FINAL EXAMINATION

GROUP III

(SYLLABUS 2008)

SUGGESTED ANSWERS TO QUESTIONS
DECEMBER 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.
Working notes should form part of the answer.
Wherever appropriate, suitable assumption(s) should be made and indicated in answer by the candidate.

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.

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): 2×7=14

(i) MS. SUKANYA, a prospective investor has collected the following information pertaining to two securities A and B:

Particulars	Security A	Security B
Expected Return %	15	18
Standard deviation of Returns %	18	22
Beta	0.90	1.40

Variance of Returns on the market Index is 225 $(\%)^2$. The correlation coefficient between the returns on securities A and B is 0.75. The Systematic Risk of a portfolio consisting of these two securities in equal proportions is

(A) 24.63 $(\%)^2$

(B) 125.78 $(\%)^2$

(C) 297.56 $(\%)^2$

(D) None of (A), (B) and (C)

(ii) A deep discount Bond issued at ₹2,500 will be redeemed at ₹1,00,000 after 25 years. What will be the Post-tax yield for the investor, if Capital gain is taxed at 20% and indexation benefits of 6% annually is available?

(A) 12.90%

(B) 14.30%

(C) 15.13%

(D) Insufficient Information

(iii) The current market price of an equity share of THOMAS LTD. is ₹500. Within a period of 3 months, the maximum and minimum price of it is expected to be ₹ 600 and ₹300 respectively. What should be the value of a 3 months call option under "Risk Neutral" method at the strike rate of ₹550, if the risk free rate of interest be 8% p.a.? [Given $e^{-0.02} = 1.0202$]

(A) ₹23.34

(B) ₹34.31

(C) ₹43.21

(D) None of the above

(iv) MS. CHAITALI buys 10,000 shares of RUDSON LTD. at ₹50 and obtains a complete hedge of shorting 400 Nifties, at ₹2,200 each. She closes out her position at the closing price of the next day at which point the share of Rudson Ltd. has dropped 2% and the Nifty future has dropped 1.5%. What is the overall Profit/(Loss) of this set of transactions?

(A) Profit ₹3,200

(B) Profit ₹2,200

(C) Loss ₹3,200

(D) Loss ₹2,000

(v) MR. AVISHEK purchased 300 units of a MUTUAL FUND at a price of ₹25 per unit at the beginning of the year. He paid a front-end load of 5%. The expense ratio of the fund is 2%. The growth rate in fund's security is 15 % during the year. What is the rate of Return of the fund if security sold at the end of the year?

(A) 10.38%

(B) 12.38%

(C) 14.32%

(D) None of (A), (B) and (C)

(vi) The stock of ANSHIKA LTD. (FV ₹10) quotes ₹500 on NSE and the 3 months Future price quotes at ₹510. The borrowing rate is given as 15% p.a. What would be the theoritical price of 3 months Anshika Ltd. Future if the expected annual dividend yield is 25% p.a. payable before expiry?

(A) ₹540.50

(B) ₹516.25

(C) ₹510.50

(D) Insufficient data

(vii) The Portfolio composition of Mr. GOPAL is given below:

(Amount in ₹ lakh)

Equity	120
Cash/Cash equivalent	40
Total	160

The beta of Equity portion of the Portfolio is 0.85 and the Current Nifty futures is at 4261.5. The multiple attached to Nifty future is 100. If Mr. Gopal purchases 23 future contracts, his portfolio Beta will be

(A) 1.05

(B) 1.12

(C) 1.20

(D) 1.25

(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): 1×6=6

(i) A place where banks, FIs and NBFCs purvey short, medium and long term loans to corporate and individuals is known as

(A) Money Market

(B) Capital Market

(C) Forex Market

(D) Credit Market

(ii) A negotiable money market instrument issued in dematerialised form or as a usuance promissory note for funds deposited at a bank or other eligible financial institutions for a specified time period is known as

(A) Commercial Paper

(B) Certificate of Deposit

(C) Treasury Bills

(D) Term Money

(iii) Which of the following type of order is used to limit the amount of losses or to protect the amount of capital gain useful to both investors and speculators?

(A) Limit Order

(B) Discretionary Order

(C) Stop – loss Order

(D) Market Order

(iv) A portfolio with two stocks which are perfectly negatively correlated ensures

(A) High risk and High returns

(B) Low risk and High returns

(C) Zero risk without sacrificing returns

(D) Zero risk with reduced returns

(v) The insurer of an importer of electrical goods receives claims in respect of faulty television. The insurer pays the claim and takeover the insured's right to claim from the manufacturer. To which insurance principle, this example is related

(A) Cause proximate

(B) **Subrogation**

(C) **Indemnity**

(D) **Uberrima Fidae**

(vi) If the director of COMTECH LTD. who has access to inside information is unable to use this information to make Supernormal Profits, 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.**

Answer:

1. (a) **(i)** **C** : **297.56 (%)²**

The beta of the Portfolio consisting of two securities given that money is allotted equally between the two assets:

$0.90 \times 0.50 + 1.4 \times 0.5 = 1.15$

The Systematic risk of a Portfolio = $\beta^2\, \sigma^2\, m$

Substituting the value of β^2 and $\sigma^2 m$, we get.

