

## **Assumptions underlying the Model Test Paper for BCDE**

1. Unless otherwise mentioned specifically, assume the following product specifications with respect to index futures:
  - a. The contract multiplier for Sensex futures is 50.
  - b. All the derivative contracts will expire on the last Thursday of the month.
  - c. The life of one series of Sensex futures contract is three months and at any point of time, we have three series open for trading.
  
2. Unless otherwise mentioned all figures denoting value are in terms of Rupees only. The abbreviation INR stands for Indian Rupees.
  
3. The value of securities contributed towards liquid assets are to be considered net of hair-cut.
  
4. With reference to the positions taken in the market, the "+" symbol is used to denote long positions and the "-" symbol to denote short
  
5. For calculating margins on spread positions, a calendar spread will be treated as naked positions in the far month contract 3 trading days before the near month contract expires.

**MODEL TEST PAPER FOR BCDE**

| <b>Q. Id</b> | <b>Question</b>  | <b>Option 1</b> | <b>Option 2</b>   | <b>Option 3</b>    | <b>Option 4</b>    |
|--------------|--|-----------------|-------------------|--------------------|--------------------|
| 1            | If you sell a put option contract on a share with strike price of Rs. 245, market price of Rs. 260 and a premium of Rs. 41, how much is the maximum gain that you may have on expiry of this position? | 286             | 41                | 219                | None of the above  |
| 2            | In case of a pure speculator, as distinguished from a hedger, futures trading is a business by itself as he has no offsetting commercial position  | TRUE            | FALSE             |                    |                    |
| 3            | You sold one XYZ Stock Futures contract at Rs. 248 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 251?                                       | -2600           | -3600             | 3600               | None of the above  |
| 4            | You bought a January XYZ Stock Futures contract at Rs. 268 and the lot size is 1,200. What is your profit (+) or loss (-), if you square off your position at at Rs. 227?                              | -48200          | 49200             | -49200             | None of the above  |
| 5            | The underlying in case of a derivative may be  | a share index   | A Government bond | another derivative | All the A, B and C |
| 6            | You bought a January XYZ Stock Futures contract at Rs. 268 and the lot size is 1,200. What is your profit (+) or loss (-), if you square off your position at at Rs. 229?                              | -45800          | 46800             | -46800             | None of the above  |
| 7            | You sold one XYZ Stock Futures contract at Rs. 248 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 254?                                       | -6200           | -7200             | 7200               | None of the above  |
| 8            | You sold one XYZ Stock Futures contract at Rs. 248 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 255?                                       | -7400           | -8400             | 8400               | None of the above  |

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|----|---|-------------------------------|--|---|-------------------|
| 9  | Forward contract has to be settled by delivery of the asset on maturity or cancellation of the contract on or before maturity with the same counterparty                  | TRUE                          | FALSE  |   |                   |
| 10 | You bought a January XYZ Stock Futures contract at Rs. 268 and the lot size is 1,200. What is your profit (+) or loss (-), if you square off your position at at Rs. 230? | -44600                        | 45600  | -45600  | None of the above |
| 11 | You sold one XYZ Stock Futures contract Rs. 248 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 267?             | -21800                        | -22800   | 22800   | None of the above |
| 12 | You sold one XYZ Stock Futures contract Rs. 278 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 267?             | 14200                         | 13200  | -13200  | None of the above |
| 13 | You sold one XYZ Stock Futures contract Rs. 278 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 270?             | 10600                         | 9600   | -9600   | None of the above |
| 14 | If a mutual fund wants to increase its exposure to equity, say from 30% to 40%, without actual buying of equity in the cash market, it can buy index futures              | TRUE                          | FALSE  |   |                   |
| 15 | If a mutual fund wants to reduce its exposure to equity, say from 40% to 30%, without actual selling of equity holding, it can sell index futures                         | TRUE                          | FALSE  |   |                   |
| 16 | An exchange traded futures contract and an OTC contract are similar in the following way:   | Both are tailored instruments | Both require margin collection by a clearing house | Both are exposed to credit-risk i.e. risk of non-performance by counter party | None of the above |

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|----|---|---|--|--|-------------------|
| 17 | Which person will be able to hedge by Buying Futures?   | A dairy farmer, who needs to sell his milk at a future date (Milk Futures). | A local baker, who needs to purchase wheat to make bread for a local hospital (Wheat Futures). | A jeweller, who needs gold to make jewellery (Gold Futures). | Both B and C.     |
| 18 | You bought a January XYZ Stock Futures contract at Rs. 268 and the lot size is 1,200. What is your profit (+) or loss (-), if you square off your position at at Rs. 227? | -48200  | 49200  | -49200   | None of the above |
| 19 | You bought a January XYZ Stock Futures contract at Rs. 268 and the lot size is 1,200. What is your profit (+) or loss (-), if you square off your position at at Rs. 228? | -47000  | 48000  | -48000   | None of the above |
| 20 | A futures contract, to be able to operate and be liquid, should have both hedging participation and speculative appeal  | TRUE  | FALSE  |  |                   |
| 21 | The formula to change the base year average market value is   | new base year avg = old base year avg * new market value / old market value | new base year avg = old base year avg * old market value / new market value                    | neither A nor B  |                   |
| 22 | You bought a January XYZ Stock Futures contract at Rs. 268 and the lot size is 1,200. What is your profit (+) or loss (-), if you square off your position at at Rs. 231? | -43400  | 44400  | -44400   | None of the above |
| 23 | Risk management and control is more complex in case of options than in case of futures  | FALSE   | TRUE   |  |                   |
| 24 | Derivatives offer a cost efficient and convenient way for hedging against price risk  | FALSE   | TRUE   |  |                   |

