

FINAL EXAMINATION

GROUP III

(SYLLABUS 2008)

SUGGESTED ANSWERS TO QUESTIONS

JUNE 2014

Paper- 11 : CAPITAL MARKET ANALYSIS & CORPORATE LAWS

Time Allowed : 3 Hours

Full Marks : 100

The figures in the margin on the right side indicate full marks.

Please: (i) Answer all bits of a question at one place.

(ii) Open a new page for answer to a new question.

(iii) Attempt the required number of questions only.

Wherever appropriate, suitable assumption(s) should be made and indicated in answer by the candidate.

Working notes should form part of the answer.

Section A (60 Marks)

(Capital Market Analysis)

Answer Question No. 1 (carrying 20 marks) which is compulsory and answer any two (carrying 20 marks each) from the remaining three questions 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): 2x7=14
- (i) Consider a bullish spread option strategy using a call option on the stock of SOFTEX LTD. with ₹ 50 exercise price, priced at ₹ 5 and a call option with ₹ 60 exercise price, priced at ₹ 3.00. The current market price of stock of Softex Ltd. is ₹ 65. What would be the net profit at expiration, if the price of the stock is ₹ 80 on maturity?
- A. ₹ 2.00
B. ₹ 6.50
C. ₹ 8.00
D. None of (A), (B), (C)
- (ii) EPITOME LTD. is planning to issue a discount Bond with a par value ₹ 1000, implicit interest rate of 11.50% and a redemption period of 5 years. The company also intends to offer an early bird incentive of 2%. The issue price of the Bond will be (rounded up to nearest rupee): [Given: PVIF (11.5%, 5 years) = 0.5803].
- A. ₹ 580
B. ₹ 569
C. ₹ 543

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D. Insufficient Information

(iii) ARIHANT LTD. issued right shares which increased the market value of shares of the company by ₹120 crore. The existing base year average is ₹762.26 crore. What would be the aggregate (old) market value of all the shares included in the index before right issue made, if the new base year average is ₹ 808 crore?

- A. ₹ 1999.81 crore
- B. ₹ 856.5 crore
- C. ₹ 805.0 crore
- D. None of the above

(iv) MS. CHAITALI earns 10% on the investments in equity shares. She is considering a recently floated scheme of a Mutual Fund where the initial expenses are 6%. If annual recurring expenses are expected to be 2%, how much should the Mutual Fund earn to provide a return of 10% to MS Chaitali?

- A. ₹ 13.50%
- B. ₹ 12.64%
- C. ₹ 11.25%
- D. Insufficient Information

(v) MS. SOMA an investor, has ₹ 400000 to invest in equity and risk-free security. The data given below relates to the two securities.

Investment	Probability	Expected Return (₹)
Equity	0.6	160000
	0.4	(-) 120000
Risk-free Security	1.00	20000

What will be her expected Risk premium in investing in equity versus risk-free securities on the basis of above conditions?

- A. ₹ 28000
- B. ₹ 36000
- C. ₹ 48000
- D. ₹ 68000

(vi) MR. SUVA an analyst has made risk and return projection for the securities of ALIN LTD. and BITON LTD., which are as follows:

Scenario	Probability	Rate of Return (%)	
		Alin Ltd.	Biton Ltd.
1	0.5	30	20
2	0.5	10	- 10

Based on the above data, the covariance between the rates of return on securities of Alin Ltd. and Biton Ltd. is

- A. 200 (%)²
- B. 150 (%)²
- C. 100 (%)²
- D. 163 (%)²

(vii) ZENITH LTD. as paid a dividend of ₹ 5 per share with annual growth rate of 8%. The expected return on the market portfolio and the risk free rate of return are estimated to be 15% and 10% respectively. What will be the equilibrium price for the shares of ZENITH LTD., if the market sensitivity index (β) is 1.5?

- A. ₹ 56.84

Suggested Answer_Syl2008_Jun2014_Paper_11

- B. ₹ 52.63
- C. ₹ 50.00
- D. None of the above

(b) Choose the most appropriate one from the stated options and write it down (only indicate A or B or C or D as you think correct): 1x6=6

- (i) Which of the following Act puts forward the proposal for setting up the legal framework essential for the authentication and origin of electronic records through digital signature?
- A. SEBI Act
 - B. Information Technology Act, 2000
 - C. IRDA Act
 - D. None of the above
- (ii) Beating the market by analyzing the data obtained from magazines, reports and newspapers means that the markets are in _____. (Fill in the gap from the below):
- A. strong form inefficiency
 - B. semi-strong efficiency
 - C. semi-strong inefficiency
 - D. weak form efficiency
- (iii) "Riskiness" of a security in the context of security analysis essentially means
- A. Variability of the security's returns
 - B. Market Risk
 - C. Unsystematic Risk
 - D. Variability of returns above the benchmark mentioned by clients
- (iv) SEBI (Disclosure and Investor Protection) Guidelines 2000 are not applicable to
- A. Public Sector Banks
 - B. Infrastructure Companies
 - C. Both (A) and (B) above
 - D. All public issues by unlisted companies
- (v) The CAPM risk-return relationship described by the SML is
- A. an expected or ex-ante relationship
 - B. based on ex post beta
 - C. historical or ex post relationship
 - D. all of the above
- (vi) For demat trading the minimum market lot is
- A. 1 share
 - B. 10 shares
 - C. 50 shares
 - D. 100 shares

