without the dilution of

(1) EPS and

(2) Market Value per Share

Calculate Ratio/s up to four decimal points and amounts and number of shares up to two decimal points.

(b) M/s. Parker & Co. is contemplating to borrow an amount of ₹ 60 crores for a period of 3 months in the coming 6 month's time from now. The current rate of interest is 9% p.a., but it may go up in 6 months' time. The company wants to hedge itself against the likely increase in interest rate. 8

The Company's Bankers quoted an FRA (Forward Rate Agreement) at 9.30% p.a.

What will be the effect of FRA and actual rate of interest cost to the company, if the actual rate of interest after 6 months happens to be (i) 9.60% p.a. and (ii) 8.80% p.a. ?

Marks

7. Write short notes on any **four** of the following : **4×4 =16**

(a) Credit Rating

(b) Asset Securitization

(c) Call Money

(d) Euro Convertible Bonds

(e) Financial Restructuring

FINAL
GROUP-I PAPER-2
STRATEGIC FINANCIAL
MANAGEMENT

NOV 2013

Roll No. ....

Total No. of Questions – 7

Total No. of Printed Pages – 11

Time Allowed – 3 Hours

Maximum Marks – 100

KBC

Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi medium, his / her answers in Hindi will not be valued.

Question No. 1 is compulsory.

Attempt any **five** out of the remaining **six** questions.

Wherever appropriate, suitable assumptions should be made and indicated in the answer by the candidate.

Working Notes should form part of the answer.

Marks

1. (a) ABC Ltd. issued 9%, 5 year Bonds of ₹ 1,000/- each having a maturity of 3 years. The present rate of interest is 12% for one year tenure. It is expected that Forward rate of interest for one year tenure is going to fall by 75 basis points and further by 50 basis points for every next year in future for the same tenure. This bond has a beta value of 1.02 and is more popular in the market due to less credit risk. **5**

Calculate

(i) Intrinsic value of bond

(ii) Expected price of bond in the market

Marks

(b) A trader is having in its portfolio shares worth ₹ 85 lakhs at current price and cash ₹ 15 lakhs. The beta of share portfolio is 1.6. After 3 months the price of shares dropped by 3.2%. **5**

Determine :

(i) Current portfolio beta.

(ii) Portfolio beta after 3 months if the trader on current date goes for long position on ₹ 100 lakhs Nifty futures.

(c) You, a foreign exchange dealer of your bank, are informed that your bank has sold a T.T. on Copenhagen for Danish Kroner 10,00,000 at the rate of Danish Kroner 1 = ₹ 6.5150. You are required to cover the transaction either in London or New York market. The rates on that date are as under : **5**

Mumbai – London	₹ 74.3000	₹ 74.3200
London – New York	₹ 49.2500	₹ 49.2625
London – Copenhagen	DKK 11.4200	DKK 11.4350
New York – Copenhagen	DKK 07.5670	DKK 07.5840

In which market will you cover the transaction, London or New York, and what will be the exchange profit or loss on the transaction ? Ignore brokerages.

(d) On 01-07-2010, Mr. X invested ₹ 50,000/- at initial offer in Mutual Funds at a face value of ₹ 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 ₹ 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. **5**

Calculate NAV as on 31-03-2011, 31-03-2012 and 31-03-2013.

For calculations consider a year of 12 months.

Marks

2. (a) Mr. Ram is holding the following securities : 8

Particulars of Securities	Cost ₹	Dividends ₹	Market Price ₹	Beta
Equity Shares :				
Gold Ltd.	11,000	1,800	12,000	0.6
Silver Ltd.	16,000	1,000	17,200	0.8
Bronze Ltd.	12,000	800	18,000	0.6
GOI Bonds	40,000	4,000	37,500	1.0

Calculate :

(i) Expected rate of return in each case, using the Capital Asset Pricing Model (CAPM).

(ii) Average rate of return, if risk free rate of return is 14%.

