Paper-11 Capital Market Analysis & Corporate Laws

Time Allowed: 3 hours **Full Marks: 100**

Working notes should form part of the answers.
Wherever necessary, suitable assumptions should be made and indicated in answer by the candidates.

Section I
(Capital Market Analysis)
Answer **Question No.1** (carrying 20 marks) which is compulsory and answer **any two** (carrying 20 marks each) from the rest in this section

1. **(a) In each of the cases given below, one out of four is correct. Indicate the correct answer (=1 mark) and give workings/ reasons briefly in support of your answer (=1 mark) [7 x 2]**

(i) The shares of NALANDA LTD. are trading at ₹ 370. If put options with a strike price of ₹ 380 are priced at ₹ 20, the intrinsic value and time value of the options respectively are :
(A) ₹ 8, ₹ 8
(B) ₹ 10, ₹ 10
(C) ₹ 8, ₹ 10
(D) Incomplete information

(ii) BSE Index is currently quoting at 1620. Each lot is 300. MS ASHA, an investor purchases a July contract at 1710. She has been asked to pay 8% initial margin. What is the amount of initial margin required to be paid by her?
(A) ₹ 31,800
(B) ₹ 41,040
(C) ₹ 44,810
(D) None of the above

(iii) MR. ROHON has purchased a stock of MAX OILS LTD. (MOL). Currently the company pays dividend of ₹ 8.50 per share. Thereafter the dividend is expected to grow at a constant rate of 6.5% p.a. the stock of MOL has beta of 1.40. If the risk free rate of return is 7.5% p.a. and the expected market return is 12% p.a., what would be the stock's expected price four years from now?
(A) ₹ 137.79
(B) ₹ 159.53
(C) ₹ 163.18
(D) None of the above

(iv) The closing prices of the stock of LORRETO LTD on five consecutive trading days are as under:

Days	Closing Prices(₹)
0	274.90
1	275.60
2	268.00
3	270.00
4	272.00

The Relative Strength of the stock of Torrent Ltd. is
(A) 1.0169
(B) 1.0366
(C) 1.0925
(D) None of the above

(v) MS. SADAB holds a portfolio consisting of two stocks-stock A and stock B. Stock A has a standard deviation of returns of 0.6 and stock B has a standard deviation of 0.80. The correlation co-efficient of the two stock returns is 0.50. If MS. Sadab holds equal amount of each stock, what will be risk of the portfolio consisting of two stocks?
(A) 0.40
(B) 0.52
(C) 0.61
(D) Insufficient Information

(vi) MR.AMIT is planning to construct a minimum risk portfolio by investing in the shares of ARIHANT LTD. and SPARK LTD. The risk associated with the returns of Arihant Ltd. and Suzlon Ltd. are 23% and 25% respectively. If the co-efficient of correlation between the returns of shares of both companies is "O" , the proportion of Funds to be invested in the shares of ARIHANT LTD. is
(A) 45.84%
(B) 54.16%
(C) 66.67%
(D) Insufficient Information

(vii) SIDBI came out with an issue of Deep discount Bond. Each bond having a face value of ₹1,00,000 was issued at a deep discounted price of ₹5,000 with a maturity period of 25 years from the date of allotment. The corporate tax rate applicable is 20%. If the Indexed Cost of acquisition is 6%, what will be the Post tax Yield to maturity of the bond?
(A) 14.90%
(B) 11.96%
(C) 10.10%
(D) None of (A), (B), (C)

(b) Choose the most appropriate one from the stated options and write it down: [6×1]

(i) The following Act empowers the government departments to accept filing, creating and retention of official documents in the digital format:
(A) Indian Companies Act, 1956
(B) E commerce Act, 2011
(C) Information Technology Act, 2000
(D) None of the above

(ii) The Board for Financial Supervision (BFS) was constituted in November, 1994 as a Committee of:
(A) The Ministry of Finance
(B) The Central Board of Directors of the RBI
(C) The Ministry of Company Affairs
(D) Incomplete information

(iii) Which of the following statements is/are true?
(A) If market price = face value, then Coupon Rate > YTM > Current Yield
(B) If market price < face value, then Coupon Rate > Current Yield > YTM
(C) If market price > face value, their Coupon Rate > Current Yield > YTM
(D) If market price = face value, then Coupon Rate < Current Yield < YTM

(iv) Which of the following option strategies involve the purchase of call options and writing of put options are exactly the same exercise price?
(A) Synthetics
(B) Spreads
(C) Conversions
(D) None of the above

(v) If an investor believes that the probability of the price of a stock moving up is higher than the probability of the price plummeting, he/she should
(A) Buy an in-the-money put and sell an in-the-money call.
(B) Buy an in-the-money call and sell an in-the-money put.
(C) Buy an in-the-money call and buy an out-of the money put.
(D) Sell an out-of-the money call and buy an in- the – money put

(vi) Which among the following increases the NAV of a Mutual Fund Scheme?
(A) Value of investments
(B) Receivables
(C) Accrued Income
(D) All of the above.

Answer: 1. (a)

(i) **B: ₹ 10, ₹ 10**

Intrinsic Value: ₹ 380 – ₹ 370 = ₹ 10

Time Value: ₹ 20 – ₹ 10 = ₹ 10

(ii) **B: ₹ 41040**

The closing price for the Spot Index was 1620. The Rupee value of stocks is thus 300 x 1620 = ₹ 486000.

The closing features price for the July contract = 1710.

Rupee value of stocks = 1710 x 300 = ₹ 513000

Margin Requirement @ 8% is: 0.08 x 513000 = ₹ 41040.

