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FOR CA FINAL EXAM PREPARATION

CA Final 2022 Suggested Answers · Paper 6B Financial Services and Capital Markets (Old Scheme)

EXAM	YEAR	TYPE
CA Final	2022	Suggested Answers

SUBJECT

Paper 6B Financial Services and Capital Markets (Old Scheme)

DATE

May 2022

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PAPER 6B: FINANCIAL SERVICES AND CAPITAL MARKETS - ELECTIVE PAPER

*The Question Paper comprises five case study questions. The candidates are required to answer any **four** case study questions out of five.*

While answering the multiple choice question, candidates are required to indicate the alphabet of their choice in capital letters.

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.

CASE STUDY: 1

You are a dynamic management consultant of thirty years of age. You graduated from a top notch business school in Delhi and subsequently qualified as a Chartered Accountant, securing all India 1st Rank. With a keen interest in academic research, you also obtained a Doctorate degree in capital market and financial services from a reputed University. You are known in the corporate arena as a renowned personality for your interactive deliberations in all gamuts of financial services and capital markets. As an avid speaker, you passionately share your deep and incisive knowledge in India at various events organized by various professional institutes and trade organizations.

You started a consultancy firm in Chennai and expanded your network by opening branches at Bengaluru, Hyderabad and Pune. Your firm provides scratch to end business advisory solutions to corporates, especially on innovative ways to finance a start-up, advising on regulatory mechanism of the SEBI for raising funds through Initial Public Offer, Rights Issue, Bonus Issue, Preferential Issue, Qualified Institutional Placement. Buy Back of Shares etc. Your firm also provides advisory services on Treasury Operations, Mutual Funds, Risk Management, Leasing and Factoring Services. Your clients are spread across the country and you have a sizeable team of professionals working under your entire advisory practice.

Recently, you have been approached by Soft Tech Solutions Limited (STSL), which is based out of Chennai to sort out / clarify certain matters concerning The Securities and Exchange Board of India Act, 1992, SEBI (ICDR) Regulations, 2018 and SEBI (Buy Back of Securities) Regulations, 2018 that may have a potential application for STSL and its group companies. The engagement would further require a regular update to STSL on fiscal and monetary policy matters.

About STSL

STSL is one of the India's startup companies incorporated at Chennai in the year 2012. The main objects of the Company are to develop a niche, never invented before, customized software packages for two and three wheeler automobile manufacturers in India. It also caters to the various software needs of diverse global audiences. With its wide range of e-Commerce

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market place products, it assists in establishing a successful e-Commerce business. Its web and mobile app programs develop cutting-edge software solutions that help businesses align with their goals. Along with e-commerce, web, and mobile software development, STSL also provides digital marketing and branding services. Its IT consultants help businesses in analyzing the value proposition and business model of competitors. The Company became a listed entity in the year 2017 and got its shares listed on the BSE and the NSE. STSL is well recognized for its governance standards and is very keen to implement its zero tolerance non compliance policy.

Initial Interaction

During your initial interaction with the top management of STSL, you highlighted the current state of affairs, compliance standards and regulatory assessment hygiene affecting the capital market and gave an overview of the capital market regulator and the regulations framed by it. Thereafter, you were ready for detailed discussions with the Management.

The financial data and other inputs for your consideration as given by the top management of STSL are summarized below:

(1) As at 31.12.2021, the following information and figures are noticed from the Audited Annual Accounts for the year ended 31.03.2021 of Unique Soft Tech Solutions Limited (USTSL), a listed entity and a group Company of STSL.

Authorized Share Capital	*₹ 20 crore comprising of 2 crore equity shares of ₹ 10/- each.*
Paid up Share Capital	*₹ 9 crore comprising of 80 Lakhs equity shares of ₹ 10/- each fully paid-up and 20 Lakhs equity shares of ₹ 10/- each called and paid-up ₹ 5/- each. The total paid-up capital is paid in cash.*
Securities Premium	*₹ 20 crore*
Debentures	*5 Lakhs fully convertible debentures of ₹ 100/- each. These debentures are due for conversion on 31.03.2022 in full, into fully paid equity shares of ₹ 10/- each in the ratio of 2 equity shares for 1 debenture.*
General Reserves	*₹30 crore*
Fixed Assets Revaluation Reserve	*₹ 10 crore*
Additional information	*(i) Outstanding liabilities in respect of interest payable on Public Deposits - ₹ 15 Lakhs.* *(ii) Outstanding liabilities in respect of Bonus to employees and workers - ₹ 25 Lakhs.*

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	(iii) The partly paid shares were made fully paid prior to 30.06.2021. *(iv) Bonus to employees and workers were paid on 15.09.2021.* *(v) Interest on public deposits was outstanding on 31.12.2021.*

(2) One of the Independent Directors of STSL informed you that an investor Mr. Parth Khokhani has complained that Mr. Ketan Malani, the Chief Financial Officer (CFO) of STSL has. provided the Prospective Financial Information (PFI) of STSL to a registered valuer who has been appointed for carrying out valuation as required by the banker of STSL.

(3) The Balance Sheet of M/s. Unique Component Private Limited (UCPL) which is a subsidiary of STSL as on 31st March, 2022 is given below:

Equity Shares of ₹10/- each fully paid-up	*12,50,000*	*Fixed Assets*	*46,50,000*
Revenue reserves	*15,00,000*	*Current Assets*	*30,00,000*
Securities premium	*2,50,000*		
Profit and Loss	*1,25,000*		
Secured Loans:			
12% Debentures	*18,75,000*		
Unsecured Loans	*10,00,000*		
Current Liabilities	*16,50,000*		
Total	***76,50,000***	***Total***	***76,00,000***

The Board of Directors of UCPL wants to buy back 25,000 equity shares of ₹10/- each on 01st April, 2022 at ₹20/- per share. Buy-back of shares is duly authorized by its Articles of Association, and necessary resolution has been passed by UPCL towards this. The payment for buy-back of shares will be made by the Company out of sufficient bank balance available which forms part of the current assets.

(4) Fiscal and monetary policies affect decision making. In order to improve quality of decision making, inputs on such policy matters would be now required to be submitted by you on a monthly basis rather than quarterly basis. The CEO of STSL is concerned about the volatility in the financial market and has heard that bank-rate is likely to increase and the RBI is likely to increase purchase of government securities (G-Sec). You have been asked to cover this aspect in the next report and submit the same immediately. The CFO of STSL has asked you to provide inputs on the powers of SEBI as he is suspecting some non-compliance by his team.

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(5) *Considering the current high level of volatility in the financial market, the Board of STSL has decided to reduce risk of portfolio which has been created out of surplus fund, and the Board has directed the CFO to focus on G-Sec of the government of India. Further, STSL has made investment in a mutual fund which has given average return of 40% during last three years and the mutual fund has a beta of 1.30. This mutual ·fund is benchmarked against SENSEX which has earned an average return of 35% during the same period. The risk free return is 6%.*

Multiple Choice Questions

1.1 *An economist of a leading bank has informed the CEO of STSL with a supportable data, which suggests that India is experiencing an expansion of real GDP. Which one of the following is correct when the bank-rate increases during expansion of real GDP?*

(A) *The RBI must have been increasing the money supply.*

(B) *The RBI must have lowered overnight lending rate.*

(C) *The RBI may have changed the money supply in either direction.*

(D) *The RBI must have held the money supply constant.*

1.2 *The Independent Director of STSL wants to understand from you about the matter of complain against Mr. Malani as discussed in the Case Study before raising the matter in the Board. Which one of the following is the best answer concerning to the liability of Mr. Malani?*

(A) *He will not be liable as such activities are generally allowed.*

(B) *He will not be liable when it has been done in terms of the approved policy of the Board.*

(C) *He will not be liable when it has been done in terms of the approved policy of the Board and the same has not been shared to bypass the SEBI regulation and the valuer has signed the Non-Disclosure Agreement (NOA).*

(D) *He will not be liable when it has been done in terms of the approved policy of the Board and the same has not been shared to bypass the SEBI regulation.*

1.3 *The CFO of STSL has recently observed that large amount of government securities has been purchased by the RBI. Such action of RBI is likely to:*

(A) *Increase loans made by the banks*

(B) *Decrease loans made by the banks*

(C) *Increase government fiscal deficit*

(D) *Be an implementation of effective anti-inflationary policy*

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1.4 Which one of the following is correct with respect to the power of SEBI?

