

**FINAL EXAMINATION - GROUP III
(SYLLABUS 2008)**

SUGGESTED ANSWERS TO QUESTIONS

December 2008

**PAPER P11 : CAPITAL MARKET ANALYSIS & CORPORATE
LAWS**

Section I (60 Marks)

Answer Question No. 1 which is compulsory and any two from the rest in this section.

Time Allowed : 3 Hours

Full Marks : 100

Question:

1. (a) In each of the cases given below one out of four is correct. Indicate the correct answer (=1 mark) and give your workings / reasons briefly (= 1 mark):
- (i) The Beta co-efficient of equity stock of ECOBOARD LTD. is 1.6. The risk free rate of return is 12% and the required rate of return is 18% on the market portfolio. If the dividend expected during the coming year is Rs. 2.50 and the growth rate of dividend and earnings is 8%, at what price the stock of Ecoboard Ltd. Can be sold (based on the CAPM)?
 - A. Rs. 18.38
 - B. Rs. 15.60
 - C. Rs.12.50
 - D. None of A, B, C
 - (ii) ANKITA LTD. Issued right shares that increased the market value of the shares of the company by Rs. 160 crore. The existing Base year average (old Base year Avg.) is Rs. 900 crore. If the aggregate market value of all the shares included in the index before the right issue is Rs. 1,800 crore, the new Base year average will be.
 - A. Rs. 782.50 crore

- B. Rs. 980.00 crore
 C. Rs. 911.17 crore
 D. Insufficient information
- (iii) In September 30, 2008, a six –month put on VINTEX LTD.'s stock with an exercise price of Rs. 75 sold for Rs. 6.82. The stock price was Rs. 70.00. The risk – free rate was 6% per annum. How much would you be willing to pay for CALL on Vintex Ltd.' Stock with same maturity and exercise price?
 [Given: PVIF (6%, $\frac{1}{2}$ year) = 0.9709]
 A. Rs. 13.72
 B. Rs. 8.50
 C. Rs. 4.00
 D. Rs. 3.20
- (iv) MISS ARTITHI can earn a return of 20 percent by investing in equity shares on her own. Now she is considering a recently announced Equity based mutual fund scheme in which initial expenses and annual recurring expenses are 5 percent and 1.5 percent respectively. How much should the mutual fund earn to provide Miss Artithi, a return of 20%?
 A. 18.43%
 B. 22.55%
 C. 21.50%
 D. Insufficient data
- (v) MR, ROHIT is willing to purchase a 5 years Rs.1000 par value PSU bond having a coupon rate of 9%. His required rate of return is 10%. How much Mr. Rohit should pay to purchase the bond if it matures at par?
 [Given: PVIFA (10%, 5 years) = 3.791 and PVIF (10%, 5years) = 0.621]
 A. Rs. 965.49
 B. Rs. 962.19
 C. Rs. 850.47
 D. Rs. 805.30
- 2 x 5
- (b) Choose the most appropriate one from the stated options and write it down. (Only indicate A, B, C, D as you think correct) :
- (i) An option of allocating shares in excess of the shares included in the public issue is called
 A. Call option
 B. Compound option
 C. Green option
 D. Follow on offer
- (ii) The legislation governing the securities market are
 A. The SEBI Act, 1992 and the Companies Act, 1956
 B. The Securities Contracts (regulation) Act, 1956
 C. Depositories Act, 1996

- D. All of the above
- (iii) The members of IRDA, other than Chairman of IRDA are appointed by
- A. The Chairman of IRDA
 - B. Government of India
 - C. The ROC
 - D. RBI
- (iv) In put-call parity, the pay-offs of buying stock can be replicated by
- A. Buying a call and buying a put option
 - B. Buying a call and writing a put option
 - C. Writing a call and buying a put option
 - D. Writing a call and writing a put option
- (v) Security Market Line (SML) shows the relationship between return on the stock and
- A. Return on market portfolio
 - B. Beta of the stock
 - C. Risk-free rate of return
 - D. Variance of the stock returns
- (vi) SEBI (Disclosure and Investor Protection) Guidelines, 2000 are not applicable to
- A. All public issues by unlisted companies
 - B. Public sector banks
 - C. Infrastructure companies
 - D. Both (B) and (C) above
- (vii) Sharpe's measure of the portfolio performance is based on
- A. Systematic risk of the portfolio
 - B. Unsystematic risk of the portfolio
 - C. Total risk of the portfolio
 - D. Market risk of the portfolio
- (viii) As per SEBI's guidelines, a mutual fund should be established as a
- A. Public Limited Company
 - B. Trust
 - C. Private Limited Company
 - D. None of the Above
- (ix) If the director of a company who has access to inside information is unable to use this information to make supernormal profit, it is a sign of
- A. Weak form of efficient market hypothesis
 - B. Semi-strong form of efficient market hypothesis
 - C. Strong form of efficient market hypothesis
 - D. Incompetence of the director

(x) The following are the common assumptions to both APT and CAPM:

- A. Investors have homogenous beliefs
- B. The market are perfect
- C. Investors are risk-averse utility maximizers
- D. All of (A), (B) & (C) above

1 x 10

Answer to Question no1 (a):

(i) (A): Rs.18.36

Expected rate of return : (By applying CAPM)

$$\begin{aligned} R_e &= R_f + \beta_i (R_m - R_f) \\ &= 12\% + 1.6 (18\% - 12\%) \\ &= 12\% + 9.6\% = 21.6\% \end{aligned}$$

Price of stock: (with the use of dividend growth model formula)

$$R_e = D_1/P_0 + g$$

$$0.216 = 2.50/P_0 + 0.08$$

$$\text{Or, } P_0 = 2.50 / (0.216 - 0.08)$$

$$= 2.50 / 0.136 = \text{Rs. } 18.38$$

(ii) (B): Rs 980 Crore.