Answer:

1. (a)

(i) **C : ₹8.00**

Buy a call option with exercise price of ₹50 @ 5.00

Suggested Answer_Syl2008_Jun2014_Paper_11

Sell a call option with exercise price of ₹60 @ 3.00
 Initial outlay 2.00

If the stock price on expiration increases to ₹80:
 Profit from buying call option (80 – 50) = ₹30
 Loss on selling call option (80 – 60) = ₹20
₹10

Net pay – off after considering initial outlay : (10 – 2) = ₹8

(ii) **B : ₹569**

$$B_0 = B_n \times PVIF (K\%, n \text{ yrs}) \quad B_n = ₹ 1,000 \quad n = 5 \text{ yrs}$$

$$= 1,000 \times 0.5803 = ₹580.30 \quad K\% = 11.5\% \quad \text{Incentive} = 2\%$$

Issue price of the Bond will be = ₹580.30 × (1 – 0.02) = 568.69 i.e. ₹569.00.

(iii) **A : ₹1999.81 crore**

$$\text{New Base Year Average} = \frac{\text{New Market Value of Share}}{\text{Old Market Value of Shares}} \times \text{Old Base Year Average}$$

Where old market Value of all shares/aggregate market value be x

$$808 = 762.26 \times \frac{(120+x)}{x} = \frac{91471.20 + 762.26x}{x}$$

$$\text{Or, } x = \frac{91471.20}{45.74} = ₹1,999.81 \text{ crore}$$

(iv) **B : 12.64%**

$$r_2 = \frac{1}{1 - \text{Initial exp.}} \times r_1 + \text{Recurring exp.}$$

$$= \frac{1}{1 - 0.06} \times 0.10 + 0.02$$

$$= \frac{1}{0.94} \times 0.10 + 0.02$$

$$= 0.1264 \text{ i.e. } 12.64\%$$

(v) **A : ₹28,000**

$$\begin{aligned} \text{Expected Premium: } & (0.60 \times ₹1,60,000) + [0.4 \times (-) ₹1,20,000] - ₹20,000 \\ & = ₹96,000 - ₹48,000 - ₹20,000 \\ & = ₹28,000. \end{aligned}$$

(vi) **B : 150 (%)²**

$$\text{Expected return of Alin Ltd } (\bar{R}_A) = 0.5 \times 30 + 0.5 \times 10 = 20\%$$

$$\text{Expected Return of Biton Ltd } (\bar{R}_B) = 0.5 \times 20 + 0.5 \times (-) 10 = 5\%$$

$$\text{Cov (AI, BI)} = 0.5 (30 - 20) (20 - 5) + 0.5 (10 - 20) (-10 - 5)$$

Suggested Answer_Syl2008_Jun2014_Paper_11

$$\begin{aligned} &= 75 + 75 \\ &= 150(\%)^2 \end{aligned}$$

(vii) **A : ₹56.84**

$$\begin{aligned} \text{Required return } (K_e) &= R_f + (K_m - R_f) \beta \\ &= 0.10 + (0.15 - 0.10) \times 1.5 = 0.175 \end{aligned}$$

Now $K_e = 17.5\%$ and $g = 8\%$

$$\begin{aligned} \text{Equilibrium Price} &= D_1 / (K_e - g) \\ &= (5 \times 1.08) / (0.175 - 0.08) \\ &= (5.40) / (0.095) \\ &= ₹56.84 \end{aligned}$$

(b) (i) B; (ii) C; (iii) A; (iv) C; (v) B; (vi) A.

2. (a) Who are the major players of a Depository System? What advantages does the Depository System offer to the clearing member? 2+4=6

(b) MS. NABANITA, an investor purchased 200 units of SUN MUTUAL FUND AT ₹ 14.00 per unit on April 01, 2013. As on March 31, 2014 she has received ₹ 2.00 as dividend and ₹ 1.50 as capital gain distribution per unit.

You are required to calculate:

(i) The return on the investment if the NAV as on March 31, 2014 is ₹ 15.00.

(ii) The return on the investment as on March 31, 2014 if all dividends and capital gain distributions are re-invested into additional units of the fund at ₹ 14.50 per unit. 2+4=6

(c) The equity share of ADANI LTD. is quoted at ₹ 315. A 3-month CALL OPTION is available at a premium of ₹ 9 per share and a 3-month PUT OPTION is available at a premium of ₹ 8 per share.

(i) Determine the Net Pay offs to the option holder of a Call Option and a Put Option if

(1) the strike price in both cases in ₹ 330; and

(2) the share price on the exercise day is ₹ 300, ₹ 315, ₹ 330 and ₹ 360 respectively.

(ii) Also indicate the price range at which the Call Option and the Put Option may be gainfully exercised. 3+3+2=8

Answer:

2. (a) (i) The major players of the depository system are:

- Depository
- Issuers or Company
- Depository participants
- Clearing members
- Corporation
- Stock brokers
- Clearing Corporation
- Investors
- Banks

(ii) The advantages offered by the depository system to the clearing member and enumerated below:

- Enhanced liquidity, safety, and turnover on stock market.
- Opportunity for development of retail brokerage business.
- Ability to arrange pledges without movement of physical scrip and further increase of trading activity, liquidity and profits.

