ECO 332: VALUATION AND PORTFOLIO MANAGEMENT

END TERM (VARIANT-II)

Time: 90 minutes **Max. Marks 35**

Instructions for candidates:

- *The paper consists multiple choice questions.* ***Each question carries one mark for correct answer and (- ¼) for wrong answer. No marks for not attempting the question.*** *In MCQs you are required to select the correct alternative from amongst those given and indicate the correct alternative (only one) in your answer sheet.*
- *There are two fill in the blank questions Qs 32 and Qs 33. You need to show your calculations there before arriving at an answer. In the response sheet only write the answer.*

1. **Rahul sold a call option with an exercise price of Rs.75 for Rs4. Rahul's profit/loss if the stock trades at Rs.81 at option expiration is closest to:**
   A. Rs.6 loss.
   B. Rs.10 profit.
   C. Rs.2 loss.
   D. Rs.2 profit
2. **The correlation between two assets equals –0.296 and the covariance between the two assets is –0.0104. Which of the following least likely lists the standard deviations of the two assets?**
   A. 45.45% and 7.73%
   B. 23.4% and 14.1%
   C. 35.54% and 9.886%
   D. 28.4% and 12.36%
3. **Beta can be defined as:**
   A. The covariance of an asset with the market as a proportion of the market's standard deviation.
   B. The covariance of an asset with the market as a proportion of the market's covariance with itself.
   C. The correlation of an asset with the variance of the market.
   D. The variance of the asset with the correlation of the market.
4. **An analyst gathered the following information regarding a stock:**
   Current market price = Rs.32
   Expected dividend at year end = Rs.2
   Expected price at year end = Rs.34
   Beta = 0.8
   Risk-free rate = 5%
   Equity market risk premium = 8%
   This stock is most likely:
   A. Undervalued.
   B. Overvalued.
   C. Properly valued.

5. **A corporate insider is consistently able to earn abnormal returns. This fact most likely:**
   A. Supports the case for weak-form efficiency of markets.
   B. Weakens the case for strong-form efficiency of markets.
   C. Weakens the case for semi-strong-form efficiency of markets.
   D. Supports the case for strong-form efficiency of markets.

6. **Consider the following statements:**
   Statement 1: The option embedded in a putable bond is more likely to be exercised by the issuer when interest rates rise.
   Statement 2: If a bond is sold between coupon payment dates, accrued interest is due to the buyer.

Which of the following is most likely?
   A. Both statements are incorrect.
   B. Only Statement 1 is correct.
   C. Only Statement 2 is correct.
   D. Both statements are correct

7. **Each of the option-free bonds listed below has a face value of Rs. 1,000:**

	Bond 1	Bond 2
Time to maturity	10 years	10 years
Annual coupon rate	5%	9%
YTM (today)	7%	7%

If the yield to maturity for both the bonds remains constant over their remaining terms, over time there will most likely be an increase in the price of:
   A. Bond 1 only.
   B. Bond 2 only.
   C. Both of the bonds.
   D. Neither of the bonds

8. **A coupon-bearing bond was purchased at par. If the bond were held until maturity and interest rates fell during the period, the actual return would most likely be:**
   A. Lower than the YTM at time of purchase.
   B. Higher than the YTM at time of purchase.
   C. Equal to the YTM at time of purchase because the bond was held until maturity.
   D. More information is needed

9. **An analyst gathered the following information about a company:**
   Next year's dividend = Rs.3.75
   Dividend growth rate = 6%
   Risk-free rate of return = 5%
   Market risk premium = 8%
   Beta of company's common stock = 1.1

If the analyst estimates that the selling price of the company's stock after one year will be Rs.43, the value of the company's common stock today is closest to:
   A. Rs.41.
   B. Rs.40.
   C. Rs.39
   D. Rs.38

10. If the coupon rate on a bond is greater than its current yield, the bond is most likely trading at

A. A premium.

B. A discount.

C. Par.

11. If all other factors remain unchanged, which of the following events would most likely reduce a firm's price/earnings multiple?

A. Investors become less risk averse.

B. The dividend pay-out ratio increase.

C. The yield on Treasury bills increases.

D. The level of inflation is expected to decline.

12. Which of the following statements about the term structure of interest rates is true?

A. The expectations hypothesis contends that the long-term is equal to the anticipated short-term rate.

B. The liquidity preference theory indicates that, all else being equal, longer maturities will have lower yields.

C. The segmented market theory contends that borrowers and lenders prefer particular segments of the yield curve.

D. The expectations hypothesis indicates a flat yield curve if anticipated future short-term rates exceed current short-term rates.

13. A 6 percent coupon bond pays interest semi-annually, has a modified duration of 10, sells for Rs.800, and is priced at a yield to maturity (YTM) of 8 percent. If the YTM increases to 9 percent, the predicted decrease in price, using the duration concept, is:

A. Rs. 80.00.

B. Rs. 77.67.

C. Rs. 76.92.

D. Rs. 76.56.

14. According to the efficient market hypothesis

A. one cannot expect to earn an abnormally high return by purchasing a security.

B. information in newspapers and in the published reports of financial analysts is already reflected in market prices.

C. unexploited profit opportunities abound, thereby explaining why so many people get rich by trading securities.

D. all of the above are true.

E. only (A) and (B) of the above are true.

15. You find that the market breadth is down, and the market has closed above its 50-day moving average. In total, how many bearish signs do you have?

