### 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: (1) Answer all bits of a question at one place.
(2) Answers to each question should start from a new page.

Example: Q. No. 2/3/any should start from a new page.

### SECTION - I (60 Marks) (Capital Market Analysis)

## Answer Question No. 1 (compulsory) and answer any two from the rest in this Section.

### Question 1.

## (a) In each of the cases given below one out of four options is correct. Indicate the correct answer and give workings/ reasons briefly in support of your answer. [2×6]

- (i) The shares of Nalanda Ltd. are trading at ₹ 370. If put options with a strike price of ₹ 380 are priced at ₹ 20, the intrinsic value and time value of the options respectively are :
  - (A) ₹ 8, ₹ 8
    (B) ₹ 10, ₹ 10
    (C) ₹ 8, ₹ 10
    (D) Incomplete information
- (ii) The Co-efficient of Correlation between returns of Moonshine Ltd. and SENSEX is 0.98. The expected returns on the stock of Moonshine Ltd. and SENSEX are 16% and 13.77% respectively. The return on 182 day T-Bill is 6.35%. If the standard deviation of the returns of Moonshine Ltd. is 21%, what would be the standard deviation of SENSEX's return?
  - (A) 15.83%;
  - (B) 16.51%;
  - (C) 22.42%;
  - (D) None of (A), (B), (C).
- (iii) Determine the beta for the following portfolio :

Stock	% of portfolio	Beta
1	45	1.20
2	20	0.75
3	35	1.00
1.05;		
1.04;		
1.40;		
1.50.		
	Stock 1 2 3 1.05; 1.04; 1.40; 1.50.	Stock     % of portfolio       1     45       2     20       3     35       1.05;

(iv) The beta of stock of Ananda Ltd. is 2.00 and is currently in equilibrium. The required return on the stock is 12% and expected return on the market is 10%. Suddenly due to change in the economic conditions, the expected return on the market increases to

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12%. Other things remaining the same what would be new required return on the stock?

- (A) 16.0%
- (B) 15.0%
- (C) 20.0%
- (D) 22.5%
- (v) Mr. Sanyal purchased 100 shares of NITCO Ltd. Futures @ ₹ 2,500 on 10th June. Expiry date is 26<sup>th</sup> of June. His total investment was ₹ 2,50,000 and the initial margin paid was ₹ 37,500. On 26<sup>th</sup> of June shares of NITCO Ltd. was closed at ₹ 2,000. How much will be the gain / loss on the shares?
  - (A) loss ₹ 50,000;
  - (B) gain ₹ 25,000;
  - (C) loss ₹ 35,000;
  - (D) None of the above.
- (vi) Priya is willing to purchase a 5 years ₹ 1,000 par value PSU bond having a coupon rate of 9%. Her required rate of return is 10%. How much Priya should pay to purchase the bond if it matures at par? [Given PVIFA (10%, 5 years) = 3.791 and PVIF (10%, 5 years) = 0.621]
  - (A) ₹ 850.30;
  - (B) ₹ 805.47;
  - (C) ₹ 962.19;
  - (D) ₹ 965.49.
- (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 consider correct). [1x5]
  - (i) Bond issued at a discount and repaid at a face value is called:
    - A. Zero –coupon bond;
    - B. Eurobond;
    - C. Yankee bond;
    - D. Income bond.
  - (ii) Issue of shares to its employees or directors at discount or for consideration other than cash for providing know-how or making available rights in the nature of intellectual property rights or value addition.
    - A. Seasoned Equity;
    - B. Green Shoe option;
    - C. Bought Out Deal;
    - D. Sweat Equity.

(iii) Markowitz Mean-Variance Model is used in:

- A. Traditional Portfolio Analysis;
- B. Modern Capital Market Analysis;
- C. Modern Portfolio Analysis;
- D. None of the above.

(iv) The Mutual Funds that are listed in the stock Exchanges are -

A. Growth schemes;

- B. Closed-End Scheme;
- C. Open-End Scheme;
- D. None of the above.
- (v) A process of investment by a Sponsor or a Syndicate of Investors/Sponsors directly in a Company is referred as:
  - A. Bought out deal;
  - B. Buy back of shares;
  - C. Irredeemable preference shares;
  - D. Deferred shares.
- (c) Fill in the blanks in the following sentences by using appropriate word(s) / phrase(s) / number(s):
  - (i) A \_\_\_\_\_can be seen as a method for company to invest in itself by buying shares from other investors in the market.
  - (ii) \_\_\_\_\_\_ is the practice of taking advantage of a state of imbalance between two (or more) markets and thereby making a risk free profit.
  - (iii) The process, by which a client in capital market can get physical certificates converted into electronic balances, is called \_\_\_\_\_\_.