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|----|---|---|---|--|-------------------|
| 25 | You sold one XYZ Stock Futures contract at Rs. 248 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 264?          | -18200                                      | -19200                                      | 19200  | None of the above |
| 26 | You sold one XYZ Stock Futures contract at Rs. 278 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 251?          | 33400                                       | 32400                                       | -32400   | None of the above |
| 27 | A vanilla derivative is the same as   | an exotic derivative contract               | a standard derivative contract              | an equity derivative contract                    | None of the above |
| 28 | Which of the following are functions of a futures exchange?   | Providing facilities for trading in futures | Ensuring smooth functioning of the exchange | Providing a clearing function                    | All of the above  |
| 29 | Which of the following options will yield a profit to the purchaser?  | An expired option that is "at-the-money"    | An expired option that is "in-the-money"    | An expired option that is "out-of-the-money"     | None of the above |
| 30 | You sold one XYZ Stock Futures contract Rs. 278 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 254?             | 29800                                       | 28800                                       | -28800   | None of the above |
| 31 | A futures contract on SENSEX can be settled 0069n cash only.  | TRUE  | FALSE                                       |  |                   |
| 32 | You bought a January XYZ Stock Futures contract at Rs. 268 and the lot size is 1,200. What is your profit (+) or loss (-), if you square off your position at at Rs. 233? | -41000                                      | 42000                                       | -42000   | None of the above |
| 33 | You bought a January XYZ Stock Futures contract at Rs. 268 and the lot size is 1,200. What is your profit (+) or loss (-), if you square off your position at at Rs. 234? | -39800                                      | 40800                                       | -40800   | None of the above |
| 34 | If you are exposed to a price-risk in an underlying - by hedging you would be able to   | make the outcome more profitable            | make the outcome more certain               | make the outcome more compliant with regulations | All the options   |

|    |   |       |         |         |                   |
|----|---|-------|---------|---------|-------------------|
| 35 | You own 10,000 shares of ABC at price of Rs. 130. The stock has a beta of 1. You wish to create a perfect hedge by selling stock index futures. What should be the value of stock index futures that you should sell? | 10000 | 130     | 1300000 | None of the above |
| 36 | You own 10,000 shares of ABC at price of Rs. 140. The stock has a beta of 1. You wish to create a perfect hedge by selling stock index futures. What should be the value of stock index futures that you should sell? | 10000 | 1400000 | 140     | None of the above |
| 37 | A futures contract is generally referred to by its delivery month.  | TRUE  | FALSE   |         |                   |
| 38 | You own 10,000 shares of ABC at price of Rs. 160. The stock has a beta of 1. You wish to create a perfect hedge by selling stock index futures. What should be the value of stock index futures that you should sell? | 10000 | 1600000 | 160     | None of the above |
| 39 | You sold one XYZ Stock Futures contract Rs. 278 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 251?   | 33400 | 32400   | -32400  | None of the above |
| 40 | You sold one XYZ Stock Futures contract Rs. 248 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 252?   | -3800 | -4800   | 4800    | None of the above |
| 41 | The systematic risk of a portfolio can be reduced by hedging with stock index futures.  | TRUE  | FALSE   |         |                   |
| 42 | You own 10,000 shares of ABC at price of Rs. 180. The stock has a beta of 1. You wish to create a perfect hedge by selling stock index futures. What should be the value of stock index futures that you should sell? | 10000 | 1800000 | 180     | None of the above |

