

7
07/12/21

Roll No.

Total No. of Questions – 7

Total No. of Printed Pages – 12

Time Allowed – 3 Hours

Maximum Marks – 100

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Answer 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 five questions from the remaining six questions.

Working notes should form part of the respect answer.

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1. (a) TXL Ltd. is expecting a price of ₹ 242 per share one year hence, if dividend is not declared. The price per share after one year will be ₹ 204/- per share, if dividend is declared. The applicable price earnings ratio to the risk class, to which TXL Ltd. belongs, is 10. The company requires an investment of ₹ 1 crore next year to meet its expansion plans. TXL Ltd. generated a net income of ₹ 1,07,40,000. The number of outstanding shares is 1,00,000. 5
- You are, as per Modigliani and Miller (MM) approach, required to calculate :
- (i) The amount of proposed dividend
 - (ii) The current price per share
 - (iii) The number of new equity shares to be issued, if TXL Ltd., declares the dividend.

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- (b) M/S. Enterprise, an Asset Management Company (AMC) on 1.04.2016 has floated a scheme "Dividend Plan". Mr. X, an investor, has invested in the scheme. Dividend is given in the form of units. The details (except the issue price) are as follows :

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Date	Dividend (%)	NAV
1.04.2016		?
31.03.2018	20	48
31.03.2019	25	50
31.03.2020	30	45
31.0.2021	—	49
Initial Investment (₹)	₹ 18,40,000	
Average Profit (₹) over 5 years	₹ 54,576	

You are required to calculate the issue price of the scheme as on 01.04.2016 to ascertain the capital appreciation. Assume face value of units as ₹ 10/-

- (c) B International Ltd. (BIL) has purchased 5 years 15.28% convertible debentures on 1.04.2021. The convertible debentures will mature on 31.03.2026. Each debenture can be converted into 20 equity shares of face value of ₹ 1 at any point of time but before maturity. Debentures will be redeemed at ₹ 100 on maturity.

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The required rate of return of BIL is 10% per annum on a 5-year security.

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The Reputed, a consultant has projected the following price behaviour of the shares :

Period		Price Range (₹)		
From	To	Passive	Most likely	Optimistic
1.04.2021	31.12.2022	4	4.5	5
1.01.2023	30.06.2025	4.5	6.5	7
1.07.2025	31.03.2026	3.5	5	5.5

BIL, as a matter of policy, rounds up the amount.

You are required to calculate

- The break-even price at which the debentures can be converted
- The ideal period in which BIL shall convert and dispose of the shares

Given :

PVIF(10%, 5) 0.6209

PVIFA (10%, 5) 3.7908

- (d) X Limited proposes to acquire Y Limited. The relevant financial details of the two firms prior to the merger announcement are as follows : 5

Particulars	X Ltd.	Y Ltd.
Market price per share	₹ 80	₹ 40
No. of outstanding shares	10 Lakhs	5 Lakhs

The merger is expected to generate gains with a present value of ₹ 120 Lakhs. The X Ltd. will issue 1 share of it for 2 shares of Y Ltd.

You are required to find out the true cost of merger for X Ltd.

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2. (a) XL Ltd. has issued callable 10% bonds with 30 years maturity. The issue size is ₹ 1 crore with a face value of ₹ 1,000 per bond. The bonds have been issued at a discount of 1.2 % on the face value of the bonds in the year 2011. The call option is available to XL Ltd. at the end of 10 years and 20 years from the time of the issue of the bond. The floatation cost was ₹ 1,50,000.

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In the year 2021 XL Ltd. has an opportunity to issue 8% bonds at par with 20 years maturity worth ₹ 1 crore with a face value of ₹ 1,000 per bond. The old bonds will be retired with the proceeds of the proposed issue. The floatation cost of the present issue will be ₹ 3,00,000.

There will be an overlapping interest for a period of three months during the course of the present issue.

Post tax cost of debt for XL Ltd. is 7% p.a.