A. 0

B. 1

C. 2

D. Cannot be determined

16. Your friend tells you that he was observing someone flipping a coin a hundred times. The first ten times the coin was tossed however, it came up heads ten times in a row. Your friend concludes that the coin was biased because the odds of the coin coming up heads that frequently is extremely small. You tell him that:

A. He has fallen prey to the representativeness bias since he is drawing conclusions on large samples of coin tosses based on his experiences with smaller numbers of tosses.
B. He is excessively pessimistic.
C. He is right.
D. Both a and b are correct.
E. None of the above

17. Studies have shown that the experience of increasing losses actually decreases an attacker's willingness to stop a battle. This is an example of:

A. Aversion to a sure loss
B. Overconfidence
C. Illusion of Control
D. All of the above

18. An investor needs cash to pay some hospital bills. He is willing to use his dividend income to pay the bills, but he will not sell any stock to do so. He is engaging in________________.

A. Overconfidence
B. Representativeness
C. Forecast errors
D. Mental accounting

19. XYZ Company plans not to pay out any dividends for the next four years. After four years, the company will maintain a dividend payout ratio of 45%. The company's EPS in Year 4 is expected to be Rs.4.50, and is expected to grow at 7% forever. Given a cost of equity of 12%, the current value of the stock is closest to:

A. Rs.25.74.
B. Rs.27.54.
C. Rs.24.59.
D. Rs.43.34

20. Which of the following bonds is most likely to exhibit the greatest interest rate risk, assuming that the yield curve is flat?

Bond A is a 5%, 20-year bond with no embedded options.
Bond B is a 6%, 18-year bond with no embedded options.
Bond C is a 5.5%, 15-year bond with no embedded options.

A. Bond A
B. Bond C
C. Bond B

21. An analyst calculates that the price of an option-free bond with a 5% coupon would experience a 13.5% change if yields were to increase by 100 basis points. If yields were to decrease by 100 basis points instead, the bond's price would most likely:

A. Increase by 13.5%.
B. Increase by more than 13.5%.
C. Decrease by more than 13.5%.

22. An option gives the holder...

A. the obligation to buy the underlying asset.
B. the right to sell the underlying asset.
C. the obligation to buy or sell the underlying asset.
D. the right to buy or sell the underlying asset.

23. What is the difference between an American option and a European option?

A. An American option is traded on American exchanges, while European options are traded on European exchanges.
B. An American option is written on the assets of an American company, while a European option is written on the assets of a European company.
C. An American option can only be exercised at expiration, while a European option can be exercised at any time up to expiration.
D. An American option can be exercised at any time up to expiration, while a European option can be exercised only at expiration.

24. The underlying asset of a Rs.55 call is trading at Rs.48. This call would be considered...

A. In-the-money.
B. At-the-money.
C. Out-of-the-money.

25. An investor is bullish about the market for a particular underlying asset. Which of the following strategies might this investor pursue?

A. Long a put.
B. Short a put.
C. Short a call.
D. None of the above

26. In a Strangle option strategy

A. Put and call have different exercise prices.
B. Call and put have same exercise price.
C. Call and put have different expiry date.
D. Put and call are not involved.

27. Straddles is a trading strategy mainly used when the market is

A. Bullish
B. Bearish
C. Volatile
D. Stable

28. Which of the following are underlying assumptions of technical analysis?

I. Past performance has no influence on future performance or market values.
II. Security prices adjust rapidly to stock market information.
III. Security prices move in trends, which persist for appreciable lengths of time.
IV. The market value of any good or service is determined solely by the interaction of supply and demand for the good or service.

A. I and II only.
B. I and IV only.
C. II and III only.
D. III and IV only.

Use the option information given in the following table to answer the questions **29-31** below. Ignore taxes and transaction costs. Each contract is equal to 1 unit.

			Time to Maturity			
Stock	**Current price**	**Exercise price**	**Call Premium**		**Put Premium**	
			3 months	6 months	3 months	6 months
A	52	50	3	4	0.35	1.05
B	40	45	1	1.25	5.5	6.00
C	35	30	6	6.3	0.45	0.65

29. If you purchase one 3-month call contract on A, what profit or loss will you make at the maturity date if the price of A at that time is Rs.57?

A. Rs.2

B. Rs.4

C. -Rs.4.60

D. Rs.5

30. If B's price is Rs.35 at the maturity of the 6-month option, determine the value of five 6-month put contracts at their maturity date.

A. Rs.20

B. Rs.57

C. Rs.82

D. -Rs.40

31. Which of the following options are in the money?

A. A's 3-month call

B. B's 6-month put

C. C's 6-month put

D. A and B

32. An analyst gathers the following information:

3-year spot rate = 4%

5-year spot rate = 5%

2-year forward rate 5 years from today = 3.5%

3-year forward rate 7 years from today = 4.25%

2-year forward rate 8 years from today = 6%

Given that all the above spot rates are effective annual rates; the 8-year spot rate is closest to (2 decimal places): 4.095%

33. ABC Company's dividend growth rate is expected to be 20% for the next three years. After three years, the company's dividend growth rate will stabilize at 7%. ABC's last dividend payment was Rs.4 per share. Given that its cost of equity is 12%, the current value of ABC's stock is closest to (2 decimal places): ____________________