(b) An American firm is under obligation to pay interests of Can$ 1010000 and Can$ 705000 on 31st July and 30th September respectively. The Firm is risk averse and its policy is to hedge the risks involved in all foreign currency transactions. The Finance Manager of the firm is thinking of hedging the risk considering two methods i.e. fixed forward or option contracts. 8

It is now June 30. Following quotations regarding rates of exchange, US$ per Can$, from the firm's bank were obtained :

Spot	1 Month Forward	3 Months Forward
0.9284 – 0.9288	0.9301	0.9356

Marks

Price for a Can$ / US$ option on a U.S. stock exchange (cents per Can$, payable on purchase of the option, contract size Can$ 50000) are as follows :

Strike Price	**Calls**		**Puts**	
(US $ / Can $)	**July**	**Sept.**	**July**	**Sept.**
0.93	1.56	2.56	0.88	1.75
0.94	1.02	NA	NA	NA
0.95	0.65	1.64	1.92	2.34

According to the suggestion of finance manager if options are to be used, one month option should be bought at a strike price of 94 cents and three month option at a strike price of 95 cents and for the remainder uncovered by the options the firm would bear the risk itself. For this, it would use forward rate as the best estimate of spot. Transaction costs are ignored.

Recommend, which of the above two methods would be appropriate for the American firm to hedge its foreign exchange risk on the two interest payments.

3. (a) ABC Ltd. is contemplating having an access to a machine for a period of 5 years. The company can have the use of the machine for the stipulated period through leasing arrangement or the requisite amount can be borrowed to buy the machine. In case of leasing, the company received a proposal to pay annual end of year rent of ₹ 2.4 lakhs for a period of 5 years. **10**

In case of purchase (which costs ₹ 10,00,000/-) the company would have a 12%, 5 year loan to be paid in equated installments, each installment becoming due at the beginning of each year. It is estimated that the machine can be sold for ₹ 2,00,000/- at the end of 5th year. The company uses straight line method of depreciation. Corporate tax rate is 30%. Post tax cost of capital of ABC Ltd. is 10%.

You are required to advice

(i) Whether the machine should be bought or taken on lease.

(ii) Analyse the financial viability from the point of view of the lessor assuming 12% post tax cost of capital.

	PV of ₹ 1 @ 10% for 5 years	**PV of ₹ 1 @ 12% for 5 years**
1	.909	.893
2	.826	.797
3	.751	.712
4	.683	.636
5	.621	.567

(b) M/s Atlantic Company Limited with a turnover of ₹ 4.80 crores is expecting growth of 25% for forthcoming year. Average credit period is 90 days. The past experience shows that bad debt losses are 1.75% on sales. The Company's administering cost for collecting receivables is ₹ 6,00,000/-. **6**

It has decided to take factoring services of Pacific Factors on terms that factor will buy receivables by charging 2% commission and 20% risk with recourse. The Factor will pay advance on receivables to the firm at 16% interest rate per annum after withholding 10% as reserve.

Calculate the effective cost of factoring to the firm. (Assume 360 days in a year)

4. (a) Trupti Co. Ltd. promoted by a Multinational group "INTERNATIONAL INC" is listed on stock exchange holding 84% i.e. 63 lakhs shares. **8**

Profit after Tax is ₹ 4.80 crores.

Free Float Market Capitalization is ₹ 19.20 crores.

As per the SEBI guidelines promoters have to restrict their holding to 75% to avoid delisting from the stock exchange. Board of Directors has decided not to delist the share but to comply with the SEBI guidelines by issuing Bonus shares to minority shareholders while maintaining the same P/E ratio.

Calculate

(i) P/E Ratio

(ii) Bonus Ratio

(iii) Market price of share before and after the issue of bonus shares

(iv) Free Float Market capitalization of the company after the bonus shares.

Marks

(b) The Easygoing Company Limited is considering a new project with initial investment, for a product "Survival". It is estimated that IRR of the project is 16% having an estimated life of 5 years. **8**

Financial Manager has studied the project with sensitivity analysis and informed that annual fixed cost sensitivity is 7.8416%, whereas cost of capital (discount rate) sensitivity is 60%.

Other information available are :

Profit Volume Ratio (P/V) is 70%,

Variable cost ₹ 60/- per unit

Annual Cash Flow ₹ 57,500/-

Ignore Depreciation on initial investment and impact of taxation.