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- Improved protection of shareholder's rights resulting from more timely communications from the issuer.
- Reduced transaction costs.
- Elimination of forgery and counterfeit instruments with attendant reduction in settlement risk from bad deliveries.
- Provide automation to post trading processing.
- Standardisation of procedures.

(b) (i) Return for the year 2013 -2014: (All change on a per year basis):

	₹/Unit
Change in Price (₹15 – ₹14)	1.00
Dividend received	2.00
Capital gain distribution	1.50
Total return	4.50

$$\text{Return on Investment} = \frac{4.50}{14.00} \times 100 = 32.14\%$$

(ii) If all dividends and Capital gain are reinvested into additional units at ₹14.50 per unit, the position would be:

$$\text{Total amount re-invested} = ₹(2.00 + 1.50) \times 200 = ₹700$$

$$\text{Additional Units added} = \frac{700}{14.50} = 48.2759 \text{ Units}$$

$$\begin{aligned} \text{Value of } (200 + 48.2759) \text{ units as on 31.03.2014:} \\ &= 248.2759 \times 15.00 \\ &= ₹3,724.14 \end{aligned}$$

$$\begin{aligned} \text{Price paid for 200 units on April 01, 2013:} \\ &= 200 \times 14 \\ &= ₹2,800 \end{aligned}$$

$$\begin{aligned} \text{Return} &= \frac{3,724.14 - 2,800}{2,800} \times 100 \\ &= \frac{924.14}{2,800} \times 100 = 33\% \end{aligned}$$

(c)

ADANI LTD.

Net Pay - off for the holder of the Call Option (₹)				
Share price on Exercise Day	300	315	330	360
Option Exercise	No	No	No	Yes
Outflow (Strike Price)	Nil	Nil	Nil	330
Outflow (Premium)	9	9	9	9
Total Outflow	9	9	9	339
Less: Inflow (Sales proceeds)	0	0	0	360
NET PAY OFF (Grain / [Loss])	(9)	(9)	(9)	21

Net Pay - off for the holder of the Put Option (₹)				
Share price on Exercise Day	300	315	330	360
Option Exercise	Yes	Yes	No	No
Inflow (Strike Price)	330	330	Nil	Nil

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Less : Outflow (Purchase)	300	315	0	0
Less : Outflow (Premium)	8	8	8	8
NET PAY OFF (Gain / (Loss))	22	7	(8)	(8)

Comments :

The loss of the option holder is restricted to the amount of Premium paid. The profit (positive pay off) depends on the difference between the strike price and the share price on the exercise day.

In case of call option, the investor will be benefited if the actual price exceeds ₹339.

In case of put option, the investor will be benefited if the actual price is less than ₹ 322 [i.e. Strike Price – Option Premium = ₹330 – ₹8 = ₹322.

3. (a) **The Information Technology Act, 2000, the Cyber Law of India gives the legal framework so that information is not denied legal effect, validity or enforceability.—Comment.** **4**

- (b) **MR ROHAN, Chief Analyst of AMTRES SECURITIES LTD. forecasts four economic scenarios which he believes are likely to occur with the given probabilities. Base on these scenarios he makes the following forecasts of the returns for the stocks of RINTEX LTD. and HARISON LTD.**

Economic Scenario (GDP Growth Rate)	Probability	Returns associated with (in %)		
		Rintex Ltd.	Harison Ltd.	Market
1.00-4.00%	0.30	3	2	1
4.00-6.00%	0.35	17	14	15
6.00-8.00%	0.25	20	19	17
8.00-9.00%	0.10	22	17	25

It is felt that the interest rate of 7 per cent on the 91-day T-Bill is a good approximation of the Risk-free Rate. Assume that CAPM holds good in the market.

Required:

- (i) **Calculate the ex-ante-Betas for the stocks of Rintex Ltd. and Harison Ltd. and Comment on your findings.**
- (ii) **Find out whether the stocks of Rintex Ltd. and Harison Ltd. are under priced or overpriced.**
- (iii) **Comment on the proportions of systematic and unsystematic risk in the two stocks.**
- (iv) **Determine which stock the analyst would suggest to invest.** **(6+3)+2+3+3=16**

Answer:

3. (a) **The IT Act 2000 empowers the Government departments to accept filing, creating and retention of official documents in the digital format. The Act also put forward the proposal for setting up the legal framework essential for the authentication and origin of electronics record/ Communication through digital signature.**

The Act legalizes the email and gives it the status of being valid form of carrying out communication in India.

Digital signatures and digital records have also been awarded the status of being legal and valid means.

The Act now allows government to issue notification on the web thus heralding e-Governance.

The Act also provides statutory remedy to the corporates in case the crime against the accused for breaking into their computer systems or network and damaging and copying the data is

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proven.

The remedy provided by the Act is in the form of monetary damages, not exceeding 1 Crore. The law sets up the Territorial Jurisdiction of the Adjudicating officers for Cyber Crimes and Cyber Regulation Appellate Tribunal.

The law has laid guidelines for providing Internet Services on a license on a non exclusive basis.

(b) AMTREX SECURITIES LTD.

