

Roll No.

Total No. of Questions – 6

Time Allowed – 3 Hours

Total No. of Printed Pages – 12

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/her answers in Hindi will not be valued.

Question No. 1 is compulsory.

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

Working notes should form part of the respective answer.

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1. (a) M/s. Daksh Ltd is planning to import multipurpose machine from USA at a cost of \$15000. The company can avail loans at 19% Interest per annum with quarterly rests with which it can import the machine. However, there is an offer from New York branch of an Indian based bank extending credit of 180 days at 2% per annum against opening of an irrevocable letter of credit.

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Other Information :

Spot rate US\$ 1 = ₹ 75

180 days forward rate US \$ 1 = ₹ 77

Commission charges for letter of credit at 2% per 12 months.

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- (i) Justify why the offer from the foreign branch should be accepted ?
- (ii) Based on the present market condition company is not interested to take the risk of currency fluctuations and wanted to hedge with an additional expenses of ₹ 30,000, if so, what is your advise to the company ?

Assume 360 days in the year.

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- (b) You had purchased a 3 month call option on the Equity shares of Satya Ltd for a premium of ₹ 30 each, the current market price of the share is ₹ 560 and the exercise price is ₹ 590. You expect the price range between ₹ 540 to ₹ 640.

The expected share price of Satya Ltd and related probability is given below :

Expected price (₹)	540	560	580	600	620	640
Probability	0.10	0.15	0.05	0.35	0.20	0.15

Compute the followings :

- (i) Expected share price at the end of 3 months,
- (ii) Value of call option at the end of 3 months, if the exercise price prevails,
- (iii) In case the option is held to its maturity, what will be the expected value of the call option ?
- (iv) Find out the price of the shares quoted at the stock exchange to get the value of the call option as computed in (iii) above.

- (c) What is Net interest position risk and Price risk ?

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2. (a) Mr. D had invested in three mutual funds (MF) as per the following details :

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Particulars	MF 'A'	MF 'B'	MF 'C'
Amount of Investment	2,00,000	5,00,000	4,00,000
NAV at the time of purchase	10.00	25.00	20.00
Dividend Yield up to 31.03.2022	3%	5%	4%
NAV as on 31.03.2022	10.50	22.80	20.80
Annualized Yield as on 31.03.2022	9.733%	- 11.185%	15%

Assume 1 Year = 365 Days.

Mr. D has misplaced the documents of his investments.

You are required to help Mr. D to find out the following :

- Number of units allotted in each scheme,
- Value of his investments as on 31.03.2022,
- Holding period of his investments in number of days as on
31.03.2022
- Dates of original investments
- Total Return on investments,

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- (vi) Assuming past performance of all three schemes will continue for next one year, what action the investor should take ? What will be the expected return for the next one year after the above action ?
- (vii) Will your answer as above point no. (vi) changes if the Mutual fund charges exit load of 5% if the investment is redeemed within one year ? If so, advise the investor what and when the action to be taken to optimise the returns.

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- (b) Calculate the value of share from the following Information :

Profit of the company (After tax)	₹ 560 crores
Equity share capital of the Company	₹ 1900 crores
Par value of share	₹ 50 each
Debt Ratio (Debt/Debt+Equity)	43%
Long run growth rate of the company	7%
Beta 0.1 (Risk free Interest rate)	9.5%
Market return	12.6%
Capital expenditure per share	₹ 53
Depreciation per share	₹ 45
Increase in working capital	₹ 4.62 per share

- (c) Explain the outcomes of Financial Planning.

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3. (a) Skylark Systems Ltd. is interested to expand its operations in US for which it requires funds of \$ 20 million, net of issue expenses and floatation costs etc., which amounts to 3% of the issue size. To finance this project it proposes to issue GDR.

Following factors are considered in pricing the issue :

- (i) Expected market price of share at the time of issue of GDR is ₹ 300 (FV ₹ 10)
- (ii) 3 shares shall underlay each GDR and shall be priced at 10% discount to market price.
- (iii) Expected exchange rate is ₹ 75/\$
- (iv) 20% Dividend is expected to be paid for next year with growth rate of 15%

You are required to compute the number of GDRs to be issued and cost of GDR to Skylark Systems Ltd.

If the company is able to raise the funds in US at the rate of 4% p.a and the company is able to repay the loan along with interest from revenues generated from the operations of US, what is your advise to the company ?

- (b) You have been given the following information about Sweccha Ltd :

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	Sweccha Ltd		Market		
Year	Average Share price	Dividend per share	Average Index	Dividend Yield %	Return on Govt. bond %
2017	460	30	4060	5	5.5
2018	497	33	4320	6.5	5.5
2019	523	38	4592	4.5	5.5
2020	556	43	4780	6	5.5
2021	589	50	4968	5.5	5.5

- (i) Compute the Beta value of the company as at the end of year 2021.

- (ii) What is your Observation ?

- (c) What are Foreign Currency Convertible Bonds ? What are their advantages ?

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4. (a) Following information is available pertaining to ABC Ltd. which is expected to grow at a higher rate for 3 years after which growth rate will stabilize at a lower level.