Calculate

(i) Initial Investment of the Project

(ii) Net Present Value of the Project

(iii) Annual Fixed Cost

(iv) Estimated annual unit of sales

(v) Break Even Units

Cumulative Discounting Factor for 5 years

8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%
3.993	3.890	3.791	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127

Marks

5. (a) M/s Tiger Ltd. wants to acquire M/s Leopard Ltd. The balance sheet of Leopard Ltd. as on 31st March, 2012 is as follows : **10**

Liabilities	₹	Assets	₹
Equity Capital (70,000 shares)	7,00,000	Cash	50,000
Retained earnings	3,00,000	Debtors	70,000
12% Debentures	3,00,000	Inventories	2,00,000
Creditors and other liabilities	3,20,000	Plants & Eqpt.	13,00,000
	16,20,000		**16,20,000**

Additional information :

(i) Shareholders of Leopard Ltd. will get one share in Tiger Ltd. for every two shares. External liabilities are expected to be settled at ₹ 5,00,000. Shares of Tiger Ltd. would be issued at its current price of ₹ 15 per share. Debentureholders will get 13% convertible debentures in the purchasing company for the same amount. Debtors and inventories are expected to realize ₹ 2,00,000.

(ii) Tiger Ltd. has decided to operate the business of Leopard Ltd. as a separate division. The division is likely to give cash flows (after tax) to the extent of ₹ 5,00,000 per year for 6 years. Tiger Ltd. has planned that, after 6 years, this division would be demerged and disposed of for ₹ 2,00,000.

(iii) The company's cost of capital is 16%.

Marks

Make a report to the Board of the company advising them about the financial feasibility of this acquisition.

Net present values for 16% for ₹ 1 are as follows :

Years	1	2	3	4	5	6
PV	.862	.743	.641	.552	.476	.410

(b) Ram buys 10,000 shares of X Ltd. at a price of ₹ 22 per share whose beta value is 1.5 and sells 5,000 shares of A Ltd. at a price of ₹ 40 per share having a beta value of 2. He obtains a complete hedge by Nifty futures at ₹ 1,000 each. He closes out his position at the closing price of the next day when the share of X Ltd. dropped by 2%, share of A Ltd. appreciated by 3% and Nifty futures dropped by 1.5%. **6**

What is the overall profit / loss to Ram ?

6. (a) A share of Tension-free Economy Ltd. is currently quoted at a price earnings ratio of 7.5 times. The retained earning being 37.5% is ₹ 3 per share. **8**

Calculate

(i) The company's cost of equity, if investors' expected rate of return is 12%.

(ii) Market price of share, if anticipated growth rate is 13% per annum with same cost of capital.

(iii) Market price per share, if the company's cost of capital is 18% and anticipated growth rate is 15% per annum, assuming other conditions remaining the same.

Marks

(b) Your bank's London office has surplus funds to the extent of USD 5,00,000/- for a period of 3 months. The cost of the funds to the bank is 4% p.a. It proposes to invest these funds in London, New York or Frankfurt and obtain the best yield, without any exchange risk to the bank. The following rates of interest are available at the three centres for investment of domestic funds there at for a period of 3 months. **8**

London	5% p.a.
New York	8% p.a.
Frankfurt	3% p.a.

The market rates in London for US dollars and Euro are as under :

London on New York

Spot	1.5350/90
1 month	15/18
2 month	30/35
3 month	80/85

London on Frankfurt

Spot	1.8260/90
1 month	60/55
2 month	95/90
3 month	145/140

At which centre, will the investment be made & what will be the net gain (to the nearest pound) to the bank on the invested funds ?

Marks

7. Write short notes on any **four** of the following : 4×4 =16

(a) Explain the concept, 'Zero date of a Project' in project management.

(b) XYZ Bank, Amsterdam, wants to purchase Rupees 25 million against £ for funding their Nostro account and they have credited LORO account with Bank of London, London.

Calculate the amount of £'s credited. Ongoing inter-bank rates are per $, ₹ 61.3625/3700 & per £, $ 1.5260/70.

(c) What is an Exchange Traded Fund ? What are its key features ?

