

Roll No

Total No. of Questions – 6

Total No. of Printed Pages – 11



Maximum Marks – 70

**GENERAL INSTRUCTIONS TO CANDIDATES**

1. The question paper comprises two parts, Part I and Part II.
2. Part I comprises Multiple Choice Questions (MCQs).
3. Part II comprises questions which require descriptive type answers.
4. Ensure that you receive the question paper relating to both the parts. If you have not received both, bring it to the notice of the invigilator.
5. Answers to MCQs in Part I are to be marked on the OMR answer sheet as given on the cover page of descriptive answer book only. Answers to questions in Part II are to be written in the same descriptive answer book. Answers to MCQs, if written inside the descriptive answer book or on Part-I questions paper, will not be evaluated.
6. OMR answer sheet given on the cover page of descriptive answer book will be in English only for all candidates, including for Hindi medium candidates.
7. **The bar coded sticker provided in the attendance register, is to be affixed only on the descriptive answer book.**
8. You will be allowed to leave the examination hall only after the conclusion of the exam. If you have completed the paper before time, remain in your seat till the conclusion of the exam.
9. Duration of the examination is 3 hours. You will be required to submit (a) Part I of the question paper containing MCQs, and (b) the answer book in respect of descriptive answer book with OMR cover page to the invigilator before leaving the exam hall, after the conclusion of the exam.
10. The invigilator will give you acknowledgement on Page 2 of the admit card, upon receipt of the above-mentioned items.
11. Candidate found copying or receiving or giving any help or defying instructions of the invigilators will be expelled from the examination and will also be liable for further punitive action.

**PART – II**

**70 Marks**

1. Question paper comprises 6 questions. Answer Question No. 1 which is compulsory and any 4 out of the remaining 5 questions.
2. Working notes should form part of the answer.
3. Answers to the 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 evaluated.

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PART – II

1. (a) An investor is holding 1,000 shares of X Ltd., Current Year dividend rate is ₹ 3 per share. Market price of the share is ₹ 35 each. The investor is concerned about several factors which are likely to change during the next financial year as indicated below:

| Particulars                             | Current Year | Next Financial Year |
|-----------------------------------------|--------------|---------------------|
| Dividend paid/anticipated per share (₹) | 3.00         | 3.25                |
| Risk Free Rate                          | 11%          | 12%                 |
| Market Risk Premium                     | 4%           | 5%                  |
| Beta Value                              | 1.5          | 1.6                 |
| Expected growth                         | 8%           | 10%                 |

Advise the investor to take further action, whether to BUY, HOLD or SELL the shares, based on the above information.

- (b) Mr. Kar has invested in three mutual fund schemes as per details below :

|                                        | MFY      | MFZ      | MFZ      |
|----------------------------------------|----------|----------|----------|
| Amount of investment (₹)               | 5,50,000 | 4,20,000 | 1,00,000 |
| Dividend received up to 31.03.2023 (₹) | 10,000   | 6,000    | Nil      |
| NAV as on 31.03.2023 (₹)               | 11.50    | 11.00    | 9.50     |
| Effective yield p.a. as on 31.03.2023  | 19.345%  | 22.59%   | -36.50%  |
| Holding period                         | 120 days | 100 days | 50 days  |

You are required to calculate Net Asset Value (NAV) at the time of purchase assuming 365 days in a year.

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- (c) "The starting point of an organisation is money and the end point of that organization is also money". Explain the statement to clearly understand this interface of strategic management and financial policy.

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2. (a) The Closing values of NSE Nifty from 2<sup>nd</sup> January, 2024 to 11<sup>th</sup> January, 2024 were as follows :

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| Days | Date | Day | Nifty      |
|------|------|-----|------------|
| 1    | 2    | TUE | 21,742     |
| 2    | 3    | WED | 21,665     |
| 3    | 4    | THU | 21,517     |
| 4    | 5    | FRI | 21,462     |
| 5    | 6    | SAT | No Trading |
| 6    | 7    | SUN | No Trading |
| 7    | 8    | MON | 21,238     |
| 8    | 9    | TUE | 21,182     |
| 9    | 10   | WED | 20,997     |
| 10   | 11   | THU | 20,926     |
| 11   | 12   | FRI | 20,901     |

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**You are required to :**

- (i) Calculate Exponential Moving Average (EMA) of Nifty during the above period. The previous day exponential moving average of Nifty can be assumed as 21,500. The value of exponent for 31 days EMA is 0.062.
- (ii) Give brief analysis on the basis of your calculations.