New base year Average:

Old Base year Average \times (New Market Value / Old Market Value)

$$= 900 \times (1800 + 160) / 1800$$

$$= 1764000 \div 1800$$

$$= \text{Rs. } 980 \text{ Crore}$$

(iii) (C): Rs 4.00: Based on put call parity theorem.

$$C - P = S - PV(EP) \text{ or, } C = P + S - PV(EP).$$

$$\text{Thus, } C(\text{call}) = 6.82 + 70 - 75 \times 0.9709$$

$$= 76.82 - 72.82 = \text{Rs } 4.00$$

Thus, Price of Six month call = Rs 4.00

(iv) (B): 22.55%

$$R_2 = [1 / 1 - \text{Initial Expenses}(\%) R_1] + \text{Recurring Expenses}(\%)$$

Where R_2 = Mutual fund earnings

R_1 = Personal earnings of Miss Artithi.

$$= [(1 / 1 - 0.05) \times 20\%] + 1.5\%$$

$$= 0.2150 + 0.015 = 22.55\%$$

(v) (B): Rs 962.10

If the Bond matures at par $B_n = \text{rs } 1000$.

Each interest = Rs 90 (1000×0.09), $K_d = 10\%$.

$$B_0 = \text{Rs } 90 \times 3.791 + 1000 \times 0.621 = \text{Rs } 962.19$$

Answer to Question No. 1(b):

- (i) C
- (ii) D
- (iii) B
- (iv) B
- (v) B
- (vi) D
- (vii) C
- (viii) B
- (ix) C
- (x) D

Question:

2. (a) Under what circumstances can a company registered as a collective investment management company raise funds from the public. 3
- (b) Explain the difference between forward contract and future contract. 4
- (c) Mr. Marin Kumar an investor is evaluating the prospects of investing in two companies SPARK LTD. And AMRIT LTD. The Projections of returns for the stocks of the two companies along with their probabilities are as follows:

Economic Scenario	Probabilities	Returns associated with		
		Spark Ltd.	Amrit Ltd	Market Index
Boom	0.45	43%	34%	26%
Growth	0.25	23%	27%	10%
Stagnation	0.20	18%	16%	3%
Slump	0.10	8%	4%	- 6%

The Risk-free rate of return is 9%

Requirements:

- (i) Calculate Ex-ante betas for both the companies.
- (ii) Calculate excess return provided by both the companies.
- (iii) Calculate the proportion of systematic risk and unsystematic risk for both the companies.
- (iv) State whether the stock of Spark Ltd. and Amrit Ltd., is underpriced or overpriced? 6+2+4+1

Answer to Question No 2(a):

- A registered Collective Investment Management Company is eligible to raise funds from the public by launching schemes.
- Such schemes have to be compulsorily credit rated as well as appraised by an appraising agency
- The schemes also have to be approved by the Trustee and contain disclosures, as provided in the regulations, which would enable the investors to make informed decision
- A copy of the offer document of the scheme has to be filed with SEBI and if no modifications are suggested by SEBI within 21 days from the date of filing then the collective Investment

Management Company is entitled to issue the offer document to the public for raising funds from them.

Answer to Question No 2(b):

Forward contracts are private bilateral contract and have well established commercial usage. Future contracts are standardised tradable contracts fixed in terms of size, contract date and all other features. The differences between forward and future contracts are given below:

Forward Contracts	Future Contracts
1. The contract price is not privately disclosed and hence not transparent.	1. The contract price is transparent.
2. The contract is exposed to default risk by counter party.	2. The contract has effective safeguards against defaults in the form of clearing corporation guarantees for trades and daily mark to market adjustments to the accounts of trading members based on daily price change
3. Each contract is unique in terms of size, expiration date and asset type/ quality.	3. The Contracts are standardised interms of size, expiration date and all other features.
4. The contract is exposed to the problem of liquidity.	4. There is no liquidity problem in the contract.
5. Settlement of the contract is done by delivery of the asset on the expiration date.	5. Settlement of the contract is done on cash basis.