(i) Expected return and variance of RINTEX LTD :

$$\begin{aligned}\bar{R}_R &= 0.30 \times 3 + 0.35 \times 17 + 0.25 \times 20 + 0.10 \times 22 \\ &= 14.05\% \\ \sigma_R^2 &= 0.30 (3 - 14.05)^2 + 0.35 (17 - 14.05)^2 + 0.25 (20 - 14.05)^2 + 0.10 (22 - 14.05)^2 \\ &= 36.63 + 3.046 + 8.8506 + 6.3202 \\ &= 54.847(\%)^2 \\ \sigma_R &= 7.406\%\end{aligned}$$

Expected return and variance of HARISON LTD:

$$\begin{aligned}\bar{R}_H &= 0.30 \times 2 + 0.35 \times 14 + 0.25 \times 19 + 0.10 \times 17 \\ &= 11.95\% \\ \sigma_H^2 &= 0.30 (2 - 11.95)^2 + 0.35 (14 - 11.95)^2 + 0.25 (19 - 11.95)^2 + 0.10 (17 - 11.95)^2 \\ &= 29.701 + 1.4709 + 12.4256 + 2.5502 \\ &= 46.1477(\%)^2 \\ \sigma_H &= 6.793\%\end{aligned}$$

Expected return and variance of Market:

$$\begin{aligned}\bar{R}_m &= 0.30 \times 1 + 0.35 \times 15 + 0.25 \times 17 + 0.10 \times 25 \\ &= 12.3\% \\ \sigma_m^2 &= 0.30 (1 - 12.30)^2 + 0.35 (15 - 12.30)^2 + 0.25 (17 - 12.30)^2 + 0.10 (25 - 12.30)^2 \\ &= 38.307 + 2.551 + 5.522 + 16.129 \\ &= 62.509(\%)^2 \\ \sigma_m &= 7.906\%\end{aligned}$$

Cov (Rin, Mkt)

$$\begin{aligned}&= 0.30 (3 - 14.05) (1 - 12.30) + 0.35 (17 - 14.05) (15 - 12.30) + 0.25 \\ &= (20 - 14.05) (17 - 12.30) + 0.10 (22 - 14.05) (25 - 12.30) \\ &= 37.459 + 2.788 + 6.991 + 10.096 \\ &= 57.334(\%)^2 \\ \therefore \beta_{Rin} &= \frac{\text{Cov}(Rin, Mkt)}{\sigma_m^2} = \frac{57.334}{7.906^2} = 0.917\end{aligned}$$

Cov (Har, Mkt)

$$= 0.30 (2 - 11.95) (1 - 12.30) + 0.35 (14 - 11.95) (15 - 12.30) + 0.25$$

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$$\begin{aligned}
 &= (19 - 11.95) (17 - 12.30) + 0.10 (17 - 11.95) (25 - 12.30) \\
 &= 33.7305 + 1.937 + 8.284 + 6.413 \\
 &= 50.365(\%)^2 \\
 \therefore \beta_{\text{Har}} &= \frac{\text{Cov}(\text{Har}, \text{Mkt})}{\sigma_m^2} = \frac{50.365}{7.906^2} = 0.806
 \end{aligned}$$

(ii) Thus both the stocks are defensive with a beta of less than unity.

The equation of security market line is

$$R_e = R_f + \beta(R_m - R_f)$$

Required rate of return of Rintex is

$$R_e (R) = 7 + 0.917 (12.3 - 7) = 11.86\%$$

$$\text{Excess Return/Alpha} = 14.05 - 11.86 = \mathbf{2.19\%}$$

As required rate of return is less than the expected rate of return, the share price of Rintex is undervalued.

Required rate of return of Harison is

$$R_e (H) = 7 + 0.806 (12.3 - 7) = 11.2\%$$

$$\text{Excess Return/ Alpha} = 11.95 - 11.27 = \mathbf{0.68\%}$$

The share price of Harison is also undervalued as the required rate of return is less than expected rate of return.

$$\begin{aligned}
 \text{(iii) Systematic risk of Rintex} &= \sigma_m^2 \beta_R^2 = 62.509 \times (0.917)^2 = 52.563(\%)^2 \\
 \text{Unsystematic Risk of Rintex} &= 54.847 - 52.563 \\
 &= 2.284(\%)^2
 \end{aligned}$$

$$\begin{aligned}
 \text{Systematic risk of Harison} &= 62.509 \times (0.806)^2 = 40.61 (\%)^2 \\
 \text{Unsystematic risk of Harison} &= 46.1477 - 40.61 = 5.538(\%)^2
 \end{aligned}$$

Proportion of Systematic Risk:

$$\text{Rintex} = (52.563/54.847) \times 100 = 95.84\%$$

$$\text{Harison} = (5.538/46.1477) \times 100 = 12\%$$

Both the securities therefore have very little unsystematic risk as compared to systematic risk. But comparatively Harison has a higher component of unsystematic risk compound to Rintex.