(A) The SEBI can disgorge the amount, in a bank account of STSL even if it is found not to be in violation of any provisions of the SEBI Act or Rules or Regulations.

(B) The SEBI can disgorge the amount in a bank account of STSL if it is found to be in violation of any provisions of the SEBI Act or Rules or Regulations.

(C) The SEBI has to return the disgorged amount to the central government.

(D) The SEBI does not have to credit the disgorged amount to the Investor Protection and Education Fund.

1.5 The CFO of STSL believes that there is no risk involved in investing G-Sec of the GOI, and has asked you to explain the components of return on G-Sec issued by the RBI. Which one of the following is correct with respect to return and risk of G-Sec?

(A) It has only real return and inflation but no risk.

(B) It has real return, inflation and reinvestment risk.

(C) It has real return, inflation and default risk.

(D) It has nominal return and default risk. ***(5 x 2 = 10 Marks)***

1.6 Based on the information given in the Case Study, it is proposed by the Board of Directors of USTSL to issue Bonus shares on or after 01.04.2022 in the ratio of 1:1. Advise the Directors on the matter with reference to SEBI guidelines on Bonus Issue. ***(5 Marks)***

1.7 Based on the information given in the Case Study, determine whether mutual fund has outperformed or underperformed the SENSEX using Treynor's Ratio. ***(3 Marks)***

1.8 Based on the information given in the Case Study about buy-back of shares by UCPL, the Management is keen on understanding as to whether buy-back of shares by the Company is within the statutory provisions of SEBI (Buy-Back of Securities) Regulations, 2018 and/or The Companies Act, 2013 assuming that the proposed buy-back is expected to be completed in full within the next three months. ***(7 Marks)***

CASE STUDY -1

1.1 (C)

1.2 (C)

1.3 (A)

1.4 (B)

1.5 (B)

1.6 Chapter XI of the SEBI (ICDR) Regulations, 2018 deal with the issue of Bonus shares. They are contained in Regulations 293 to 295 of the said Regulations. Applying the said Regulations, the problem can be solved as under:

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Whether there is any need for increasing the authorised share capital because of bonus issue?

Fully Paid Up Share Capital.	80,00,000 X ₹10	₹8 Crore
Partly Paid Up Share Capital (₹5 each) converted into fully paid-up of ₹10 each.	20,00,000 X ₹10	₹2 Crore
Total Paid-up Capital after conversion of partly paid up are converted into fully paid-up.	1,00,00,000 X ₹10	₹10 Crore
5 Lakh fully Convertible Debentures of ₹100 each. These debentures are due for conversion on 31.03.2022 in full, into fully paid Equity Shares of ₹10 each in the ratio of 1 Debenture for every 2 Equity Shares.	10,00,000 X ₹10	₹1Crore
Share Capital before Bonus Issue.		₹11 Crore
Bonus Issue (1:1).		₹11 crore
Share Capital after Bonus Issue.		₹22 Crore
Current Authorized Share Capital.		₹20 Crore

In view of the increase in authorized share capital because of bonus issue, the Company has to pass a Special Resolution.

Bonus Shares only against reserves if Capitalized in Cash

As per Regulation 294, a bonus issue shall be made if:

01. It is authorized by its Articles of Association for issue of Bonus Shares, capitalization of reserves etc. If not authorized in the Articles, the issuer shall pass a special resolution at its general meeting making provisions in the Articles for capitalization of reserves.
02. It has not defaulted in payment of interest or principal in respect of fixed deposits or debts issued by it.
03. It has not defaulted in payment of statutory dues of the employees such as contribution to PF, Gratuity and Bonus.

Any outstanding partly paid shares on the date of the allotment of the bonus shares are to be made fully paid-up.

Further, as per Regulation 294 (3), a bonus issue shall be made only out of free reserves, securities premium account or capital redemption reserve account and built out of the genuine profits or securities premium in cash and reserves created by revaluation of fixed assets shall not be capitalized for this purpose.

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In the given case, the Bonus Issue amounts to ₹11 Crore which can be paid out of Securities Premium Account (₹20 Crore) and General Reserve (₹30 Crore).

In the present case, the proposed date of bonus issue is on or after 01.04.2022 and partly paid up shares were made fully paid-up on 30.06.2021, bonus to employees and workers were paid on 15.09.2021. But, interest on Public Deposits was still outstanding on 31.12.2021. Therefore, it is advised that the Company shall make good the interest on public deposits before proceeding for its bonus issue.

1.7 Whether the Mutual Fund has outperformed or underperformed the Sensex using Treynor's Ratio

Treynor Ratio for Portfolio Return = Return from the Portfolio (–) Risk Free Return / Beta of the Portfolio

i.e. TMF = 40% (-) 6% /1.30 =26%

Treynor Ratio for Sensex Return = Return from the Sensex (–) Risk Free Return / Beta of the Portfolio

(i.e) TM = 35% (-) 6% /1 = 29%

Conclusion

From the above, it is evident that the mutual fund has underperformed as compared to the benchmark.

1.8 Determination of buy back of maximum number of shares:

1. Shares Outstanding Test

Number of Shares Outstanding	1,25,000 (Shares)
25% of the Shares Outstanding	31,250

2. Resource Test: Maximum Permitted Limit 25% of Equity paid-up Capital + Free Reserves.

Paid-up Capital (₹)	12,50,000
Free Reserves (₹) (15,00,000 + 2,50,000 + 1,25,000)	18,75,000
Shareholders Funds (₹)	31,25,000
25% of Shareholders Funds (`)	7,81,250
Buy Back Price Per Share	₹20/-
Number of Shares that can be Bought Back (Shares)	39,062
Actual Number of Shares for Buy Back	25,000

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3. Debt Equity Ratio Test: Loan cannot be in excess of twice the Equity Funds, post Buy Back.

(a)	Loan Funds (₹) (18,75,000 + 10,00,000 + 16,50,000)	45,25,000
(b)	Minimum Equity to be maintained after Buy Back in the ratio of 2:1 (₹) (a/2)	22,62,500
(c)	Present Equity/ Shareholders Funds (₹)	31,25,000
(d)	Future Equity/ Shareholders Fund (₹) **Refer Working Note** (31,25,000 (-) 2,87,500)	28,37,500 *
(e)	Maximum Permitted Buy Back of Equity (₹) [(d)-(b)]	5,75,000
(f)	Maximum Number of Shares that can be bought back @ ₹20 per share	28,750 Shares
(g)	Actual Buy Back Proposed	25,000 Shares

* As per **Section 69(1) of the Companies Act, 2013, (the Act)** when a Company purchases its own shares out of its free reserves, then, a sum equivalent to the nominal value of the shares so purchased shall be transferred to the Capital Redemption Reserve Account (CRR) and details of such transfer should be disclosed in the Balance Sheet.

Further, **as per Section 69(2), (the Act)** utilization of CRR is restricted to fully paying up unissued shares of the Company which are to be issued as fully paid bonus shares only. It means, CRR is not available for distribution as dividend. Hence, CRR is not a free reserve. Therefore, for calculation of future equity, i.e. share capital and free reserves, amount transferred to CRR on buy-back has to be excluded from the present equity.

Summary statement determining the maximum number of shares to be bought back

Particulars	Number of Shares
Shares Outstanding Test	31,250
Resource Test	39,062
Debt Equity Ratio Test	28,750
Maximum Number of Shares that be bought back [least of the above]	28,750

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Company qualifies all tests for buy-back of shares and the conclusion is that it can buy maximum 28,750 shares on 1st April, 2022. However, Company wants to buy-back only 25,000 equity shares @₹20/-. Therefore, buy-back of 25,000 equity shares, as desired by the Company is within the statutory provisions.

Working Note:

Amount transferred to CRR and maximum equity to be bought back will be calculated by simultaneous equation method.

Suppose amount transferred to CRR account is 'x' and maximum permitted buy-back of equity shares is 'y'.