### Question 2.

(a) The following two types of securities are available in the market for investment:

Security	Return (%)	Standard Deviation (%)
Gilt-edge Security	8	0
Equity	25	30

Using the above two securities, if you are planning to invest  $\mathbf{E}$  1,00,000 to construct a Portfolio with a standard deviation of 24%, then what will be the return of such portfolio (in  $\mathbf{E}$ )? [4]

- (b) "There are differences in approach, attitude and areas of operations between commercial banks and merchant banks." — State those differences between commercial banks and merchant banks. [3]
- (c) Calculation the value of option from the following information:

Current Asset Price	(S)	=₹30						
Exercise price	(X)	=₹30						
Time to expiry in decimals of a year	(T-†)	= 3 mor	nths o	r 0.25	years			
Risk-free rate of interest in decimals	(r)	= 12% =	0.12					
Annualised standard deviation of t decimals(σ)=0.40	the na	tural log	g of	the	asset	price	relative	to
Given N (0.25) = 0.5987, N(0.05) = 0.5199	and e-a	0.03 = 0.97	04.					[6]

[5]

[2]

- (d) State the various risks associated with derivatives?
- (e) What is Credit Wrapping?

### Question 3.

(a) Determine the intrinsic value for the buyer of an option contract, in the following situations:

- (i) A put Option, when the current value of the underlying asset is ₹ 1,400 and the strike price is ₹ 1,480.
- (ii) A Call Option when the strike price is ₹ 1,700 and the current value of underlying asset is ₹ 1,650.
- (iii) A Call Option when the current value of the underlying asset is ₹ 950 and the strike price is ₹ 950.
- (iv) A Put Option when the current value of the underlying asset is ₹ 950 and the strike price is ₹ 950.
- (v) A Put Option when the exercise price is ₹ 1,090 and the current value of the underlying asset is 1,000.
- (vi) A Call Option when the current value of asset is ₹ 120 and the strike price is ₹ 98.
- (vii) A Call Option when the exercise price is ₹ 80 and the market price is ₹ 84.
- (viii) A Put Option when the exercise price is ₹ 87 and the market price is ₹ 82.
- [8]
- (b) A group of analysts believes that the returns of the portfolios are governed by two vital factors—

1. The rate of economic growth and 2. The sensitivity of stock to the developments in the financial markets. The sensitivities of returns with respect to these two factors are denoted by  $\beta_1$  and beta  $\beta_2$  respectively.

Further these analysts believe that returns on three carefully crafted Portfolios A, B and C must be predominantly governed by these two factors alone leaving remaining to some company/ portfolio specific factors. Assume that these three Portfolios A, B, and C are found to have following beta co-efficients:

Portfolio	Expected Return, %	β1	B <sub>2</sub>
A	16.00	1.00	0.80
В	25.00	1.50	1.30
С	32.00	2.00	1.50

Find out the Arbitrage Pricing Theory (APT) equation governing the returns on the portfolios.

[7]

(c) What is Venture Capital? Describe some of its characteristics in relation to the financing.

[2+3]

### Question 4.

(a) Bonds of Mouship Tech Ltd., an Engineering Company which carries AA rating with 5 years to maturity and 14.50% coupon rate, payable annually, is being traded at ₹ 1015.50.

You as a Fund Manager of the Trust Fund, a 80% Debt fund, want to ascertain the intrinsic Value and take a decision accordingly. Face Value of the bond is ₹ 1000. Your Asset Management Company has laid down the guideline that for AA rated Instruments; the discount rate to be applied is 364 day T-Bill rate+4%. (Assume the 364 day T-Bill rate to be 10%). You are required to:

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

Note: Ignore Flotation Costs and transaction costs,

Extracted from the table of PV:

Interest rate	10%	11%	12%	13%	14%	15%
PVIFA (5 years)	3.791	3.696	3.605	3.517	3.433	3.352
PVIF (5 years)	0.621	0.593	0.567	0.543	0.519	0.497
						[2+(1+2)]

# (b) A new equity based mutual fund collected ₹ 50 crores through the New Fund Offer at ₹ 10 a unit. On the first day when the NAV was to be released, the following stock purchases were made. The balance was parked in reverse repo for a day at 6% yield. The initial expense is 6% and is expected to be amortized over 5 years. The total recurring expenses which would be deducted on a daily basis (which also includes investment and advisory fees for this fund size) is 2.5% per annum. Assume recurring expenses is charged on opening balance of net assets. Find 1st day NAV for this fund.