$(1.15)^2 \times 225 = 297.56\ (\%)^2$.

(ii) **C : 15.13%**

Capital Gain Tax on redeemable bond

= 0.20 × 1,00,000 = ₹ 20,000

Indexation benefit = 0.06 (1,00,000 - 20,000 - 2,500) = ₹4,650

∴ Post Tax income = (1,00,000 - 20,000) + 4,650 = ₹ 84,650

Hence Post Tax Yield : $\sqrt[25]{\dfrac{84,650}{2,500}} - 1 = 15.13\%$

(iii) **B : ₹ 34.31**

Let the probability of attaining the maximum price be p

∴ $(600 - 500) \times p + (300 - 500) \times (1 - p) = 500\,(e^{-0.02} - 1)$

or 100 p - 200 + 200 p = 500 (1.0202-1)= 500 (0.0202)

or 300 p = 200 + 10.10 = 210.10

or $p = \dfrac{210.10}{300} = 0.70$

Value of call option = $\dfrac{0.70\,(600 - 550)}{1.0202} = \dfrac{35}{1.0202}$ = ₹ 34.31

(iv) **A : Profit ₹ 3200**

	Value of bought Shares	Value of Short future
To-day's Valuation	50 × 10000 = ₹ 5.00 lakh	400 × 2200 = ₹8.80 lakh
Next day's Valuation	49 × 10000 = ₹ 4.90 lakh	400 × 2167 = ₹ 8.668 lakh
Profit/ (Loss)	(2% dropped) = (₹ 0.10 lakh)	(1.5% dropped) = ₹ 0.132 lakh

Net Profit = ₹ (0.132 - 0.10) lakh = ₹3,200

(v) **B : 12.38%**

Market Value of Investment	:	300 × 25 = ₹7,500
Purchase rate of Unit	:	25 × 1.05 = ₹ 26.25
Total Purchase Consideration	:	26.25 × 300 = ₹7,875
Increase in value	:	300 × 25 × 0.15 = ₹1,125
Expense	:	0.02 × 300 × 25 = ₹150
Rate of Returns	:	$\frac{(1,125-150)}{7,875}\times 100 = 12.38\%$

(vi) **B : ₹516.25**

Theoretical Price of 3 month Anshika Futures :

Spot + Cost of Carry – Dividend

= 500 + 500 x 0.15 × 0.25 - 0.25 × 10 = 500 + 18.75 - 2.50

= ₹ 516.25

(vii) **D : 1.25**

120 Lakh × 0.85 + 4261.5 × 100 × 23 = 160 lakh × Beta of Portfolio.

or 102 lakh + 98.0145 lakh = 160 lakh × Beta of Portfolio

or Beta of Portfolio = 1.25

1 (b) :

(i) → D

(ii) → B

(iii) → C

(iv) → C

(v) → B

(vi) → C

2. (a) What is a Futures Contract? Explain the important features of futures contract. 1+4=5

(b) MS. KHUSHBOO an analyst of VKC SECURITIES LTD. is evaluating the prospects of investing in two companies SONTEX LTD. and DENTEX LTD. The distribution of Conditional Returns and explicit probability distribution of stocks of SONTEX LTD. and DENTEX LTD. are as follows:

Probability	Conditional Returns (in %)	
	Sontex Ltd.	Dentex Ltd.
0.10	60	5
0.20	50	15
0.40	40	25
0.20	30	35
0.10	20	50

You are required to:

(i) Calculate the Expected returns, Standard deviations of returns for both the stocks and correlation co-efficient between these two stocks.

(ii) Compare the risks and returns of these two stocks with a portfolio of these stocks in equal proportions.

(iii) Determine the expected rate of Return of a ZERO-RISK portfolio consisting of the above two stocks. 6+4+5=15

Answer:

2. (a)

The terms of the futures contracts are not negotiable. A futures contract is a financial security, issued by an organised exchange to buy or sell a commodity, security or currency at a predetermined future date at a price agreed upon today. The agreed upon price is called the **'futures price'.**

The futures contract is traded on a futures exchange as a standardized contract, subject to the rules and regulations of the exchange. It is the standardization of the futures contract which facilitates the secondary market trading. The futures contract relates to a given quantity of the underlying asset and only whole contracts can be traded and trading of fractional contracts is not allowed in futures contracting.

Important Features of Futures Contract:

The important features of futures contract is given below:

Standardization : The important feature of futures contract is the standardisation of contract. Each futures contract is for a standard specified quantity, grade, coupon rate, maturity etc. The standardisation of contracts fetches the potential buyers and sellers and increases the marketability and liquidity of the contracts.

Clearing house : An organisation called 'futures exchange' will act as a clearing house. In futures contract, the obligation of the buyer and the seller is not to each other but to the clearing house in fulfilling the contract which ensure the elimination of the default risk on any transaction.

Time Spreads : There is a relationship between the spot price and the futures price of contract. The relationship also exists between prices of futures contracts which are on the same commodity or instrument but which have different expiry dates. The difference between the prices of two contracts is known as the 'time spread' which is the basis of futures market.

Margins : Since the clearing house undertakes the default risk, to protect itself from this risk, the clearing house requires the participants to keep margin money, normally ranging between 5% to 10% of the face value of the contract.

