

PRACTICE QUESTIONS

Derivatives (Advanced) Module

1. A stock is trading at Rs. 50. A call with exercise price Rs. 48 is trading at Rs. 3. What is the intrinsic value of the option?(2 Marks)
- a) Nil
 - b) Rs. -2
 - c) Rs. 2
 - d) Rs. 1

Correct Answer: Rs.2

2. The closing price of a stock on 5 successive days was Rs. 50, 52, 52.50, 54 & 55. On the corresponding days, Nifty was at 6000, 6100, 6075, 6200 and 6300 respectively. What was the stock's beta? (2 Marks)
- a) 0.87
 - b) 0.58
 - c) 0.63
 - d) 1.59

Correct Answer: 0.87

3. Payoffs are symmetric in (1 Mark)1
- a) forwards and options
 - b) futures and options
 - c) Forwards, futures and options
 - d) futures and forwards

Correct Answer: Futures and forwards

4. Which of the following receive/s option premium?(1 Mark)1
- a) option writer / buyer
 - b) option seller / holder
 - c) option writer
 - d) option holder

Correct Answer: option writer

5. Which of the following is a benefit of derivatives?(1 Mark)
- a) anyone can deal directly without broker
 - b) leveraging
 - c) no mark to market margin
 - d) no initial margin

Correct Answer: Leveraging

6. Higher the volatility (1 Mark)
- a) higher the value of both put and call options
 - b) higher the value of put
 - c) lower the value of both put and call options
 - d) higher the value of call

Correct Answer: Higher the value of both put and call options

7. Mean \pm 1 Standard Deviation covers ____ of area under bell curve(1 Mark)
- a) 99%
 - b) 95%
 - c) 95.45%
 - d) 68.27%

Correct Answer: 68.27%

8. Which of the following is considered to be normally distributed?(1 Mark)
- a) stock returns and stock prices
 - b) stock returns
 - c) neither stock returns nor stock prices
 - d) stock prices

Correct Answer: Stock returns

9. The average daily delivery value in the cash market should not be less than:(2 Marks)
- a) Rs. 5 crores
 - b) Rs. 1 crore
 - c) Rs. 50 crores
 - d) Rs. 10 crores

Correct Answer: 10 crores

10. Initial margin on equity futures contracts is based on ____ VAR over ____ day time horizon (2 Marks)
- a) 99%, 2
 - b) 98%, 2
 - c) 99.99%, 1
 - d) 98.99%, 2

Correct Answer: 99.99%, 1

11. Members can pay margins on futures contracts through(2 Marks)
- a) cash, bank guarantee or approved securities

- b) cash or approved securities
- c) cash or bank guarantee
- d) cash

Correct Answer: Cash, bank guarantee or approved securities

12. Backwardation is more common in financial futures than commodity futures(1 Mark)
- a) FALSE
 - b) TRUE

Correct Answer: False

13. Interest rate futures contracts are available for the top 5 most traded government of India securities(1 Mark)
- a) TRUE
 - b) FALSE

Correct Answer: False

14. In case of calendar spread positions in interest rate futures contracts, what is the extreme loss margin for the far month contract?(1 Mark)
- a) 0.05% of the value
 - b) 0.10% of the value
 - c) 0.01% of the value
 - d) 0.25% of the value

Correct Answer: 0.01% of the value

15. What is the applicable extreme loss margin for cash-settled G-Sec options?(2 Marks)
- a) 0.25% of the notional value
 - b) 0.50% of the notional value
 - c) 1.00% of the notional value
 - d) 0.10% of the notional value

Correct Answer: 0.25% of the notional value

16. Position limit for FUTIRT contract for trading members is (2 Marks)
- a) 15% of the total open interest
 - b) 25% of the total open interest
 - c) 5% of the total open interest
 - d) 10% of the total open interest

Correct Answer: 15% of the total open interest

17. Suppose a stock trading at Rs. 300, has volatility of 30% p.a. A 3-month option on that stock has exercise price of Rs. 280. Risk-free rate is 7% p.a. The continuous

dividend yield on the stock is 4%. What is the theta if it is an European call? [In the following pairs of numbers, the second number is the norm.s.dist value of the first number: 0.651619, 0.742677; 0.826619, 0.795774; 0.501619, 0.692032; -0.651619, 0.257323; -0.826619, 0.204226; -0.501619, 0.307968] (3 Marks)

- a) -22.37
- b) -30.345
- c) -25.868
- d) -33.247

Correct Answer: -33.247

18. Expiry of currency futures weekly contracts on NSE is at (1 Mark)

- a) Wednesday
- b) Friday
- c) Thursday
- d) Tuesday

Correct Answer: Friday

19. Which of the following options are traded on NSE? (1 Mark)

- a) European calls and puts on EURUSD
- b) American calls and puts on USD, EUR, JPY and GBP
- c) American calls and puts on USD
- d) American calls and puts on EURUSD

Correct Answer: European calls and puts on EURUSD

20. Bank becomes counter-party in swap if it is (1 Mark)

- a) dealer
- b) broker
- c) broker or dealer
- d) None of the above

Correct Answer: dealer

21. Party X has a 5-year loan of Rs.10cr at 12% p.a. semi-annual. It enters a swap with Party Y to receive 10% & pay MIBOR+2% on the loan servicing dates. If after 4 years, 1-year yield of similar credit risk is at 11%, what is the value of the swap for Party X?(3 Marks)

- a) Loss of Rs. 7.68 lakh
- b) Profit of Rs. 9.23 lakh
- c) Loss of Rs. 9.23 lakh
- d) Profit of Rs. 7.68 lakh

Correct Answer: Loss of 9.23 lakh

22. Suppose Party X and Party Y, are counter-parties to a 2-year swap. Party X agrees to pay Party Y, 3% p.a., semi-annually, on a notional principal of USD1mn. In return, Party Y commits to pay Party X 7% p.a., semi-annually, on a notional principal of Rs. 5 crore. When the swap is initiated, Party Y pays USD1mn to Party X; and receives Rs. 5 crore from Party X. On maturity, Party X pays USD1mn to Party Y, and receives Rs. 5 crore from Party Y. Which party / parties has assumed a rupee liability through the swap? (2 Marks)

- a) X
- b) Y
- c) both X and Y
- d) neither X nor Yx

Correct Answer: Y

23. Company Y has issued 5 lakh shares, and warrants, which on exercise will lead to another 1 lakh shares. The benchmark company X's call options are valued at Rs. 3. What should be the value of Company Y's warrants?(1Mark)

- a) Rs. 3
- b) Rs. 2.75
- c) Rs. 3.60
- d) Rs. 2.50

Correct Answer: 2.50

24. Call option in debt issue is likely to be exercised if interest rates rise (1 Mark)

- a) FALSE
- b) TRUE

Correct Answer: false

25. Which of the following entails a credit risk? (1 Mark)

- a) lending and swap
- b) lending and investing
- c) investing and swap
- d) lending, investing and swap

Correct Answer: lending, investing and swap