The applicable tax bracket is 30%

You are required to advise XL Ltd., whether it can proceed with the proposal.

Given : $PVIFA(7\%,20) = 10.594$

- (b) Fragrance Ltd. has reported a Net Operating Profit after Tax (NOPAT) to Capital Employed as 2.5% plus Weighted Average Cost of Capital (WACC) for the year 31st March 2021. Economic Value added is ₹ 4 crore as on 31st March 2021.

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You are required to calculate :

(i) The amount of Capital Employed

(ii) NOPAT, if WACC is 10%

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3. (a) Strong Ltd., (SL), an all equity financed, conglomerate is in need to borrow ₹ 2,000 crore to finance expansion of its core current operations. However, SL is susceptible to raise the amount from the market. The CFO has suggested for divesting one of the two non-prime units to reduce the overall borrowings from the market. The following data, after internal due diligence, has been placed for consideration of the Board :

(₹ in crores)

Particulars	Unit 1	Unit 2
Reported Profit After Tax	147	140
Extra Ordinary Gains	16	8
Extra Ordinary Losses	20	12
Expected Profit from the launch of the new product	56	12
Price Earnings Ratio	10	12.5
Corporate Tax Rate (%)	30	30

You are required to advise the Board on the following :

- (i) The price at which the units can be divested,
- (ii) The unit which can be divested so as to minimise the borrowings from the market and
- (iii) The amount of borrowing.

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(b) A future contract on BSE Index with 4 months maturity is used to hedge the value of the portfolio over the next 3 months. One future contract for delivery is 50 times of the index.

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The following information is available:

Value of the portfolio ₹ 1,16,00,000

BSE Sensex on 1st January 2022 58580

(Anticipated on 1st September 2021)

BSE Sensex on 1st January 2022 56641.25

(Anticipated on 1st December 2021)

Dividend Yield of Index 6% p.a.

181 days' treasury bills offers a rate of interest 9% p.a.

Beta of the portfolio 1.5

You are required to calculate

- (i) The present value of the Sensex as on 1st September 2021
- (ii) Turned out value of the Sensex as on 1st December 2021
- (iii) The number of contracts to hedge the portfolio.

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4. (a) Humata Ltd., a Japanese Corporation, has sold goods today to Peacock Ltd., an Indian company for an amount of JPY 74 lakhs. The payment will be due in three months from the date of invoice. At today's spot rate, it is equivalent to INR 50 lakhs. It is anticipated that the INR will decline by 10% over the 3-months period and in order to protect the Yen payments, Peacock decides to take appropriate action in the foreign exchange market. The 3-months forward rate is presently quoted at JPY/INR 1.44.

You are required to calculate :

- (i) The expected loss to the importer and
(ii) Impact of hedging by a forward contract.

- (b) There are two Mutual Funds viz., A and B each having close ended equity schemes.

Net Asset Value (NAV) per unit as on 31st December 2020 of equity schemes of A is ₹ 80.10 (consisting 98% equity and remaining cash balance) and that of B is ₹ 64.60 (consisting 97% equity and balance in cash).

Other information is as follows :

<u>Particulars of Equity Schemes</u>	A	B
Sharpe Ratio	2.50	3.20
Treynor Ratio	15	15
Standard Deviation	8.50	5.00

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There is no change in portfolios during the next month and annual average cost is ₹ 3.00 per unit for the schemes of both the Mutual Funds.

Assume 30 days in a month, and compute up to two decimal points only.

You are required to calculate the expected NAV per unit after a month for the schemes of both the Mutual Funds, if the share market goes down by 4% within a month.

5. (a) XYZ Ltd. is considering to replace the existing computer system of their organization. Original cost of the system was ₹ 2,50,000 and it was installed 5 years ago. Current market value of the old system is ₹ 50,000. The life of the old system is 10 years. Present cost of the new system is ₹ 5,00,000 with estimated Salvage value of ₹ 10,000/-. The life of the new system is 5 years.