2 (b) :

(i) Sontex Stock

$R_{(s)}$	P_i	R_sP_i	$(R_s - E_{(s)})$	$P_i\,[R_s-E_{(s)}]^2$
60 %	0.10	6	20	40
50 %	0.20	10	10	20
40 %	0.40	16	0	0
30 %	0.20	6	- 10	20
20 %	0.10	2	- 20	40
		40		**120**

$$\sum P_i\,R_s = 40\%$$

$$\sum Pi\,[(R_s - E_s)]^2 = 120\%$$

Expected Return of Sontex : $E_{(S)}$ = 40%

Standard deviation of Returns of Sontex = $\sigma_s = \sqrt{120} = 10.95\%$

Dentex Stock

$R_{(DE)}$	P_i	$R_{(DE)}\ P_i$	$(R_{DE} - E_{(DE)})$	$P_i\ (R_{DE} - E_{DE})^2$
5%	0.10	0.50	- 20.50	42.025
15%	0.20	3.00	- 10.50	22.050
25%	0.40	10.0	- 0.50	0.100
35%	0.20	7.00	9.50	18.050
50%	0.10	5.00	24.50	60.025
		25.50		**142.25**

$\sum P_i\ R_{(DE)}$ = 25.5%

$\sum Pi\ (R_{DE} - E_{DE})^2$ = 142.25%

Expected Return of Dentex : $E_{(DE)}$ = 25.5%

Standard deviation of Returns of Dentex = $\sigma_{DE} = \sqrt{142.25\%}$

= 11.93%

Covariance between Sontex and Dentex Stocks

Pi	**(R_S - E_S)**	**(R_{DE} – E_{DE})**	**Pi (R_S- E_S) × (R_{DE} - E_{DE})**
0.10	20	- 20.50	- 41
0.20	10	- 10.50	- 21
0.40	0	- 0.50	0
0.20	- 10	9.50	- 19.0
0.10	- 20	24.50	-49

$\sum P_i\ (R_s - E_s) \times (R_{DE} - E_{DE})$

$COV_{(S\&DE)} = -130$

Correlation coefficient between Sontex and Dentex Stocks =

$$\frac{COV_{SDE}}{\sigma_s\ \sigma_{DE}} = \frac{-130}{10.95 \times 11.93} = -1$$

(ii) The risk & Return of Port folio of two stocks : (Sontex and Dentex).

$\sigma\rho^2 = (0.5)^2 \times 120.00 + (0.5)^2 \times 142.25 + [2 \times -1 \times 10.95 \times 11.93 \times 0.5 \times 0.5]$

$= 30.0 + 35.56 - 65.32 = 0.24(\%)^2$

Risk $(\sigma\rho)$ = $\sqrt{0.24} = 0.49\%$

Expected Return: $E(R\rho)$ = $(0.50 \times 40) + (0.50 \times 25.5)$

= $(20 + 12.75) = 32.75\%$

Hence, the Return is 32.75% with the risk of 0.49% for the Port folio. Thus the Portfolio results in risk reduction by the Combination of two risky securities (Sontex and Dentex).

(iii) Since the Correlation Coefficient between two stocks (Sontex & Dentex) is -1, a Zero-Risk Portfolio can be constructed using these Stocks.

If W_1 and W_2 is proportion of investment in Sontex and Dentex Stocks. The portfolio risk will be

$$\sigma_p^2 = W_1^2\ \sigma_1^2 + W_2^2\ \sigma_2^2 + 2\rho_{12}\sigma_1\ \sigma_2\ W_1\ W_2$$

$\sigma_p^2 = W_1^2\,\sigma_1^2 + W_2^2\,\sigma_2^2 + 2(-1)\,\sigma_1\,\sigma_2\,W_1\,W_2$

$\sigma_p^2 = (W_1\,\sigma_1 - W_2\,\sigma_2)^2$

$\sigma_p = W_1\,\sigma_1 - W_2\,\sigma_2$

$0 = W_1\,\sigma_1 - W_2\,\sigma_2$

$W_1\,\sigma_1 = W_2\,\sigma_2$ (i)

Again, $W_1 + W_2 = 1$

or $W_2 = 1 - W_1$, (ii)

Putting the value of W_2 in equation (i)

$W_1\,\sigma_1 = (1 - W_1)\,\sigma_2$

$W_1\,\sigma_s = (1 - W_1)\,\sigma_{DE}$

$10.95\ W_1 = (1 - W_1)\ 11.93$

$(10.95 + 11.93)\ W_1 = 11.93$

$W_1 = \frac{11.93}{(10.95 + 11.93)} = 52.14\%$

$W_2 = 1 - 0.5214 = 0.4786 = 47.86\%$

Expected return of risk-free portfolio

= 0.5214 × 40 + 0.4786 × 25.5

= 33.06%

Alternative Solution :

An alternative solution is provided without rounding off the figure and considering the exact decimal figure.