(iii) **B: ₹ 159.53**

Return on equity (K_e) = 7.5 + (12 – 7.5) 1.40 = 13.80%

Value of stock (P_4) = D_0 $(1+g)^5$ / (K_e – g)

= 8.5 $(1.065)^5$ / (0.1380 – 0.065)

= (11.646) / (0.073) = ₹ 159.53

(iv) **A: 1.0169**

$$\text{Relative strength of the stock} = \frac{\text{Average of up closing prices}}{\text{Average of down closing prices}}$$

$$= \frac{\left(\frac{275.60+270+272}{3}\right)}{268} = \frac{272.53}{268.00} = 1.0169$$

(v) **C: 0.61**

$$\sigma_p = \sqrt{W_A^2\sigma_A^2 + W_B^2\sigma_B^2 + 2W_AW_BP_{AB}\sigma_A\sigma_B}$$

$$= \sqrt{0.5^2 x 0.6^2 + 0.5^2 x 0.8^2 + 2x0.5x0.5x0.5x0.6x0.8}$$

$$= \sqrt{0.09+0.16+0.12} = 0.61$$

Hence Risk of the Port folio is 0.61

(vi) B: 54.16%

Let the proportion of investment to be made in the shares of ARIHANT LTD be W_A

For constructing a minimum risk portfolio the condition to be satisfied is

$$W_{A=} \frac{\sigma S^2 - COV(A,S)}{\sigma A^2 + \sigma S^2 - 2COV(A,S)}$$

$$= \frac{(0.25)^2 - 0}{(0.23)^2 + (0.25)^2 - 2x0}$$

$$= \frac{0.0625}{0.1154} = 0.5416 \text{ i.e } 54.16\%$$

Where COV (A,S) = $P_{AS}\ \sigma_A \sigma_S$

P_{AS} = Correlation Coefficient

COV (A,S) = 0x0.23x0.25 = 0

(vii) B: 11.96%

Post-tax redemption value:

Redemption Value - [Redemption Value - Indexed Cost of acquisition] x Tax rate

₹1,00,000 - [1,00,000 - 5,000 x $(1.06)^{25}$]x0.20

= 1,00,000 - [1,00,000 - 5,000 x 4.2919] x 0.20= ₹84,292

Cost of acquisition x $(1+r)^{25}$ =Post tax redemption Value

5000 $(1+r)^{25}$ =84292 or $(1+r)^{25}$ = 16.8584

$$r = 25\sqrt{(16.8584)} - 1$$

= 1.1196-1 = 0.1196 i.e. 11.96%

Answer: 1. (b)

(i) C. Information Technology Act, 2000

(ii) B. The Central Board of Directors of the RBI

(iii) C. If market price > face value, their Coupon Rate > Current Yield > YTM

(iv) A. Synthetics

(v) C. Buy an in-the-money call and buy an out-of the money put

(vi) D. All of the above

2. (a) Discuss about the two categories of underwriters in India. [6]

(b) Mr. DEBASHIS KAPOOR, analyst at PRUDENTIAL SECURITIES LTD is considering the stocks of SUZLON LTD. and ZOOM LTD. for investment. Expected returns on these stocks depend on the growth rate of the GDP. The conditional Returns of the Stocks and the returns of the market are given below:

Economic Scenario (GDP Growth rate)	Probability	Returns associated with (in %)		
		Suzlon Ltd.	Zoom Ltd.	Market
Less than 1.00%	0.20	-12	15	-15
1.00-2.50%	0.15	30	35	20
2.50-5.00%	0.30	40	20	30
5.00-7.00%	0.10	20	-30	35
More than 7.00%	0.25	-15	-10	-10

The expected risk-free real rate of return and the premium for inflation are 3% and 5% per annum respectively. Assume that CAPM holds good in the market.

You are required to:
(i) Calculate the ex-ante betas for two stocks.
(ii) Find out whether the stocks of Suzlon Ltd. and Zoom Ltd. are under price or over price.
(iii) Determine the proportions of systematic and unsystematic risk in the two stocks.
(iv) Determine which stock the analyst would suggest to invest, if he is required to select only one stock. Justify.

[6+2+4+2=14]

Answer 2. (a)

Categories of underwriters in India

The underwriters in India may be classified into two categories:

- Institutional underwriters
- Non-institutional underwriters

The institutional underwriters are

- Life Insurance Corporation of India (LIC)
- Unit Trust of India (UTI)
- Industrial Development Bank of India (IDBI)
- Industrial Credit and Investment Corporation of India (ICICI)
- Commercial Banks and general insurance companies.

The pattern of underwriting of the above institutional underwrites differs vastly in India. LIC and UTI have purchased industrial securities from the new issue market with a view to hold them on their own portfolio. They have a preference for underwriting shares in large and well established firms. The development banks have given special attention to the issues in backward states and industries in the priority list. The thrust of the development banks is also towards small and new issues which do not have adequate support from other institutions. General insurance companies have shown preference in underwriting the securities of fairly new issues.

The non-institutional underwriters are brokers. They guarantee shares only with a view to earn commission from the company floating the issue. They are known to-off load the shares later to make a profit. The brokers work profit motive in underwriting industrial securities. After the elimination of forward trading, stock exchange, broker have begun to take an underwritten to the private capital issue varies between 72 per cent to 97 per cent.

Answer: 2 (b)

(i).

Probability	**SUZLON (%)**				**MARKET INDEX (%)**				
(P)	Expected Return (RS)	P × RS	$(Rs-\overline{Rs})$	VARS $(Rs-\overline{Rs})^2 xP$	Expected Return Rm	P × Rm	$(Rm-\overline{Rm})$	VARm $(Rm-\overline{Rm})^2$ x P	Cov (S,M) $(Rs-\overline{Rs})(Rm-\overline{Rm})\,x\,P$
0.20	-12	-2.40	-24.35	118.58	-15	-3.00	-25	125	121.75
0.15	30	4.50	17.65	46.73	20	3.00	10	15	26.47
0.30	40	12.00	27.65	229.36	30	9.00	20	120	165.90
0.10	20	2.00	7.65	5.85	35	3.50	25	62.50	19.13
0.25	-15	-3.75	-27.35	187.01	-10	-2.50	-20	100.00	136.75
		12.35		**587.53**		**10.00**		**422.50**	**470.00**

Expected Returns of SUZLON (Stock) ($\overline{Rs}$) = 12.35%

Variance of SUZLON (Stock) (VARs) = 587.53 $\therefore \sigma_s$ = 24.24%

Beta of Stock Suzlon = COV (s,m)/ VARm

= i.e. COV (Suzlon, Market) / Variance of Market

β_s =(470/422.50) = 1.1124

Probability	ZOOM (%)				MARKET INDEX (%)				
(P)	Expected Return (RZ)	P × RZ	$(Rz-\overline{Rz})$	VARZ $(Rz-\overline{Rz})^2 x P$	Expected Return Rm	P×Rm	$(Rm-\overline{Rm})$	VARm $(Rm-\overline{Rm})^2 x P$	Cov (S,M) $(Rz-\overline{Rz})(Rm-\overline{Rm}) x P$
0.20	15	3.00	6.25	7.81	-15	-3.00	-25	125.00	-31.25
0.15	35	5.25	26.25	103.36	20	3.00	10	5.00	39.37
0.30	20	6.00	11.25	37.97	30	9.00	20	120.00	67.50
0.10	-30	-3.00	-38.75	150.16	35	3.50	25	62.50	-96.87
0.25	-10	-2.50	-18.75	87.89	-10	-2.50	-20	100.00	93.75
		8.75		**387.19**		**10.00**		**422.50**	**72.50**