Name of the stock	Qty.	Cost (₹)	Closing price (₹)
BHEL	2,500	1,968.00	1,968.25
Infosys	3,000	1,600.00	1,630.20
TCS	2,500	928.00	928.00
ITC	25,600	169.00	164.55
Reliance	16,500	265.00	258.20
Communication			

- (c) "Bought out deal is not only advantageous to the company going for it but also to the sponsors and common investors." State the advantages of Bought out deal (BOD). [5]
- (d) "Many corporate executives are faced with the challenge of managing the risks associated with low cost basis and restricted-stock holdings." Describe the risk management strategies each of which has an unique characteristics and requirements. [5]

### SECTION II (40 Marks)

### (Corporate Laws)

### Answer Question No.5 (compulsory) and also answer any two from the rest in this Section.

### Question 5.

- (a) Fill in the Blanks in the following sentences by using appropriate word(s)/ phrase(s)/ number(s): [1x6]
  - (i) The Competition Commission of India was established in the month of \_\_\_\_\_, 2003 under the Competition Act, 2002.
  - (ii) The \_\_\_\_\_ has the power to fill up the casual vacancy caused in the Board.
  - (iii) The minimum number of subscribers sign in the Memorandum of Association of a public limited company at the time of its formation is \_\_\_\_\_\_.

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[5]

- (iv) As per section \_\_\_\_\_ of the Companies Act, 2013 where a prospectus, issued, circulated or distributed which is untrue or misleading every person who authorizes the issue of such prospectus shall be liable (criminal liability).
- (v) As per Section 205(1A) of the Companies Act, 1956 the amount of interim dividend shall have to be deposited from the date of declaration of such dividend in a separate bank account within \_\_\_\_\_ days.
- (vi) A \_\_\_\_\_\_ is a person who undertakes, does and goes through all the necessary and other preliminary activities with an objective of bringing the company into existence.
- (b) Choose the most appropriate one from the stated options and write it down (only indicate A, B, C or D as you consider correct):
  - (i) For a company, other than non profit making, minimum how many days notice should be given for calling a general meeting:
    - A. 17 days;
    - B. 19 days;
    - C. 21 days;
    - D. 14 days.
  - (ii) Which of the following items requires special resolution 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.
  - (iii) The concept of Corporate Governance was initiated on the recommendation of the report by:
    - A. Narayana Murthy;
    - B. Kumar Mangalam Birla;
    - C. Dr. Y.V. Reddy;
    - D. None of the above.
  - (iv) In the context of Corporate Governance, Narayana Murthy Committee was formed in the year:
    - A. 2002;
    - B. 2003;
    - C. 2004;
    - D. 1999.

### Question 6.

- (a) What are the procedures to be adopted for the alteration of object clause in the Memorandum?
  [6]
- (b) In the context of management audit, what is meant by "control risk" vis-a-vis detection of material misstatements in the financial statements? In this regard, what is "Control Risk at the maximum" and "Control Risk at less than the maximum"? [1+(2+2)]
- (c) Mr. Roy was appointed as Managing Director for life by the Articles of Association of a private company incorporated on 1st June, 1990. The articles also empowered Mr. Roy to

appoint a successor. Mr. Roy appointed, by will, Mr. Sen to succeed him after his death. Can Mr. Sen succeed Mr. Roy as Managing Director after the death of Mr. Roy? [4]

### Question 7.

(a) Mr. H. Jalan, attained the age 59 years on 31st December, 2013. The Central Government appointed him as the Chairperson of the Competition Commission of India with effect from 1st January, 2014.

You are required to state with reference to the provisions of the Competition Act, 2002, the term for which he may be appointed as Chairperson of the Competition Commission of India. Whether he can be reappointed as such and till when he can remain as Chairperson of the Competition Commission of India? [4]

(b)	"A	good	Corpo	rate	Govern	ance	should	have	certain	basic	principles	s" —	Enumerate	them.
														[7]

[7]

(a)	What are the duti	es to be performed by t	be auditors in the cours	e of audit?	[/]
$(\mathbf{C})$	what are the auti	es lo de periornea dy i	he dualiois in the course	e or abairs	[4]

Question 8.	
Write a short note on:	[5×3]
(a) Director Identification Number (DIN)	
(b) The Objectives of the Right to Information Act, 2005	

(c) Shelf prospectus [Section 31 of the Companies Act, 2013]