Correlation coefficient between Sontex and Dentex Stocks

$= \frac{-130}{10.95 \times 11.93}$

$= \frac{-130}{130.6335}$

=- 0.995 (considering upto three decimals)

The risk and return of Portfolio of two stocks (Sontex and Dentex)

$\sigma\ p^2 = (0.5)^2 \times 120 + (0.5)^2 \times 142.25 + [\ 2 \times -0.995 \times 10.95 \times 11.93 \times 0.5 \times 0.5]$

$= 30 + 35.56 - 64.99 = 0.57$

Risk (σ p) = $\sqrt{0.57} = 0.75\%$

Alternative solution to part (iii)

Proportion of Investment in Sontex

$$W_s = \frac{\sigma_{DE}^2 - CoV_{(S\&DE)}}{\sigma_S^2 + \sigma_{DE}^2 - 2CoV_{(S\&DE)}}$$

$$= \frac{(11.93)^2 - (-130)}{(10.95)^2 + (11.93)^2 - 2(-130)}$$

$$= \frac{272.32}{119.90 + 142.32 + 260}$$

$$= \frac{272.32}{522.22}$$

= 0.52146

Proportion of Investment in Dentex

$W_{DE} = 1 - W_S$

= 1 – 0.5214

$W_{DE} = 0.4786$

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

(b) THOMAS HOLDINGS LTD. is a Mutual Fund which made its Blue Chip NFO (New Fund Offer) on 5th April 2013 @ ₹10 Face value per unit. Subscription was received for 70 lakh units. An underwriting arrangement was also entered into with ASHLEEN CAPITAL MARKET LTD. that agreed to underwrite the entire NFO of 80 lakh units on a commission of 1.25%.

Out of the monies received, ₹ 714 lakh was invested in various Capital Market instruments. The Marketing expenses for the NFO amounted to ₹9 lakh. During the Financial year ended on 31st March, 2014, the Mutual Fund (T. H. Ltd.) sold securities having cost of ₹101.80 lakh (F.V.₹43.40 lakh) for ₹113 lakh.

The Mutual Fund (T.H.Ltd.) in turn purchased securities for ₹104 lakh. The Management expenses of the Fund are regulated by SEBI stipulations which state that the same shall not exceed 0.25% of the average Funds invested during the year. The actual amount spent towards management expenses was ₹1.60 lakh.

The dividends earned on the investments held amounted to ₹2.00 lakh of which a sum of ₹ 20,000 is yet to be collected. The Mutual Fund (T.H. Ltd) distributed 80% of realised earnings. The closing market value of the Portfolio was ₹896.20 lakh.

(Note : Ignore Entry and Exit load)

You are required to determine the closing per unit NAV of the Blue chip Fund.

2+2+2+2=8

(c) The stock of MERLIN LTD. (M.L.) is currently trading at ₹830 and PUT OPTION exercisable in three months' time has an exercise rate of ₹800. The annual standard deviation of its continuously compounded rate of return is 22 per cent.

The Annualised Treasury Bill rate corresponding to this option life is 5 per cent.

Based on the assumption that Merlin Ltd. is not going to declare any dividend over the next three months, is the option worth buying for ₹ 15?

Required:

(i) Calculate the value of a three month PUT OPTION on the stock of MERLIN LTD. based on BLOCK and SCHOLES valuation Model.

(ii) Comment on whether the option is underpriced or overpriced?

Note : Extracted from the respective Tables:

(1) ln (1.0375) = 0.03681, ln (0.96386) = - 0.03681

(2) Value of e^{-x} : $e^{-0.01}$ = 0.99005, $e^{-0.0125}$ = 0.98758

(3) Cumulative standardized normal probability distribution : NCX

When X ≥ 0 : N (0.50327) = 0.6926, N (0.39327) = 0.6529

When X ≤ 0 : N (- 0.50327) = 0.3074, N (- 0.39327) = 0.3471 **6+1=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 copyrighting, trade marking or patenting of electronics 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.

3. (b) **THOMAS HOLDING LTD.**

Determination of NAV per unit of Blue Chip as on 31ST March 2014.

	(Amount in ₹ lakh)		
Opening Bank (800 – 714 – 10 – 9)	67.00		
Add: Proceeds from Sale of Securities	113.00		
Add: Dividend received	2.00	182.00	
Deduct:			
Cost of Securities purchases	104.00		
Fund management expenses paid	1.60		
Capital Gains distributed 80% of (113 – 101.80)	8.96		
Dividend distributed 80% of 2.00	1.60	116.16	
Closing Bank			65.84
Closing Market Value of Port folio			896.20
Closing Net Assets			962.04
Number of Units (Lakh)			80.00

Closing NAV per Units (₹) $\left(\frac{962}{80}\right)$			₹ 12.025

(c) **MERLIN LTD.**

(i) Since d_1 and d_2 are the required inputs for Black and Scholes Option Pricing Model.

$$d_1 = \frac{\ln(VS/E) + \left(r + \frac{1}{2}\sigma^2\right) \times t}{\sigma\sqrt{t}}$$

