

Roll No. \_\_\_\_\_



**University of Petroleum & Energy Studies**  
**College of Management & Economics Studies**  
**Bidholi Campus, Dehradun**

**End- Semester Examination – April, 2017**

**Programme Name: BBA (FSM)**  
**Subject: Commodities**  
**Subject code: BBCF 139**

**Semester VI**  
**M.Marks: 100**  
**Duration: 3Hrs**

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All sections are compulsory.

Section – A

Marks (1×20)

- Q1. The value of a call option \_\_\_\_\_ with a decrease in the spot price.  
(a) Increases (b) does not change (c) decreases (d) increases or decreases
- Q2. Risks associated with counter-party default are termed as  
a) Settlement Risks                      b) Market Risks  
c) Credit Risks                              d) Operational Risks
- Q3. The most acceptable measure risk is:  
a) Subjective estimates                      b) Standard deviation  
c) Coefficient of variation                      d) None of the above
- Q4. The bull spread can be created by only buying and selling  
(a) basket option (b) futures (c) warrant (d) options
- Q5. Trading options is more complicated than trading futures because  
a) There are more choices that require more trading expertise  
b) Options regulatory procedures are more complex.  
c) More players are involved in options trading  
d) Options cannot be used to shift price risk
- Q6. Risk of an individual asset refers to  
a) Uncertainty                                      b) volatility  
b) Variability in returns                              d) none of the above
- Q7. Which of the following is NOT a hedge for a long position in an underlying stock?  
(a) Sell call option (b) Sell futures (c) Sell put option (d) Buy Put option
- Q8. A buying hedge in the options market is achieved by

- a) Purchasing a call option
- b) Buying a put option
- c) Selling a call option
- d) None of these

Q9. Nifty is at 5200. A put option at 5000 strike price is trading at Rs. 150. What is the intrinsic value of the option?

- (a) 200
- (b) 0
- (c) 350
- (d) 150

Q10. A forward contract is:

- a) Customized product
- b) Negotiated
- c) Standardized contract
- d) None of the above

Q11. When the strike price is lower than the spot price of the underlying, a call option will be \_\_\_\_\_.

- (a) At the money
- (b) In the money
- (c) Out of the money
- (d) American Type

Q12. If an option is out of the money and the strike price of the option is lower than the spot price of the underlying, then we are referring to \_\_\_\_\_.

- (a) A Put Option
- (b) An European Option
- (c) A Call option
- (d) An American option

Q13. Price that is agreed upon at the date of the contract for the delivery of an asset at a specific futures date is called \_\_\_\_\_.

- (a) Spot Price
- (b) Discount Price
- (c) Cash market price
- (d) Futures Price

Q14. The value of a call option \_\_\_\_\_ with a decrease in the spot price.

- (a) increases
- (b) does not change
- (c) decreases
- (d) increases or decreases

Q15. Ashish is bullish about HLL which trades in the spot market at Rs.210. He buys 10 three month call option contracts on HLL with a strike of 230 at a premium of Rs.1.05 per call. Three months later, HLL closes at Rs. 250. Assuming 1 contract = 100 shares, his profit on the position is \_\_\_\_\_.

- (a) Rs.18,950
- (b) Rs.19,500
- (c) Rs.10,000

(d) Rs.20,000

Q16. An option which gives the holder the right to sell a stock at a specified price at some time in the future is called a

- (a) Naked option      (b) Call option      (c) Out-of-the-money option      (d) Put option

Q17. Which of the following is not a derivative transaction?

- (a) An investor buying index futures in the hope that the index will go up.  
(b) A copper fabricator entering into futures contracts to buy his annual requirements of copper.  
(c) A farmer selling his crop at a future date  
(d) An exporter selling dollars in the spot market

Q18. Suppose a 6-m forward contract on shares of ITC Limited is available. The current market price of ITC is Rs 180. If the risk free interest is 6% per annum what should be the price of the 6 month forward contract?

- (a) Rs. 185.50  
(b) Rs. 191  
(c) Rs. 183  
(d) None of these

Q19. Spot Price = Rs. 100. Call Option Strike Price = Rs. 98. Premium = Rs. 4. An investor buys the Option contract. On Expiry of the Option the Spot price is Rs. 108. Net profit for the Buyer of the Option is \_\_\_\_.

- (a) Rs. 6  
(b) Rs. 5  
(c) Rs. 2  
(d) Rs. 4

Q20. The rate of change of fair value of the option with respect to the change in the underlying asset price is measured by

- (a) theta      (b) gamma  
(c) delta      (d) vega

Section –B

(5×4)

Attempt any four questions.

Q1. What is a commodity? What are its properties?

Q2 In terms of option value, what do you mean by i) intrinsic value and ii) time value

Q3. What is meant by volume and open interest?

Q4. How is a market order different from a limit order? What are the advantages and disadvantages of each type?

Q5. Elaborate the risks associated with derivative trading.

Section-C

(10×3)

Attempt any three questions.

Q1. Explain cash and carry and reverse cash and carry arbitrage..

Q2. What are straddles? Explain long straddle with suitable example.

Q3. Discuss the factors, which are taken into account for the purpose of contract design.

Q4 Price of Suzlon share at the NSE is Rs 85 while a 3-m futures contract on Suzlon is being traded at Rs 86. If one can borrow at 12%, is there an arbitrage opportunity available in the prices ruling in the spot market and futures market? If so, how can profit be made? Assume the size of the futures contract to be 1000 shares.

Section-D

Q1. Q1.i) Discuss the determinants of the option pricing

Marks 10

ii) The following data is given:

Marks 20

|                          |          |
|--------------------------|----------|
| Spot price               | Rs 100   |
| Strike price             | Rs 110   |
| Time to expiration       | 3 months |
| Risk free rate of return | 6%       |
| Standard deviation       | 25%      |

- Find out the value of the call option and put option using black-scholes model for the same data set.
- What will be the value of delta for call and put option