(d) What is an equity curve out ? How does it differ from a spin off ?

(e) What is money market ? What are its features ? What kind of inefficiencies it is suffering from ?

Roll No. .... FINAL GROUP-I PAPER-2 STRATEGIC FINANCIAL MANAGEMENT MAY 2014

Total No. of Questions – **7**

Total No. of Printed Pages – **14**

Time Allowed – **3** Hours

Maximum Marks – **100**

JBP

Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his / her answers in Hindi will not be valued.

Question No. **1** is Compulsory.

Attempt any **five** out of the remaining **six** questions.

Wherever appropriate, suitable assumptions should be made and indicated in the answer by the candidate.

Working Notes should form part of the answer.

Marks

1. (a) MNP Ltd. has declared and paid annual dividend of ₹ 4 per share. It is expected to grow @ 20% for the next two years and 10% thereafter. The required rate of return of equity investors is 15%. Compute the current price at which equity shares should sell. **5**

Note : Present Value Interest Factor (PVIF) @ 15% :

For year 1 = 0.8696;

For year 2 = 0.7561

Marks

(b) ABC Chemicals is evaluating two alternative systems for waste disposal, System A and System B, which have lives of 6 years and 4 years respectively. The initial investment outlay and annual operating costs for the two systems are expected to be as follows : 5

	System A	System B
Initial Investment Outlay	₹ 5 million	₹ 4 million
Annual Operating Costs	₹ 1.5 million	₹ 1.6 million
Salvage value	₹ 1 million	₹ 0.5 million

If the hurdle rate is 15%, which system should ABC Chemicals choose ?

The PVIF @ 15% for the six years are as below :

Year	1	2	3	4	5	6
PVIF	0.8696	0.7561	0.6575	0.5718	0.4972	0.4323

(c) AXY Ltd. is able to issue commercial paper of ₹ 50,00,000 every 4 months at a rate of 12.5% p.a. The cost of placement of commercial paper issue is ₹ 2,500 per issue. AXY Ltd. is required to maintain line of credit ₹ 1,50,000 in bank balance. The applicable income tax rate for AXY Ltd. is 30%. What is the cost of funds (after taxes) to AXY Ltd. for commercial paper issue ? The maturity of commercial paper is four months. 5

Marks

(d) The Bank sold Hong Kong Dollar 1,00,000 spot to its customer at ₹ 7.5681 and covered itself in London market on the same day, when the exchange rates were **5**

US \$ 1 = HK \$ 8.4409   HK \$ 8.4500

Local inter-bank market rates for US \$ were :

Spot US \$ 1 = ₹ 62.7128   ₹ 62.9624

Calculate the cover rate and ascertain the profit or loss in the transaction.

Ignore brokerage.

2. (a) A multinational company is planning to set up a subsidiary company in India (where hitherto it was exporting) in view of growing demand for its product and competition from other MNCs. The initial project cost (consisting of Plant and Machinery including installation) is estimated to be US \$ 500 million. The net working capital requirements are estimated at US \$ 50 million. The company follows straight line method of depreciation. Presently, the company is exporting two million units every year at a unit price of US \$ 80, its variable cost per unit being US \$ 40. **10**

The Chief Financial Officer has estimated the following operating cost and other data in respect of proposed project :

(i) Variable operating cost will be US $ 20 per unit of production;

(ii) Additional cash fixed cost will be US $ 30 million p.a. and project's share of allocated fixed cost will be US $ 3 million p.a. based on principle of ability to share;

(iii) Production capacity of the proposed project in India will be 5 million units;

(iv) Expected useful life of the proposed plant is five years with no salvage value;

(v) Existing working capital investment for production & sale of two million units through exports was US $ 15 million;

(vi) Export of the product in the coming year will decrease to 1.5 million units in case the company does not open subsidiary company in India, in view of the presence of competing MNCs that are in the process of setting up their subsidiaries in India;

(vii) Applicable Corporate Income Tax rate is 35%, and

(viii) Required rate of return for such project is 12%.

Assuming that there will be no variation in the exchange rate of two currencies and all profits will be repatriated, as there will be no withholding tax, estimate Net Present Value (NPV) of the proposed project in India.