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|----|--|---|---|--|--|
| 43 | You sold one XYZ Stock Futures contract Rs. 278 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 262?  | 20200   | 19200   | -19200   | None of the above                                    |
| 44 | You sold one XYZ Stock Futures contract Rs. 278 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 269?  | 11800   | 10800   | -10800   | None of the above                                    |
| 45 | If you sell a put option contract on a share with strike price of Rs. 245, market price of Rs. 260 and a premium of Rs. 42, how much is the maximum gain that you may have on expiry of this position? | 287   | 42  | 218  | None of the above                                    |
| 46 | When the asset underlying the futures contract is different from the asset whose price is to be hedged, it is called a cross hedge.  | TRUE  | FALSE   |  |  |
| 47 | The shares of XYZ Ltd are currently quoted at Rs. 100. Futures on this share are quoted at Rs. 112. In what situation would you buy these futures?   | You expect the price of the share to move up by 5%. | You expect the price of the share to move up by 7%. | You expect the price of the share to move down by 25%. | You expect the price of the share to move up by 25%. |
| 48 | You sold one XYZ Stock Futures contract Rs. 248 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 250?  | -1400   | -2400   | 2400   | None of the above                                    |
| 49 | You sold one XYZ Stock Futures contract Rs. 248 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 252?  | -3800   | -4800   | 4800   | None of the above                                    |
| 50 | If you sell a call option contract on a share with strike price of Rs. 375, market price of Rs. 362 and a premium of Rs. 21, what is the maximum loss that you may have on expiry of this position?    | 338   | Unlimited   | 396  | None of the above                                    |
| 51 | The shares of XYZ Ltd are currently quoted at Rs. 100. Futures on this share are quoted at Rs. 113. In what situation would you buy these futures?   | You expect the price of the share to move up by 5%. | You expect the price of the share to move up by 7%. | You expect the price of the share to move down by 25%. | You expect the price of the share to move up by 25%. |

|    |  |   |  |  |   |
|----|--|---|--|--|---|
| 52 | The shares of XYZ Ltd are currently quoted at Rs. 100. Futures on this share are quoted at Rs. 114. In what situation would you buy these futures?                               | You expect the price of the share to move up by 5%. | You expect the price of the share to move up by 25%. | You expect the price of the share to move down by 25%. | You expect the price of the share to move up by 8%. |
| 53 | You bought a January XYZ Stock Futures contract at Rs. 268 and the lot size is 1,200. What is your profit (+) or loss (-), if you square off your position at at Rs. 281?        | 15600   | -15600   | 14600  | None of the above                                   |
| 54 | The unsystematic risk can be reduced in a portfolio by hedging with index products.  | TRUE  | FALSE  |  |   |
| 55 | Cost of carry means the cost of holding stock of the underlying asset.   | TRUE  | FALSE  |  |   |
| 56 | In normal market, the forward contract having a longer time to maturity has a greater forward price.   | TRUE  | FALSE  |  |   |
| 57 | You sold one XYZ Stock Futures contract Rs. 278 and the lot size is 1,200. What is your profit (+) or loss (-), if you purchase the contract back at Rs. 265?                    | 16600   | 15600  | -15600   | None of the above                                   |
| 58 | If an investor instructs a broker either to buy or sell a certain number of contracts at a price or better one, the order is called  | Market order  | Limit order  | Stop loss order  | Spread order  |
| 59 | If an investor instructs a broker either to buy or sell a certain number of contracts for the current market price, the instruction is called                                    | market order  | limit order  | stop loss order  | spread order  |
| 60 | If you sell a put option contract on a share with strike price of Rs. 245, market price of Rs. 260 and a premium of Rs. 40, what is the maximum loss on expiry of this position? | 40  | 205  | 165  | None of the above                                   |

**Answers:**

| <b>Q. Id</b> | <b>Answer</b>   |
|--------------|---|
| 1            | 41  |
| 2            | True  |
| 3            | -3600   |
| 4            | -49200  |
| 5            | All the A, B and C  |
| 6            | -46800  |
| 7            | -7200   |
| 8            | -8400   |
| 9            | True  |
| 10           | -45600  |
| 11           | -22800  |
| 12           | 13200   |
| 13           | 9600  |
| 14           | True  |
| 15           | True  |
| 16           | None of the above   |
| 17           | Both B and C  |
| 18           | - 49200   |
| 19           | -48000  |
| 20           | True  |
| 21           | $\text{new base year avg} = \text{old base year avg} * \text{new market value} / \text{old market value}$ |
| 22           | -44400  |
| 23           | True  |
| 24           | True  |
| 25           | -19200  |
| 26           | 32400   |
| 27           | A standard derivative contract  |
| 28           | All of the above  |
| 29           | An expired option that is "in-the-money"  |
| 30           | 28800   |
| 31           | True  |
| 32           | -42000  |
| 33           | -40800  |
| 34           | Make the outcome more certain   |
| 35           | 1300000   |
| 36           | 1400000   |
| 37           | True  |
| 38           | 1600000   |
| 39           | 32400   |
| 40           | -4800   |
| 41           | True  |
| 42           | 1800000   |
| 43           | 19200   |
| 44           | 10800   |
| 45           | 42  |
| 46           | True  |

|    |  |
|----|--|
| 47 | You expect the price of the share to move up by 25%. |
| 48 | -2400  |
| 49 | -2800  |
| 50 | Unlimited  |
| 51 | You expect the price of the share to move up by 25%. |
| 52 | You expect the price of the share to move up by 25%. |
| 53 | 15600  |
| 54 | False  |
| 55 | True   |
| 56 | True   |
| 57 | 15600  |
| 58 | Limit order  |
| 59 | Market order   |
| 60 | 205  |