

PARUL UNIVERSITY
FACULTY OF MANAGEMENT
MBA., Summer 2017-18 Examination

Semester: 4

Date: 21-05-2018

Subject Code: 06201251

Time: 10:30AM to 01:00PM

Subject Name: Financial Derivatives

Total Marks: 60

Instructions

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Do as Directed**A). Multiple choice type questions/Fill in the blanks. (Each of 1 mark)****(05)**

1. Type of option that can be exercised on Maturity date only classified as

a) Canadian option	c) Australian option
b) European option	d) American option
2. Up-front fee which must be paid by buyer to seller is called

a) Option premium	c) discount premium
b) strike premium	d) exercise premium
3. The derivative contract in which writer is having a right

a) Future	c) Option
b) Forward	d) None
4. Markets in which derivatives are traded are classified as

a) assets backed market	c) cash flow backed markets
b) mortgage backed markets	d) derivative securities markets
5. FRA stands for

a) Forward Rate Agreement	c) Forward Rate Arrangement
b) Future Rate Agreement	d) Forward Return Agreement

B). Define the following. (Each of 1 mark)**(05)**

1. Naked Bought Calls Strategy
2. Protective Puts Strategy
3. Straddle Strategy
4. Money Spread Using Puts
5. Naked Long Stock Position

C). Direct questions. (Each of 1 mark)**(05)**

1. Moneyness of the Option
2. Role of Trading Member and Clearing Member
3. Factors Affecting Basis Risk
4. Settlement Price
5. Participants in Future Market

Q.2 Answer the following questions.

A). On April 1, the BSE Teck index is at 3140. You want to estimate the value of a June future contract expiring on June 30. The risk free rate of return is 6%. The average dividend yield on the Teck stocks is 1.6%. What will be the June futures price on April 1? **(07)**

B). A stock is selling at Rs 1130. There exists a call option on this stock with expiry in 60 days and an exercise price of Rs 1140. It is estimated that every 30 days, the stock price could either increase by 6% or decrease by 4%. The risk free rate is 8%. Calculate the call price by using the two period binomial options pricing model. **(08)**

Q.3 Answer the following questions.

A). Given the following information about a share: (07)

Current Market Price Rs 50,
Annual Volatility : 30%
Risk Free Interest Rate : 10%
Find out :

1. The value of 3-month Call Option with exercise price of Rs 50.
2. Find out the Intrinsic Value and Time Value of the call.

B). Essar and Reliance have identical requirement of funds and both are exploring raising of fund (08)
either at fixed or floating rate. Following rates are offered by the market to both:

	Fixed Rate	Floating Rate
Essar	9.0 %	MIBOR + 70 bps
Reliance	8.2 %	MIBOR + 20 bps

Essar is more interested in raising a fixed rate loan perceiving increased rates in future, while Reliance believes to the contrary and wants to issue floating debt instruments. Another bank acting as Swap intermediary is willing to work out a swap arrangement for a fee of 8 bps from each firm. Show how the cost of funds may be decreased for both the firms.

Q.4 Attempt any two questions. (Each of 7.5 mark) (15)

1. What are the factors affecting the Option Price?
2. Differentiate Forward vs. Future vs. Option Contracts
3. Explain Put-Call Parity Relationship in detail with derivation of Put-Call Parity equation.
4. Explain Written Call Option: Terminal Value, Gain & loss and it's Graphical presentation.