Expected Returns of ZOOM (Stock) $(\overline{Rz})$ = 8.75%

Variance of ZOOM (Stock) (VARz) = 387.19 $\therefore \sigma_z$ = 19.68%

Beta of ZOOM Stock = (β_z) = COV (s,m)/ VARm

= i.e. COV (Zoom, Market)/Variance of Market

= (72.50/422.50) = 0.1716

Expected Return of Market $(\overline{Rm})$ = 10%

(ii) Required Return for Suzlon Stock = $R_f + (R_m - R_f) \times \beta_s$

= 8 + (10 - 8) × 1.1124 = 10.22%

Where R_f = Inflation Adjusted nominal Risk Free Rate = (3 + 5) % = 8%

Required Return for Zoom Stock = 8 + (10 - 8) × 0.1716 = 8.34%

Excess return (Alpha) for Suzlon Stock = 12.35 - 10.22 = 2.13%

Excess Return (Alpha) for Zoom Stock = 8.75 - 8.34 = 0.41%

The Alpha (α) is Excess return of both companies is positive. Hence the stock of Suzlon Ltd. and Zoom Ltd. is under priced.

(iii) Systematic Risk of SUZLON Stock = $\sigma^2_m \beta^2_s$ = 422.50 × $(1.1124)^2$

= 522.82%

Unsystematic Risk of SUZLON Stock = (587.53 - 522.82) = 64.71%

Proportion of Systematic Risk of SUZLON Stock = (522.82)/587.53 = 88.99%

Proportion of Unsystematic Risk of SUZLON = (64.71)/587.53 = 11.01%

Systematic Risk of ZOOM Stock = $\sigma^2_m \beta^2_z$ = 422.50 × (0.1716)^2

=12.44%

Unsystematic Risk of ZOOM Stock = (387.19 - 12.44) = 374.75%

Proportion of Systematic Risk of Zoom Stock = (12.44)/387.19 = 3.21%

Proportion of Unsystematic Risk of Zoom Stock = (374.75)/387.19 = 96.79%

(iv) SUZLON LTD:

Excess Return (Alpha) / Standard Deviation: (2.13) / (24.24) = 0.088

ZOOM LTD:

Excess Return (Alpha) / Standard Deviation: (0.41) / (19.68) = 0.021

As the excess Return (Alpha) to Standard Deviation is higher for the stock of SUZLON LTD.; Mr. KAPOOR (Analyst) should suggest investing on the said stock (Suzlon Ltd.)

3. (a) The Information Technology Act 2000, though appears to be self sufficient, takes mixed stand when it comes to many practical situations.
Outline few places where it looses its certainty. [5]

(b) The market received rumour about ASHEEKA PHARMA LTD'S tie up with a multinational company. This has included the market price to move up . If the rumour is false, Asheeka Pharma Ltd.'s stock price will probably fall dramatically. To protect from this Ms. Kritika, an investor has bought the call and put options.

She purchased a 3-month call option for 100 Stocks in Asheeka Pharma Ltd. at a premium of ₹12 per stock with an exercise price of ₹250. She also purchased a 3-month put option for 100 stocks of the said company at a premium of ₹6 per stock with an exercise price of ₹240.
Required:

(i) Determine the Investor's (Kritika) position if the tie up offer bids the price of Asheeka Pharma Ltd's stock up to ₹260. in 3 months.
(ii) Determine the Investor's (Kritika) position if the tie up programme fails and the price of stock falls to ₹215 in 3 months. [1+3+3=7]

(c) Bonds of MOUSHIP TECH LTD., an Engineering Company which carries AA rating with 5 years to maturity and 14.50% coupon rate, payable annually, is being traded at ₹1015.50.

You as a Fund Manager of the Trust Fund, a 80% Debt fund, want to ascertain the intrinsic Value and take a decision accordingly. Face Value of the bond is ₹1000.

Your Asset Management Company has laid down the guideline that for AA rated Instruments, the discount rate to be applied is 364 day T-Bill rate+4%. (Assume the 364 day T-Bill rate to be 10%).

You are required to
(i) Calculate the Intrinsic value of the Bond
(ii) Calculate the current yield (CY) and the yield to Maturity of the bond (YTM).

Note: (i) Ignore Flotation Costs and transaction costs,
(ii) Extracted from the table of PV.

Interest rate	10%	11%	12%	13%	14%	15%
PVIFA (5 years)	3.791	3.696	3.605	3.517	3.433	3.352
PVIF (5 years)	0.621	0.593	0.567	0.543	0.519	0.497

[3+4=7]

Answer 3. (a)

Is the IT Act, 2000 self-sufficient?

The IT Law 2000, though appears to be self sufficient, it takes mixed stand when it comes to many practical situations. It looses its certainty at many places like:

1. The law misses out completely the issue of Intellectual Property Rights, and makes no provisions whatsoever for copyright trade marking or patenting of electronic information and data. The law even doesn't talk of the rights and liabilities of domain name holders, the first step of entering into the e-commerce.

2. The law even stays silent over the regulation of electronic payments gateway and segregates the negotiable instruments from the applicability of the IT Act, which may have major effect on the growth of e-commerce in India. It leads to make the banking and financial sectors irresolute in their stands.

3. The act empowers the Deputy Superintendent of Police to look up into the investigations and filling of charge sheet when any case related to cyber law is called. This approach is likely to result in misuse in the context of Corporate India as companies have public offices which would come within the ambit of "public place" under the Act. As a result, companies will not be able to escape potential harassment at the hands of the DSP.

4. Internet is a borderless medium; it spreads to every corner of the world where life is possible and hence is the cyber criminal. Then how come is it possible to feel relaxed & secured once this law is enforced in the nation.