Then, (31,25,000 (-) X) - 22,62,500 = y ----------(1)

{y/20X 10} = x ---------- (2)

By solving the above equation, we get **X= ₹2,87,500 and y= ₹5,75,000.**

CASE STUDY: 2

1. ***Background of Best Steel Limited (BSL)***

BSL is an Indian Steel-making Company based in Pune and is headquartered in Mumbai, India. It is among the top steel producing Companies (measured by domestic production) in India with an annual crude steel capacity of 6 MTPA. It produces automation related products, bearings, pipes, precision tubes, car related materials, locomotive parts, agricultural equipment, machinery, tinplate, cable and building structures.

BSL is one of the India's most geographically diversified steel manufacturers, with operations and commercial presence across the country. Its largest plant is located in Jajuri Village, Pune, and was included in the list of the World Economic Forum's (WEF's) Global Lighthouse Network in 2021.

BSL has been recognised amongst India's best workplaces in manufacturing in 2022 by 'Great Place to Work' and it has received this recognition for the fifth time. This highlights Company's sustained focus on fostering a culture of high-trust, integrity, growth, and care for the employees. A strong, customer-focused approach and the constant quest for top-class quality have enabled BSL to attain and sustain leadership in its major lines of business for over four decades. The Company's integrated capabilities span the entire spectrum of 'design to delivery' and every aspect of the Company's businesses is characterised by professionalism and high standards of corporate governance. Sustainability is embedded into the Company as its long-term strategy for growth.

2. ***Growth of BSL***

The BSL has grown within a short span of time. As it started performing, lenders lined up to provide support in the growth, and BSL did well this way. To cater the funding requirements of the Company and its subsidiaries for large scale projects, besides equity, BSL sourced funds through debt instruments like Non-Convertible Debentures (NCDs) and

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Commercial Papers (CPs) with best coupon rates at relevant point of time. Several Indian financial institutions had participated in the NCDs and CPs of BSL amounting to ₹ One Lakh crore. BSL could even garner best of the credit ratings from various credit-rating agencies, which in turn happened to be a blessing in disguise for the financial institutions to make investments in the Company. Though the operations of the Company as a whole looked very promising, year-after-year, yet, there were some bottlenecks foreseen by some of the subsidiaries which had financial issues like defaults in repaying loans, interest payments and inter-corporate deposits to banks and other lenders. This came as a jolt from the blue and caused severe frustration with lenders, turmoil and successive resignations of senior management executives in such subsidiaries. Further, the short-term borrowings increased by 20% in one year but this has not awakened any alarming bells. In view of the above-sudden set back, one of the credit rating agency which had reaffirmed a highest rating of A 1 +, had, within a short span of 30 days, made two successive rating actions and downgraded the rating to D for specific CPs citing irregularities in debt servicing, driven by weakening Company's liquidity profile. The downgrading by a credit agency caused tremors in the financial markets.

The matter got so worse that the Government moved to take control of the Company and replaced the entire Board. Though there were no fraudulent motives alleged, the issue had even caught the eyes of the Ministry of Corporate Affairs in view of the fact that the Company had multiple layers of subsidiaries and a complicated web of inter-corporate relationships and a possibility of mismanagement of funds. The unfortunate fallout made the market value of quoted mutual funds to fall drastically resulting in erosion of invested values for ordinary investors as several mutual funds and financial institutions who had invested in CPs and debt instruments started to classify their investments as NPA due to strict NPA norms that they are subjected to. This prompted for an intense discussion among the financial market players on the role of the credit-rating agencies. The new Board of BSL has raised number of questions related to credit ratings and wants to ensure that the same mistake is not repeated in the future.

3. *The Company has a small treasury team and it has made investments in 15 listed equity shares and few mutual funds. BSL's treasury has also made investment in REITs. The credit default event also reduced the investment value of BSL in REITs and mutual funds. In fact now, the new Board has discovered that the Company in the past made investment in mutual funds having high expense ratio and hence they were hammered more when market started falling as a result of default by RSL. Although the treasury used risk assessment tools like Value-at-Risk (VaR) but its prediction failed as market started behaving abnormally after the default by BSL. Some of the Directors of BSL have first time heard about VaR arid wanted to understand what exactly it means in a simple manner. Two subsidiaries of BSL have real properties at very prominent locations and hence the management is looking at the possibility of raising fund through REITs.*

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4. ***New Start-up***

After seeing the debt related problems of BSL, the younger son of the Managing Director of BSL has set up a new company named Doc Ltd (DL) which has developed a web portal that helps in document management. DL has been registered as a start-up company and is looking for a suitable venture capitalist (VC) that can make investment in DL. It has roped in a VC named 'Whitestone Inc' for this purpose. The promoters of DL know that VC takes risk and they only can make investment at this stage.

Although market potential is high, the current visibility of future is not clear. From now, DL is likely to generate positive cash flow from the third year. The consultant of DL has given a valuation report which appears unreasonable because it has been prepared as if DL is a matured company. There are number of concepts in the valuation report with which promoters of DL are not comfortable especially beta, standard deviation, total beta, alpha etc. They have approached you for your advice on these terms. Considering unproven market, the VC has rejected the valuation report and has asked for expected cash flow for the three years only that would be used for the purpose of deciding investment. After a brain storming session, DL communicated to the VC that they need INR 100 Lakhs initial funding. The VC is willing to make investment and is looking to attain a 30% return. The probability of low cash flows is 60% and high cash flow is 40%.

Lakhs

Time	*0*	*1*	*2*	*3*
Cash flow	*(100)*	*0*	*0*	
60% probability		*0*	*0*	*90*
40% probability		*0*	*0*	*1000*
Expected Cash flow	*(100)*	*0*	*0*	*454*

Multiple Choice Questions

2.1 Why Venture capital is considered risky in nature?

(1) The business plan in which venture capitalists invests is non- conventional in nature.

(2) Venture capitalists contribute to the debt of the product.

(3) Venture capitalists contribute money for a longer time period.

(4) Venture capitalists, by investing in startups at art earlier stage, exhibits raw potential.

Choose the correct from the options given below:

(A) (3) and (4) only

(B) (1), (3) and (4) only

(C) (1) and (2) only

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(D) (1), (2) and (3) only

2.2 Suppose the management of BSL has approached you for raising funds through REITs using real properties of two subsidiaries. Which one of the following is not the major way that a REIT can be structured?

(A) As a single property REIT

(B) As a fixed life REIT

(C) As a dedicated REIT

(D) As an indexed REIT

2.3 Assume that the returns of one of the mutual fund investment made-by BSL are normally distributed and ·that one month VAR is 10000, what would· the four month VAR be?

(A) 10000

(B) 40000

(C) 80000

(D) 20000

2.4 As discussed in the Case Study about the problems in the valuation report of DL, the promoters of DL want to know about the dispersion of return in order to understand risk. In your opinion which of the following is the measure of dispersion of return?

(A) Beta

(B) Total Beta

(C) Standard Deviation

(D) Alpha

2.5 The Board of BSL wants to understand which type of mutual fund has lower expenses so that appropriate changes are made in the investment policy. In your opinion which one of the following mutual fund is likely to have lower expenses than other type of mutual fund?

(A) Index Fund

(B) Equity Fund

(C) Debt Fund

(D) Balance Fund **(5 x 2 = 10 Marks)**

The new Board of BSL has appointed you as a Consultant to answer Questions 2.6 to 2.9.

2.6 What are the areas that credit ratings do not take into account and measure? **(2 Marks)**

2.7 What kind of responsibility or accountability will attach to a rating agency if an investor, who makes his investment decision on the basis of its rating, incurs a loss on the investment? **(2 Marks)**

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2.8 How reliable and consistent is the rating process? How do rating agencies eliminate the subjective element in rating? ***(2 Marks)***

2.9 What could be the significant factors for the role and failure of the credit rating agency based on the inputs given in the Case Study? ***(3 Marks)***

2.10 Based on the information given in the Case Study, what percentage of equity share of DL, the VC would demand in order to finance 100 Lakhs? ***(2 Marks)***

2.11 Assume that the VC is ready to invest in DL with preference share having no dividend rights but with a liquidation preference of INR 100 Lakhs and which is convertible at any time into equity share at 1:1 ratio. If this is agreed by the VC instead of equity shares, what the VC receives in DL? ***(1 Mark)***

2.12 What fraction of equity share of DL, the VC would receive upon conversion of the preference share in order to get 30% IRR from the investment? ***(2 Marks)***

2.13 In your opinion, based on the results of Questions 2.10 and 2.12, which alternative would be less risky to the VC? Give the reasoned answer. ***(1 Mark)***

CASE STUDY -2

2.1 (B)

2.2 (D)

2.3 (D)

2.4 (C)

2.5 (A)

2.6 Areas that credit ratings do not take into account and measure

(1) Performance Evaluation of the rated entity unless called for.