Where, Merline Ltd. Stock Current Price = ₹ 830

E = Exercise Price = ₹ 800

σ = Standard Deviation (Volatility) = 22%

r = Risk free Interest Rate = 5% p.a

t = Time remaining unit expiration = 3/12 = 0.25

$$d_1 = \frac{\ln\left(\frac{830}{800}\right) + \left(0.05 + \frac{1}{2}(0.22)^2\right) \times 0.25}{0.22\sqrt{0.25}}$$

$$= \frac{0.03681 + 0.01855}{0.11} = 0.5032727$$

$d_2 = d_1 - \sigma\sqrt{0.25}$ = 0.5032727 – 0.11= 0.3932727

$N(d_1)$ = N (0.50327) = 0.6926

$N(d_2)$ = N (0.39327) = 0.6529

Value of Put Option $(P) = Ee^{-rt}[1 - N(d_2)] - Vs[1 - N(d_1)]$

[Where $e^{-rt} = e^{-0.05\times0.25} = e^{-0.0125}$ = 0.98758

= 800 × 0.98758 (1 - 0.6529) - 830 [1 – 0.6926]

= (790.064 × 0.3471 - 830 × 0.3074)

= 274.23 - 255.14

= ₹ 19.09

(ii) Since Market Price ₹ 15 is less than ₹ 19.09 (Black & Scholes Valuation Model) indicate that option is under priced, hence worth buying.

4. (a) Explain briefly "Buy Back of Securities" and give the Management objectives of Buying Back Securities. 1+4 = 5

(b) The following information relates to an issue of Bond made by ALLWIN COMPANY LTD.

Face Value	**₹1,000**
Coupon Rate	**15% payable Annually**
Market Price	**₹1,020**
Tenure	**8 years**
It is callable after 4 years at	**₹1,050**

Required:

(i) Calculate the Yield to Maturity (YTM) of the Bond.

(ii) Calculate the duration of the Bond.

(iii) Calculate the Yield to Call (YTC) of the Bond.

(iv) If the market yield on similar instruments is expected to fall to arround 11.50% at the end of 4 years, which of the above yields as calculated in (i) and (iii) above is more realistic? — Explain.

Note:

(a) Ignore Floatation Costs and transaction costs.

(b) Extracted from the table of PVIF and PVIFA:

Interest Rate	12%	14%	14.60%	15%	16%
PVIFA (4 years)	3.037	2.914	2.878	2.855	2.798
PVIFA (8 years)	4.968	4.639	4.548	4.487	4.344
PVIF (4years)	0.636	0.592	0.580	0.572	0.552
PVIF (8 YEARS)	0.404	0.351	0.336	0.327	0.305

2+2+3+1 = 8

(c) MS. ARTHITI an investor, purchases RELIANCE November Future (600 Shares Tick Size) a ₹1,610 and writes a ₹1,666 November Call Option at a premium of ₹14 (600 Shares Tick Size).

As on November 28, Spot price rises and also the Future price and the Call premium. Future price rises to ₹1,652 and Call premium rises to ₹22. Brokerage is 0.045% for the transaction value of Future and Strike price net of Call premium for option.

(Assuming no transaction taxes and service taxes exist.)

Required:

Find out the Profit/(Loss) of the investor, if she settles the transactions on that date and at stated prices. 2+2+2+1= 7

Answer:

4. (a) Buyback of Securities **:**

Companies are allowed to buy back equity shares or any other security specified by the Union Government. In India the Companies are required to extinguish shares bought back within seven days. In USA Companies are allowed to hold bought back shares as treasury stock, which may be reissued. A company buying back shares makes an offer to purchase shares at a specified price. Shareholders accepts the offer & surrender their shares.

The following are the management objectives of buying back securities:

(i) To return excess cash to shareholders, in absence of appropriate investment opportunities.

(ii) To give a signal to the market that shares are undervalued.

(iii) To increase promoters' holding, as a percentage of total outstanding shares, without additional investment. Thus, buy back is often used as a defence mechanism against potential takeover.

(iv) To change the capital structure.

4. (b) ALLWIN COMPANY LTD

(i) Coupon income = 0.15 x 1000 = ₹150

YTM is the discount rate that equates the coupon and redemption price to the current price. Thus,

1020 = 150 x PVIFA $_{k\%,\ 8}$ + 1000 x PVIF $_{k\%,\ 8}$

Taking k = 16%, we have

= 150 x 4.344 + 1000 x 0.305

= 651.60 + 305 = ₹ 956.60

Taking k = 14%, we have

= 150 × 4.6394 + 1000 x 0.351

= 695.85 + 351 = ₹1046.85

Hence, the YTM lies between 14% and 16%. The actual YTM can be found by interpolation as

$$YTM = 14+(16-14)\times\frac{1046.85-1020}{1046.85-956.60}$$

$$= 14+2\times\frac{26.85}{90.25} = 14.60\%$$

(ii) The duration of the bond is calculated as follows :

(1) Year	(2) CF (₹)	(3) PV @ 14.60%	4 = (3 × 2) (₹)	5 = (4 × 1) (₹)
1.	150	0.8726	130.89	130.89
2.	150	0.7614	114.21	228.42
3.	150	0.6644	99.66	298.98
4.	150	0.5798	86.97	347.88
5.	150	0.5059	75.885	379.425
6.	150	0.4415	66.225	397.35
7.	150	0.3852	57.78	404.46
8.	1150	0.3361	386.515	3092.12
			∑= 1018.135	**5279.525**

Hence, duration = 5279.525 ÷ 1018.135 = 5.185 years

(iii) The yield to call is the discount factor that equates coupon and call price to the present price. Hence

1020 = 150 × PVIFA $_{k\%,\ 4}$ + 1050 x PVIF $_{k\%,\ 4}$

Taking k = 16%, we have

= 150 × 2.798 + 1050 x 0.552 = 419.70 + 579.60 = ₹999.30

Taking k = 14%, we have

= 150 × 2.914 + 1050 × 0.592 = 437.10 + 621.60 = ₹1058.70

Hence, YTC lies between 14% and 16%.

