

Roll No.

Total No. of Questions – 7

Total No. of Printed Pages – 7

Time Allowed – 3 Hours

Maximum Marks – 100

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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 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.

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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

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- (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 : 5

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)

- (d) Calculate Market Price of : 5

- (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.

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- (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.

- Find the earning per share for company MK Ltd. after merger, and
- 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

- Compute the operating income or EBIT earned by Delta Ltd. in the current year.
- What is Delta Ltd.'s Economic Value Added (EVA) for the current year ?
- 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 ?

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- (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.

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- (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. 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

<u>Year</u>	<u>Return on X (%)</u>	<u>Return on Y (%)</u>
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%.

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- (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%

- What would be the market value per share as per Walter's model ?
- What is the optimum dividend payout ratio according to Walter's model and the market value of company's share at that payout ratio ?

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

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|-----|-------|---|---|
| (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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