Answer: 3 (b)

MS. KRITIKA

Cost of Call and put options:
[(₹12 ×100) + (6 × 100)] = ₹1800

(i) POSITION if price increases to ₹260

Particulars	₹
Cost of Options Since Market Price is higher than the strike price of put option, Investor may not exercise the put but she will exercise call option.	(1,800.00)
Gain on Call : (spot price on expiry date – Exercise price) i.e. (260 - 250) × 100 Stocks	1,000.00
Net Profit / (Loss)	(800.00)

(ii) POSITION if price falls to ₹215

Particulars	₹
Cost of Options Since Market Price is lower than the strike price of call, Investor may not exercise the call but she will exercise put option.	(1,800.00)
Gain on Put: (Exercise price – spot price on expiry date) (240 - 215) × 100 Stocks	2,500.00
Net Profit/ (Loss)	700.00

Answer: 3. (c)

MOUSHIP TECH LTD

(i) Calculation of Intrinsic Value of the Bond

Appropriate discount rate for valuing the Bond is: R= 10+4 = 14%

Cash Flows:

YEARS		P.V. Factor @ 14%	Present Value
1-5	Dividend ₹145 annually for 5 years	3.433	₹497.78
5	Maturity Value : ₹1000	0.519	519.00
Intrinsic Value per bond (P_o)			1016.78

Since the Current Market Value is less than the intrinsic value of Bond, the Bond is under priced. The Bond should be bought.

(ii) Calculation current yield (YC):

(145 ÷ 1015.50) × 100 = 14.28%

Calculation of YTM
Since when discounted at 14%, the value is ₹. 1016.78 (more than 1015.50)

We try at 15% discount.

P_0 = 145 × PVIFA (15%, 5years) +1000 × PVIF (15%, 5years)

=145 × 3.352 + 1000 × 0.497 = 486.04 + 497= ₹983.04

As we found (i) P_0 = ₹1016.78

$$\text{YTM} = 14 + (15-14) \times \frac{1016.78 - 1015.50}{1016.78 - 983.04}$$

BY Interpolation $=14 + 1 \times \frac{1.28}{33.74} = 14.04\%$

Yield to Maturity (YTM) = 14.04%

4. (a) What do you mean by ETF (Exchange Traded Funds)? State in brief the applications of it. **[2+4=6]**

(b) ZESLIN TEXTILES LTD. (ZTL) has under consideration refunding of ₹ 3 crore outstanding Bonds at ₹ 1000 per value as a result of recent decline in long term interest rates. The bond refunding plan involves issue of ₹ 3 crore of New Bonds at the lower interest and the proceeds to call and retire the ₹ 3 crore outstanding bonds.
The details of the new bonds are:

(i) Sale at per value of ₹ 1000 each
(ii) 11 per cent coupon rate
(iii) 20 years maturity
(iv) Floatation costs ₹ 4,00,000 and
(v) A 3 month period of overlapping interest

ZTL's outstanding Bonds were initially issued 10 years ago with a 30 year maturity and 13 per cent coupon rate of interest.
They were sold at ₹ 12 per bond discount from per value with floatation costs amounting to ₹ 1,50,000 and their call at ₹ 1,130.
ZESLIN's Marginal tax rate is 35 per cent.

Required:

(i) Analyse the Bond refunding proposal.
(ii) Would you recommend it? Why?

Note:
Extracted from the Table of PV

Interest rate	7%	7.15%	8.45%	11%	13%
PVIF (20 years)	0.25842	0.25128	0.19743	0.12403	0.08678
PVIFA (20 years)	10.59401	10.47161	9.49787	7.96336	7.02477

[3+3+2+1=9]

(c) Identify the hedging strategies that would be required using the Index Futures under the following circumstances:

Stock	Position	Beta	No. of shares	Price (₹)	Hedge needed
TCS	Long	1.30	1000	1900	Full
WIPRO	Long	1.20	1000	800	Full
CMC	Short	1.10	1000	300	90%
TSL	Short	0.80	1000	400	80%
INFOSYS	Long	1.00	1000	1800	120%

Therefore, higher the Beta higher will be the hedge ratio i.e., the value or futures position would be proportionately be higher and vice-versa. Also the need for full or partial hedging would also have a bearing on the amount of Future exposure.

Futures position = Beta × No. of Shares × Price × % Hedging Required
For the first Case = 1.30 × 1000 × 1900 × 1.00 = ₹ 24.70 Lakh.

Stock	Original Position	Beta	No. of Shares	Price (₹)	Hedge Needed	Hedge Position	Future Strategy (₹) in Lakh	
TCS	Long	1.30	1000	1900	Full	Short	Short	24.70
WIPRO	Long	1.20	1000	800	Full	Short	Short	9.60
CMC	Short	1.10	1000	300	90%	Long	Long	2.97
TSL	Short	0.80	1000	400	80%	Long	Long	2.56
INFOSYSs	Long	1.00	1000	1700	120%	Short	Short	20.40

[2+3=5]

Answer: 4. (a)

Exchange Traded Funds (ETF) are just what their name implies: baskets of securities that are traded, like individual stocks on an exchange, Unlike regular open-end Mutual Funds, ETF, can be bought and sold throughout the trading days like any stock.

The concept of ETF first came into existence in the USA in 1993. It took several years to attract public Interest. But once it was done, the volumes took off with retaliation. Most ETFs change lower annual expenses than index Mutual funds. However, as with Stocks, one must pay brokerage to buy and sell ETF units, which can be a significant drawback for those who trade frequently or invest regular sums of money. The funds rely on an arbitrage mechanism to keep the prices at which they trade roughly in line with the net asset values of their underlying portfolio.

Applications of Exchange Traded Funds (ETF) are:

(i) Managing Cash Flows: Investment and Fund Managers who see regular inflows and outflows, may use ETFs because of their liquidity and their capability to represent the market.

(ii) Diversifying Exposure: If an investor is not aware about the market mechanism and does not know which particular stock to buy but likes the overall sector, investing in shares tied to an index or basket of stocks, provides diversified exposure and reduce risk.

(iii) Efficient Trading: ETFs provide investors a convenient way to gain market exposure viz. an index that trades like a stock.

(iv) Shorting or Hedging: ETFs may be sold short against long stock holdings as a hedge against a decline in the market or specific sector.

(v) Filling Gap: ETFs tried to a sector or industry may be used to gain exposure to new and important sectors.