(2) Investment Recommendation by the rating agency to invest or not in the instrument to be rated.

(3) Legal Compliance by the issuer-entity through audit.

(4) Opinion on the holding company, subsidiaries or associates of the issuer entity.

ALTERNATE ANSWER

It is important to emphasize the limitations of credit ratings.

1. They are not recommendations to renew, disburse or recall the concerned bank facilities or to buy, sell or hold any security.
2. They do not take into account many aspects which influence an investment or lending decision.
3. They do not, for example, evaluate the reasonableness of the issue price, possibilities for capital gains or take into account the liquidity in the secondary market.

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4. Ratings also do not take into account the risk of prepayment by issuer.
5. Ratings neither take into account investors' risk appetite nor the suitability of a particular instrument to a particular class of investors.

2.7 Responsibility or accountability that will attach to a Rating Agency if an investor who makes an investment decision on the basis of its ratings incurs a loss on the investment

A Credit Rating is a professional opinion given after studying all available information at a particular point of time. Nevertheless, such opinions may prove wrong in the context of subsequent events. Further, there is no contractual relationship between an investor and a rating agency and the investor is free to accept or reject the opinion of the agency. Further, credit rating does not, in any way, linked with investment recommendation by the rating agency to invest or not in the instrument to be rated.

ALTERNATE ANSWER

A credit rating is a professional opinion given after studying all available information at a particular point of time. Nevertheless, such opinions may prove wrong in the context of subsequent events. There is no contract between an investor and a rating agency and the investor is free to accept or reject the opinion of the agency.

2.8 (i) How reliable and consistent is the rating process

Ratings are based on a comprehensive evaluation of the strengths and weaknesses of the Company fundamentals including financials along with an in-depth study of the industry as well as macro-economic, regulatory and political environment.

To ensure consistency and reliability, a number of qualified professionals are involved in the rating process. Ratings are assigned by Committees, not individuals. Rating agencies also ensure that the rating process is insulated from any possible conflicts of interest.

(ii) How rating agencies eliminate the subjective element in rating

It is neither possible nor even desirable, to totally eliminate the subjective element. Ratings do not come out of a pre- determined mathematical formula, which fixes the relevant variables as well as the weights attached to each one of them. Rating agencies do a great amount of number crunching, but the final outcome also takes into account factors like quality of management, corporate strategy, economic outlook and international environment.

2.9 Significant factors for the role and failure of the credit rating agency

The role of the Credit Rating Agency (CRAs) is to provide an appropriate rating for a debt instrument, monitor periodically whether the rating holds good and revise it, if appropriate. This process has to be done continuously until the life of the related instrument. For this,

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the CRA is required to be registered under SEBI, appoint a Compliance Officer to ensure compliance with various requirements laid down by SEBI.

In the case of Commercial Papers (CPs), CRA has to additionally obey RBIs mandate and report to RBI under RBIs money market regulations which also provides for continuous monitoring and reporting. CRAs are required to have adequate trained and qualified professionals to ensure the validity of their registration. Further, conflict of interest is avoided by certain prohibitions for CRAs to rate entities in which they are interested.

There are also prescribed ethical codes of conduct which provide for honest, timely, consistent, informative reporting that can be relied upon. These have been laid down since the rating are an indications used by the lenders, notwithstanding the regulatory disclaimer by CRA that the rating is not an investment recommendation. When a rating is very high, it is certainly taken to be truly effective of the entity's performance when a lender decides to lend funds to the entity.

The CRA's have failed in its responsibility since, it must have been aware that much of the liquidity depended on receivables from its subsidiaries and associates and defaults from them would have been visible from the first time of default. CPs should have been raised under RBI's guidelines if there has been default in debt servicing. In order to raise CPs, there appears to have been a concerted hiding of non-servicing of debts.

Further, each credit rating agency may have its own set of criteria and different weightage for each component for assigning the ratings. Some of the common factors that may be taken into consideration for credit rating are Issuer Company's operational efficiency, level of technological development, financials, competence and effectiveness of management, past record of debt servicing, etc.

2.10 Percentage of Equity Share of DL, the VC would demand in order to finance ₹100 lakhs

100/ (454 x PV factor for the 3rd year at 30%) = 48.41%

2.11 The VC receives a fixed claim of INR 100 lakhs plus a call option on the equity share with a strike price of 100

2.12 The VC will convert preferred stock when high cash flows are required. Hence the following equation would give the fraction of shares needed by the VC

100 = [90 x .60 + X x 1000 x .40] x .455

The fraction of share now would be 41.45%

2.13 Using Convertible Preferred Stock reduces the risk of underperformance borne by the VC and is the best alternate that would be less risky.

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CASE STUDY: 3

Background

Wellington Limited (WL) is engaged in the business of manufacturing products like moulds, dies and machinery. They have a wide customer base in the automobile, infrastructure, construction and other sectors both within India and abroad. The business model of WL involves entering into a contract for sale of each product and consideration is received on the event of delivery of goods at the customer place. Issues related to the business of WL are described below:

(1) ***Loan in Foreign Currency***

On 1st April, 2020, WL raised a long-term loan from foreign investors. The investors subscribed for 6 million Foreign Currency (FCY) loan notes at par at a coupon rate of 10%. WL incurred incremental issue costs of FCY 2,00,000. Interest of FCY loan is repayable in FCY on 31st March, 2021. The FCY loan is redeemable at a premium and the effective annual interest rate implicit in the loan is 12%. The appropriate measurement basis for this loan is amortized costs. Relevant exchange rates are given below:

01.04.2020: FCY 1 = ₹ 2.50; 31st March, 2021: FCY 1 = ₹ 2.75. Average rate for the year ended 31st March, 2021: FCY 1 = ₹ 2.42. The functional currency of the Company is Indian Rupee.

(2) For meeting the day-to-day working capital needs, WL has been banking with Amir Bank Limited for the last five years and has become an important client of the bank. The Company has been borrowing heavily in order to finance its growth. The track record of servicing debt is very good. In addition to interest income, the Company provides a significant amount of fee income. The following financial summary has been presented to the Bank.

Total Sales	*₹1,40,00,000*
Total Assets	*₹35,00,000*
EBIT	*₹4,00,000*
Debt as a Percentage of Total Assets	*70%*
Capital Turnover	*10 Times*
Inventory Days	*30*
Receivable Days	*1*
Payable Days	*13*
Annual Sales Growth (Average, Last Three Years)	*120%*
Dividend Payout Ratio	*20%*

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The Management of the Company believes that next year Sales will grow by 100%. Currently, the Company is using its Cash Credit limit of ₹5,00,000 and expecting an increase in the cash credit limit. Term lending is no longer an option as the Company has reached the bank's limit of total gearing.

(3) *WL has also diversified into organic agro-based business and has taken on lease 1000 acres of land for producing coriander. As this is a new line of business, there is less focus on risk management of price risk related to this commodity. After the success in this commodity, WL has a plan to add more commodities which can improve growth in the future. However, before expanding further, it wants an appropriate risk management system is put in place.*

(4) *WL's treasury is interested in trading future contract and in this respect has identified future contract on ZIP Ltd. The stock ZIP pays an annual dividend of ₹ 4 and is currently priced at ₹ 125. Each future contract calls for delivery of 1,000 ZIP shares in one year. The corporate Treasury-bill rate is 8%.*

(5) *WL is also considering diversifying into lending business. As taking a banking license is difficult it would be a great idea to start with a NBFC. The management of WL wants your inputs on the compliance issues of NBFCs and also on what are the operational freedom and restrictions available to NBFCs.*

(6) *One of the subsidiaries of WL named HT wants to enter securitization market. However, they are concerned with a lower rating-grade. They also know that, with a rating below an investment-grade rating, it is difficult to market a securitized transaction to institutional investors who are not allowed to invest below investment grade. WL's team is very clear that in order to attract institutional investor, a securitized transaction require some form of credit enhancement to achieve investment grade rating for one or several classes. Now, WL has decided to take your help in this regard. Further, a brief note on collateralized debt obligation (CDO) and other credit derivatives are also required before they can be put in operation as WL's team is not in a position to understand related terms like collateralized bond obligation (CBO), collateralized debt obligations (CDO) and collateralized loan obligations (CLO).*

Multiple Choice Questions

3.1 *You have been informed that the working capital of HT is showing indicators such as (i) reliance on long-term debts, (ii) offering longer credit period, (iii) higher level of inventory, (iv) rapid decreasing sales and (v) deteriorating current ratio. Which of these indicators are reflections of "overtrading" in the context of working capital management?*

(A) (ii) and (v) only

(B) (i), (iii) and (v) only

(C) (i), (ii) and (iii) only

(D) (i), (iii) and (iv) only

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3.2 There are number of issues that would require consideration before WL decides to operate in NBFC segment. Given below are few such issues.