- (b) XY Ltd., is interested in expanding its operation and planning to install a unit at US. For the proposed project, it requires a fund of \$ 15 million (net of issue expenses/floatation cost). The estimated floatation cost is 3%. To finance the project it proposes to issue GDRs.

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You as a financial consultant is required to compute the number of GDRs, to be issued and cost of the GDR with the help of following additional information.

- (i) Expected market price of share at the time of issue of GDR is ₹ 350 (Face Value ₹ 100).
- (ii) 3 shares shall underly each GDR and shall be priced at 6% discount to market price.
- (iii) Expected Exchange Rate ₹ 84 / \$.
- (iv) Dividend expected to be paid is 10% with growth rate of 8%.

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- (c) Mr. A, has invested in the Growrich Mutual Fund's Scheme. The details of the Mutual Fund Scheme are given below :

|                                                                                    |                 |
|------------------------------------------------------------------------------------|-----------------|
| Asset Value at the beginning of the month                                          | ₹ 78.50         |
| Annualized Return                                                                  | 16%             |
| Distribution made in the nature of Income and Capital Gain (per unit respectively) | ₹ 0.40 & ₹ 0.30 |

**You are required to :**

- (i) Calculate the month end Net Asset Value of the Growrich Mutual Fund Scheme (Round off to 2 decimals)
- (ii) Comment briefly on the Month end NAV.

3. (a) A manufacturer of electronic components has taken floating interest rate loan of ₹ 2 Crore on 1<sup>st</sup> April, 2023. The rate of interest at the inception of loan is 9% per annum. Interest is to be paid every year on 31<sup>st</sup> March.

In the month of October 2023, the Central Bank of the country releases the following projections about the interest rates likely to prevail in future.

- (i) On 31<sup>st</sup> March, 2024 – 9.25%
- On 31<sup>st</sup> March 2025 – 9.50%
- On 31<sup>st</sup> March, 2026 – 10.00%
- On 31<sup>st</sup> March, 2027 – 9.00%
- On 31<sup>st</sup> March, 2028 – 8.25%

You are required to show how the borrower can hedge the risk using Option Cap arising out of expected rise in the rate of interest when he wants to peg his interest cost at 9% per annum.

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**PKR2**

- (ii) Assume that the premium negotiated by both the parties is 0.80% to be paid at once on 1<sup>st</sup> October, 2023 and the actual rate of interest on the respective due dates happens to be as :

On 31<sup>st</sup> March, 2024 – 9.50%

On 31<sup>st</sup> March, 2025 – 11.00%

On 31<sup>st</sup> March, 2026 – 9.25%

On 31<sup>st</sup> March, 2027 – 9.00%

On 31<sup>st</sup> March, 2028 – 8.50%

You are required to show how the settlement will be executed on the perspective interest due dates.

- (iii) State whether this option is advantageous when compared to Interest Rate Collar option. Explain.

- (b) Apart from the support from government, there are quite a few other reasons why India became a sustainable environment for start-up to thrive in.

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What are the other reasons ?

**OR**

- (b) "Tokenization, to some extent resembles the process of Securitization."

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Is it True ? What are the similarities of Tokenization and Securitization ?

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4. (a) The market received some information about ABC Ltd.'s tie up with a Multinational Company. This has induced the market price to move up. If the information is false, the ABC Ltd.'s stock price will probably fall dramatically. To protect from this, an investor has bought the call and put options.

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He purchased one 3 month's call with a striking price of ₹ 45 for ₹ 3 premium and paid ₹ 2 per share premium for a 3 month's put with a striking price of ₹ 42.

Assume 100 shares for call and put option.