(vi) Equitising Cash: Investors having idle cash in their portfolios may want to invest in a product tied to a market bench mark. An ETF is a temporary investment before deciding which stock s to buy or waiting for the right price.

Answer: 4. (b)

ZESLIN TEXTILES LTD.

1. Initial investment:

	Particulars	₹	₹
(a)	Call Premium: Before Tax (₹ 1130 – 1000) x 30000 Bonds Less : Tax (0.35 x 3900000) Cost of Call Premium (after Tax)	 39,00,000 13,65,000	 25,35,000
(b)	Floatation Cost of New Bond		4,00,000
(c)	Overlapping Interest: Before Tax (0.13 x 3/12 x 30000000 Less : Tax (0.35 x 975000) Cost of overlapping Interest (after Tax)	 9,75,000 3,41,250	 6,33,750
(d)	Tax Savings from Unamortised discount on old Bonds [20/30 x (30000 x ₹ 12 per Bond discount] x 0.35		 (84,000)
(e)	Tax savings from Unamortized Floatation Cost of old bonds [20/30 x (150000 x 0.35)]		(35,000)
	Initial Outlay:		**34,49,750**

2. Annual net cash flow savings:

	Particulars	₹	₹	₹
(a)	Old Bonds:			
	Interest Cost:			
	Before Tax (0.13 x ₹ 3 Crore)	39,00,000		
	Less: Tax (0.35 x 3900000)	13,65,000		
	Interest Cost (After Tax)		25,35,000	
	Tax Saving from Amortization of discount [(30000 x 12) ÷ 30] x 0.35		(4,200)	
	Tax Savings from Amortization of Floatation cost ₹ [15000 ÷ 30] x 0.35		(1,750)	
	Annual debt Payment [After Tax]			25,29,050
(b)	New Bonds			
	Interest Cost:			
	Before Tax (0.11 x 30000000)	33,00,000		
	Less: Tax (0.35 x 3300000)	11,55,000		
	Interest Cost (After Tax)		21,45,000	
	Tax savings from Amortisation of floatation cost (₹ 400000 ÷ 20) x 0.35		(7,000)	
	Annual Debt Payment (After Tax)			21,38,000
	Annual Net Cash Flow Savings (a-b)			3,91,050

ANALYSIS FOR BOND REFUNDING DECISION:

	₹
Present Value (PV) of Annual Net Flow Savings: (391050 x 10.47164) [PVIFA (7.15% 20 Years)]	40,94,923
Less: Initial Outlay	34,49,750
Net present Value of Refunding	**6,45,173**

Decision: As the Net Present Value (NPV) of Refunding is positive, the Proposed Bond – Refunding may be recommended.

Answer: 4. (c)

The basic hedging Strategy is to take an equal and opposite position in the Futures market as compared to the Spot Market. Thus, if the Current Position is long, then one would short in the Futures Market and vice-versa. Secondly, if one were to use index Futures to hedge, then the relevant hedge Ratio is the beta of the respective Stock.

Therefore, higher the Beta higher will be the hedge ratio i.e., the value of futures position would be proportionately be higher and vice-versa. Also the need for full or partial hedging would also have a bearing on the amount of Future exposure.

Future Position = Beta × No. of Shares × Price × % hedging Required
For the first Case = 1.30 × 1000 × 1900 × 1.00 = ₹ 24.70 Lakh

Stock	Original Position	Beta	No. of Shares	Price (₹)	Hedge Needed	Hedge Position	Futures Strategy (₹) in Lakh	
TCS	Long	1.30	1000	1900	Full	Short	Short	24.70
WIPRO	Long	1.20	1000	800	Full	Short	Short	9.60
CMC	Short	1.10	1000	300	90%	Long	Long	2.97
TSL	Short	0.80	1000	400	80%	Long	Long	2.56
INFOSYSs	Long	1.00	1000	1700	120%	Short	Short	20.40

Section II

(Corporate Laws)

Answer **Question 5** (carrying 10 marks) which is compulsory and answer **any two** (carrying 15 marks each) from the rest in this section.

5. (a) Choose the most appropriate alternative from the stated options and write it down: [5×1]

(i) Under the Companies Act, 2013, the first auditors shall hold office up to -
(A) The end of the statutory meeting
(B) The end of the period as prescribed by the articles of the company
(C) The end of three years from the date of appointment
(D) Till the end of sixth Annual General Meeting

(ii) Buy back of equity shares in a financial year shall not exceed:
(A) 25% of authorized capital;
(B) 25% of called-up capital;
(C) 25% of paid up capital;
(D) 25% of subscribed capital.

(iii) Section 136 of Companies Act, 2013, requires a company to circulate the financial statement and other documents. Which of the following documents need not be circulated as per the provision?
(A) Financial Statements;
(B) Consolidated Financial Statements (if any);
(C) Auditor's Report;
(D) Bank Statements.

(iv) A person found guilty of tampering with the minutes shall be punishable with a minimum fine of _______.
(A) ₹ 50,000
(B) ₹ 25,000
(C) ₹ 10,000
(D) ₹ 1,00,000

(v) As per provisions of Section 149 of Companies Act, 2013 every company which is incorporated under Companies Act, 2013 and is covered in the prescribed class(es) of Companies shall appoint one woman director within _____________of its incorporation
(A) 4 months
(B) 3 months
(C) 6 months
(D) 12 months

(b) Fill in the blanks in the following sentences by using appropriate word(s)/phrase(s)/ number(s): [5×1]

(i) _______ is not a linear process; it is the balancing of a number of interwoven elements.

(ii) As per Section 123 of the Companies Act, 2013 the amount of dividend shall have to be deposited from the date of declaration of such dividend in a separate bank account within ________ days.

(iii) The provisions relating to filling of financial statements with registrar and internal audit are contained in __________ respectively.

(iv) Section 174 of Companies 2013 states that quorum required for a Board meeting is the higher of
a. $^1/_3$ of the total strength or
b. 2 directors.
Here, total strength shall not include ___________.

(v) Powers of Central Government to make rules relating to winding up is contained in Section ______________ of Companies Act, 2013.