Answer to Question No 2(c):

MR. MARIN KUMAR:

(i) Expected return on stock and variance of Spark Ltd:

$$\begin{aligned} E(R_s) &= (0.45 \times 43) + (0.25 \times 23) + (0.20 \times 18) + (0.10 \times 8) \\ &= 19.35 + 5.75 + 3.60 + 0.8 \\ &= 29.50\% \end{aligned}$$

$$\begin{aligned} \alpha^2_s &= 0.45 (43 - 29.5)^2 + 0.25 (23 - 29.5)^2 + 0.20 (18 - 29.5)^2 + 0.10 (8 - 29.5)^2 \\ &= 82.10 + 10.56 + 26.45 + 46.22 \\ &= 165.24\% \end{aligned}$$

Expected return on stock and variance of Amrit Ltd:

$$\begin{aligned} E(R_s) &= (0.45 \times 34) + (0.25 \times 27) + (0.20 \times 16) + (0.10 \times 4) \\ &= 15.30 + 6.75 + 3.20 + 0.40 \\ &= 25.65\% \end{aligned}$$

$$\begin{aligned} \alpha^2_A &= 0.45 (34 - 25.65)^2 + 0.25 (27 - 25.65)^2 + 0.20 (16 - 25.65)^2 + 0.10 (4 - 25.65)^2 \\ &= 31.37 + 0.455 + 18.62 + 46.87 \\ &= 97.31\% \end{aligned}$$

Expected return on variance on Market:

$$\begin{aligned} E(R_M) &= (0.45 \times 26) + (0.25 \times 10) + (0.20 \times 3) + (0.10 \times -6) \\ &= 11.70 + 2.50 + 0.6 - 0.6 \end{aligned}$$

$$\begin{aligned}
 &= 14.20\% \\
 \alpha_M^2 &= 0.45(26 - 14.20)^2 + 0.25(10 - 14.20)^2 + 0.20(3 - 14.20)^2 + 0.10(-6 - 14.20)^2 \\
 &= 62.66 + 4.41 + 25.09 + 40.80 \\
 &= 132.96\%
 \end{aligned}$$

Covariance:

$$\begin{aligned}
 \text{Cov}_{SM} &= 0.45(43 - 29.50)(26 - 14.20) + 0.25(23 - 29.50)(10 - 14.20) + 0.20(18 - 29.50) \\
 &\quad (3 - 14.20) + 0.10(8 - 29.50)(-6 - 14.20) \\
 &= 71.68 + 6.82 + 25.76 + 43.43 \\
 &= 147.69\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Cov}_{AM} &= 0.45(34 - 25.65)(26 - 14.20) + 0.25(27 - 25.65)(10 - 14.20) + 0.20(16 - 25.65) \\
 &\quad (3 - 14.20) + 0.10(4 - 25.65)(-6 - 14.20) \\
 &= 44.34 - 1.42 + 21.62 + 43.73 \\
 &= 108.27\%
 \end{aligned}$$

BETAS:

$$\begin{aligned}
 \beta_S &= 147.69/132.96 \\
 &= 1.111
 \end{aligned}$$

$$\begin{aligned}
 \beta_A &= 108.27/132.96 \\
 &= 0.18
 \end{aligned}$$

$$\begin{aligned}
 \text{(ii) Normal return} &= R_i + \beta(R_m - R_f): \\
 \text{Spark Ltd} &= 9 + (14.20 - 9) 1.111 = 14.78\% \\
 \text{Excess Return Alpha} &= 29.50 - 14.78 = 14.72\% \\
 \text{Amrit Ltd} &= 9 + 0.81(14.20 - 9) = 13.21 \\
 \text{Excess Return or Alpha} &= 25.65 - 13.21 = 12.44\%
 \end{aligned}$$

$$\begin{aligned}
 \text{(ii) Systematic risk} &= \beta^2 \cdot \text{var}(M) \\
 \text{Unsystematic risk} &= \text{Total Risk} - \text{Systematic risk} \\
 &= \text{Var}(i) - \beta^2 \cdot \text{var}(M)
 \end{aligned}$$

Spark Ltd:

$$\begin{aligned}
 \text{Systematic risk} &= (1.111)^2 \times 132.96 = 164.11\% \\
 \text{Unsystematic risk} &= 165.24 - 164.11 = 1.13\% \\
 \text{Proportion of systematic risk} &= 99.39\% \\
 \text{Proportion of unsystematic risk} &= 0.61\%
 \end{aligned}$$

Amrit Ltd:

$$\begin{aligned}
 \text{Systematic risk} &= (0.81)^2 \times 132.96 = 87.23\% \\
 \text{Unsystematic risk} &= 97.31 - 87.23 = 10.08\% \\
 \text{Proportion of unsystematic risk} &= 89.64\% \\
 \text{Proportion of systematic risk} &= 10.36\%
 \end{aligned}$$

- (iv) The ALPHA is excess return of both Companies stock is POSITIVE. Hence the stock of spark ltd & Amrit Ltd is UNDERPRICED.

Question:

3. (a) What are the principle weakness of Indian Stock Market?
 (b) Enumerate the main features of Venture Capital Financing.
 (c) SUN MUTUAL FUND (approved Mutual Fund) sponsored an open ended equity oriented scheme "LT Opportunity Fund". There were three plans namely 'A' – Dividend Reinvestment Plan, 'B' – Bonus Plan and 'C' – Growth Plan.