(iv) Rintex Ltd. :

$$\frac{\text{Excess return/ Alpha}}{\text{Standard deviation}} = \frac{14.05 - 11.86}{7.406} = \frac{2.19}{7.406}$$

Harison Ltd. :

$$\frac{\text{Excess return/ Alpha}}{\text{Standard deviation}} = \frac{11.95 - 11.27}{6.793} = \frac{0.68}{6.793} = 0.10$$

As Excess return / Alpha to Standard deviation (Ratio) is higher for the stock of Rintex Ltd., the analyst should suggest to invest on the Stock of Rintex Ltd.

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4. (a) What are the various Risk associated with Derivatives?

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(b) The following data for ITC LTD., BKC LTD. and DKB LTD. were compiled for your information:

Stock	Expected Return (%)	Standard Deviation (%)	Systematic Risk (%)	Diversifiable Risk (%)
ITC Ltd.	38	22	12	06
BKC Ltd.	22	27	16	11
DKB Ltd.	40	06	06	00

Required:

- (i) If a client wants to invest in only one stock, which one would you recommend? Can you unequivocally recommend one?
- (ii) Suppose your client already holds a well-diversified portfolio such as the S & P 500 index. Which one stock would you recommend? Why?
- (iii) Your client says that BKC Ltd. is far too risky with a standard deviation of 27%, especially compared to the other two firms' standard deviation of 22% and 6%. How would you address his concern? Explain assuming that your client holds a well-diversified portfolio.

2+3+2=7

(c) TRANSINDIA SYSTEMS LTD. issued 13% NCDs with a face value of ₹100. The market price of these NCDs as on the date of issue was ₹ 85. Interest is payable semi-annually and the NCDs will be redeemed after three years from the date of issue.

You are required to compute.

- (i) The YTM of the NCD as on the date of issue.
- (ii) The Realized yield, if an investor re-invests the coupon payments at 11% per annum compounded half yearly.
- (iii) What would be the realised yield, if the interest payment are not re-invested.

Note:

- (a) Ignore Floation Costs and transaction costs;
- (b) Extracted from the tables of P.V. and F.V.

Interest Rate	5%	5.5%	7%	9%	10%	11%
PVIFA (6 years)	5.0760	4.9955	4.7665	4.4859	4.3553	4.2305
PVIF (6 years)	0.7462	0.7252	0.6663	0.5963	0.5645	0.5346
FVIFA (6 years)	6.8019	6.8880	7.1533	7.5233	7.7156	7.9129

4+3+2=9

Answer:

4. (a) Various risks associated with derivatives are as follows:

- (i) Market Risk - Price sensitivity to fluctuations in interest rates and foreign exchange rates.
- (ii) Liquidity Risk - Most derivatives are customized instruments, hence may exhibit substantial liquidity risk.
- (iii) Credit Risk - Derivatives not traded on exchange are traded in the Over the Counter (OTC) markets. OTC contracts are subject to counter party defaults.
- (iv) Hedging Risk - Derivatives are used as hedges to reduce specific risks. If the anticipated risk do not develop, the hedge may limit the funds total return.

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(v) Regulatory Risk - Owing to the high risk characteristic inherent in the derivatives market, the regulatory control is sometimes too oppressive for market participants.

- (b)
- (i) When an investor can invest in only one stock, then only standard deviation is a relevant measure of risk, as there is no possibility of diversification. Thus an investor would choose that security which has lowest standard deviation. A risk averse investor will, unequivocally choose DKB over ITC because it has a lower risk for the nearly same return. However, the choice between BKC and DKB is based on the individual risk preference.
 - (ii) If your client holds a well-diversified mutual fund, then the only relevant risk is the systematic risk or beta which is a measure of systematic risk. So the client should invest based on the return expected via CAPM. In this case, it is impossible to judge which is better because the returns and systematic risks are relatively very close. However, DKB has the highest expected return (40%) and the lowest systematic risk (6%), so it is the most likely candidate to be a favourable investment. However, others could also be undervalued.
 - (iii) The client is right. BKC has a relatively lower expected return (22%) compared to the relevant systematic risk (16%). Though we must calculate the required return (via CAPM) and compare to a predicted return to really determine the answer, the likelihood that it's a good investment is small.

(c) (i) Yield to Maturity (YTM) of NCD is computed from the following equations:

$$85 = \sum_{t=1}^6 \frac{6.50}{(1+r)^t} + \frac{100}{(1+r)^6}, \text{ where } r \text{ is semi-annual rate.} \dots\dots\dots (1)$$

This is expressed as:

$$85 = (6.50) \times PVIFA (r, 6) + 100 \times (r, 6)$$

At $r = 10\%$, RHS of (1) is
 $6.50 (4.3553) + 100(0.5645) = 84.76$

At $r = 9\%$, RHS of (1) is
 $6.50 (4.4859) + 100(0.5963) = 88.79$

The YTM lies between 9% and 10%. By interpolation, we have

$$9\% + \frac{88.79 - 85.00}{88.79 - 84.76} = 9\% + \frac{3.79}{4.03} = 9.94\%$$

Therefore, YTM of NCD will be $2 \times 9.94\% = 19.88\%$.

(ii) On redemption date he will receive an amount which equals the future value of interest payments received during the three years and the principal of ₹100.

