



M.Com. III - Semester (CBCS) Degree Examination, December - 2018

COMMERCE

Financial Derivatives

Paper No : SC 3.5 (B)

Time : 3 Hours

Maximum Marks : 70

Section-A

Answer any **TEN** of the following .Each sub-question carries **TWO** marks. **(10×2=20)**

1. a. Enlist the reasons for emergence of derivatives market in India.
- b. Name the markets where the derivative products are traded in India.
- c. How does derivatives market help in discovery of price?
- d. Distinguish between commodity and financial derivatives.
- e. Who is hedger?
- f. State the role of clearing corporation/house in the derivatives market.
- g. What does gamma measure in options market?
- h. What is the impact of volatility of underlying asset on the option premium?
- i. What is margin call?
- j. Write a brief note on SPAN.
- k. When does a trader use the straddle and strangle?
- l. What is the intrinsic value of options contract?

Section-B

Answer any **FOUR** questions. Each question carries **FIVE** marks. **(4×5=20)**

2. Explain the functions of derivatives market.
3. What are the types of order in the securities market.
4. Explain the features of OTC derivatives.
5. What is Binomial Model? How does it get its name?
6. The shares of Yellow Pages Limited are being traded at Rs. 250 on BSE. Its futures for 1-month, 2-month and 3-month are available on the BSE. If the risk-free rate is 12 percent per annum (compounded annually) and no dividends are expected during the period, what should be the equilibrium price of these futures?

[P.T.O.]



7. Equity shares of Casio limited are being currently sold for Rs. 90 per share. Both the call option and the put option for a 3-month period are available for a strike price of Rs 97 at a premium of Rs 3 per share and Rs. 2 per share respectively. An investor wants to create a position by buying a call as well as a put option in this share. Find out his net payoff at the expiration of the option period, if the share price on that day happens to be Rs. 90 or Rs.105.

Section-C

Answer any **THREE** questions. Each question carries **TEN** marks. (3×10=30)

8. Demonstrate that the price of index futures is equal to the spot index plus cost of carry.
9. What are option contracts? Discuss the features of option contract.
10. Elucidate the present status of derivatives market in India.
11. Ms. Sushmitha has taken a short position in a gold futures contract. Each contract is for 100 ounces of gold and the futures price at the of entering into the contract is \$100 per ounce. The initial margin is \$ 10,000 and the maintenance margin is 80% of the initial margin. The contact is entered into in the morning of November 2018 and is held for a period of 10 days.

The following are the settlement prices at the end of everyday (\$ per ounce of gold):

| | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Day | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Price | 515 | 525 | 550 | 510 | 490 | 475 | 460 | 480 | 500 | 480 |

Assuming that the balances in the margin account in excess of the initial margin level are not withdrawn, draw up a detailed table showing the daily gain/loss, cumulative gain/loss, the balance in the margin account and the variation margins paid.

12. From the following data, calculate the values of call and put options using Black and Scholes Model:

| | |
|--|--------------|
| Current price of the share | Rs. 486 |
| Exercise price | Rs. 500 |
| Time to expiration | 65 days |
| Standard Deviation | 0.54 |
| Continuously compounded rate of interest | 9% per annum |
| Dividend expected | Nil |