At the time of New Fund Offer on 1.4.1998 Mr. Hari, Mr. Saxena and Mrs. Rawat invested Rs. 1,00,000 each and chosen Plans 'B', 'C' and 'A' respectively. The face value of the units was Rs. 10 each. The detailed history of the fund is as follows:

Date	Dividend(%)	Bonus ratio	Value per unit (F.V Rs. 10)		
			Net Asset Plan A	Plan B	Plan C
28.07.2002	20	–	30.70	31.40	33.42
31.03.2003	70	5:4	58.42	31.05	70.05
30.10.2006	40	–	42.18	25.02	56.15
15.01.2007	25	–	46.45	29.10	64.28
31.01.2007	–	1:3	42.18	20.05	60.12
24.02.2008	40	1:4	48.10	19.95	72.40
31.03.2008	–	–	53.75	22.98	82.07

On 31st March, 2008 all three investors redeemed all the balance units.

You are required to calculate the annual rate return for Mr. Hari, Mr. Saxena and Mrs. Rawat after taking into consideration the following information:

- Long-term capital gain is exempt from Income-tax.
- Short-term capital gain is subject to 10% Income-tax.
- Security Transaction tax @ 0.2% only on sale / redemption of units .

Ignore Education Cess and Service Tax.

Note : You may use the formula $1 / (1+r)^n$ for determining PVIF [at r (rate of return), n years] 4+5+4

Answer to Question No 3(a):

The principle weakness of Indian Stock Market are enumerated below:

- Scarcity of floating stock: Financial institutions, banks and insurance companies own 80% of the equity capital of the private sector.
- Speculation: 85% of the transactions on the NSE and BSE are speculative in nature.
- Price rigging: Evident in relatively unknown and low quality scripts – causes short – term fluctuations in the price.
- Insider trading: Obtaining market sensitive information to make money in the markets.

Answer to Question No 3(b):

Venture capital is long term risk capital to finance high technology project which involves risk but at the same time has strong potential for growth.

Features of venture Capital Financing:

Some of the features of Venture Capital Financing are as under:

1. Venture capital is usually in the form of an equity participation. It may also take the form of convertible debt or long term loan.
2. Investment is made only in high risk but high growth potential projects.
3. Venture capital is available only for commercialization of new ideas or new technologies.
4. Venture capital joins the entrepreneurs as a co-promoter in project and shares the risk and rewards of the enterprise.
5. There is continuous involvement in business after making an investment by the investor.
6. Once the venture has reached the full potential the venture capitalist disinvests his holdings either to the promoters or in the market.
7. Venture capital is not just injection of money but also an input needed to set up the firm design its marketing strategy and organize and manage it.
8. Investment is usually made in small and medium scale enterprises.

Answer to Question No 3(c):

SUN MUTUAL FUND

Mrs. Rawat's investment in plan –A (Dividend Reinvestment)

Date	Particulars	No. of unit	NAV(Rs)
01.04.1998	Purchase for Rs 100000	10000.00	10.00
28.07.2002	[Dividend @ 20% on(10000xRs10)]÷ 30.70	651.47	30.70
		10651.47	
31.03.2003	[Dividend @ 70%on(10651.47xRs10)]÷58.42	1276.28	58.42
		11927.75	
30.10.2006	[Dividend @ 40% on(11927.75xRs10)]÷42.18	1131.13	42.18
		13058.88	
15.01.2007	[Dividend @ 25% on(13058.88xRs10)]÷46.45	702.85	46.45
		13761.73	
31.01.2007	Balance units	13761.73	42.18
24.02.2008	[Dividend @ 40% on(13761.73xRs10)]÷48.10	1144.43	48.10
		14906.16	53.75
31.03.2008	Balance units		

Redemption value : 14906.16x Rs53.75

Rs 801206.10

Less: Short term capital gain

NIL

801206.10

Less: Security transaction Tax (STT) @ 0.20%

1602.41

Net Proceeds (Return)

799603.69

Calculation of Annual Rate of Return

$$\begin{aligned} \text{Rate of return} &= 'n' \text{ years } \sqrt[n]{\text{Total Return (Net proceeds)/Total initial investment}} - 1 \\ &= (799603.69 \div 100000)^{1/10} - 1 \end{aligned}$$

$$= 0.2311 \text{ i.e. } 23.11\%$$

Alternative Solution:

Rate of return:

Net proceeds discounted at annual growth rate of 23% i.e [PVIF (23%,10 Yrs)]

$$0.12617 \times 799603.69 = \text{Rs. } 100886.00$$

Net proceeds discounted at Annual growth rate of 24% [PVIF (24%,10 Yrs)]

$$0.11635 \times 799603.69 = \text{Rs. } 93033.89.$$

Annual rate of return:

$$23 + [(100886 - 100000) \div (100886 - 93033.89)] \times 1$$

$$= 23.11\% \quad (\text{By interpolation})$$

MR. HARI's Investment in Plan-B (Bonus Plan)