This is expressed as :
 $= (6.50) \times FVIFA (5.5\%, 6) + 100$
 $= (6.50) (6.888) + 100 = 144.77$

Since the investor purchases the bond (NCD) at ₹ 85 and receives ₹144.77 at the end of three years, the realized YTM is obtained from solving the equation.

$$85(1 + i)^3 = 144.77$$

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$$\begin{aligned}(1 + i)^3 &= 1.7032 \\ i &= \sqrt[3]{1.7032-1} \\ i &= 19.42\%\end{aligned}$$

Therefore, the Realized YTM : 19.42%

- (iii) In case the investor does not reinvest the intermediate interest payments received during the three-year period, his ending wealth would be:

$$₹39 + ₹100 = ₹139.00$$

The realized YTM of NCD is calculated as:

$$\begin{aligned}85(1 + i)^3 &= 139 \\ (1 + i)^3 &= 1.6353 \\ i &= \sqrt[3]{1.6353-1} \\ i &= 17.81\%\end{aligned}$$

Realized YTM of NCD: 17.81%

Section B (40 Marks) (Corporate Laws)

Answer Question No. 5 (carrying 10 marks) which is compulsory and answer any two (carrying 15 marks each) from the remaining three questions in this section.

5. (a) Fill in the blanks in the following sentences by using appropriate Word(s)/Phrase(s) Numbers(s):
1x5=5

- (i) _____ means a person other than the person making a request for information and includes a public authority (Right to Information Act).
- (ii) Any anti-competitive agreement entered into in contravention of provisions of section 3(1) of The Competition Act, 2002 shall be _____ .
- (iii) _____ Programme introduced by the Government of India to develop Computerized Environment for Company Law.
- (iv) Investor in order to protect his investment in any company expects proper exhibition of Corporate Governance which is taken care by _____ .
- (v) The minimum number of member in a Nomination Committee is _____ .

- (b) Choose the most appropriate one from the stated options and write it down (only indicate A or B or C or D as you think correct).
1x5=5

- (i) Under RTI Act-2004, persons desirous of obtaining information, shall make a request in writing or through electronic means in English or
 - A. in Hindi;
 - B. in the official language of the area;
 - C. in the local language of the area;
 - D. none of the above.
- (ii) The Competition Commission of India shall consist of a chairperson and
 - A. not less than 2 other members;
 - B. not more than 10 other members;

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- C. not less than 2 and not more than 10 other members;
D. not less than 2 and not more than 8 other members.
- (iii) An application to investigate the affairs of a public company where shareholders scattered all over the country, can be made to the National Company Law Tribunal (NCLT) by
- A. any one hundred members;
B. any two hundred members;
C. not less than one-fifth of the persons on that company's register of members;
D. not less than one-fourth of persons on that company's register of members.
- (iv) In the context of classification of Risks, Business Dynamic Risks will fall under
- A. Market Risks;
B. System Risks;
C. Industry and Services Risks;
D. Legal Risks.
- (v) The office of the Directors becomes vacant if he fails to obtain the share qualifications, if any required by the articles
- A. within 2 months of appointment;
B. within 1 month of appointment;
C. within 1 year of appointment;
D. before appointment.

Answer:

5. (a) (i) Third party; (ii) Void; (iii) MCA 21; (iv) Management Audit; (v) Three.
- (b) (i) A and B; (ii) The answer is – not less than 2 and not more than 6 other members;
(iii) B; (iv) C; (v) A.
6. (a) **MR. ANKIT KUMAR was a member of the Competition Commission of India. He ceased to be such member on March 31, 2014. Thereafter, he was offered the Post of Executive Director with appropriate remuneration and perquisites in the following organizations to join his duties on and from June 1, 2014.**
- (i) **AMTECK LTD. a private sector public limited company, whose case was disposed off by the Competition Commission under the provisions of the Competition Act, 2002 in the month of February, 2014.**
- (ii) **Life Insurance Corporation of India.**
You are required to state with relevant provisions of the Competition Act, 2002, the option available to MR. ANKIT KUMAR in respect of accepting the offers. 1+2+2=5
- (b) **GEMINI LTD., is a government undertaking. The undertaking has been in existence for the past ten years and the company maintains a website wherein particulars last update on December 15, 2013 are available to the public.**
Few important policy decisions were taken by the company in January, 2014 but these were not posted in the company's website as on May 20, 2014.
MR. PEARSON, a general public, feels that the company has violated the provisions of the Right to Information Act by not disclosing the important policy decisions affecting the general public.—
Is the aforesaid contention justified under the provisions of the RTI Act? 4

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- (c) What is meant by "Assessing Control Risk" in the context of Internal Control Policy and mis-statements in the Financial Statements? How should the Auditor react, where the control risk is at the maximum and where it is less than the maximum?** 6

Answer:

6. (a) In accordance with the provisions of the Competition Act, 2002 as contained in section 12, the Chairperson and other Members shall not, for a period of two years from the date on which they ceased to hold office, accept any employment in, or connected with the management or administration of, any enterprise which has been a party to a proceeding before the Commission.

Provided that nothing contained in this section shall apply to any employment under the Central Government or a State Government or local authority or in any statutory authority or any corporation established by or under any Central, State or Provincial Act or a Government company as defined in section 617 of the Companies Act 1956 (1 of 1956).

