Q.6 i. Describe SWAP contract in brief. **4**

ii. Explain how you would value a swap that is the exchange of a floating rate in one currency for a fixed rate in another currency. **6**

iii. Jindal Steel and Tata Steel want to borrow $100 million for 10 years from international market. Jindal steel wants to borrow at floating rate of interest and Tata Steel want to borrow at fixed rate of interest. They have been offered following rates in fixed and floating rate markets respectively. **6**

Company	Fixed Rate	Floating Rate
Jindal Steel	4.2%	LIBOR + 0.5 %
Tata Steel	5.4%	LIBOR + 1.2 %

Design a swap which is equally profitable to both companies.

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Total No. of Questions: 6 *Total No. of Printed Pages:4*

Enrollment No.....

Faculty of Management

End Sem (Odd) Examination Dec-2017

MS5EF03 Financial Derivatives

Programme: MBA Branch/Specialisation: Management/Finance

Duration: 3 Hrs. **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

Q.1 i. Markets in which derivatives are traded are classified as: **1**

(a) Assets backed market (b) Cash flow backed markets

(c) Mortgage backed markets (d) Derivative securities markets

ii. An OTC forward contract is: **1**

(a) An option to call

(b) A forward contract for which the payback is outside the contract period

(c) A customized agreement that is not traded on an exchange

(d) A standardized agreement that is traded on an exchange

iii. An investment strategy that requires no outlay of an investor's own money to generate positive riskless profits is: **1**

(a) Risk seeking (b) Arbitrage

(c) Portfolio replicating (d) Beta adjusting

iv. Tom sells a futures contract for Canadian dollars and on the settlement date the price of Canadian dollars is lower. Tom will have: **1**

(a) Gained money on his short position.

(b) Lost money on his long position.

(c) Gained money on his long position.

(d) Lost money on his short position.

v. Which of the following actions will not close a long position in a call option? **1**

(a) Exercising the call.

(b) Allowing the call to expire.

(c) Buying a put with the same strike price, expiration, and underlying asset.

(d) Selling a call with the same strike price, expiration, and underlying asset.

vi. Which of the following has the right to sell an asset at a predetermined price? **1**

(a) A call buyer (b) A put buyer
(c) A call writer (d) A put writer

vii. An increase in the market price of the underlying asset will cause the price of a call option to: **1**

(a) Rise.
(b) Fall.
(c) Remain unchanged
(d) Change in an unpredictable manner.

viii. The short position in a forward contract represents the party that will: **1**

(a) Accept the risk.
(b) Ultimately suffer the loss.
(c) Deliver a commodity or financial instrument to the buyer at a future date.
(d) Benefit from increases in price of the underlying asset.

ix. Agreement between two parties to exchange cash flows in future and cash flows are based on underlying instruments is classified as: **1**

(a) Swaps (b) Interchange
(c) Exchange (d) Index

x. A swap that is used to evade risk of exchange rate exists because of currency mismatching is classified as: **1**

(a) Floating swaps (b) Fixed swaps
(c) Notion swaps (d) Currency swaps

Q.2 i. Explain Derivatives concept, with the help of example. **4**

ii. Explain the role of different types of participants of derivatives markets. **6**

OR iii. Different derivatives are the tools which can be used by different investors for different purposes. Explain. **6**

Q.3 i. Write a note on Open Interest Position. **2**

ii. An investor is long at Maize and enters into the future contract at the price of Rs.17500. The lot size is 100 and initial margin is 5%. Show the margin account balance of the investor and cumulative profit/loss happening to the investor. **8**

Day	Closing Price in Rs.
1	17,498
2	17,033
3	17,594
4	16,861
5	16,472
6	16,257

OR iii. Explain cash and carry arbitrage using futures contract. How can it be executed if futures are settled by delivery? **8**

Q.4 i. Define the term options derivatives. **2**

ii. Mr. A is of the view that the price of Tata Motors shares is more likely to fall than rise in near future. He has identified following two options on Tata Motors: **8**

Option	Strike Price (Rs.)	Premium(Rs.)
Call	300	10
Put	300	15

(a) Devise an appropriate strategy for Mr. A using above two options
(b) Calculate payoff from the strategy at spot prices Rs. 280 and Rs. 320
(c) Show the scheme graphically

OR iii. Following options are available for Dell in the current month : **8**

Option	Strike Price ($)	Premium ($)
Call	50	2
Put	45	3

(a) Explain for strip can be created from these two options
(b) What is the pattern of profits from the strip
(c) Show the scheme graphically

Q.5 i. Explain the working of forward market. **4**

ii. Write the features of Forward transaction. **6**

OR iii. What are the various types of forward contracts? Explain them in detail. **6**

P.T.O.

MS5EF03 Financial Derivatives

Marking Scheme

Q.1	i.	Markets in which derivatives are traded are classified as: (d) Derivative securities markets	**1**
	ii.	An OTC forward contract is: (c) A customized agreement that is not traded on an exchange	**1**
	iii.	An investment strategy that requires no outlay of an investor's own money to generate positive riskless profits is: (b) Arbitrage	**1**
	iv.	Tom sells a futures contract for Canadian dollars and on the settlement date the price of Canadian dollars is lower. Tom will have: (a) Gained money on his short position.	**1**
	v.	Which of the following actions will not close a long position in a call option? (c) Buying a put with the same strike price, expiration, and underlying asset.	**1**
	vi.	Which of the following has the right to sell an asset at a predetermined price? (b) A put buyer	**1**
	vii.	An increase in the market price of the underlying asset will cause the price of a call option to: (a) Rise.	**1**
	viii.	The short position in a forward contract represents the party that will: (c) Deliver a commodity or financial instrument to the buyer at a future date.	**1**
	ix.	Agreement between two parties to exchange cash flows in future and cash flows are based on underlying instruments is classified as: (a) Swaps	**1**
	x.	A swap that is used to evade risk of exchange rate exists because of currency mismatching is classified as: (d) Currency swaps	**1**
Q.2	i.	Derivatives concept – 2 marks Example – 2 marks	**4**
	ii.	Types of participants – (2 * 3 = 6 marks)	**6**
OR	iii.	Derivatives point-wise description – (2 * 3 = 6 marks)	**6**
Q.3	i.	Open Interest Position.	**2**
	ii.	Initial margin – 1 mark Each day margin – 1 mark each (1 mark * 6 = 6 marks) Profit & Loss = 1 mark	**8**
OR	iii.	Cash and carry model = 4 marks Example – 4 marks	**8**
Q.4	i.	Options derivatives.	**2**
	ii.	(a) Devise an appropriate strategy for Mr. A using above two options – 4 marks (b) Calculate payoff from the strategy at spot prices Rs. 280 and Rs. 320 – 4 marks (c) Show the scheme graphically	**8**
OR	iii.	(a) Explain for strip can be created from these two options – 2 marks (b) What is the pattern of profits from the strip – 4 marks (c) Show the scheme graphically – 2 marks	**8**
Q.5	i.	Working of forward market.	**4**
	ii.	Features of Forward transaction. (1 mark * 6 = 6 marks)	**6**
OR	iii.	Types of forward contracts(2 * 3 = 6 marks)	**6**
Q.6	i.	SWAP contract	**4**
	ii.	Step-wise answer (2 * 3 = 6 marks)	**6**
	iii.	Step-wise solution (1 * 6 = 6 marks)	**6**

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