Name: Enrolment No:	

UPES

End Semester Examination, December 2023

Course: Options and Futures **Semester: V**

Program: INT BBA MBA **Time: 03 hrs.**

Course Code: FINC 3060 **Max. Marks: 100**

Instructions:

SECTION A
10Qx2M=20Marks

S. No.		Marks	CO
Q.1	What is the term used to describe the situation when the futures price is higher than the spot price? A) Contango B) Backwardation C) Convergence D) Divergence	**2**	**CO1**
Q.2	Which market is generally considered to be more standardized and regulated - futures or forward markets? A) Futures Market B) Forward Market C) Both are equally standardized and regulated D) Neither is standardized or regulated	**2**	**CO1**
Q.3	In the context of options, what is the term for the right to buy an underlying asset at a specified price? A) Call Option B) Put Option C) Long Option D) Short Option	**2**	**CO1**
Q.4	What is the term for an option whose payoff depends on the average price of the underlying asset over a specific period? A) Asian Option B) European Option C) American Option D) Exotic Option	**2**	**CO1**
Q.5	The Delta of an option measures the sensitivity of its price to changes in interest rates. Choose the correct answer and provide an explanation: A) True B) False	**2**	**CO1**

Q.6	A Bear Spread involves buying a put and selling a put with the same expiration date but different strike prices. Choose the correct answer and provide an explanation: A) True B) False	**2**	**CO1**
Q.7	In options trading, the Intrinsic Value of an option represents the portion of the option's value that is not influenced by time decay or changes in volatility. Choose the correct answer and provide an explanation: A) True B) False	**2**	**CO1**
Q.8	The Implied Volatility of an option is derived from its market price and represents the market's expectation of future volatility. Choose the correct answer and provide an explanation: A) True B) False	**2**	**CO1**
Q.9	The Rho of an option measures the sensitivity of its price to changes in the risk-free interest rate.Choose the correct answer and provide an explanation: A) True B) False	**2**	**CO1**
Q.10	What is the term for the price of an option without any intrinsic value? A) Time Value B) Intrinsic Value C) Market Value D) Premium	**2**	**CO1**
SECTION B **4Qx5M= 20 Marks**			
Q.11	Define Market Order, Limit Order, and Stop Order.	**5**	**CO2**
Q.**12**	Describe how price discovery is accomplished in derivatives markets.	**5**	**CO2**
Q.**13**	Explain a few typical option strategies and their associated payoffs, such as Straddles, Strangles, and Butterflies.	**5**	**CO2**
Q.**14**	What are the advantages of using options and futures for hedging purposes?	**5**	**CO2**
SECTION-C **3Qx10M=30 Marks**			

Q.15	Share X is currently available at Rs 100. The risk-free rate of interest is 8% per annum compounded continuously. What should be the ideal contract price of one month's futures?	**10**	**CO3**
Q.16	A forward contract on 200 shares, currently traded at Rs 112 per share, is due in 45 days. If the annual risk-free rate of interest is 9% calculate the value of contact price. How would the value be changed if a dividend of Rs 4 per share is expected to be paid in 25 days before the due date?	**10**	**CO3**
Q.17	Offer a comprehensive overview of the various types of options, including American, European, Asian, Exotic, and Real options. Explain their distinctive features and applications.	**10**	**CO3**
SECTION-D 2Qx15M= 30 Marks			
Q.18	Utilizing the Black-Scholes-Merton model, find the price of a call and put option given the following details: current stock price = $120, exercise price = $115, time to expiration = 3 months, standard deviation = 60%, and risk-free interest rate = 10%.	**15**	**CO4**
Q.19	Calculate the values of both American Put options using the binomial model. The current stock price is ₹150, with an expected price range change of ±10% at the end of the first year and ±15% at the end of the second year. The risk-free interest rate is 6% per annum, and the exercise price is ₹170.	**15**	**CO4**