Date	Particulars	No of units	NAV Rs.
01.04.1998	Purchase for Rs 100000	10000.00	10.00
31.03.2003	Bonus units: (10000 ÷ 4) × 5	12500.00	31.05
		<u>22500.00</u>	
31.01.2007	Bonus units: (22500 ÷ 3) × 1	7500.00	20.05
		<u>30000.00</u>	
24.02.2008	Bonus units: (30000 ÷ 4) × 1	7500.00	19.95
31.03.2008	Balance Units	<u>37500.00</u>	22.98
Redemption value : 37500 × 22.98			Rs.861750.00
Less : Short term capital gain(STG):[0.10×(22.98-19.95) ×7500]:			(2273.00)
Less: Security transaction tax (STT) @ 0.20% on Rs 861750:			<u>(1724.00)</u>
Net proceeds (Return)			857753.00

Calculation of Annual Rate of Return:

$$\text{Rate of return:}[(857753 \div 100000)^{1/10} - 1]$$

$$= 1.2398 - 1 = 0.2398 \text{ i.e. } 23.98\%$$

Alternative solution:

Net proceeds discounted at annual growth rate of 23% [PVIF (23%,10 Yrs)]

$$= 0.12617 \times 857753 = \text{Rs. } 108222.70$$

Net proceeds discounted at annual growth rate of 24% [PVIF (24%,10 Yrs)]

$$= 0.11635 \times 857753 = \text{Rs. } 99799.56$$

Annual rate of return: $23 + [(108222.70 - 100000) \div (108222.70 - 99799.56)] \times 1$

$$(\text{By interpolation}) = 23 + 0.98 = 23.98\%$$

MR. SAXENAS' Investment in Plan-C (Growth Plan)

		No. of Units	NAV (Rs)
01.04.1998	Purchase for Rs 100000	10000	10.00
31.03.2008	Balance units	10000	82.07

Redemption value: 10000×82.07	Rs. 820700.00
Less : Short term capital gain(STG):	(NIL)
Less: Security transaction tax (STT): @ 0.20%	<u>1641.00</u>
Net proceeds (Return)	819059.00

Calculation of Annual rate of return:

$$\text{Rate of return: } [(819059 \div 100000)^{1/10} - 1]$$

$$= 1.2340 - 1 = 0.2340 \text{ i.e. } 23.40\%$$

Alternative solution:

Same procedure as stated supra (for plan-A & Plan-B) may be applied for calculation of Annual Rate of Return.

Question:

4. (a) Write Short notes on the following:

- (i) Green Shoe Option, 3 x 2
- (ii) Services of Merchant Banks.
- (b) On September 1, 2008 the stock of AMREX LTD.(AI) was trading at Rs. 120 and call option exercisable in three months times had an exercise rate of Rs. 112. The standard deviation of the continuously compounded stock price change for Amrex Ltd. is estimated to be 30% per year. he annualized Treasury Bill rate Corresponding to this option life is 7%.

Required:

- (i) Compute the Value of a three (3) months call option on the stock of Amrex Ltd. using Black-scholes model.
- (ii) What would be the value of put option for the same?

Note:

Extracted from the tables:

(1) Natural Logarithms: $\ln(1.071429) = 0.068993$. $\ln(0.93333) = -0.06900$

(2) Value of e^{-x} : $e^{-0.02} = 0.9802$ and $e^{-0.01} = 0.9900$

(3) Cumulative standardized normal probability distribution: NCX

When $x \geq 0$: $N(0.6516) = 0.7427$, $N(0.5016) = 0.6921$

When $x \leq 0$: $N(-0.6516) = 0.2573$, $N(-0.5016) = 0.3079$ (5+4)+2

(c) The stock of APTECH LTD. (FV Rs. 10) Quotes Rs. 920 to day on NSE and the 3 month futures price quotes at Rs. 950. The one month borrowing rate is given as 8% and the expected annual dividend yield is 15% p.a. payable before expiry.

You are required to calculate the price of 3 month APTECH FUTURES. 3

Answer to question No 4(a):

- (i) **Green Shoe option:** Green shoe option denote "an option of allocating shares in excess of the shares included in the public issue. It is an option that allows the underwriting of an IPO to sell additional shares if the demand is high. It can be understood as an option that allows the underwriter for a new issue to buy and resell additional shares up to a certain pre-determined quantity. Looking to the exceptional interest of investors in terms of over subscription of the

issue certain provisions are made to issue additional shares or bonds to underwriters for distribution. The issuer authorises for additional shares or bonds. In common parlance, it is retention of over subscription to a certain extent. It is a special feature of EURO-issues. In the Indian context, Green shoe option has a limited connotation. SEBI guidelines governing public issue certain appropriate provisions for accepting over-subscription subject to a ceiling, say 15% of the offer made to public. In certain cases, the Green shoe option can be even more than 15%. The Green shoe option facility would bring in price stability of initial public offerings.

- (ii) **Service of Merchant Banks:** Merchant Banking may be defined as "an institution which covers a wide range of activities such as management of customer service, portfolio management, counselling, insurance etc.

