LIBERTY COLLEGE
individual progress

BACHELOR OF BUSINESS ADMINISTRATION (BBA)
Pre-Board Examination Fall 2016

Level: Bachelor	Set B	Time: 3:00 hrs.
Program/Semester: BBA VII		Full Marks: 100
Subject: Investment Decisions		Pass Marks: 40

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt all the questions:

1. a) What do you understand by investment process? Describe the various steps involved in investment process. **(7)**

b) Consider the following information on a corporate bond: **(8)**

Face Value	Rs. 1,000
Annual coupon rate	12%
Term	5 years
Yield to maturity	14%

   i. Calculate the bond's duration assuming the interest is paid annually.

   ii. Why is duration calculated?

2. a) Calculate the expected return, variance, standard deviation and coefficient of variation of stock X and stock Y from the following probability distribution of returns: **(8)**

State	Probability	Return on Stock X	Return on Stock Y
1	0.5	16%	50%
2	0.3	10	30
3	0.2	15	10

b) In 1945, Burger Inc. issued Rs. 10 million of Rs. 1,000 par value, 10% semiannual convertible debentures that come due in 2013. The conversion price on these convertibles is Rs. 20 per share. The common stock was selling for Rs.15 per share on a given date shortly after these convertibles were issued. These convertibles were yielding 14% on that given date. The market price of convertible was Rs. 960 on that date. Determine the following: **(7)**

   i. Conversion ratio

   ii. Conversion value

   iii. Straight bond value

   iv. Conversion premium (in percentage)

3. a) What are the several factors that determine the market interest rate on debt securities? Explain. **(8)**

b) The following data about stock A and B is available: **(7)**

	Stock A	Stock B
Standard Deviation	17%	28%
Expected Return	12%	14%
Correlation coefficient 0.50		

    i.   Compute the standard deviation of equally-weighted portfolio.

    ii.   If you create the lowest-risky portfolio, what would be weight of stock A?

4. a) This year, Mountain Legend Ltd. will pay a dividend on its stock of Rs. 6 per share. The following year, the dividend is expected to be the same, increasing to Rs. 8 the year after. From that point on, the dividend is expected to grow at 5% per share indefinitely. Stocks with similar risk are currently priced to provide a 10% expected return. **(8)**

    i.   What is the intrinsic value of Mountain Legend stock?

    ii.   What are the factors affecting intrinsic value?

b) Explain the determinants of option value. **(7)**

5. a) Mahesh Security Fund manages a risky portfolio with expected rate of return of 14% and standard deviation of 18%. The T-bill rate is 7%. You are a risk-averse investor with degree of risk aversion (A) of 4.5. Suppose you decide to form an optimal investment portfolio consisting of risky assets that the Fund manages and the risk-free rate. **(8)**

    i.   What is the investment proportion in risky asset that optimize your portfolio?

    ii.   What is the expected value and standard deviation of the rate of return on optimized portfolio?

  b) Find the yield to maturity of a Rs. 1,000 face value bond that pays interest semi-annually based on a 10% coupon. Its current price is Rs.850 & it matures in eight years. **(7)**

6. a) Cipla Pharmaceuticals stock is currently priced at Rs.40 per share and exercise price of the call is Rs.40. Six months from now its price will be either Rs.44.21 or Rs.36.19. If price rises to Rs.44.21, then six months later the price will be either Rs.48.86 or Rs.40. If, however, the price initially falls to Rs.36.19, then six months later the price will be either Rs.40 or Rs.32.75. The risk free is 3.25% over each six month period. Using the binomial option-pricing model, what is the fair value of a one-year call option on Cipla's stock? **(8)**

b) Given risk-free rate of 12%, the expected return on the market portfolio 20%, and the standard deviation of returns on the market portfolio 20%. **(7)**
  i.   What is the equilibrium price of risk?
  ii.   What percentage of your wealth would you have to put into the market portfolio in order to have a 30 percent expected rate of return?

Write short notes: **(any two)**   **(5x2=10)**
  a) Money market & Capital market
  b) Yield curve
  c) Fundamental analysis

ALL THE BEST