

Roll No.

Total No. of Questions – 7

Total No. of Printed Pages – 11

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 who has not opted for Hindi Medium, answers in Hindi, 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.

In case, any candidate answers extra question(s)/sub-question(s) over and above the required number, then, only the requisite number of questions first answered in the answer book shall be valued and subsequent extra question(s) answered shall be ignored.

Wherever necessary, suitable assumptions may be made and indicated in the answers by the candidate.

Working notes should form part of the respective answers.

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1. (a) An importer customer of your bank wishes to book a forward contract with your bank on 3rd September for sale to him of SGD 5,00,000 to be delivered on 30th October. **5**

The spot rates on 3rd September are USD/₹ 49.3700/3800 and USD/SGD 1.7058/68. The swap points are :

USD/₹		USD/SGD	
Spot/September	0300/0400	1 st month forward	48/49
Spot/October	1100/1300	2 nd month forward	96/97
Spot/November	1900/2200	3 rd month forward	138/140
Spot/December	2700/3100		
Spot/January	3500/4000		

Calculate the rate to be quoted to the importer by assuming an exchange margin of 5 paisa.

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- (b) KLM Ltd., is considering taking up one of the two projects-Project-K and Project-S. Both the projects having same life require equal investment of ₹ 80 lakhs each. Both are estimated to have almost the same yield. As the company is new to this type of business, the cash flow arising from the projects cannot be estimated with certainty. An attempt was therefore, made to use probability to analyse the pattern of cash flow from other projects during the first year of operations. This pattern is likely to continue during the life of these projects. The results of the analysis are as follows :

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Project K		Project S	
Cash Flow (in ₹)	Probability	Cash Flow (in ₹)	Probability
11	0.10	09	0.10
13	0.20	13	0.25
15	0.40	17	0.30
17	0.20	21	0.25
19	0.10	25	0.10

Required :

- (i) Calculate variance, standard deviation and co-efficient of variance for both the projects.
- (ii) Which of the two projects is more risky ?
- (c) Constant Engineering Ltd. has developed a high tech product which has reduced the Carbon emission from the burning of the fossil fuel. The product is in high demand. The product has been patented and has a market value of ₹ 100 Crore, which is not recorded in the books. The Net Worth (NW) of Constant Engineering Ltd. is ₹ 200 Crore. Long term debt is ₹ 400 Crore. The product generates a revenue of ₹ 84 Crore. The rate on 365 days Government bond is 10 percent per annum. Bond portfolio generates a return of 12 percent per annum. The stock of the company moves in tandem with the market. Calculate Economic Value added of the company.

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- (d) The unit price of Equity Linked Savings Scheme (ELSS) of a mutual fund is ₹ 10/-. The public offer price (POP) of the unit is ₹ 10.204 and the redemption price is ₹ 9.80.

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Calculate :

- (i) Front-end Load
(ii) Back end Load

2. (a) The following is the data related to 9% Fully convertible (into Equity Shares) debentures issued by Delta Ltd. at ₹ 1000.

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Market Price of 9% Debenture ₹	1,000 ✓
Conversion Ratio (No. of shares)	25
Straight Value of 9% Debentures ₹	800
Market Price of Equity Share on the date of conversion ₹	30
Expected Dividend per share ₹	1

Calculate :

- (a) Conversion value of Debenture;
(b) Market Conversion Price;
(c) Conversion Premium per share;
(d) Ratio of Conversion Premium;
(e) Premium over straight Value of Debenture;
(f) Favourable Income Differential per share; and
(g) Premium pay back period

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- (b) Mr. Y has invested in the three mutual funds (MF) as per the following details : 8

Particulars	MF 'X'	MF 'Y'	MF 'Z'
Amount of Investment (₹)	2,00,000	4,00,000	2,00,000
Net Assets Value (NAV) at the time of purchase (₹)	10.30	10.10	10
Dividend Received up to 31.03.2018 (₹)	6,000	0	5,000
NAV as on 31.03.2018 (₹)	10.25	10	10.20
Effective Yield per annum as on 31.03.2018 (percent)	9.66	- 11.66	24.15

Assume 1 Year = 365 days

Mr. Y has misplaced the documents of his investment. Help him in finding the date of his original investment after ascertaining the following :

- (i) Number of units in each scheme;
- (ii) Total NPV;
- (iii) Total Yield; and
- (iv) Number of days investment held.

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3. (a) Y has to remit USD \$ 1,00,000 for his son's education on 4th April 2018. Accordingly, he has booked a forward contract with his bank on 4th January @ ₹ 63.8775. The Bank has covered its position in the market @ ₹ 63.7575. 8

The exchange rates for USD \$ in the interbank market on 4th April and 14th April were :

	4 th April ₹	14 th April ₹
Spot USD 1 =	63.2775/63.2975	63.1575/63.1975
Spot/March	63.3975/63.4275	63.2775/63.3275
April	63.5275/63.5675	63.4075/63.7650
May	63.7775/63.8250	63.6575/63.7275
June	64.0700/64.1325	63.9575/64.0675

Exchange margin of 0.10 percent and interest outlay of funds @ 12 percent are applicable. The remitter, due to rescheduling of the semester, has requested on 14th April 2018 for extension of contract with due date on 14th June 2018.

Rates must be rounded to 4 decimal place in multiples of 0.0025.