Answer: 5. (a)

(i) D. Till the end of sixth Annual General Meeting
(ii) C. 25% of paid up capital
(iii) D. Bank Statements
(iv) B. ₹ 25,000
(v) C. 6 months

Answer: 5. (b)

(i) Risk management
(ii) Five

(iii) Sections 137 and 138 of Companies Act, 2013
(iv) Directors whose places are vacant.
(v) 468

6. (a) Poly Ltd., (hereinafter referred to as 'Seller'), manufacturer of footwears entered into an agreement with City Traders (hereinafter referred to as 'Purchaser'), for the sale of its products. The agreement includes, among others, the following clauses:

(i) That the Purchaser shall not deal with goods, products, and articles by whatever name called, manufactured by any person other than the Seller.
(ii) That the Purchaser shall not sell the goods manufactured by the Seller outside the municipal limits of the city of Secunderabad.
(iii) That the Purchaser shall sell the goods manufactured by the Seller at the price as embossed on the price label of the footwear. However, the purchaser is allowed to sale the footwear at prices lower than those embossed on the price label.

You are required to examine with relevant provisions of the Competition Act 2002, the validity of the above clauses. Section 3(1) prohibits entering into any agreement in respect of production, supply, distribution, storage, acquisition or control of goods or provision of services, which causes or is likely to cause an appreciable adverse effect on competition within India. Any such agreement, if made, shall be void. [5]

(b) Board of directors of Sonia Limited passed a resolution for payment of sitting fees to directors and the same was shown as fees due to directors in the balance sheet of the company. Examine whether this provision of fees due to directors in the balance sheet can be considered as an effective enforceable acknowledgement of debt of the company. Answer with reference to Companies Act, 2013. [5]

(c) Advice Suresh Ltd, on the manner of implementing CSR as per Companies Act, 2013. [5]

Answer: 6. (a):

The following agreements shall be deemed to be prohibited under section 3(1), if such agreements cause or are likely to cause an appreciable adverse effect on competition:

(a) Tie-in arrangement, i.e., an agreement requiring a purchaser of goods, as a condition of such purchase, to purchase some other goods.
(b) Exclusive supply agreement, i.e., an agreement restricting in any manner the purchaser in the course of his trade from acquiring or otherwise dealing in any goods other than those of the seller or any other person.
(c) Exclusive distribution agreement, i.e., an agreement to limit, restrict or withhold the output or supply of any goods or allocate any area or market for the disposal or sale of the goods.
(d) Refusal to deal, i.e., an agreement which restricts, or is likely to restrict, by any method the persons or classes of persons to whom goods are sold or from whom goods are bought.
(e) Resale price maintenance, i.e., an agreement to sell goods on condition that the

prices to be charged on the resale by the purchaser shall be the prices stipulated by the seller unless it is clearly stated that prices lower than those prices may be charged.

The answers to the given problems are given hereunder:

(i) The Purchaser is prohibited from dealing with goods, products, articles, by whatever name called, manufactured by any person other than the Seller. This clause falls under 'Exclusive Supply Agreement' and is deemed to be prohibited under section 3(1), if it causes or is likely to cause an appreciable adverse effect on competition.

(ii) The Purchaser is prohibited from selling the goods manufactured by the Seller outside the municipal limits of the city of Secunderabad. This clause falls under 'Exclusive Distribution Agreement' and is deemed to be prohibited under section 3(1), if it causes or is likely to cause an appreciable adverse effect on competition.

(iii) The Purchaser has been directed by the seller to sell the goods manufactured by the Seller at the price as embossed on the price label of the footwear, or at a price lower than what is embossed on the price label. Since the agreement clearly states that the prices lower than the price stipulated by the Seller can be charged, the agreement does not fall under the clause 'Resale Price Maintenance', and is therefore valid.

Answer: 6. (b)

An entry in the balance sheet showing a debt owed to the creditor amounts to an acknowledgement of liability unless it is shown that authentication was colourable and vitiated for some satisfactory reason [Babulal Rukmanand v Official Liquidator, Bharatpur Oils Mills (Pvt.) Ltd. AIR 1968 Raj 214].

The directors are the agents of the company and therefore it is not competent for the Board to authorise the giving of a definite promise to pay themselves [Re, Coliseum (Borrow) Ltd., (1930) 2 Ch 44]. To the same effect it was held that a balance sheet showing fees due to directors did not amount to an acknowledgement of debt on the ground that it was not competent for the Board of directors to promise to pay themselves since the directors were interested in the matter and were incapable of binding the company by passing any resolution [Tirumalai Iyengar v Official Liquidator(1961) 31 Comp Cas 561].

Therefore, in the given case, the resolution passed by Board of directors for payment of fees to directors and showing of such dues in the balance sheet does not amount to an effective enforceable acknowledgement of debt.

Answer: 6. (c)

Rule 4 of the Companies (Corporate Social Responsibility Policy) Rules, 2014 makes the following provision with respect to manner of implementation of CSR Policy:

(i) The CSR activities shall be undertaken by the company, as per its stated CSR Policy.

(ii) A company may undertake CSR activities through a registered trust or a registered society or a company established by the company or its holding or subsidiary or associate company, subject to fulfillment of the following 2 conditions:

(1) If such trust, society or company is not established by the company or its holding or subsidiary or associate company, it shall have an established track record of 3 years in undertaking similar programs or projects.
(2) The company has specified the project or programs to be undertaken through these entities, the modalities of utilization of funds on such projects and programs and the monitoring and reporting mechanism.

(iii) A company may also collaborate with other companies for undertaking projects or programs or CSR activities in such a manner that the CSR Committees of respective companies are in a position to report separately on such projects or programs.

(iv) Companies may build CSR capacities of their own personnel as well as those of their Implementing agencies through Institutions with established track records of at least 3 financial years but such expenditure including expenditure on administrative overheads, shall not exceed 5% of total CSR expenditure of the company in one financial year.

7. (a) In the context of management audit, what is meant by "control risk" vis-a-vis detection of material misstatements in the financial statements? In this regard, what is "Control Risk at the maximum" and "Control Risk at less than the maximum"? [1+3=4]

(b) SHIKSHA TELECOM LTD., a private mobile operator had furnished confidential information relating to customer complaints lodged with the company during the quarter ended 31.3.2012 to a public authority. On an application under the Right to Information Act, 2005, the public authority wants to furnish the said information. The authority seeks the objections of SHIKSHA TELECOM LTD.

