

Paper 14 – Strategic Financial Management

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Full Marks : 100

Time allowed: 3 hours

Answer Question No. 1 which is compulsory carries 20 marks and answer any 5 Question from Q. No 2 to Q. No. 8

Section A [20 marks]

1. Choose the correct option among four alternative answer. (1 mark for correct choice, 1 mark for justification.) [10*2=20 marks]

(i) Dividend-Payers Ltd. has a stable income and stable dividend policy. The average annual dividend payout is ₹ 27 per share (Face Value = ₹100). You are required to find out Dividend payout in year 2, if the company were to have an expected market price of ₹160 per share at the existing cost of equity.

[The market price in year 1 is ₹ 150]

- (A) ₹ 28.88
- (B) ₹ 26.86
- (C) ₹ 28.80
- (D) ₹ 26.98

(ii) The interest rate in Germany is 11 per cent and the expected inflation rate is 5 per cent. The British interest rate is 9 per cent. How much is the expected inflation rate in Britain?

- (A) 3.0%
- (B) 3.1%
- (C) 4.5%
- (D) 2.9%

(iii) A project had an equity beta of 1.2 and was going to be financed by a combination of 30% debt and 70% equity (assume debt beta = 0). Hence, the required rate of return of the project is (assume $R_f = 10\%$ and $R_m = 18\%$)

- (A) 16.27%
- (B) 17.26%
- (C) 16.72%
- (D) 12.76%

(iv) Consider the following quotes.

Spot (Euro/Pound) = 1.6543/1.6557

Spot (Pound/NZ\$) = 0.2786/0.2800

Calculate the % spread on the Euro/Pound Rate.

- (A) 0.085%
- (B) 0.0085%
- (C) 0.85%
- (D) 0.00085%

(v) A company has expected Net Operating Income – ₹ 2,40,000; 10% Debt – ₹7,20,000 and Equity Capitalisation rate - 20% what is the weighted average cost of capital for the company?

- (A) 0.15385
- (B) 0.13585
- (C) 0.18351
- (D) 0.15531

- (vi) The price of Swedish Kronas is \$0.14 today. If it appreciates by 10% today, how many Kronas a dollar will buy tomorrow?
 (A) 6.49351
 (B) 4.69351
 (C) 3.49513
 (D) 5.64913
- (vii) A firm has sales of ₹75,00,000 variable cost of ₹42,00,000 and fixed cost of ₹6,00,000. It has a debt of ₹45,00,000 at 9% interest and equity of ₹55,00,000. At what level of sales, the EBIT of the firm will be equal to zero?
 (A) ₹28,48,500
 (B) ₹28,84,500
 (C) ₹22,84,500
 (D) ₹26,48,500
- (viii) E Limited has earnings before interest and taxes (EBIT) of ₹10 million at a cost of 7%., Cost of equity is 12.5%. Ignore taxes. What is the overall cost of capital?
 (A) 11.26%
 (B) 11.62%
 (C) 16.12%
 (D) 12.61%
- (ix) The following various currency quotes are available from the State Bank of India:
 ₹/£ 81.31/81.33
 £/\$ 0.6491/0.6498
 \$/¥ 0.01098/0.01102
- The rate at which yen (¥) can be purchased with rupees will be:
 (A) 1.5270
 (B) 1.5890
 (C) 0.5824
 (D) 0.7824
- (x) The dollar is currently trading at ₹ 40. If rupee depreciates by 10%, what will be the spot rate?
 (A) ₹0.0525
 (B) ₹0.0552
 (C) ₹0.0225
 (D) ₹0.0522

Section B [80 marks]

Answer any 5 questions from this section

2. (a) A Company requires ₹15 Lakhs for the installation of a new unit, which would yield an annual EBIT of ₹2,50,000. The Company's objective is to maximise EPS. It is considering the possibility of Issuing Equity Shares plus raising a debt of ₹3,00,000, ₹6,00,000 and ₹9,00,000. The current Market Price per Share is ₹50 which is expected to ₹40 per share if the market borrowings were to exceed ₹7,00,000. The cost of borrowing are indicated as follows :

Level of Borrowing	Upto ₹2,00,000	₹2,00,000 to ₹6,00,000	₹6,00,000 to ₹9,00,000
Cost of Borrowing	12% p.a.	15% p.a.	17% p.a.