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Base year information is -

Revenues	EBIT (After Depreciation)	Capital Expenditure	Depreciation
₹ 1,000 Cr.	₹ 150 Cr.	₹ 140 Cr.	₹ 100 Cr.

Information for high growth and stable growth period are as follows :

Particulars	High Growth	Stable Growth
Growth in Revenue & EBIT	20%	10%
Growth in Capital Expenditure and Depreciation	20%	Capital Expenditure are offset by Depreciation
Risk free rate	10%	9%
Equity Beta	1.15	1.00
Market Risk Premium	6%	5%
Pre Tax cost of Debt	13%	12.86%
Debt Equity Ratio	1:1	2:3

Working capital is 25% of Revenue for all time.

Corporate Tax Rate is 30%.

You are requested to find out the value of ABC Ltd.

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- (b) A mutual fund made an issue of New Fund Offer (NFO) on 01/01/2021 of 10.00 Lakh Units of ₹ 10 each. No entry load was charged. It made the following investments :

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Particulars	(₹)
25,000 Equity Shares of XYZ Ltd., ₹ 100 each @ ₹ 320	80,00,000
5% Government Securities	4,00,000
10% NCDs Unlisted	5,00,000
8% Listed Debentures	10,00,000

During the year, dividends of ₹ 8.00 lakhs were received on equity shares. Interest on all types of debt securities were received. On 31st December 2021 equity shares were appreciated by 15% while listed debentures were quoted at 20% premium.

XYZ Ltd., on 15th December 2021 in its AGM declared the interim dividend of 10% and bonus shares at 1:10 with the record date of 28th December 2021.

- Find out the NAV per unit as on 31st December given that the operating expenses paid during the year amounting to ₹ 3,00,000.
 - Find out the NAV, if the MF had distributed a dividend of ₹ 0.50 per unit during the year to the investors.
 - If you are the investor, find out what is the annualised return you have got.
- (c) What are the benefits of Securitization ?

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5. (a) M/s. Vasavi Ltd. is considering the takeover of M/s. SKPD Ltd. by the exchange of five new shares in M/s. Vasavi Ltd. for every eight shares in M/s. SKPD Ltd. The relevant financial details of the two companies prior to merger announcement are as follows :

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Particulars	M/s. Vasavi Ltd.	M/s. SKPD Ltd.
Profit before tax (₹ crore)	18	20.8
No. of shares (in crore)	20	18
P/E ratio	11	8

Corporate tax rate 30%.

You are required to determine :

- Market value of both the companies
- Value of original share holders
- Price per share after merger
- Effect on share price of both the companies, If the directors of Vasavi Ltd. expect their own pre-merger P/E ratio to be applied to the combined earnings.

- (b) Closing Values of NIFTY Index from 3rd to 12th day of the month of January 2022 were as follows :

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Days	Date	Closing Values of NIFTY Index
1	03/01/2022	17626
2	04/01/2022	17805
3	05/01/2022	17925
4	06/01/2022	17746
5	07/01/2022	17813
6	10/01/2022	18003
7	11/01/2022	18056
8	12/01/2022	18212

The simple moving average of NIFTY Index for the month of December 2021 was 17174.

You are required to calculate :

- The value of exponent for 15 days EMA.
- The exponential moving average (EMA) of NIFTY during the above period. (Calculations to be done up to 2 decimals only)
- Analyse the buy & sell signal on the basis of your calculations

- (c) Briefly explain :

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- Compliance risk and
- Operational risk

6. (a) Calculate the Covariance & Correlation Coefficient of the two securities, from the historical rates of return over the past 10 years. 8

Years	1	2	3	4	5	6	7	8	9	10
Security 1 (Return%)	15	10	12	8	18	16	20	24	16	14
Security 2 (Return%)	24	20	18	14	22	26	12	28	16	15

- (b) MPD Ltd. issues a ₹ 50 Million Floating Rate Loan on July 1, 2018 8
with resetting of coupon rate every 6 Months equal to LIBOR +50 bps.
MPD is interested in an Interest rate Collar Strategy of selling a Floor
and buying a cap.

MPD buys the 3 years cap and sell 3 years Floor as per the following
details on July 1, 2018 :

Principal Amount	₹ 50 Million
Strike Rate	5% for Floor & 8% for Cap
Reference Rate	6 months LIBOR
Premium	NIL, since premium paid for cap = premium received for Floor

The Reset dates & Interest rates p.a. on that dates are :

Reset Date	31/12/2018	30/06/2019	31/12/2019	30/06/2020	31/12/2020	30/06/2021
LIBOR (%)	7.00	8.00	6.00	4.75	4.25	5.25

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Using the above data, you are required to determine :

- (i) Effective Interest paid out at each six reset dates, (Round off to the nearest rupee)
 - (ii) Average overall effective rate of interest p.a. (round off to 2 decimals)
- (c) Define Angel Investors, are these only individuals ? If not, list the entities.

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OR

Enlist the criteria for an entity to be classified as a Startup entity under the Startup India Scheme initiated by the Government of India.