Can SHIKSHA TELECOM LTD. ask the public authority not to furnish the same on the grounds that the said information is confidential and that it may endanger its image in the market? [3]

(c) Can it be said that management audit incorporates in itself, an efficiency audit? What are the main objects of efficiency audit? [1+2=3]

(d) Under provisions of Companies Act, 1956, relating to producer company, examine whether the office of director of such company shall fall vacant in the following circumstances:

(i) X, a Director of ABC Ltd., a producer company has made a default in payment of loan taken from a company and default continues for 60 days.

(ii) Z, a Director of the above company could not call the Annual General Meeting for the company due to some natural calamity occurred three days before the Schedule date. [5]

For part (d) of the above question, provisions relating to Companies Act, 1956 is considered while answering since corresponding sections of Companies Act, 2013 are still not enforced.

Answer: 7. (a)

Control Risk: The risk that the client's internal control policy and procedures are not effective in preventing or detecting material misstatements in the financial statements.

1. **Control risk at the maximum**

   Conclusion based upon the auditor's judgement that the client's internal control policies and procedures do not reduce to a low level the potential that the financial statements are free of material errors and / or irregularities.

   After reaching this assessment the auditor would only be required to document in his/her work papers the fact that control risk is at the maximum and not the basis for reaching this conclusion.

   The auditor may decide control risk is at the maximum based upon management accounting technique called cost benefit decisions.

2. **Control risk at less than the maximum**

   Based upon his / her initial understanding of the internal control components, the auditor may conclude that control risk may be less than the maximum.

   The auditors in this situation must evaluate the cost/benefit of existing his/her understanding of internal controls to make a final decision concerning control risk.

   The cost / benefit decision is based upon the audit time involved in extending the auditor's understanding of internal controls, including tests of control versus the time that may be saved with the possible reduction of substantive audit tests.

Answer: 7. (b)

Disclosure of Information treated as confidential by third party:

As per section 11 (1) of the Right to Information Act, 2005 where a public authority intends to disclose any information or record, or part thereof on a request made under this Act which relates to, or has been supplied by a third party and has been treated as confidential by that third party, the Public Information Officer shall, within five days from the receipt of a request, give written notice to such third party of the request and of the fact that the public authority intends to disclose the information or record, or part thereof and invite the third party to make a submission, in writing or orally, regarding whether the information should be disclosed, which submission shall be taken into account when determining whether to disclose the information.

Provided that except in the case of trade or commercial secrets protected by law, disclosure may be allowed if the public interest in disclosure outweighs in importance any possible harm or injury to the interests of such party.

SHIKSHA TELECOM LTD. cannot ask the public authority not to furnish the same on the grounds that the said information is confidential and that it may spoil its image in the market. This is not trade or commercial secrets protected by law. Hence the public authority should overrule the objections of SHIKSHA TELECOM LTD and furnish the information to the applicant under the RTI Act.

Answer: 7. (c)

Management Audit incorporates in itself an efficiency audit. Efficiency audit ensures "application of the basic economic principle so that resources flow into the most remunerative channels." The main object of efficiency audit is to ensure that:

(i) Every rupee invested in capital or in other fields give the optimum returns and
(ii) The planning of investment between the different functions and aspects is designed to give optimum results.

The parameters for measuring efficiency with its concomitant details are:

(i) Overall rate of return on capital employed
(ii) Better capacity utilization
(iii) Better utilization of raw material, power, labor, equipments, and finance
(iv) Effective incentive system
(v) Better export performance and import substitution
(vi) Cost control

It is necessary to make study activity wise so as to identify areas of deficiency in particulars activity.

To conclude we can infer saying that Investor in order to protect his investment in any company expects proper exhibition of corporate governance which is taken care by Management Audit as management Audit would encompass compliance audit, efficiency audit, propriety audit and systems audit as well as management audit is concerned with the overall objectives of an organization.

Answer: 7. (d)

The given problem relates to sections 581Q of the Companies Act, 1956, as discussed below:
Besides other grounds specified under section 581Q, the office of a director of a Producer Company shall become vacant in the following cases:

- Where the Producer Company, in which he is a director, has made a default in repayment of any advances or loans taken from any company or institution or any other person and such default continues for 90 days.

- Where the annual general meeting or extraordinary general meeting of the Producer Company, in which he is a director, is not called in accordance with the provisions of this Act except due to natural calamity or such other reason.

The given problem is answered as under:
(i) The producer company ABC Ltd. has made a default in payment of loan and such default has continued for 60 days.

This does not result in vacation of office of X, since the said default has not continued for 90 days, which is a pre-requisite for vacation of office under section 581Q.

(ii) The Annual General Meeting could not be called due to some natural calamity.
The office of director of Mr. Z does not fall vacant since the reason for non-calling of the general meeting is some natural calamity.

8. (a) "Corporate governance extends beyond corporate law. Its fundamental objective is not mere fulfillment of the requirements of law, but in ensuring commitment of the Board of directors in managing the company in a transparent manner for maximizing stakeholders' value."

In the light of this statement, discuss the various factors which add greater value through good governance. [8]

(b) A Public Company secures residential accommodation for the use of its managing director by entering into a license arrangement under which the company has to deposit a certain amount with the landlord to secure compliance with the terms of the license agreement. Can it be considered as a loan to a director? [4]

(c) Board meetings were held on 24th November, 2014 and 15th December, 2014. Mr. Rameshwar, who was the chairman of these two Board meetings died on 20th December, 2014, without signing the minutes. How should the minutes be signed and by whom? [3]

Answer: 8. (a)

Yes, Corporate Governance extends beyond corporate law. Its fundamental objective is not mere fulfillment of the requirements of law, but in ensuring commitment of the Board of Directors in managing the company in a transparent manner for maximizing stakeholders' value.

In the light of the above statement, the following factors add greater value through good governance:

(i) Role and powers of Board

Good governance is decisively the manifestation of personal beliefs and values which configure the organizational values, beliefs and actions of its Board. The Board as a main functionary is primary responsible to ensure value creation for its stakeholders. The absence of clearly designated role and powers of Board weakens accountability mechanism and threatens the achievement of organizational goals. Therefore, the foremost requirement of good governance is the clear identification of powers, roles, responsibilities and accountability of the Board, CEO, and the Chairman of the Board. The role of the Board should be clearly documented in a Board Charter.