1. All NBFC's should be registered with RBI.

2. NBFCs cannot accept demand deposits.

3. NBFCs do not form part of the payment and settlement system and cannot issue cheque drawn on it.

4. Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs.

Which one of the following is correct with respect to NBFCs in India?

(A) 1, 2 and 3 only

(B) 1, 2, 3 and 4

(C) 1, 2 and 4 only

(D) 1 and 2 only

3.3 For hedging commodity prices of WL, number of hedging products are available in the market. Which one of the following risk management technique is correct to hedge the financial risk arising from the prices of coriander that it sells?

I. Short coriander future contract

II. Long Put option on coriander

III. Long Call option on coriander

(A) I only

(B) II only

(C) III only

(D) I and II only

3.4 In your opinion which one of the following accurately describes the relationship between CBO, CDO and CLO?

(A) Any CBO can be considered a CDO.

(B) Any CDO can be considered as a CLO.

(C) Any CLO can be considered as a CBO.

(D) Any CBO cannot be considered as CDO.

3.5 Which one of the following is incorrect with respect to credit enhancement in case of securitized transaction?

(A) Over collateralization is an example of internal credit enhancement.

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(B) Subordination is an example of external credit enhancement.

(C) Letter of Credit is an example of external credit enhancement.

(D) Surety bond is an example of external credit enhancement. ***(5 x 2 = 10 Marks)***

3.6 How much increase in the cash-credit is required in order to fund increased working capital requirements of WL? Provide your answers through step- wise calculation taking into consideration 365 days in a year? ***(4 Marks)***

3.7 In respect of the foreign currency loan taken by WL, calculate the initial measurement amount for the FCY loan, the finance cost for the year 2020-21, and the closing balance of the loan at March 31, 2021. ***(5 Marks)***

3.8 Based on the information given in the Case Study

(A) What should be the price of one ZIP future contact?

(B) If the ZIP price decreases by 6%, what will be the price of one ZIP future contract?

(C) If price of ZIP decreases, will WL make profit with their long position in one ZIP future contract, and what will be the amount of gain or loss? (Ignore margin and taxation, if any). ***(6 Marks)***

CASE STUDY – 3

3.1 (B)

3.2 (B)

3.3 (D)

3.4 (A)

3.5 (B)

3.6 To calculate the increase in Cash Credit, we shall compute the value of each constituent of Working Capital as follows :

Current Total Sales = ₹ 1,40,00,000.

Next year, additional sales are expected to increase by 100% and accordingly, the total expected sales would be ₹ 2,80,00,000.

Cost of Goods Sold (COGS) = ₹ 2,80,00,000 - ₹ 8,00,000 = ₹ 2,72,00,000

Computation of Working Capital:

Inventory (COGS x30/365) = ₹ 2,72,00,000 X 30/365) = 22,35,616.

Receivables (Sales X 1/365) = (₹ 2,80,00,000 X 1/365) = 76,712

= 23,12,328

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Less: Creditors

(COGS X 13 /365) = (₹ 2,72,00,000X13/365) = 9,68,767

Net Working Capital = ₹13,43,561

Increase in Working Capital Limit = ₹ 13,43,561

Less: Existing Working Capital Limit = ₹ 5,00,000

Working Capital Required = ₹ 8,43,561

3.7 Initial Measurement of the Loan:

Loan Amount Received	60,00,000 FCY
Less: Incremental Issue Costs	(2,00,000) FCY
	58,00,000 FCY

Foreign currency transactions are initially recorded at the rate of exchange in force when the transaction was first recognized.

Loan to be converted in ₹ = 58,00,000 FCY X ₹2.50 FCY

= ₹1,45,00,000

Therefore, the loan would be recorded at ₹1,45,00,000/-.

Calculation of amortised cost of the loan in FCY at the year end

Period	Opening Financial Liability (FCY) (A)	Interest at 12% (FCY) (B)	Cash Flow (FCY) (C)	Closing Financial Liability D (A+B-C)
2020-'21	58,00,000	6,96,000	6,00,000	58,96,000

Therefore, the Finance Cost in FCY = 6,96,000.

The finance cost would be recorded at an average rate for the period since it accrues over a period of time. Hence the finance cost for FY 2020-21 = ₹16,84,320 (6,96,000 FC X ₹ 2.42 FCY).

The actual payment of interest would be recorded at 6,00,000 X 2.75 = ₹ 16,50,000/-.

The loan balance is a monetary item, so it is translated at the rate of exchange at the reported date.

So the closing loan balance = ₹ 58,96,000 FC X 2.75 FC = ₹ 1,62,14,000/-

3.8 (i) Price of one future contract:

Future Price = Spot + Cost of Carry - Dividend

= ₹ 125 + (₹ 125 X 0.08) - 4 = ₹ 131

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Price of one future contract = 1,000 Shares X ₹ 131

= ₹ 1,31,000

(ii) Price decrease by 6%

Market Price = ₹ 125 X 94% = ₹ 117.50

Then, price of one future contract

= ₹ 117.50 + (₹117.50 X 0.08) - 4

= ₹ 122.90

= ₹ 122.90 X 1,000 shares

= **₹ 1,22,900/-**

(iii) Amount of loss/ gain

If the investor has taken a long position, decrease in price will result in loss for the investor.

Amount of Loss will be :

₹ 1,31,000 - ₹ 1,22,900

= ₹ 8,100/-

CASE STUDY: 4

XYZ Limited is a large manufacturing Company having its registered and Corporate Office at Financial District, Visakapatnam. The Company was formed by the chief Promoters namely Mr. R.T. Raghavan and R.T. Shanmugam respectively being twin brothers and in collaboration with Carl Lewis Inc., U.K. The combined shareholding of the two brothers is 51% and that of Carl Lewis Inc., U.K. is 49%. Whilst the day-to-day activities arc monitored by both the brothers, the technical know-how is provided by Carl Lewis Inc., U.K. The Board of Directors of the Company comprises of eminent directors drawn from various fields including a nominee foreign director from Carl Lewis Inc., U.K., and with an appropriate mix of executive and non-executive independent directors and a women director as well. Ms. Preeti Garg is the CFO of the Company since incorporation and she advises the top management on all finance related matters. She is highly extrovert and goes an extra mile in knowing· the emerging trends in the financial services and capital markets and deploys the best practices in the Company.

In order to further strengthen the finance functions of the Company, she has sought your assistance and shared the following details with you:

(1) The CFO wanted you to provide an overview of 'money market' as a whole and accordingly, you gave a short presentation on the basics of money market. But the CFO asked you to explain functioning of Repo and Reverse Repo transactions by way of an example.

(2) The CFO shared with you that the Company exports its products to North America. All the exports are invoiced in US$. The firm is considering the use of money market or forward

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market to cover the receivables of US$ 50,000 expected to be realized in 3 months' time and has the following information from its bankers:

	Exchange Rates
Spot	*USD/INR 72.65/73*
3-m Forward	*USD/INR 72.95/40*

The borrowing rates in US and India are 6% and 12% p.a. respectively and the deposit rates are 4% and 9% p.a. respectively.