Assuming a tax rate of 50%, work out the EPS and the scheme, which you would recommended to the Company. [8 marks]

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- (b) Mr. X a business man has two independent investments A and B available to him: but he lacks the capital to undertake both of them simultaneously. He can choose to take A first and then stop, or if A is successful then take B, or vice versa. The probability of success on A is 0.7, while for B it is 0.4. Both investments require an initial capital outlay of ₹2,000, and both return nothing if the venture is unsuccessful. Successful completion of A will return ₹ 3,000 (over cost), and successful completion of B will return ₹ 5,000 (over cost). Draw the decision tree and determine the best strategy.
3. (a) Mr. Y on 01.07.2014, during the initial offer of some Mutual Fund invested in 20,000 units having face value of ₹ 10 for each unit. On 31.03.2015 the dividend operated by the M.F. was 10% and Mr. Y found that his annualized yield was 153.33%. On 31.03.2015, 20% dividend was given. On 31.03.2017 Mr. Y redeemed all his balances of 22,592.23 units when his annualized yield was 73.52%. What are the NAVs as on 31.03.2015, 31.03.2016 and 31.03.2017? [6 marks]
- (b) Bright Mutual Fund sponsored an open-ended equity oriented scheme "Kautilya Opportunity Fund". There were two plans, viz. 'X' - Dividend Reinvestment Plan and 'Y' - Bonus Plan.
At the time of Initial Public Offer on 01.04.2007, Mr. R and Mr. H invested ₹1,00,000 each and had chosen 'X' and 'Y' Plan respectively.

The history of the Fund is as follows:

Date	Dividend %	Bonus Ratio	Net Assets Value per unit (Face value ₹10)	
			Plan X	Plan Y
28.07.2011	20	5:4	30.70	31.40
31.03.2012	70		58.42	31.05
31.10.2015	40		42.18	25.02
15.03.2016	25		46.45	29.10
31.03.2016	-	1:3	42.18	20.05
24.03.2017	40	1:4	48.10	19.95
31.07.2017	-		53.75	22.98

On 31st July, both the investors redeemed all the balance units.

Consider:

- (1) Long-term Capital Gain is exempt from Income tax.
- (2) Short-term Capital Gain is subject to 10% Income tax.
- (3) Security Transaction Tax 0.2% only on sale/redemption of units.
- (4) Ignore Education Cess.]

Required: Calculate Annual rate of return for each of the investors. [10 marks]

4. (a) The historical rates of return on the stock of SMOOTH-TECH LTD. and the Market return are given below:

Year	Smooth-tech Return %	Market Return %
2012	12	15
2013	9	13
2014	(-)11	14
2015	8	(-)9
2016	11	12
2017	4	9

You are required to:

- (i) Determine the Equation for the Characteristic line of the Stock of SMOOTH-TECH LTD., and
- (ii) Interpret the Slope and the intercept of the characteristic line. [marks 10]

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- (b) The total market value of the equity share of DHARAM CO. is ₹60,00,000 and the total value of the debt is ₹40,00,000. The treasurer estimates that the beta of the stocks is currently 1.5 and that the expected risk premium on the market is 12 per cent. The treasury bill rate is 10 per cent.

Required:

- (i) What is the beta of the company's existing portfolio of assets?
 (ii) Estimate the company's cost of capital and the discount rate for an expansion of the company's present business. [6 marks]

5. (a) (i) A portfolio manager owns three stocks:

Stock	Shares owned	Stock price (₹)	Beta
1	1 lakh	400	1.1
2	2 lakhs	300	1.2
3	3 lakhs	100	1.3

The spot Nifty Index Price is at ₹1350 and Futures price is ₹1352. Use stock Index Futures to:

- (I) decrease the portfolio beta to 0.8; and
 (II) increase the portfolio beta to 1.5.