Calculate :

- (i) Cancellation Rate;
- (ii) Amount Payable on \$ 100,000;
- (iii) Swap loss;
- (iv) Interest on outlay of funds, if any;
- (v) New Contract Rate; and
- (vi) Total Cost

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- (b) R Ltd., is considering a factoring proposal on the basis of the following data for the next year. 8

Particulars	Inhouse Management	Factoring Proposal
Estimated Sales (₹ in Lakhs)	540	
Receivables (percent of sales)	12	
Administration Cost (₹ in Lakhs)	1.25	
Bad Debts (₹ in Lakhs)	5.25	
Receivable collection period (days)		30
Factor Reserve (per cent)		20
Bank Prime Lending Rate (BPLR) per cent	8	

R Ltd., is able to get variable overdraft interest rate at BPLR. Factor charges a premium of 4.6 percent over BPLR on the advances made to R Ltd.

Assume 365 days in a year.

You are required to calculate the viability of the factoring proposal.

4. (a) As an investment manager, you are given the following information : 8

Particulars	Initial price (₹)	Dividend (₹)	Market price of the dividends (₹)	Beta (Risk factor)
A. Equity Shares :				
Manufacturing Ltd.	30	2	55	0.8
Pharma Ltd.	40	2	65	0.7
Auto Ltd.	50	2	140	0.5
B. Government of India bonds	1005	140	1010	0.99

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By assuming risk free return as 16%, Calculate :

- (i) Expected rate of return on the portfolio (aggregate) of investor ;
- (ii) Expected rate of return of portfolio in each above stated share/bond using Capital Asset Pricing Model (CAPM); and
- (iii) Average Rate of Return.

(b) CBZ limited belongs to a risk class for which the approved capitalization rate is 10%. It currently has outstanding 6,000 shares selling at ₹ 100/- each. The firm is planning for declaration of dividend of ₹ 6/- per share at the end of the current financial year. The company expects to have a net income of ₹ 60,000/- and has a proposal to make new investments of ₹ 1,50,000/-. As under the M-M hypothesis the payment of dividend doesn't affect the value of the firm, calculate price of share at the end of financial year, no. of shares to be issued and value of firm separately in the following situations :

- (i) When dividends are paid and
- (ii) When dividends are not paid.

5. (a) Front Leasing Ltd. is in the business of providing automobiles on wet lease to Corporate Clients. The company is considering a new model of battery run Tesla car for which a good number of enquiries is received. The cost of the vehicle is ₹ 25 lakhs. Its operating, maintenance and insurance costs are expected to be ₹ 5 lakh in the first year. Thereafter it will be subject to inflation annually @ 6 percent in

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the second and third year and @ 4 percent during fourth to sixth year. The useful life of the vehicle is six years. The net salvage value of the vehicle at the end of six year will be ₹ 10 lakh. Depreciation for Tax purposes will be 40 percent under Written Down Value (WDV) method. Marginal tax rate applicable is 35 percent. Its cost of capital is 8 percent.

You are required to calculate the minimum annual lease rental that the company should quote. Assume that the cost of negotiation and lease administration is nil.

PVIF @ 8 percent is 0.926, 0.857, 0.794, 0.735, 0.681 and 0.630.

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- (b) Intel Ltd., promoted by a Trans National company, is listed on the stock exchange.

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The value of the floating stock is ₹ 45 crore. The Market Price per Share (MPS) is ₹ 150.

The capitalisation rate is 20 percent.

The promoters holding is to be restricted to 75 per cent as per the norms of listing requirement. The Board of Directors have decided to fall in line to restrict the Promoters' holding to 75 percent by issuing Bonus Shares to minority shareholders while maintaining the same Price Earnings Ratio (P/E).

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You are required to calculate :

- (i) Bonus Ratio;
- (ii) MPS after issue of Bonus Shares; and
- (iii) Free float Market capitalisation after issue of Bonus Shares.

6. (a) During the audit of the Weak Bank (W), RBI has suggested that the Bank should either merge with another bank or may close down. Strong Bank (S) has submitted a proposal of merger of Weak Bank with itself. The relevant information and Balance Sheets of both the companies are as under :

Particulars	Weak Bank (W)	Strong Bank (S)	Assigned Weights (%)
Gross NPA (%)	40	5	30
Capital Adequacy Ratio (CAR)/Capital Risk Weight Asset Ratio	5	16	28
Market Price per Share (MPS)	12	96	32
Book value			10
Trading on Stock Exchange	Irregular	Frequent	

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Balance Sheet

(₹ in Lakhs)

Particulars	Weak Bank (W)	Strong Bank (S)
Paid up Share Capital (₹ 10 per Share)	150	500
Reserves & Surplus	80	5,500
Deposits	4,000	44,000
Other Liabilities	890	2,500
Total Liabilities	5,120	52,500
Cash in Hand & with RBI	400	2,500
Balance with Other Banks		2,000
Investments	1,100	19,000
Advances	3,500	27,000
Other Assets	70	2,000
Preliminary Expenses	50	
Total Assets	5,120	52,500

You are required to

- Calculate Swap ratio based on the above weights;
 - Ascertain the number of Shares to be issued to Weak Bank;
 - Prepare Balance Sheet after merger; and
 - Calculate CAR and Gross NPA of Strong Bank after merger.
- (b) A bond is held for a period of 45 days. The current discount yield is 6 per cent per annum. It is expected that current yield will increase by 200 basis points and current market price will come down by ₹ 2.50. Calculate
- Face value of the Bond and
 - Bond Equivalent Yield

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7. Write short notes on any **four** of the following :

- (a) Interface of Financial Policy and Strategic Management.
 - (b) Nostro, Vostro and Loro Accounts.
 - (c) Distinguish between Credit Card and Debit Card.
 - (d) Instruments of International finance.
 - (e) Straddles and Strangles.
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=16**

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