(3) *The CFO further informed that receivables form a major part of the current assets of a Company and management of such receivables is the most important concern for the Company. In this regard, she suggested factoring would be a best financial option for the management of receivables as it is a tool to obtain quick access to short-term financing and mitigate risks related to payment delays and defaults by buyers. She further informed that in the process of factoring, the seller sells its receivables to a financial institution ("Factor") at a discount. After the sale, there is an immediate transfer of ownership of the receivables to the factor. In the due course of time, either the Factor or the Company, depending upon the type of factoring, collects payments from the debtors. She explained the above significance of factoring as she was very much concerned about one of her Subsidiary which was in the brim of becoming a sick company because of delay / non realization of their dues from large units to whom they were supplying. She is of the opinion that introduction of factoring services will, therefore, prove to be very beneficial for such units as it will be free from hassles of collecting receivables to enable them to concentrate on product development and marketing.*

In numeric terms, she tabled the following information about the subsidiary of the Company:

Credit Sales	*₹ 2,10,00,000*
Average Receivables	*₹ 35,00,000*
Estimated Bad Debt Losses	*0.9% on the sales*

With an eye to save time on collection of receivables, the CFO suggested a proposal to appoint a Factor.

Further Information:

Particulars	*Recourse*	*Non-Recourse*
Average reduction in collection of receivables (Days)	*30*	*30*
Reduction in Bad debts	*0.3%*	*0.9%*
Savings in administrative costs	*40,000*	*40,000*
Advance	*80%*	*80%*

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Interest on Advance- *2% p.a. higher than current OD interest of 7%*		
Factor fee	*0.60%*	*1.25%*

Number of days in a year has been assumed to be 360 days.

(4) XYZ has 100 Lakhs rolling over on a 3m-MIBOR based deposit for a period between June and September 2022. Anticipating that 3m-MIBOR will fall further than anticipated, the Company wants to hedge the same using June 2022 interest future contract. Notional size of interest future contract is INR 10 Lakhs. The June interest future contract is quoted at 98.5.

(5) The CFO of XYZ Ltd. has asked a quote for generic interest rate swap (IRS) as she wants to use this for hedging interest risk of its subsidiary. The bank's quote on a 3-year generic IRS is: All-in-Cost of "55-58" flat. The benchmark for float rate is 6m-MIBOR and the fixed rate benchmark is MCLR. Further, interest rate data of two subsidiaries of XYZ named DP and MQ are given. The CFO is interested in knowing whether an IRS can be structured between them assuming there is no regulatory issue.

	DP	*MQ*
Credit Rating	*BBB*	*A*
Objective	*Fixed rate loan*	*Float Rate Loan*
Fixed Rate borrowing	*13%*	*11%*
Float Rate borrowing	*MIBOR + 150bp*	*MIBOR + 50bp*

(6) XYZ has bought substantial number of 7-year 7.5% INR 1000 bond with 4% premium on maturity at a required Yield to Maturity (YTM) of 8.5 %. However, for a project it is looking to sell these bonds and has got a proposal from another investor who is willing to purchase these bonds by shelling out a maximum amount of 895 per bond. Investors value bonds on intrinsic value basis.

Multiple Choice Questions

4.1 Based on the information given in the Case Study about MIBOR based deposit, what action and how many interest future contract would be needed by XYZ to hedge its position?

(A) Buy 10 interest Future contracts

(B) Sell 10 interest Future contracts

(C) Buy 1 interest Future contract

(D) Sell 1 interest Future contract

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4.2 The CFO and her team have never used IRS and hence they are not aware about the market convention of IRS quote. Which one of the following is not correct with respect to the quote for IRS as mentioned in the Case Study?

(A) The dealer is ready to buy IRS at 55 basis point over MCLR.

(B) The dealer is ready to buy at 55 basis point over MIBOR.

(C) The dealer is ready to sell at 55 basis point over MCLR.

(D) The dealer is ready to sell at 58 basis point over MIBOR.

4.3 Which form of factoring is known as "Old Line Factoring"?

(A) Recourse Factoring

(B) Non-Recourse Factoring

(C) Full Factoring

(D) Cross Border Factoring

4.4 Identify the incorrect statement.

(A) A forfaiter discounts the entire value of the note/bill. In a factoring arrangement, the extent of finance available is 75% to 80%.

(B) The forfaiter's decision to provide financing depends upon the financing standing of the availing bank. On the other hand, in factoring deal, the export factor bases his credit decision on the credit standing of the exporter.

(C) Factoring is a pure financial arrangement while forfaiting includes ledger administration as well as collections.

(D) Factoring is a short term financial deal. Forfaiting spreads over 3-5 years.

4.5 Bank A enters into a Repo for 14 days with Bank B in 10% GoI Bonds, 2021 at a rate of 5.00% for ₹6 crore. Assuming that the clean price is 98.40, initial margin be 3% and days of accrued interest be 295, the 'dirty price' would be (based on the number of days in a year at 360) :

(A) 106.60

(B) 109.15

(C) 107.50

(D) 110.00 ***(5 x 2 = 10 Marks)***

4.6 The CFO shared with you data about the Company's export. On the basis of further information provided in this regard, answer the following questions:

(i) Which option is better for the Company?

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(ii) *Assume that the Company anticipates the spot exchange rate in 3 months' time to be equal to the current 3 months forward rate. After 3 months, the spot exchange rate turns out to be USD/INR 73.20/22. In such a scenario, what will be the foreign exchange exposure and risk of the Company?* ***(4 Marks)***

4.7 Based on the data given in the Case Study answer the following questions:

(A) *Compute the Market price.* ***(3 Marks)***

(B) *Duration and Volatility of the bond?* ***(2 Marks)***

(C) *Compute required Yield to Maturity (YTM) of the new investor.* ***(4 Marks)***

4.8 Assuming an IRS can be structured between DP and MQ, what is the maximum saving possible? If the saving is split equally, what is the cost of two subsidiaries with the IRS?

(2 Marks)

CASE STUDY 4

4.1 (A)

4.2 (C)

4.3 (C)

4.4 (C)

4.5 (A)

4.6 (i) Which Option is better for the Company?

Money Market Hedge:

For money market hedge, Indian Firm shall borrow in US $ and then translate them to Indian Rupee and shall make deposit in Indian Rupee.

For receipt of US$ 50,000 in 3 months (@1.5% interest), amount required to be borrowed now (US$ 50,000 / 1.015) = US$ 49,261.08

With spot rate of 72.65, the rupee deposit will be ₹35,78,817.46

Deposit amount will increase over 3 months (@2.25% interest) will be ₹ 36,59,340.85

Forward Market Hedge

Sell 3 months forward contract. Accordingly, amount receivable after 3 months will be:

(US$ 50,000 X 72.95) = ₹36,47,500/-.

In this case, more will be received under the money market hedge. Hence, it is a better option.

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(ii) Foreign Exposure and Risks for the Company: There will be no forex risk and exposure to the Company as the spot rate after 3 Month has no relevance once forward contract has been booked.

NOTE : The forward quotation for three months can be either taken as 72.95/73.40 or 72.95/72.40, in which case, 72.40 will be considered as the bid rate. In the above solution, bid rate is taken as 72.95. If bid rate is taken as 72.40, then alternatively, the question can be solved as follows:

ALTERNATE ANSWER

Which option is better for the Company?