By interpolation we have

$$YTM = 14+(16-14)\times\frac{1058.70-1020}{1058.70-999.30}$$

$$= 14+2\times\frac{38.70}{59.40} = 15.30\%$$

(v) If the yield is expected to fall to around 11.5% at the end of 4 years, then the yield to call is a more realistic estimate, because then the security with a call option will be exercise and called back. Thus, YTC is a relevant measure.

4. (c)

MS ARTHITI (AN INVESTOR)

(Amount in ₹)

(i)	Buying price of 600 shares in futures including brokerage :	
	[1,610 + (0.045% of 1610)] × 600	966434.70
(ii)	Selling price of 600 shares in Futures including brokerage	
	[1,652-(0.045% of 1652)]× 600	990753.96
(A)	Profit on Futures [(ii) - (i)]	24319.26
	Premium earning on call writing (600 × 14)	8400.00
	Less : Brokerage [0.045 % of (1666-14) × 600	446.04
	(B) :	7953.96
	Premium paid on call buying (600 × 22)	13200.00
	Add : Brokerage : [0.045% of (1666-22) × 600	443.88
	(C) :	12756.12
(D)	Net (loss)in option trading (B-C) [7953.96 - 12756.12]	(4802.16)
	Profit/(Loss) of the Investor in Derivative trading (A+D) (24319.26 - 4802.16)	₹ 19517.10

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) 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). **1×6=6**

(i) Where an appeal is being preferred against an order made by the public information officers under section 11 of the RTI Act to disclose third party information, the appeal by the concerned third party must be made

(A) within 7 days of the order

(B) within 30 days of the order

(C) within 60 days of the order

(D) within 3 months of the order

(ii) In the context of classification of Risks, obsolescence Risks will fall under

(A) Management and Operation Risks

(B) Systems Risks

(C) Disaster Risks

(D) Industry and Services Risks

(iii) A merger of two or more firms operating in different and unrelated industries is called

(A) Reverse marger

(B) Conglomerate merger

(C) Market extension merger

(D) Product extension merger

(iv) Which audit ensures application of the basics economic principles so that resources

flow into the most remunerative channels; in the context of Corporate Governance?

(A) Compliance audit

(B) Proprietary audit

(C) System audit

(D) Efficiency audit

(v) The sale of goods or provisions of services at a price which is below the cost, as may be determined by regulations, of production of the goods or provisions of services, with a view to reduce competition is known as

(A) Anticipatory price

(B) Predatory price

(C) Aggregate price

(D) Minimum rate price

(vi) State which of the following statement is not correct. According to the provisions of the Companies Act, 2013

(A) dividend includes any interim dividend.

(B) share means a share in the share capital of a company and does not include stock.

(C) body corporate or corporation includes a company incorporated outside India.

(D) Whole time director includes a director in the whole time employment of the company.

(b) Fill in the blanks in the following sentences by using appropriate word(s) /phrase(s)/ number(s) : 1×4=4

(i) A person who fails to get appointed as a director in a general meeting cannot be appointed as an……………director.

(ii) Under RTI Act where the information sought for concerns the life and liberty of a person, the same should be provided within………………. of the receipt of the request.

(iii) A deal that enables a private company to get publicly listed in a relatively short time period is ……………….merger.

(iv) As per clause 49 of the listing agreement, if the chairman is a non-executive director, at least one third of board should consists of………………...

Answer:

5. (a)

(i) B (ii) B (iii) B (iv) D (v) B (vi) B

(b) **Fill In the Bank**

(i) Additional Director

(ii) 48 hours

(iii) Reverse

(iv) Independent Director

6. (a) MULTISOFT LTD. (M.L.) was in corporated on April, 2012. On September 15, 2014 a political party approaches the company (M.L.) for a contribution of ₹5 lakh for political purpose.

Advise in respect of the following with reference to the provisions of the Companies

Act, 2013:

(i) Is the company legally authorised to give this political contribution?

(ii) Will it make any difference, if the company was in existence on March 30, 2011?

(iii) Can the company be penalized for defiance of Rules in this regard? 2+3+1=6

(b) RIMJHIM LTD. a Private Mobile Operator had furnished confidential information relating to customer complaints lodged with the company during the quarter ended June 30, 2014 to a public authority. On an application under the Right to Information Act, 2004, the public authority wants to furnish the said information. The Authority seeks the objections of RIMJHIM LTD.

Can RIMJHIM 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?

What decision should the Public Authority take? 5

(c) The Board of Directors of SIDDHA LTD. in its meeting held on 10th June, 2014, declared an interim dividend payable on paid up Equity Share Capital of the company. In the Board Meeting scheduled for 25th June, 2014, the Board wants to revoke the said declaration.