The services of Merchant bankers are described as follows:

1. Corporate counselling.
2. Project Counselling.
3. Loan Syndication.
4. Issue Management.
 - Public issue through prospectus.
 - Marketing.
 - Pricing of issues.
5. Under writing of public issue.
6. Managers, Consultants, or Advisors to the issue.
7. Portfolio Management.
8. Off-shore Finance.
9. Non-resident investment.
10. Advisory services relating to merger or takeover.

Answer to question No 4(b):

AMREX LTD.

Valuation of Call Option : $S_0 \times N(d_1) - (Exe^{-rt} \times N(d_2))$

Term	Calculation	Result
1. S_0 = Current price of stock.	Given	120
2. E = Exercise price	Given	112
3. PV of E = Present value of Exercise price.	$E \times e^{-rt} = 112 \times e^{-0.07 \times 0.25}$	109.78
4. $\ln(S_0/E)$	$\ln(120/112) = \ln(1.071429)$	0.068993
5. $d_1 = [\ln(S_0/E) + (r + 0.5\sigma^2) \times t] / \sigma \sqrt{t}$	$[0.068993 + (0.07 + 0.5 \times 0.09) \times 0.25] / [0.30 \times \sqrt{0.25}]$ $= 0.068993 + 0.02875 / 0.15$	0.6516
6. $d_2 = d_1 - \sigma \sqrt{t}$	$0.6516 - 0.15$	0.5016
7. $N(d_1) = N(0.6516)$	Given	0.7427
8. $N(d_2) = N(0.5016)$	Given	0.6921

$$\begin{aligned} \text{Value of call option (} c_p \text{)} \\ (S_0 \times Nd_1) - (Exe^{-rt} \times Nd_2) &= (120 \times 0.7427) - (109.78 \times 0.6921) \\ &= 89.124 - 75.9787 \\ &= 13.1453 \text{ i.e. Rs.13.14.} \end{aligned}$$

Value of put option:

Based on put-call parity theorem:

$$\begin{aligned} C_p + PV \text{ of } E - s_0 &= 13.14 + 109.78 - 120 \\ &= \text{Rs } 2.92. \end{aligned}$$

Answer to question No 4(b):

Future price of Aptech Ltd would be:

$$\begin{aligned} \text{Future price} &= \text{Spot} + \text{cost of carry} - \text{Dividend} \\ &= 920 + 920 \times 0.08 \times 0.25 - 10 \times 0.15 \\ &= 920 + 18.40 - 1.5 \\ &= \text{Rs. } 936.90 \end{aligned}$$

Section II (40 Marks)

Answer Question No. 5 which is compulsory and any two from the rest in this section.

Question:

5.(a) Choose the most appropriate one from the stated options and write it down (only indicate A,B,C,D as you think correct):

(i) Under the Companies act, 1956, the first directors shall hold office upto

- 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 first Annual General Meeting

(ii) Mr. Sexena is a director of SUVALAXMI LTD. which failed to file its annual return from the year 2005-06. The maximum period for which Mr. Sexena will be disqualified from becoming a director in any public limited company is

- A. 3years
- B. 5years
- C. 7years
- D. 10years

(iii) Which of the following items requires special resolutions in a general meeting under the companies Act 1956?

- A. Issue of shares at discount
- B. Adoption of Statutory Report
- C. Appointment of Managing / whole-time Director
- D. Reduction of Share Capital

- (iv) The concept of Corporate Governance was initiated on the recommendations of
- The Report by the Confederation of Indian Industry (CII)
 - The Report by Dr. Y.V.Readdy
 - The Report by Mr. Kumar Mangalam Birla
 - The Report by Mr. Narayan myrthy
- (v) As per section 292a of the Companies Act, 1956 every public company having paid up of not less than _____ of rupees shall constitute a committee of the Board known as Audit Committee. (Fill in the gape from the below)
- Fifty lakh
 - Twenty-five crore
 - Five crore
 - Ten crore
- 1 x 5
- (b) State whether each of the following statement is True (T) or False (F):
- The qualification shares required to be taken up by a director must be purchased from the company
 - Increasing the voting rights of the shares held by the management can be considered as an act of oppression under the Companies Act 1956.
 - Risk Management is not a linear process; it is the balancing of a number of interwoven elements.
 - The Companies act 1956 provides a positive definition of the term "Independent Director"
 - As per clause 49 of the listing agreement on Corporate Governance, the Audit Committee shall meet at least twice a year.
- 1 x 5

Answer to question No 5(a):

- D
- B
- D
- C
- C

Answer to question No 5(b):

- False
- True
- True
- False
- False

Question:

- 6.(a) MISS VIVITHA is a director in 14 public limited companies on 30th November, 2008. This apart she is an alternate director in another public limited company. The following particulars are made available to you relating to her appointment as director in various companies in annual general meetings (AGM) held:

Name/details of Company	Date of AGM
Daya Organics Ltd.	1 ST DECEMBER, 2008
Vimala Plastics LTD.	29 th November, 2008
Balaji Vaishnav Association (a company registered under section 25 of the Companies Act, 1956)	30 th November, 2008

Based on the provisions of the Companies Act, 1956, you are required to advise Miss. Vivitha, as to the options available to her for accepting or refusing the aforesaid appointments. 8