- (i) Based on the above provisions of the Competition Act 2002 Mr. Ankit Kumar will not be able to accept the offer of Amteck Ltd. for two years from the date of his cessation as a member of the Competition Commission since the said company was a party to the proceedings before the Commission.
- (ii) However, since Life Insurance Corporation of India is a Corporation established under the Central Act, the above restriction does not apply and Mr. Ankit Kumar can accept the offer to join as the Executive Director of the said corporation with effect from June 1, 2014.

- (b) Updating of particulars, as required under the RTI Act**

The RTI Act casts an obligation to publish all relevant facts concerning important decisions and policies that affect the public while formulating and announcing such decisions and policies.

The RTI Act requires that the necessary particulars are to be published and updated at least every 12 months.

In the given case, the company's website has been last updated on 15.12.2013. Hence, it will be sufficient if the particulars are updated by 14.12.2014.

As a consequence, there is no violation of the applicable provisions of the RTI Act. So, the contention of Mr. Pearson as given in the case are not justified under the provisions of the RTI Act.

- (c) Assessing Control Risk:**

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

- (i) Control risk at the maximum:
- Conclusion based upon the auditor's judgment 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.

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

(ii) 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 auditor in this situation must evaluate the cost / benefit of extending his / her understanding of internal controls to make a final decision concerning control risk.
- The cost / benefit decision is based upon the auditor 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 auditor tests

Tests of the controls - Audit tests designed to determine whether specific control procedures that the auditor plans to rely on are actually in place and operating effectively in the entity under audit.

Substantive Tests - Auditor tests designed to substantiate one or more financial statement assertions.

The auditor should decide whether or not to extend his / her understanding of internal controls because of cost/ benefit considerations and the control risk would then be assessed at the maximum for all financial statement assertions.

7. (a) **MR. ADHIRAJ holds the office of Managing Director of a Private Company for life. The Company's Article of Association empower him to appoint a person to be the Managing Director in succession to him. Mr. Adhiraj, therefore, in the exercise of his power appoints, by will MR. SACHIN as the Managing Director to hold office after the former's death. Some members of the company challenge the provisions of the Articles of Association and question the validity of the appointment of MR. SACHIN on the ground that MR. ADHIRAJ'S action amounts to 'Assignment of Office'.**

Examine the validity of the contention of the members.

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- (b) **ASHIKA LTD. has been running in losses and has defaulted payment to its creditors. On 1st August 2013 the company mortgaged its plant and Machinery to MR. ANUP, a close friend of the MD of the company, against payment of amount due to him ₹ 21 lakhs. The other creditors were left in lurch. In the meantime, MR. SOHAN (who has not paid by the company for supply of Raw Material of the value of ₹105 lakh.) presented a petition for winding-up the company before the High Court on 31.10.2013. The company was ordered to be wound up by the court on 31.3.2014. The official liquidator wants to declare the transaction of mortgage with Mr. Anup as invalid. Will he succeed?**

5

- (c) **State the CII (Confederation of Indian Industries) Codes for desirable Corporate Governance with its key aspects.**

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Answer:

7. (a) Section 312 of the Companies Act, 1956 prohibits assignment of office by a director. However, in Oriental Metal Pressing V. Bhasker Kashinath Thakoor [1961]. 31 Comp Case.143 (SC) on which the facts of the given problem are based, the Supreme Court made a distinction between 'assignment' and 'appointment' and held appointment by will as valid, if the Articles contained such a provision. Thus, the appointment of Mr. Sachin as the managing director is valid and it does not amount to an assignment of office by Mr. Adhiraj.

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(b) In case of a winding up by the Court, the, winding up shall be deemed to have commenced at the time of presentation of the petition for the winding up. Thus, where a petition is made to the court and the court orders the winding up, the order relates back to the date of the presentation of the petition. As per Section 531 of the Companies Act, 1956, a fraudulent preference is invalid, if it satisfies the following conditions:

- (i) that the transaction took place within six months before the commencement of the winding-up.
- (ii) that the dominant motive in the mind of the company acting through its directors was to prefer one creditor in preference to other creditors.

In the given case, the winding up of the company commenced on 31st October, 2013 that is the date of presentation of petition of winding up. The company had mortgaged its machinery in favour of Mr. Anup the creditor on 1st August, 2013 within the 6 months before the commencement of winding up. The mortgage was made voluntarily by the company, without any consideration, and not under any pressure. Thus, the dominant motive behind the transaction was to give the preference to Mr. Anup the creditor over the others. Since all the requirements of Section 531 are satisfied in the given case, the mortgage of the machinery made in the favour of the creditor amounts to fraudulent preference, and is hence invalid. Therefore, the Official Liquidator can declare the mortgage in favour of creditor Mr. Anup as invalid.