You are required to state with reference to the Provisions of the Companies Act, 2013, whether the Board of Directors of the Company can do so. 4

Answer:

6. (a) As per Section 182 of the Companies Act, 2013 the following companies are not allowed to contribute to any political party:

   (a) a Government company; and

   (b) a company which has been in existence for less than three financial years. Here "political party" means a political party, registered under Section 29A of the Representation of the People Act, 1951.

In the Given case:

(i) **Multisoft Ltd.** cannot make any political contribution because the company is not in existence for a period of 3 financial years.

(ii) If **Multisoft Ltd.** were incorporated on 30.03.2011, it may make a political contribution as on 15.09.2014 because in such a case it would have been in existence for 3 financial years. However, it shall comply with the following conditions:

   (a) The aggregate of the amount which may be so contributed by the company in any financial year shall not exceed seven and a half percent of its average net profits during the three immediately preceding financial years.

   (b) No such contribution shall be made by a company unless a resolution authorising the making of such contribution is passed at a meeting of the Board of Directors and such resolution shall be deemed to be justification in law for the making and the acceptance of the contribution authorized by it.

   (c) The company shall disclose in its profit and loss account any amount or amounts contributed by it to any political party during the financial year to which that account relates, giving particulars of the total amount contributed and the name of the party to which such amount has been contributed [Section 182 (3)]

(iii) If a company makes any contribution in contravention of the provisions in this section, the company shall be punishable with fine which may extend to five times the amount so contributed and every officer of the company who is in default shall be punishable with imprisonment for a term which may extend to six months and with fine which may extend to five times the amount so contributed.

6. (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 outweights in importance any possible harm or injury to the interests of such party.

RIM JHIM LTD. cannot ask the public authority not to furnish the same on the grounds that 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 RIM JHIM LTD. and furnish the information to the applicant under the RTI Act.

6.(c) As per section 2 (35) of the Companies Act, 2013, Dividend includes any interim dividend. Therefore, all the provisions applicable to final dividend shall equally apply to interim dividend. Thus, interim dividend once declared like final dividend, is a debt due from the company. Accordingly, once declared, interim dividend cannot be revoked except under the same circumstances in which the final dividend can be revoked.

As per Section 127 of the Companies Act, 2013, dividend must be paid within 30 days of its declaration. Thus, interim dividend must also be paid within 30 days of its declaration i.e. within 30 days of date of passing the Resolution of Board declaring the interim dividend.

In the instant case, on declaration of interim dividend by the Board in a Board Meeting held on 10th June, 2014, the liability of the Company to pay the interim dividend has become certain, and the payment of interim dividend must be made within next 30 days viz. on or before 10th July 2014.

Therefore, revocation of interim dividend in the Board meeting held on 25th June, 2014 is not possible.

7. (a) Explain how the Provisions of the Companies Act, 1956, relating to Audit Committee will help in achieving some of the objectives of Corporate Governance. 7

(b) Discuss the role of Nomination Committee in the context of the principle of Corporate Governance.

What are the Principal functions and Responsibilities of the Governance and Nomination Committee in this regard?

***(Note:* Answer to Question keeping in view the Provisions of the Companies Act, 1956.) 2+6=8**

Answer:

7. (a) AUDIT COMMITTEE

For better corporate governance, the concept of Audit Committee for companies was introduced by section 292A of the Companies Act, 1956. Every public company having paid up capital of not less than Rs. 5 Crores must have an Audit Committee.

The auditors, the internal auditor, if any, and the director-in-charge of finance shall attend and participate at meetings of the Audit Committee [Section 292A (5)]

As per section 292A (6) of the said Act, the functions of the Audit Committee include the following:

(a) The Audit Committee should discuss with the auditors periodically about internal control systems, the scope of audit including the observations of the auditors.

(b) The Audit Committee should review half yearly and annual financial statements before submission to the Board.

(c) The Audit Committee should ensure compliance of internal' control systems.

The Audit Committee shall have authority to investigate into any matter in relation to the items specified in this section or referred to it by the Board and for this purpose, shall have full access to information contained in the records of the company and external professional advice, if necessary [Section 292A (7) of the Companies Act, 1956].

The recommendations of the Audit Committee on any matter relating to financial management including the audit report, shall be binding on the Board and if the Board does not accept the recommendations of the Audit Committee, it shall record the reasons therefore and communicate such reasons to the shareholders. [Section 292A (8) & (9) of the Companies Act, 1956].

The above provisions of the Companies Act, 1956 relating to powers and functions of the Audit Committee relating to financial statements will help in achieving one of the objectives of corporate governance, i.e., accountability and avoidance of poor financial reporting. It also ensures that the companies are managed in clean and transparent manner.

7 (b) : Nominating Committee: Role

The governance and Nominating Committee's role is to determine the slate of director nominees for election to the Company's Board of Directors to identify and recommended' candidates to fill vacancies occurring between annual shareholder meeting, to review, evaluate and recommend change to the Company's Corporate Governance Guidelines, and to review the company's policies and programs that relate to matter of corporate responsibility, including public issues of significance to the company and its stakeholders.