Present Value Interest Factors (PVIF) @ 12% for five years are as below :

Year	1	2	3	4	5
PVIF	0.8929	0.7972	0.7118	0.6355	0.5674

(b) The equity shares of XYZ Ltd. are currently being traded at ₹ 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%. **4+2 = 6**

PQR Ltd. wishes to acquire XYZ Ltd. because of likely synergies. The estimated present value of these synergies is ₹ 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 ₹ 4,00,000 p.a. Top management with their families are promoters of XYZ Ltd. Present value of these savings would add ₹ 30,00,000 in value to the acquisition.

Marks

Following additional information is available regarding PQR Ltd. :

Earnings per share	:	₹ 4
Total number of equity shares outstanding	:	15,00,000
Market price of equity share	:	₹ 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 ?

3. (a) Based on the following data, estimate the Net Asset Value (NAV) on per unit basis of a Regular Income Scheme of a Mutual Fund : **8**

	₹ (in lakhs)
Listed Equity shares at cost (ex-dividend)	40.00
Cash in hand	2.76
Bonds & Debentures at cost	8.96
of these, Bonds not listed & not quoted	2.50
Other fixed interest securities at cost	9.75
Dividend accrued	1.95
Amount payable on shares	13.54
Expenditure accrued	1.76

Marks

Current realizable value of fixed income securities of face value of ₹ 100 is ₹ 96.50.

Number of Units (₹ 10 face value each) : 275000

All the listed equity shares were purchased at a time when market portfolio index was 12,500. On NAV date, the market portfolio index is at 19,975.

There has been a diminution of 15% in unlisted bonds and debentures valuation.

Listed bonds and debentures carry a market value of ₹ 7.5 lakhs, on NAV date.

Operating expenses paid during the year amounted to ₹ 2.24 lakhs.

(b) JKL Ltd., an Indian company has an export exposure of JPY 10,000,000 payable August 31, 2014. Japanese Yen (JPY) is not directly quoted against Indian Rupee. 5+3 =8

The current spot rates are :

INR/US \$ = ₹ 62.22

JPY/US \$ = JPY 102.34

Marks

It is estimated that Japanese Yen will depreciate to 124 level and Indian Rupee to depreciate against US $ to ₹ 65.

Forward rates for August 2014 are

INR/US $ = ₹ 66.50

JPY/US $ = JPY 110.35

Required :

(i) Calculate the expected loss, if the hedging is not done. How the position will change, if the firm takes forward cover ?

(ii) If the spot rates on August 31, 2014 are :

INR/US $ = ₹ 66.25

JPY/US $ = JPY 110.85

Is the decision to take forward cover justified ?

4. (a) RST Ltd.'s current financial year's income statement reported its net income as ₹ 25,00,000. The applicable corporate income tax rate is 30%. **4+4 =8**

Following is the capital structure of RST Ltd. at the end of current financial year :

Debt (Coupon rate = 11%)	₹ 40 lakhs
Equity (Share Capital + Reserves & Surplus)	₹ 125 lakhs
Invested Capital	₹ 165 lakhs

Marks

Following data is given to estimate cost of equity capital :

Beta of RST Ltd.	1.36
Risk-free rate i.e. current yield on Govt. bonds	8.5%
Average market risk premium (i.e. excess of return on market portfolio over risk-free rate)	9%

Required :

(i) Estimate Weighted Average Cost of Capital (WACC) of RST Ltd.; and

(ii) Estimate Economic Value Added (EVA) of RST Ltd.

(b) Following information is given in respect of WXY. Ltd., which is expected to grow at a rate of 20% p.a. for the next three years, after which the growth rate will stabilize at 8% p.a. normal level, in perpetuity. 8

		For the year ended March 31, 2014
Revenues	:	₹ 7,500 Crores
Cost of Goods Sold (COGS)	:	₹ 3,000 Crores
Operating Expenses	:	₹ 2,250 Crores
Capital Expenditure	:	₹ 750 Crores
Depreciation (included in COGS & Operating Expenses)	:	₹ 600 Crores

Marks

During high growth period, revenues & Earnings before Interest & Tax (EBIT) will grow at 20% p.a. and capital expenditure net of depreciation will grow at 15% p.a. From year 4 onwards, i.e. normal growth period revenues and EBIT will grow at 8% p.a. and incremental capital expenditure will be offset by the depreciation. During both high growth & normal growth period, net working capital requirement will be 25% of revenues.