- (b) The Audit Committee of Yash Telecommunications Ltd., constituted under section 292a of the Companies Act, 1956 submitted to the Board of Directors, a report containing its recommendations. These recommendations were however not accepted by the Board. In this scenario, state your views on the followings:
- (i) Can the Board adopt the stand of not accepting the Audit Committee's recommendations?
 - (ii) If yes, the board does not accept the recommendations, what should the Boards do?
 - (iii) How should the Chairman of the Audit Committee respond? 7

Answer to question No 6(a):

Section 275 of the Companies Act, 1956 debar any person to hold office as a director or more than 15 company's simultaneously

As per the provisions of Section 277(2) of the Companies Act, 1956, where a person holds directorship of 14 or less companies is appointed as a director of other companies, and such appointments make the total number of his directorships more than 15, then the person concerned has to choose the directorships which he wishes to continue to hold or to accept so that the total number of directorships, old or new, henceforth to be held by him does not exceed 15.

The said section further provides that none of the new appointments shall be effective until such a choice is to be made and in case of failure of the person to make such a choice within 15 days of the day on which the last of the new appointments was made, all the new appointments shall become void.

Section 278 Of the Companies Act, 1956 states that for the purpose of section 275 and 277 the number of companies are not be counted.

- (a) A private company unless it is a subsidiary of a public company.
- (b) An unlimited company.
- (c) An association not carrying on business for profit or which prohibits the payment of dividend.
- (d) A company in which such person is only an alternate director.

In view of the abovementioned legal provisions, Miss. Vivitha, Who is already a director in 14 companies, has to consider the following aspects:

Alternate directorship or directorship in section 25 company is not affected. Hence she can take up the directorship in Balaji Vaishnav Association, the company registered u/s. 25.

The appointment in Vimal Plastics takes the number to 15 on 29-11-2008, and in Daya organics Ltd on 1st December, 2008 takes the number of directorship to 16.

Hence within 15 days from the date on which the last appointment was made viz. 1st December, 2008, Miss. Vivitha has to decide upon one pf the two companies in which she would take up the directorship. If she fails to decide, the two new appointments shall become void and shall not take effect.

Answer to question No 6(b):

- (i) As per Section 292A(6), the recommendations of the Audit Committee shall be binding on the Board of Directors, in so far as relating to the financial management including the audit report. In respect of other matters, the recommendations are not binding on the board.
- (ii) Section 292A (7) enjoins that if the Board does not accept the recommendations of the Audit Committee, it shall record the reasons therefor and communicate such reasons to the shareholders.
- (iii) As per section 292A (10), the Chairman of the Audit Committee shall attend the Annual General Meeting(s) of the company to provide any clarifications on matters relating to audit. Beyond this, the Chairman of the Audit Committee cannot do anything in the case of non-listed companies. It may be noted that in case of listed companies, clause 49 of the Listing Agreement gives more powers to the Audit committee in this context.

Question:

- 7.(a) HEMA BIOMEDICALS LTD. is an existing profit making company with strong free reserves and having a huge real estate property. The Managing Director obtains reliable information that a group of undesirable persons are cornering the shares of the company, with a view to transfer them to their names and effect change in the composition of the Board of Directors. He apprehends that such change will be prejudicial to the public interest.
- You are requested to advise the company with reference to the provisions of the Companies Act, 1956, as to how the company can block the aforesaid transfer of shares. 7
- (b) Your help is sought in drafting the relevant portion of directors' Responsibility statement forming part of Directors' Report.
- Draft the same. 4
- (c) State the additional requirements stipulated in clause 49 of the Listing Agreement which are silent in section 292A of the Companies Act, 1956. 4

Answer to question No 7(a):**Power to block transfer of shares**

As per Section 250(4) of the Companies Act, 1956,

- Where the Company Law Board (Company Law Board till the company law Tribunal becomes operational; referred to as CLB hereinafter) has reasonable ground to believe that a transfer of shares in a company is likely to take place, and
- The CLB is of the opinion that any such change would be prejudicial to the public interest,
- The CLB may, by an order, direct that any transfer of shares in the concerned company, during such period not exceeding three years, as may be specified in the order, shall be void.

As per Section 250(1) & (2) of companies Act 1956, if the CLB is of the view that

- There are good reasons to find out the relevant facts about any shares and
- That such facts can not be found out unless the restriction are imposed, as an interim measure,
- It may, by an order, direct that transfer of any; such shares shall be void and no voting right shall be exercised in respect of such shares.

The CLB is also conferred with the power to vary or rescind its order any time

The facts given in the question squarely fall within the purview of the provisions of section 250 of the Companies Act, 1956. The management of Hema Biomedicals Ltd. may lodge a complaint

with the CLB and prove to it that the transfer of shares in favour of the group of unscrupulous persons would change the composition of the Board of Directors of the Company, which shall be prejudicial to the public interest; if the CLB is persuaded of the plea of the company, it may pass an order as stated above, which would block the transfer of shares, as mentioned in the question.