(i) Money Market Option

$$\frac{50000}{1+0.06/4} = \frac{50000}{1+0.015} = \frac{50000}{1.015} = 49261.08$$

Deposit in India at Spot Rate 72.65 x 49261.08 = 3578817

Add: Interest on Deposit @ 9% = 80523

= 36, 59,340

Forward Hedge

Forward Rate (3 months)	₹ 72.40
Amount in US $	$ 50000
	= **36, 20,000**

Option (I) is better

(ii) Foreign Exchange Exposure and Risks for the Company

Anticipated per US $	₹ 72.40
Actual Spot Rate after 3 months	₹ 73.20
	0.80
Gain/Exposure	₹ 40,000

OR

Anticipated per US $	₹ 72.95
Actual Spot Rate after 3 months	₹ 73.20
	0.25
Gain/Exposure	₹ 12,500

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4.7

Face Value	1000
Coupon	0.075
Yield	0.085
Terms to Maturity	7
Premium on Maturity	0.04
Desired Purchase Price	895
Interest Amount	75

Yield	Yr (t)	Inflow	PVIF	PV	PV/Po	PV/Po*t (duration)
0.085	1	75	0.922	69.15	0.07	0.07
0.085	2	75	0.849	63.68	0.07	0.13
0.085	3	75	0.783	58.73	0.06	0.18
0.085	4	75	0.722	54.15	0.06	0.22
0.085	5	75	0.665	49.88	0.05	0.26
0.08S	6	75	0.613	45.98	0.05	0.28
0.085	7	75	0.565	42.38	0.04	0.31
0.085	7	1040	0.565	587.60	0.60	4.23
			Total	**971.53**	**1.00**	**5.69**

(A)	Present Value of Bond (P_0)	971.53
(B)	Duration of Bond	5.69
	Volatility of the Bond Duration/(1+YTM)	5.24
	Price Differential (971.53 – 895)	76.53
	Therefore, increase in Yield % = Price Diff*100/ Volatility X Po = 1.5%	1.50
(C)	Required YTM of New Investor = 8.5 +1.5 = 10%	0.1000

or

ALTERNATE ANSWER

(A) Market Price of Debentures

The annual interest on 7 year 7.5% INR 1000 bond = 1000 x 7.5% = ₹ 75

and, YTM = 8.50%

So, market price $= \frac{₹\ 75}{8.5\%} = ₹\ 882$

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(B) Duration

$$= \left(\frac{1+YTM}{YTM}\right)\left(1-\frac{1}{(1+YTM)^{n}}\right) = \left(\frac{1+0.085}{0.085}\right)\left(1-\frac{1}{(1+0.085)^{7}}\right)$$

= 5.553 years

Volatility

$$= \frac{\text{Percentage change in price}}{\text{Percentage change in YTM}} = \frac{1000-882/1000\,X\,100}{9.9-8.5}$$

$$= \frac{11.8\%}{1.4\%} = 8.43\%$$

(C) Yield to Maturity (YTM) of the new Investor

$$= \frac{\text{Interest} + \text{Redeemable Value} - \text{Book Value} / N}{(RV + BV)/2} = \frac{75 + (1040 - 895)/7}{(1040 + 895)/2}$$

$$= \frac{95.71}{967.5} = 9.90\%$$

4.8 (i) Maximum Savings

= 200bp-100bp = 100bp

(ii) Cost of Two Subsidiaries with generic Interest Rate Swap (IRS).

Cost of DP = 12.5%

Cost of MQ= MIBOR

CASE STUDY: 5

1. ***Background***

Zedd Ltd. (ZL) is a technology platform that connects customers, restaurant partners and delivery partners, serving their multiple needs. Customers use its platform to search and discover restaurants, read and write customer generated reviews and upload photos, order food delivery, book a table and make payments while dining-out at restaurants. On the other hand, it provides restaurant partners with industry-specific marketing tools which enable them to engage and acquire customers to grow its business while also providing a reliable and efficient last mile delivery service.

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Business of the Company is built around the core idea that over time, people in India are going out to eat at restaurants more than they cook at home. To capture value out of this shift in customer behaviour, it has two core business-to-customer (B2C) offerings food delivery and dining-out and it also has business-to business (B2B) offerings. Another important part of its business is Zedd Pro, its customer loyalty program which encompasses both food delivery and dining-out. Each of B2C as well as B2B offerings helps increase the value of its platform for its customers, enabling it to further attract new customers and to deepen engagement with existing customers. Each of its offerings also helps improve assortment, affordability, accessibility and quality ("AAAQ") of restaurant food for its customers thereby helping grow the restaurant industry.

2. ***ZL's IPO***

ZL has come out with an Initial Public offer (IPO) and the issue open dates are: July 14 to July 16, 2021. The price band is: INR 72-76, and the issue type is 100% Book-Building. The offer comprises a fresh issue by ZL and an 'Offer for Sale' by the Selling Shareholder (Y-Tech Ltd or YL). YL will be entitled to its respective portion of the proceeds of the 'Offer for Sale' after deducting its proportion of Offer expenses and relevant taxes thereon.

ZL needs to continue to invest in two core areas for the growth of its business which include, customer and user acquisition and food delivery and technology infrastructure. It has made these investments in the past, and expects these to continue to be critical for the growth of the business in the future. The size of fresh issue is INR 9000 cr. and Offer for Sale is INR 375 cr. ZL proposes to use INR 6750 cr. of the net proceeds of the IPO for funding organic and inorganic growth initiatives. Past financial performance of ZL is given below.

Profit & Loss

Particulars (₹ in million)	***FY 21***	***FY 20***	***FY 19***
Revenue from Operations	*19937.9*	*26047.4*	*13125.9*
Other Income	*1246.4*	*1380.0*	*851.3*
Total Income	***21184.3***	***27427.4***	***13977.2***
Total Expenditure	***24609.6***	***49094.4***	***35563.7***
Purchase of stock in trade	*2028.7*	*1105.2*	*187.2*
Changes in inventories of traded goods	*-110.0*	*-16.0*	*-21.3*
Employee benefits expense	*7407.7*	*7988.8*	*6007.9*
Other expenses	*15283.2*	*40016.4*	*29389.9*
PBIDT	***-3425.3***	***-21667.0***	***-21586.5***
Interest	*100.8*	*126.4*	*86.5*
PBDT	***-3526.1***	***-21793.4***	***-21673.0***

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Depreciation, amortization and impairment expense	*1377.4*	*842.4*	*431.4*
PBT	***-4903.6***	***-22635.7***	***-22104.3***
Exceptional items	*-3247.7*	*-1220.3*	*11999.2*
Tax (incl. DT & FBT)	*13.0*	*0.0*	*0.0*
Net Current Tax	*13.0*	*0.0*	*0.0*
PAT	***-8164.3***	***-23856.0***	***-10105.1***
OPM (%)	*-23.4*	*-88.5*	*-170.9*
PATM (%)	*-40.9*	*-91.6*	*-77.0*

3. ***ZL's Machine Acquisition***

ZL, after the IPO, has a plan to install a machine and is considering buying or leasing option. The machine is subjected to straight line method of depreciation. In this regard, ZL can raise a debt at 16% payable in 4 equal annual installments off 1,68,589 each at the beginning of the year. In case of leasing, the Company would require to pay an annual rent at the end of the year @30% of cost of the machine for 4 years. The Company is in 45% tax bracket. The salvage value is estimated at ₹ 12,412 at the end of 4 years.

4. ***ML Ltd.***

One of the associate companies of ZL named ML Ltd is planning to use credit derivatives for hedging credit risks. It will do it after evaluating its impact on its financial statement. It also has plans to convert rupee loan into foreign currency loan in order to reduce its cost of borrowing. The CFO of ZL would support and continuously monitor these as there is no in-house expertise available with ML to manage foreign exchange risk.

5. ***PQ Ltd.***

You have also been asked by the CFO of PQ Ltd which is a subsidiary of ZL to help him in certain matters related to the Right issue. PQ has an expansion plan and is proposing to fund its expansion plan of INR 1984.20 crore by making a rights issue. The Board of PQ is proposing a discount of 20% on the market price per share of PQ for the rights issue. The Board also wants that fall in Ex-Right price of the shares should be restricted to 10% of the market price per share. The current market price per share is INR 6614.

5.1 Which one of the following is incorrect with respect to conditions that are attached to an 'Offer for Sale' forming part of an initial public offer (IPO)?

(A) Limit on monetary asset of an issuer is not applicable, in case IPO is entirely through an 'Offer for Sale'.

(B) Limit on monetary asset of an issuer is applicable, in case IPO is entirely through an 'Offer for Sale'.

(C) Only fully paid up equity shares can be 'Offer for Sale'.