(ii) Legislation:

Clear and unambiguous legislation and regulations are fundamental to effective corporate governance. Legislation that requires continuing legal interpretation or is difficult to interpret on a day-to-day basis can be subject to deliberate manipulation or inadvertent misinterpretation.

(iii) Management environment

Management environment includes setting-up of clear objectives and appropriate ethical framework, establishing due processes, providing for transparency and clear enunciation of responsibility and accountability, implementing sound business planning, encouraging business risk assessment, having right people and right skill for the jobs, establishing clear boundaries for acceptable behaviour, establishing performance evaluation measures and evaluating performance and sufficiently recognizing individual and group contribution.

(iv) Board skills

To be able to undertake its functions efficiently and effectively, the Board must possess the necessary blend of qualities, skills, knowledge and experience. Each of the directors should make quality contribution. A Board should have a mix of the following skills, knowledge and experience:

→ Operational or technical expertise, commitment to establish leadership;
→ Financial skills;
→ Legal skills; and
→ Knowledge of Government and Regulatory requirement.

(v) Board appointments

To ensure that the most competent people are appointed in the Board, the Board positions should be filled through the process of extensive search. A well-defined and open procedure must be in place for reappointments as well as for appointment of new directors. Appointment mechanism should satisfy all statutory and administrative requirements. High on the priority should be an understanding of skill requirements of the Board particularly at the time of making a choice for appointing a new director. All new directors should be provided with a letter of appointment setting out in detail their duties and responsibilities.

(vi) Board induction and training

Directors must have a broad understanding of the area of operation of the company's business, corporate strategy and challenges being faced by the Board. Attendance at continuing education and professional development programmes is essential to ensure that directors remain abreast of all developments, which are or may impact on their corporate governance and other related duties.

(vii) Board independence

Independent Board is essential for sound corporate governance. This goal may be achieved by associating sufficient number of independent directors with the Board. Independence of directors would ensure that there are no actual or perceived conflicts of interest. It also ensures that the Board is effective in supervising and, where necessary, challenging the activities of management. The Board needs to be capable of assessing the performance of managers with an objective perspective. Accordingly, the majority of Board members should be independent of both the management team and any commercial dealings with the company.

(viii) Board meetings

Directors must devote sufficient time and give due attention to meet their obligations. Attending Board meetings regularly and preparing thoroughly before entering the Boardroom increases the quality of interaction at Board meetings. Board meetings are the forums for Board decision-making. These meetings enable directors to discharge their responsibilities. The effectiveness of Board meetings is dependent on carefully planned agendas and providing relevant papers and materials to directors sufficiently prior to Board meetings.

(ix) Code of conduct

It is essential that the organization‘s explicitly prescribed norms of ethical practices and code of conduct are communicated to all stakeholders and are clearly understood and followed by each member of the organization. Systems should be in place to periodically measure, evaluate and if possible recognise the adherence to code of conduct.

(x) Strategy setting

The objectives of the company must be clearly documented in a long-term corporate strategy including an annual business plan together with achievable and measurable performance targets and milestones.

(xi) Business and community obligations

Though basic activity of a business entity is inherently commercial yet it must also take care of community‘s obligations. Commercial objectives and community service obligations should be clearly documented after approval by the Board. The stakeholders must be informed about the proposed and ongoing initiatives taken to meet the community obligations.

(xii) Financial and operational reporting

The Board requires comprehensive, regular, reliable, timely, correct and relevant information in a form and of a quality that is appropriate to discharge its function of monitoring corporate performance. For this purpose, clearly defined performance measures - financial and non-financial should be prescribed which would add to the efficiency and effectiveness of the organisation.

The reports and information provided by the management must be comprehensive but not so extensive and detailed as to hamper comprehension of the key issues. The reports should be available to Board members well in advance to allow informed decision-making. Reporting should include status report about the state of implementation to facilitate the monitoring of the progress of all significant Board approved initiatives.

(xiii) Monitoring the Board performance

The Board must monitor and evaluate its combined performance and also that of individual directors at periodic intervals, using key performance indicators besides peer review. The Board should establish an appropriate mechanism for reporting the results of Board's performance evaluation results.

(xiv) Audit Committees

The Audit Committee is inter alia responsible for liaison with the management; internal and statutory auditors, reviewing the adequacy of internal control and compliance with significant policies and procedures, reporting to the Board on the key issues. The quality of Audit Committee significantly contributes to the governance of the company.

(xv) Risk management

Risk is an important element of corporate functioning and governance. There should be a clearly established process of identifying, analyzing and treating risks, which could prevent the company from effectively achieving its objectives. It also involves establishing a link between risk-return and resourcing priorities. Appropriate control procedures in the form of a risk management plan must be put in place to manage risk throughout the organization. The plan should cover activities as diverse as review of operating performance, effective use of information technology, contracting out and outsourcing.

Answer: 8. (b)

As per section 185 of the Companies Act, 2013, no company shall, directly or indirectly, make any loan to a director.

In the present case, the company has provided the managing director with a housing accommodation. It does not amount to a loan because of the following reasons:

- The company has not given any deposit or advance to the managing director. The amount deposited with the landlord cannot be said to be an 'indirect loan' to the managing director.

- It is a usual practice to give a security deposit to the landlord with whom a rent or lease agreement is entered into. Thus, the company has made the security deposit on account of bonafide business considerations.

- It is of no concern of the managing director as to the terms on which the company secures residential accommodation for him.

It is the company and not the director who has entered into the lease agreement. Therefore, the company can at anytime use the accommodation for any other purpose and the managing director will have to vacate it, as and when desired by the company.

Answer: 8 (c)

As per section 118 of Companies Act, 2013, the minutes of a Board meeting may be signed by the chairman of the said meeting or the chairman of the next succeeding meeting. The minutes shall be prepared and signed within 30 days of the conclusion of the Board meeting.

In the present case, the minutes of the meeting held on 24.11.2014 could be signed either by the chairman of the meeting held on 24.11.2014 or by the chairman of the next meeting held on 15.12.2014. Incidentally, the chairman of these two meetings is the same, i.e., Mr. Rameshwar, who has died. The result is that the minutes of the two previous Board meetings, held on 24.11.2014 and 15.12.2014, have remained unsigned. There is no legal provision covering the above situation. Therefore, it is advisable to convene a Board meeting and appoint a chairman who shall be authorised to sign the minutes of both the meetings held on 24.11.2014 and 15.12.2014.