Answer to question No 7(b):

Directors' Responsibility Statement

Pursuant to the requirements of Section 217(2AA) of the Companies Act, 1956, it is hereby confirmed:-

- i) that in preparation of the annual accounts, the applicable accounting standards have been followed and that no material departures have been made from the same.
- ii) That the Directors has selected such accounting policies and applied them consistently and made judgments and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company as at 31st March, 2008 and of the profit of the Company for the year ended 31st march, 2008.
- iii) That the Directors had taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Companies act, 1956, for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
- iv) That the Directors had prepared the annual accounts for the year ended 31st March, 2008 on Answer to Question No. going concern basis.

Answer to question No 7(c):

Additional requirements stipulated as per Clause 49

The following additional requirements are stipulated as per Clause 49 of the Listing Agreements which are silent in Section 292A of the Companies Act, 1956:

- (i) The audit committee should invite such of the executives, as it considers appropriate (and particularly head of the finance function) to be present at the meeting of the committee, but on occasions it may also met without the presence of any executive of the company.
- (ii) The company secretary shall act as secretary to the committee.
- (iii) The audit committee shall meet at least thrice a year. One meeting shall be held before finalization of annual accounts and once in every six months.
- (iv) The quorum of the audit committee shall be two members or one-third of the members of the audit committee- whichever is higher and minimum of two independent directors.
- (v) The powers and role of the audit committee are elaborately contained in sub-paragraphs C&D of paragraph II.

Question:

- 8.(a) A group of shareholders in a public limited company, apprehend that the company's solvency is at stake, as the Board of Directors of the company is not managing the affairs in accordance with sound business principles. They seek your advice for obtaining directions for conducting a special audit.

Briefly state the provisions of the Companies act, 1956 in this regard.

- (b) Briefly discuss the provisions of the Competition act, 2002 relating to "

- (i) Power of Central Government to exempt, 2+2
 (ii) Restriction on disclosure of information. 7
 (C) What are the actions required in identifying suitable responses to Risk in the context of risk Management? 7

Answer to question No 8(a):

Provisions regarding Special Audit

Section 233A of the Companies Act, 1956 deals with the aspects connected with the Special Audit. The Special Audit can be ordered by Central Government if it is of the opinion:

- i. That the affairs of the company are not being managed in accordance with sound business principles or prudent commercial practices, or
- ii. That the company is being managed in manner likely to cause serious injury or damage to the interest of the trade, industry or business to which it pertains, or
- iii. That the financial position of the company is such as to endanger its solvency.

The dissatisfied group of shareholders should lodge a complaint with the Central Government requesting for conduct of the special audit. If the Central Government is satisfied that there exists sufficient reasons, it may order a special audit to be carried out by a Chartered Accountant who may or may not be company's statutory auditor or who may or may not be in practice.

Advice should be tendered on above lines to the group.

Answer to question No 8(b)(i):

Competition Act, 2002: Power to exempt

The Central Government may, by notification, exempt from the application of the Competition, Act, 2002, or any provisions thereof, and for such period as it may specify in such notification-

- a) Any class of enterprises if such exemption is necessary in the interest of security of the State or public interest;
- b) Any practice or agreement arising out of and in accordance with any obligation as-summed by India under any treaty, agreement or convention with any other country or countries;
- c) Any enterprise which performs a sovereign function on behalf of the Central Government or a State Government;

Provided that in case an enterprise is engaged in any activity including the activity relatable to the sovereign functions of the Government, the Central Government may grant exemption only in respect of activity relatable to the sovereign functions.

Answer to question No 8(b)(ii):

Completion, Act ,2002: Restriction on disclosure of information

No information relating to any enterprise, being an information which has been obtained by or on behalf of the Commission for the purpose of the Competition Act, shall, without the previous permission in writing of the enterprise, be disclosed otherwise than in compliance with or for the purpose of the Act or any other law for the time being force.

Answer to question No 8(c)

Identify suitable responses to risk.

The action break into broadly five types, as shown below:

- 1) Prevention: Terminate the risk – by doing things differently and thus removing the risk, where it is feasible to do so. Countermeasures are put in place that either stop the threat or problem from occurring or prevent it having any impact on the project or business.
- 2) Reduction: Treat the risk – take action to control it in some way where the actions either reduce the likelihood of the risk developing or limit the impact on the project to acceptable levels.
- 3) Transference: This is a specialist form of risk reduction where the management of the risk is passed to a third party via, for instance, an insurance policy or penalty clause, such that the impact of the risk is no longer an issue for the health of the project. Not all risk can be transferred in this way.
- 4) Acceptance: Tolerate the risk- perhaps because nothing can be done at a reasonable cost to mitigate it or the likelihood and impact of the risk occurring are at an acceptable level.
- 5) Contingency: These are actions planned and organized to come into force as and when the risk occurs.

Any given risk could have appropriate actions in any or all these categories. There may be no cost-effective action available to deal with a risk, in which case the risk must be accepted or the justification for the project revisited (to review whether the project is too risky), possibly resulting in the termination of the project.

The results of the risk evolution activities are documented in the Risk Log. If the project is part of a programme, project risks should be examined for any impact on the programme (and vice versa). Where any cross-impact is found, the risk should be added to the other Risk Log.