**You are required :**

- To determine the investor's position if the tie up offer bids the price of ABC Ltd.'s stock up to ₹ 44 in 3 months.
- To determine the investor's position if the tie up offer program fails and the price of the stocks falls to ₹ 34 in 3 months.
- To determine the investor's position if the tie up offer program is successful and the price of the stocks rise up to ₹ 46 in 3 months.

- (b) PQ Ltd., plans to acquire RS Ltd. The relevant financial details of the two firms prior to the merger announcement are :

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|                              | PQ Ltd.,  | RS Ltd.,  |
|------------------------------|-----------|-----------|
| Market price per share       | ₹ 100     | ₹ 50      |
| Number of outstanding shares | 20,00,000 | 10,00,000 |

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The merger is expected to generate gains, which have a present value of ₹ 300 lakhs. The exchange ratio agreed to is 0.5.

You are required to calculate the true cost of the merger from the point of view of PQ Ltd.

- (c) What do you mean by International Financial Centre (Gift City) ? What are the benefits of IFC ?

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5. (a) An investor has decided to invest Rs.1,00,000 in the shares of X Ltd. and Y Ltd. The desired returns from the shares of the two companies along with their probabilities are as follows :

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| Probability | X Ltd(%) | Y Ltd(%) |
|-------------|----------|----------|
| 0.20        | -5       | 15       |
| 0.50        | 10       | 25       |
| 0.30        | 15       | -10      |

**You are required to :**

- Calculate the risk and return of investment in individual shares.
- Compare the risk and return of these two shares with a portfolio of these shares in equal proportions.
- Find out the proportion of each of the above shares to formulate a minimum risk portfolio.

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- (b) XY Ltd., paid a dividend of ₹ 3, for the current year. The dividend is expected to grow at 30% for the next 5 years and at 15% per annum thereafter. The return on 182 days T-bills is 12% per annum and the market return is expected to be around 16% with a variance of 24%.

The Co-Variance of XY's return with that of the market value is 30%.

You are required to :

- Calculate the Required Rate of Return
- Calculate the Intrinsic Value of the Stock

The PVF at 17% is given below :

| Year     | 1     | 2     | 3     | 4     | 5     |
|----------|-------|-------|-------|-------|-------|
| PVF(17%) | 0.855 | 0.731 | 0.624 | 0.534 | 0.456 |

6. (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 :

| Age of the Machine (Years) |          |        |        |        |        |
|----------------------------|----------|--------|--------|--------|--------|
|                            | 0        | 1      | 2      | 3      | 4      |
| Purchase price (in ₹)      | 1,00,000 |        |        |        |        |
| Maintenance (in ₹)         |          | 18,000 | 20,000 | 22,000 | 24,000 |
| Repairs (in ₹)             |          | 0      | 3,000  | 6,000  | 10,000 |
| Scrap Value (in ₹)         |          | 35,000 | 23,000 | 12,000 | 6,000  |

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Future replacement will be with identical machine having same cost. Revenue is unaffected by the age of the machine. Ignore Inflation and tax and determine the optimum replacement cycle.

PV factors of the cost of capital of 15% for the respective four years are :

| Year     | 1      | 2      | 3      | 4      |
|----------|--------|--------|--------|--------|
| PVF(15%) | 0.8696 | 0.7561 | 0.6575 | 0.5718 |

- (b) The equity shares of XYZ Ltd., are currently being traded at ₹ 34 per share in the market.

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XYZ Ltd., has total 10,00,000 equity shares outstanding in number and promoters equity holding in the company is 30%.

ABC Ltd., wishes to acquire XYZ Ltd., because of likely synergies. The estimated present value of these synergies is ₹ 1,00,00,000.

Further ABC Ltd., feels that management of XYZ Ltd., has been overpaid. With better motivation, lower salaries and fewer perks for the top management, will lead to savings of ₹ 5.00.000 per annum. Top management with their families are promoters of XYZ Ltd., Present value of these savings would add ₹ 25.00.000 in value to the acquisition.

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Following additional information is available regarding ABC Ltd.,

|                                    |           |
|------------------------------------|-----------|
| Earnings per share                 | ₹ 5       |
| Total number of shares outstanding | 15,00,000 |
| Market price of equity share       | ₹ 30      |

**You are required to :**

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

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