Responsibility and functions of the governance and Nominating Committee:

Subject to the provisions of the corporate Governance Guidelines, the principal responsibilities and functions of the governance and Nominating Committee are as follows:-

1. Annually evaluate and report to the Board of the performance and effectiveness of the Board to facilitate the directors fulfilling their responsibilities in a manner that serves the interests of Corporation shareholders.
2. Annually present to the Board a list of individuals recommended for nomination for election to the Board at the annual meeting of shareholders, and for appointment to the committees of the Board (including this committee). Review and consider shareholder recommended candidates for nomination to the Board.
3. Before recommending an incumbent, replacement or additional director, review his or her qualifications, including capability, availability to serve, conflicts of interest, and relevant factors.
4. Assist in identifying, Interviewing and recruiting candidates for the Board.

5. Annually review the composition of each committee and present recommendations for committee memberships to the Board as needed.
6. Develop and periodically review and recommend to the Board appropriate revisions to the Company's Corporate Governance Guidelines.
7. Monitor compliance with the Corporate Governance Guidelines.
8. Regularly review and make recommendation about changes to the charter of Governance and Nominating Committee.
9. Regularly review and make recommendation about changes to the charter of other Board committees after consultation with the respective committee chairs.
10. Obtain or perform an annual evaluation of the Committee's performance and make applicable recommendations.
11. Assist the Chairman of the Board, if the Chairman is a non-management director, or otherwise the Chairman of the Committee acting as Lead Independent Director, in leading the Board's annual review of the Chief Executive Officer's performance.
12. Annually review the Company's policies and programs that relate to corporate responsibility.

8. (a) Mr. SURAJIT G., an officer of MACLEODS PHARMACEUTICAL LTD. was in possession of ₹ 1.25 lakh and occupation of the quarter of the company even after his retirement and neglected the notice of the company to return back the properties.

What action can be taken by the company to return back the properties including cash under the Companies Act, 2013? 5

(b) GANGETICA TEXTILE MILLS LTD. is of the view that MEGLOW LTD. is abusing its dominant position in the Textiles Industry. It wishes to lodge a complaint against Meglow Ltd. before the Competition Commission.

Explain briefly the factors that will be considered by the commission to ascertain whether MEGLOW Ltd. enjoys a dominant position in the Industry. 5

(c) Discuss the Role of Independent Directors in Corporate Governance. 5

Answer:

8. (a)

The company (MACLEODS PHARMACEUTICAL LTD.) can take action under section 452 of the Companies Act 2013, if the officer refuses to vacate the premises or return back the properties including cash of the company.

According to section 452 of the Companies Act, 2013 it is an offence

(1) if any officer or employee of a company-
   (a) wrongfully obtains possession of any property, including cash of the company; or,
   (b) having any such property including cash in his possession, wrongfully withholds it or knowingly applies it for the purposes other than those expressed or directed in the articles and authorised by this Act, he shall, on the complaint of the company or of any member or creditor or contributory thereof, be punishable with fine which shall not be less than one lakh rupees but which may extend to five lakh rupees.

(2) The Court trying an offence under sub-section (1) may also order, such officer or employee to deliver up or refund, within a time to be fixed by it, any such property or' cash wrongfully obtained or wrongfully withheld or knowingly misapplied, the benefits that have been derived from such property or cash or in default, to undergo imprisonment for a term which may extend to two years.

So the company can file a complaint under section 452 of the Companies Act,2013 as it provides speedy relief. Section 452 covers either existing as well as past officers or employees.

8. (b):

The Competition Commission while inquiring whether the Company MEGLOW LTD. enjoys a dominant position or not under Section 4 of the Competition Act, 2002 will take the following factors into account:

(a) market share of the enterprise

(b) size and resources of the enterprise

(c) size and importance of the competitors

(d) economic power of the enterprise including commercial advantages over competitors.

(e) vertical integration of the enterprises or sale or service net work of such enterprises.

(f) dependence of consumers on the enterprise.

(g) monopoly or dominant position whether acquired as result of any statute or by virtue of being a Government company or a public sector undertaking or otherwise.

(h) entry barriers including barriers such as regulatory barriers, financial risk, high capital cost of entry, marketing entry barriers, technical entry barriers, economies of scale, high cost of substitutable goods or services for consumers.

(i) countervailing buying power.

(j) market structure and size of market.

(k) social obligations and size of market.

(l) relative advantage, by way of contribution to the economic development, by the enterprise enjoying a dominant position having or likely to have an appreciable adverse effect on competition.

(m) any other factor which the commission may consider relevant for the inquiry.

8. (c) :

Role of Independent directors in corporate governance:

The independent directors have an important role to play in Corporate Governance. All the committees and the listing agreement have emphasized the position of independent directors. The name independent director itself suggests that these are the directors not attached or related to the promoter group of the company. These directors may be considered as true representatives of the shareholders and other stakeholders. These directors are capable of exercising independent judgment and opinions. The independent directors are instruments of ensuring that Board of Directors takes decisions; keeping in view the interest of the relevant stakeholders and without prejudice to any particular group. Independent directors, create a trust confidence the Board of Directors and the stakeholders.

They help steward the company towards maximization of stakeholders value and in formulation of strategic policies of the company. However in order to take a pure independent view, these directors should be professionally qualified and having sufficient background of company management competence and integrity, both are required on the part of independent directors.

Independent directors have to operate within the code of conduct as applicable to other members of the Board of Directors.