(c) CII (Confederation of Indian Industries) code for corporate Governance:

The CM code has recommended the following 14 keys aspects which should be shared with the Board:

- (i) Annual operating plans and budgets together with updated long-term plans,
- (ii) Capital budgets, manpower and overhead budgets,
- (iii) Quarterly results for the company as a whole and its operating divisions for business segments,
- (iv) Show cause, demand, and prosecution notices received from the revenue authorities which are considered to be materially important,
- (v) Internal audit reports, including cases of theft, and dishonesty of a material nature,
- (vi) Fatal or serious accidents, dangerous occurrences, and any affluent or pollution problems,
- (vii) Default in payment of interest or non-payment of the principal on any public deposit and/or to any secured creditors or financial institutions,
- (viii) Defaults such as non-payment of inter-corporate deposits by or to the company or materially substantial non-payments for goods sold by the company,
- (ix) Any issue which involves possible public or product liability claims of a substantial nature, including any judgment or order which may have either passed, strictures on the conduct of the company, or taken an adverse view regarding another enterprise that can have negative implications for the company,
- (x) Details of any joint venture or collaboration agreement,
- (xi) Transactions that involve substantial payment towards goodwill, brand equity, or intellectual property,
- (xii) Recruitment and remuneration of senior officers just below the board level, including appointment for removal of the Chief Financial Officer and the Company Secretary,
- (xiii) Labour problems and their proposed solutions,
- (xiv) Quarterly details of foreign exchange exposure and the steps taken by management to limit the risk of adverse exchange rate movement, if material.

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These issue can be classified into financial issues and non - financial issues which are not required to be presented to the Board Statutorily.

8. (a) **A group of shareholders of MULTISOFT LTD. has filed a petition before the Company Law Board alleging various Acts of Oppression and Mismanagement by the majority shareholders. The petitioner group holds 15% of the issued share capital of the company. During the course of hearing before CLB, some of the petitioner group of shareholders holding about 6% of the issued share capital of the company have withdrawn their consent by stating that they were misled by the group to sign the petition and after coming to know of the true facts they have disassociated themselves with the petition and they along with the other majority shareholders have submitted that the petition should be dismissed on the ground of non-maintainability. Examine their contention having regard to the provisions of the Company Act.** 7

- (b) **Discuss the Powers and Role of the Audit Committee as per clause 49 of the listing Agreement.** 2+6= 8

Answer:

8. (a) The contention of the majority shareholders is not correct and the company Law Board will continue to proceed with the petition filed against oppression and mismanagement by minority shareholders.

It has been held by the Supreme Court in Rajahmundry Electric Corporation -V- A. Nageshwara Rao that if some of the consenting members have subsequent to the presentation of the application, withdrawn their consent, it would not affect the right of the applicant to proceed with the application.

Thus the validity of the petition must be judged on the facts as they were at the time of its presentation.

Neither the right of the applicant to proceed with the application, nor the jurisdiction of the company law board to dispose it off on its own merits can be affected by events happening subsequent to the presentation.

- (b) As per clause 49 of the Listing Agreement:

Powers of Audit Committee —

The audit committee shall have powers, which should include the following:

- (i) To investigate any activity within its terms of reference.
- (ii) To seek information from any employee.
- (iii) To obtain outside legal or other professional advice.
- (iv) To secure attendance of outsiders with relevant expertise, if it consider necessary.

Role of Audit Committee —

The role of the audit committee shall include the following:

- (i) Oversight of the company's financial reporting process and the disclosure of its financial information to ensure that the financial statement is correct, sufficient and credible.
- (ii) Recommending to the Board, the appointment, re-appointment and, if required the replacement or removal of the statutory auditor and the fixation of audit fees.
- (iii) Approval of payment to statutory auditors for any other services rendered by the statutory

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auditors.

- (iv) Reviewing, with the management, the annual - financial statements before submission to the board for approval, with particular reference to:
- Matters required to be included in the Director's Responsibility Statement to be included in the Board's report in terms of clause (2AA) of section 217 of the Companies Act, 1956.
 - Changes, if any, in accounting policies and practices and reason for the same .
 - Major accounting entries involving estimates based on the exercise of judgment by management.
 - Significant adjustments made in the financial statements arising out of audit findings.
 - Compliance with listing and other legal requirements relating to financial statements.
 - Disclosure of any related party transactions.
 - Qualifications in the draft audit report.
- (v) Reviewing —
- with the management, the quarterly financial statements before submission to the board for approval.
 - with the management, the statement of uses / application of funds raised, through an issue (public issue, rights issue, preferential issue etc.), the statement of funds utilized for purposes other than those stated in the offer document/prospectus/notice and report submitted by the monitoring agency, monitoring the utilization of proceeds of a public or rights issue, and making appropriate recommendations to the Board to take up steps in this matter.
- (vi) Reviewing, with the management, performance of statutory and internal auditors, adequacy of the internal control systems.
- (vii) Review the adequacy of internal audit function, if any, including the structure of the internal audit department, staffing and seniority of the official heading the department, reporting structure coverage and frequency of internal audit.
- (viii) Discussion with internal auditors any significant findings and follow up there on.
- (ix) Review the findings of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control systems of a material nature and reporting the matter to the board.
- (x) Discussion with statutory auditors before the audit commences, about the nature and scope of audit as well as post-audit discussion to ascertain any area of concern.
- (xi) To look into the reasons for substantial defaults in the payment to the depositors, debenture holders, shareholders (in case of non-payment of declared dividends) and creditors.
- (xii) To review the functioning of the whistle Blower mechanism, in case the same is existing.
- (xiii) Approval of appointment of CFO (i.e. the whole-time Finance Director or any other person heading the finance function or discharging that function) after assessing the qualifications, experience and background, etc. of the candidate.
- (xiv) Carrying out any other function as is mentioned in the terms of reference of the Audit Committee.

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[Students can answer any 12 points from the above.]