Assume the index factor is 100. Find out the number of contracts to be bought or sold of Stock Index Futures. [marks 6]

- (ii) In September 30, 2017, a six-month Put on VINTEX LTD.'s stock with an exercise price of ₹75 sold for ₹6.82. The stock price was ₹70.00. The risk-free rate was 6% per annum. How much would you be willing to pay for a CALL on Vintex Ltd.'s stock with same maturity and exercise price?
 [Given. PVIF (6%, ½ year) = 0.9709 and PVIF (6%, 1 year) = 0.9434] [marks 4]

- (b) Suppose a dealer Rupam quotes 'All-in-cost' for a generic swap at 8% against six month LIBOR flat. If the notional principal amount of swap is ₹5,00,000,

- (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 183 days and that the corresponding LIBOR was 6% on the effective date of swap.
 (iii) In (ii) above, if 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 basis. [marks 6]

6. (a) (i) An Indian exporter has sold handicrafts items to an American business house. The exporter will be receiving US\$ 1, 00,000 in 90 days. Premium for a dollar put option with a strike price of ₹48 and a 90 days settlement is ₹1. The exporter anticipates the spot rate after 90 days to be ₹46.50.

- (I) Should the exporter hedge its account receivable in the option market?
 (II) If the exporter is anticipating the spot rate to be ₹47.50 or ₹48.50 after 90 days, how would it effect the exporter's decision?

- (ii) In the inter-bank market, the DM is quoting ₹21.50. If the bank charges 0.125% commission for TT selling and 0.15% for TT buying, what rate should it quote? [6+2 marks]

- (b) An Indian exporting firm, Rohit and Bros., would be covering itself against a likely depreciation of pound sterling. The following data is given:

Receivables of Rohit and Bros.	£ 5, 00,000
Spot rate	₹56.00/£
Payment date	3 months
3 months interest rate	India: 12% per annum UK : 5% per annum

[8 marks]

7. (a) Beta Ltd is considering the acquisition of a personal computer costing ₹ 50,000. The effective life of the computer is expected to be five year. The company plans to acquire the same either by borrowing ₹ 50,000 from its bankers at 15% interest p.a. or on lease. The company wishes to know the lease rentals to be paid annually, which match the loan option. The following further information is provided to you:
- (i) The principal amount of loan will be paid in five annual equal installments.
 - (ii) Interest, lease rentals, principal repayment are to be paid on the last day of each year.
 - (iii) The full cost of the computer will be written off over the effective life of computer on a straight-line basis and the same will be allowed for tax purposes
 - (iv) The company's effective tax rate is 40% and the after-tax cost of capital is 9%
 - (v) The computer will be sold for ₹ 1,700 at the end of the 5th Year. The commission on such sales is 9% on the sale value.

You are required to compute the annual lease rentals payable by Beta Ltd, which will result in indifference to the loan option. [marks 8]

- (b) Indira amusement park charges ₹200 each for all rides in the park. Variable costs amount to ₹ 50 per ride and fixed costs are ₹120 Lakhs. Last year's net income was ₹ 90 Lakhs on sale of ₹280 Lakhs. This year, management expects a cost increase of 20% in variable costs and 10% in fixed costs. To help offset these increases, the management is considering raising the price of a ride to ₹250.

Required:

- (i) How many rides did this park sell last year?
 - (ii) If the price increase is not implemented, what is the expected net income for this year assuming the same volume of activity?
 - (iii) Compute the price indifference point for the new ride price.
 - (iv) Compute the Break-even point for this year using the old price and the new price.
8. Answer any four questions: [marks 4*4]
- (i) What are the principle weaknesses of Indian Stock Market?
 - (ii) Write short note — Multi-Commodity Exchange of India Limited (MCX)
 - (iii) Does interest rate parity imply that interest rates are the same in all countries?
 - (iv) Discuss any 4 statutory functions of IRDA.
 - (v) Write short note on ECB.