The Weighted Average Cost of Capital (WACC) of WXY Ltd. is 15%.

Corporate Income Tax rate will be 30%.

Required :

Estimate the value of WXY Ltd. using Free Cash Flows to Firm (FCFF) & WACC methodology.

The PVIF @ 15% for the three years are as below :

Year	t_1	t_2	t_3
PVIF	0.8696	0.7561	0.6575

5. (a) The credit sales and receivables of DEF Ltd. at the end of year are estimated at ₹ 561 lakhs and ₹ 69 lakhs respectively. **8**

The average variable overdraft interest rate is 5% p.a.

DEF Ltd. is considering a factoring proposal for its receivables on a non-recourse basis at an annual fee of 1.25% of credit sales.

As a result, DEF Ltd. will save ₹ 1.5 lakhs p.a. in administrative cost and ₹ 5.25 lakhs p.a. as bad debts.

Marks

The factor will maintain a receivables collection period of 30 days and will provide 80% of receivables as advance at an interest rate of 7% p.a. You may take 365 days in a year for the purpose of calculation of receivables.

Required :

Evaluate the viability of factoring proposal.

(b) On January 28, 2013 an importer customer requested a Bank to remit Singapore Dollar (SGD) 2,500,000 under an irrevocable Letter of Credit (LC). However, due to unavoidable factors, the Bank could effect the remittances only on February 4, 2013. The inter-bank market rates were as follows : 8

		January 28, 2013	February 4, 2013
US \$ 1	=	₹ 45.85/45.90	₹ 45.91/45.97
GBP £ 1	=	US \$ 1.7840/1.7850	US \$ 1.7765/1.7775
GBP £ 1	=	SGD 3.1575/3.1590	SGD 3.1380/3.1390

The Bank wishes to retain an exchange margin of 0.125%.

Required :

How much does the customer stand to gain or lose due to the delay ?

(Note : Calculate the rate in multiples of 0.0001)

Marks

6. (a) GHI Ltd., AAA rated company has issued fully convertible bonds on the following terms, a year ago : 4+1+1+1+1 = 8

Face value of bond	:	₹ 1000
Coupon (interest rate)	:	8.5%
Time to Maturity (remaining)	:	3 years
Interest Payment	:	Annual, at the end of year
Principal Repayment	:	At the end of bond maturity
Conversion ratio (Number of shares per bond)	:	25
Current market price per share	:	₹ 45
Market price of convertible bond	:	₹ 1175

AAA rated company can issue plain vanila bonds without conversion option at an interest rate of 9.5%.

Required : Calculate as of today :

(i) Straight Value of bond.

(ii) Conversion Value of the bond.

(iii) Conversion Premium.

Marks

(iv) Percentage of downside risk.

(v) Conversion Parity Price.

t	1	2	3
$PVIF_{0.095, t}$	0.9132	0.8340	0.7617

(b) GKL Ltd. is considering installment sale of LCD TV as a sales promotion strategy. 4

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 options :

Tenure of Monthly Installments	Equated Monthly Installment
12	₹ 3800
24	₹ 2140

Required :

Estimate the flat and effective rate of interest for each alternative.

$PVIFA_{2.05\%, 12} = 10.5429$ $\quad$ $PVIFA_{2.10\%, 12} = 10.5107$

$PVIFA_{2.10\%, 24} = 18.7014$ $\quad$ $PVIFA_{2.12\%, 24} = 18.6593$

(c) Explain in brief the contents of a Project Report. 4

Marks

7. Write short notes on any **four** of the following : **4×4 =16**

(a) Traditional & Walter Approach to Dividend Policy

(b) Factors affecting value of an option

(c) Forward Rate Agreements

(d) American Depository Receipts

(e) Balancing Financial Goals vis-a-vis Sustainable Growth