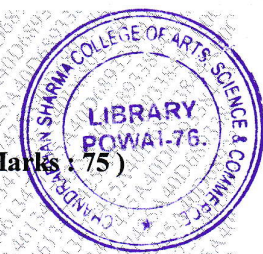TYBMS/sem V/22.11.19

( 2½ Hours )                                                      ( Total Marks : 75 )

Note : 1) **All Questions are compulsory subject to internal choice**
     2) **All question carry 15 marks.**
     3) **Use simple calculator**

**Q.1 (A) State weather the following statement are True or False.** (08)
1 A person buying a futures contract is said to hold a short position.
2 Long futures payoffs are directly related to underlying asset price.
3 Speculation in futures market involves higher risk as compared to holding same position in spot market.
4 A bearish speculator will enter into a long future contract.
5 Premium for an American option will generally be lower as compared to European option
6 Binomial model of option valuation is much more flexible as compared to Black & Scholes model
7 Cash and carry arbitrage refers to a short position in the cash or underlying market and a short position in futures market
8 The VAR obtained under the historical-simulation method should be the same as that under the delta normal method.
9 An option premium is the income received by an investor who holds the option contract.
10 Derivatives are mostly primary market instruments.

**(B) Match the Column (Any 07) :** (07)

|   | Column A | | Column B |
|---|---|---|---|
| 1 | Hedgers | a | measure of the risk of investment |
| 2 | Lot size | b | Eliminates the risk |
| 3 | Time value of option | c | Public private partnership |
| 4 | VaR | d | Call Option |
| 5 | Perfect hedge | e | over the counter market |
| 6 | Right to Buy | f | Maturity date |
| 7 | Arbitrageurs | g | number of units of assets to be delivered |
| 8 | Option expires | h | Risk Management |
| 9 | Forward Contract | i | Riskless profit |
| 10 | ICEX | j | Difference between option premium and intrinsic value |

**Q.2 (A)** What is derivative contract? What are its elements? (08)
    **(B)** What are the leading commodity exchanges in India & in abroad? (07)

**OR**

**Q.2 (C)** Explain the structure of commodities market in India. (08)
    **(D)** Discuss the Participants in commodity market? (07)

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Q.3 (A) Explain the following Terminologies:               (08)
   1   Call Option
   2   Expiry Date
   3   Market to Market
   4   Basis

Q.3 (B) Explain Cash & Carry Arbitrage in detail?       (07)

**OR**

Q.3 (C) The spot price of gold is Rs 39,000. The locker rent is Rs 500 and insurance  (07) charges are Rs 750. Interest rate on borrowed funds is 12% pa compounded on monthly basis. What will be the fair value of 3 months futures contracts?

Q.3 (D) Kattappa buys a PUT option of Bahubali Ltd at a strike price of Rs 30 for a  (08) premium of Rs 6 . Calculate the profit or loss for Kattappa if the market price of the share is Rs. 14, Rs. 16, Rs. 18, Rs. 26, Rs. 28, Rs. 30, Rs. 31, Rs. 35, Rs. 39. Also draw the payoff diagram for the same.

Q.4 (A) Distinguish between Future & Option               (08)

   (B) Explain what is meant by intrinsic value or moneyness of an option contract  (07)

**OR**

Q.4 (C) The cost of 1kg of silver is Rs 65,000 and locker rent is Rs. 2,500, the insurance  (07) charges are Rs 500 for a month. Interest rate on borrowed funds is 12% pa which is compounded on monthly basis. What will be fair value of 1 month contract?

   (D) Mr Bhallaladeva takes the position in the futures market through the following  (08) transaction:
   1. Sold HERO Motor Corp futures for Rs. 7,930. On the expiry the cash market price was Rs. 8,000. Find out the profit or loss for the lot size of 50 shares.
   2. Took a long position on 10 contracts of RBL Bank at Rs. 960 and the settlement price was Rs. 1,050.
Calculate the profit/ loss made if the contract size was 300.
Also draw pay off diagrams for the respective positions.

Q.5 (A) What are the various orders that can be placed in derivatives markets?  (08)

   (B) Explain SPAN Margin                     (07)

**OR**

Q.5 (C) Write short notes on **any three** of the following :     (15)
   1   Imperfect Hedge.
   2   Reverse Cash & Carry Arbitrage
   3   Contango
   4   Arbitrage using Futures
   5   Types of Margin

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