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Estimated cost savings with the new computer system is ₹ 50,000 per year. Increase in sales with new system is assumed to be 10% per year based on original total sales of ₹ 10,00,000.

XYZ Ltd. follows straight-line method of depreciation. Cost of capital of the company is 12% whereas applicable income tax rate is 30%.

You are required to advise XYZ Ltd. on acceptance of the replacement proposal.

Given PVIF (12%, 5) = 0.567; PVIFA (12%, 5) = 3.605

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- (b) Mr. Bright has purchased a residential flat for ₹ 36 lakhs in the year 2019. He had made a down payment of ₹ 12,88,500/- from his own funds. He had taken a housing loan for the balance amount from Liberal Bank at rate of 100 basis points over Bank's Prime Lending Rate (BPLR). The loan is repayable in equal annual instalments (EAI) payable at the end of each year over a period of six years.

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The BPLR in the year 2019 was 7 % p.a.

The Liberal Bank, after due consideration and with an objective to desist the customers to migrate to other banks to take the advantage of the falling interest rates, has decided to reduce the BPLR by 100 basis points in the year 2021.

Mr. Bright will also be one of the beneficiary among other borrowers of the bank for the remaining period of 4 years.

Liberal Bank rounds up all amounts and does not accept paisa.

You are required to calculate

- (i) The EAI payable from 2019 over a period of 6 years,
- (ii) The EAI payable from 2021 for the remaining period of 4 years after extending the benefit of reduction in BPLR and
- (iii) The last EAI, payable by Mr. Bright, if he continues to pay the original EAI (determined in 2019)

Given : PVIFA (8%, 6) 4.623

PVIFA (7%, 4) 3.387

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6. (a) DK Ltd. is considering an investment proposal in Sri Lanka involving an initial investment of LKR 25 billion. The current spot exchange rate is INR/LKR 0.37. The risk free rate in India is 6 % and the same in Sri Lanka is 5.02 %. The project will generate a cash flow of LKR 5 billion in the first year. The cash flow will increase by LKR 1 billion each year for the next 4 years. The project will bind up on completion of 5 years with no salvage value.

The required rate of return for the project is 8 %.

- (i) You are required to find out the investment worth of the project by

(1) Home Currency Approach

(2) Foreign Currency Approach

- (ii) Compare the outcome under both the approaches.

Given :

t	1	2	3	4	5
PVIF (8%, t)	0.92593	0.85734	0.79383	0.75503	0.68058
PVIF (7%, t)	0.93457	0.87344	0.81630	0.76290	0.71299

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(b) LM, a lessor is engaged in the business of leasing equipment. The industry is highly competitive since there are large numbers of players. The lease rentals to be quoted by LM cannot have margin of error. BL, a lessee proposes to lease machinery on dry lease basis from LM. The following are the details of the machinery :

Particulars	
Cost of machinery including installation charges and GST	₹ 10,91,03,357.48
Useful life	5 years
Salvage value	10%
Rate on Depreciation (to be applied on WDV basis)	25%
Required Rate of Return	10%
Applicable Tax Rate	30%

You are required to calculate Break-even Lease Rental

T	1	2	3	4	5
PVIF(10%,t)	0.9091	0.8264	0.7513	0.6830	0.6209

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

**4×4
=16**

- (a) The technique of optimizing cash flow movements and minimizing the total volume of inter- company fund flow with the combined efforts of the subsidiaries is the need of the hour. Discuss.
- (b) External Commercial Borrowings (ECBs) are becoming an important source of financing. Discuss briefly its different aspects.
- (c) Repo and a Reverse Repo are important tools in the hands of Reserve Bank of India to manage liquidity. Discuss.
- (d) IPO through Stock Exchange On-line System (e-IPO) platform is becoming important in raising the capital from the market. What are the records required to be maintained by various stake holders ?
- (e) Key Decisions are imperative in financial strategies. Discuss.

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