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(D) *The full issue price for each specified security shall be payable at the time of application.*

5.2 *The CFO of Z Ltd wants to know about possible utilisation of the net proceeds of the IPO. Which of the following is incorrect with respect to utilization of the net proceeds of the IPO? The funds collected from the IPO by ZL:*

(A) *Can be used for any general corporate purpose.*

(B) *Can be fully used only to create food distribution and technology infrastructure of ZL.*

(C) *Can be used for funding organic growth and/or in organic growth up to INR 6,750 cr. of ZL.*

(D) *Cannot be used for investing temporarily in unsecured loans to other companies.*

5.3 *ZL proposes to acquire another large start-up company and has signed an MOU recently subject to approval of the Board. The Board meeting is scheduled in the next 14 days for which date and agenda are under finalization. The Managing Director of the start-up company wishes to dispose of his 5 % shareholding in ZL. In this respect, which one of the following is correct?*

(A) *After signing the MOU.*

(B) *After the date of Board Meeting in which the transaction is approved.*

(C) *After a public announcement is made of the MOU signed by the company.*

(D) *Once the stock exchanges are notified about the proposed Board meeting to consider the proposal.*

5.4 *ZL wants to ensure that an anchor investor is attracted towards the IPO. Which one of the following is incorrect with respect to the anchor investor?*

(A) *ZL can reserve up to 60% of the issue to the anchor investor under qualified institutional buyers category.*

(B) *Promoters or promoter group can be an anchor investor.*

(C) *Bidding for anchor investor is opened one day before the IPO opens.*

(D) *Anchor investor has to pay entire application money as margin money on the application.*

5.5 *ML has got a proposal from a reputed bank to convert its INR borrowing into USD liability for a 10-year and promised to hedge the foreign exchange risk. The CEO of ML appears happy with the proposal as it is likely to save 200 basis point of interest cost. However, he does not want any fluctuation in the cash flow on account of this and wants to remain fully covered from interest rate risk and foreign exchange risk. Which one of the following derivative instrument would be the most suitable for this purpose?*

(A) *Forward Contract*

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(B) *Currency Swap*

(C) *Interest Rate Swap*

(D) *Currency Future* ***(5 x 2 = 10 Marks)***

5.6 *Do you think the IPO of ZL could have been a fixed-price issue? Why merchant bankers and the issuer decided to issue shares on the basis of book-building and not fixed-price? Give reasoned answer for both questions.* ***(2 Marks)***

5.7 *What is the minimum spreads required in case of price-band? Do you think that and price-band can be changed after filing the RHP?* ***(2 Marks)***

5.8 *In the light of the information provided in the Case Study for considering buying or leasing a machine, advise which option should be exercised and why?*

N	*1*	*2*	*3*	*4*
PVIF (8.8, n)	*0.919*	*0.845*	*0.776*	*0.714*
PVIF (16, n)	*0.862·*	*0.743·*	*0.640*	*0.552*

(5 Marks)

5.9 *Based on the information given in the Case Study for PQ Ltd answer the following questions:*

(A) *What will be the number of equity shares for each right share held?* ***(2 Marks)***

(B) *What will be the number of fresh equity shares to be issued?* ***(2 Marks)***

5.10 *ML wants to use credit derivatives and wants your suggestion on two sources of market risk that credit derivatives contain. Explain these two risks.* ***(2 Marks)***

CASE STUDY – 5

5.1 (B)

5.2 (A)

5.3 (C)

5.4 (B)

5.5 (B)

5.6 The IPO of ZL could not have been a fixed price issue. The reason is that as per Regulation 6(2) of the SEBI (ICDR) Regulations, 2018, if the Company is not satisfying any of the requirements of Regulation 6 (1) of the said regulations, it can make an initial public offer only through the book-building process. Further, It is noted that that the issuer ZL has been continuously incurring losses before the proposed IPO as per the case study.

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5.7 Minimum spreads required in case of a price band

The issuer may mention a floor price or a price band in the red herring prospectus. As per Regulation 29 of the SEBI (ICDR) Regulations, 2018, the cap on the price band shall be less than or equal to one hundred and twenty percent of the floor price provided the cap of the price band shall be at least 105 percent of the floor price. And, the floor price or the final price shall not be less than the face value of the specified securities being subject to IPO.

Can the price band be changed

The price band can be changed after filing the Red Herring Prospectus. In case of a revision in the price band, the issuer shall extend the bidding (issue) period disclosed in the Red Herring Prospectus, for a minimum period of three working days, but not more than ten working days.

5.8 Calculation of Cost of the Machine (₹)

Beginning of Year	Closing Balance at the beginning	Installment	Interest	Principal Component
4	0	1,68,589	23,254	1,45,335
3	1,45,335	1,68,589	43,300	1,25,289
2	2,70,624	1,68,589	60,581	1,08,008
1	3,78,632	1,68,589	0	1,68,589
				5,47,221

Cost of the Machine is ₹5,47,221/-.

Alternatively, it can be computed as follows:

$$\text{Annual Payment} = \frac{\text{Cost of Machine}}{\text{PVAF}(16\%, 0\text{-}3)}$$

$$1,68,589 = \frac{\text{Cost of Machine}}{3,245}$$

Cost of Machine = ₹5,47,071/-

Year	Total Payment	Interest	Principal Component	Principal Outstanding
0	1,68,589	0	1,68,589	3,78,482
1	1,68,589	0	1,08,032	2,70,450
2	1,68,589	43,272	1,25,317	1,45,133
3	1,68,589	23,221	1,45,369	-
Total			5,47,307	-

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Note: Difference in the last installment is due to rounding off of annuity factor to two decimal points.

Buying Option

Depreciation p.a. = ₹ 5,47,071 - 12,412 / 4 = ₹ 5,34,659

Depreciation p.a. = ₹1,33,665.

Tax Saving on Interest and Depreciation

Year	Interest (₹)	Dep. (₹)	Total (₹)	Tax Saving (₹)
1	60,557	1,33,665	1,94,222	87,400
2	43,272	1,33,665	1,76,937	79,622
3	23,221	1,33,665	1,56,886	70,599
4		1,33,665	1,33,665	60,149

PV of Outflow

Year	Installment (₹)	Tax Saving (₹)	Net outflow (₹)	PV @8.8%	P.V. (₹)
0	1,68,589	0	1,68,589	1.0000	1,68,589
1	1,68,589	87,400	81,189	0.919	74,612.69
2	1,68,589	79,622	88,967	0.845	75,177.12
3	1,68,589	70,599	97,990	0.776	76,040.24
4		60,149	-60,149	0.714	-42,946.39
	Salvage Value				3,51,472.66
	P.V. of Outflow				-8862.17
			12,412	0.714	3,42,610.49

Leasing Option:

Lease Rent - 30% of 5,47,071 (i.e.) ₹ 1,64,121.3 (or) Approx ₹1,64,120/-

Lease rental payable at the end of the year

Year	Lease Payable (₹)	Tax Saving (₹)	Net Outflow (₹)	PV @.8.4%)	PV (₹)
1- 4	1,64,120	73,854	90,266	3.254	2,93,725.56 (or) 2,93,726.

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Decision:

The Company is advised to opt for leasing as the total PV of cash outflow is lower in this option.

5.9 (i) Number of Equity Shares for each Right Share held

Amount to be raised through Right Issue = ₹ 1984.20 Crore

Right Issue Price	=	6614 x 80% = ₹ 5291.20
No. of Right Shares	=	₹ 19,84,20,00,000
		5,291.20
	=	**37,50,000 Shares**
Ex-Right Price	=	6614 x 90% = ₹ 5952.6

Let number of existing equity shares be x

Ex-Right Price	=	(₹ 6614 x x) + (1984.20 Cr.)
		x + 37,50,000
or, ₹ 5952.6	=	(₹ 6614 x x) + (19842000000)
		x + 37,50,000
5952.6x + 22322250000	=	6614 x + 19842000000
661.4 x	=	2480250000
x	=	37,50,000
So, equity shares	=	37,50,000 (B) and,
right shares issued	=	37,50,000

(ii) Number of fresh Equity Shares to be issued

The firm shall offer one right share for every one equity share held.

5.10 Two sources of market risk that credit derivatives contain are:

Default Risk - Also called 'credit risk', it emanates from the default of underlying party to the instruments. The prime sufferers of these types of risks are equity or junior tranche in the waterfall.

Interest Rate Risk - Also called Basis risk and mainly arises due to different basis of interest rates. For example, asset may be based on floating interest rate but the liability may be based on fixed interest rates. Though this type of risk is quite difficult to manage fully but commonly used techniques such as swaps, caps, floors, collars etc. can be used to mitigate the interest rate risk.

Besides the above, there could be a risk of credit spread volatility due to changes.

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