III Semester M.Com. (F&A) Examination, March/April 2021
(CBCS Scheme)
FINANCE AND ACCOUNTING
Paper 3.3 : Forex and Derivatives

Time : 3 Hours　　　　　　　　　　　　　　　　　　　　　　Max. Marks : 70

SECTION – A

1. Answer **any 7** questions. **Each** carrying **2** marks. **(7×2=14)**

   a) How does the FX market quote currencies ?

   b) Write two difference between spot exchange and forward exchange rate.

   c) What is interest rate swaps ?

   d) What are derivatives ?

   e) Who is a speculator ?

   f) State any two difference between a Future contract and an Option contract.

   g) What is the maximum boundary for a call option premium ? State any one reason for the same.

   h) Define "Managed Float" and "Free Float".

   i) What is "lead and lagging" ?

   j) The 1 year interest rate is 2% on the Swiss Franc and 7% on the US$.
   If a change in expectations regarding future US inflation causes the expected future spot rate to rose to $1, what should happen to US interest rate ?

SECTION – B

Answer **any 4** questions, **each** carries **5** marks. **(4×5=20)**

2. Nifty is traded at 4,000. The yield from the index is calculated at 4.5% compounded on half yearly basis. The risk free rate of return on the amount compounding basis is 9.75%. Futures is available for 86 days with contract size of 100 index points. What is the fair future price of future contracts ?

3. What are the financial products that are commonly swapped ? What is your opinion on the utility of swaps for an exporter ?

4. From the following data, determine for each option the intrinsic value and the time value. State whether each of these is in the money out of the money or at the money.

Sl. No.	Option	Stock Price	Exercise Price	Option Price
1	Put	36	32	5.3
2	Call	48	50	4.10
3	Call	107.50	105	8.40
4	Put	41	45	9.70

5. A stock trades at Rs. 110 and there are 2 European options currently available. Put strike price and premium are :

Put	Strike Price (Rs.)	Premium (Rs.)
A	114	5
B	117	9

Can a speculator make arbitrage profit ? How ?

6. A customer with whom the Bank has entered into 2 months' forward purchase contract for Euro 5,000 @ ´54.50 comes to bank after 1 month and requests for cancellation of the contract. On this date, the prevailing rates are :

Spot 1 Euro : ´54.60/54.70

One month forward 1 Euro : ´54.90/55.04

What is the loss or gain to customer on cancellation ?

7. Explain 'Purchasing Power Parity' with an example.

SECTION – C

Answer **any 3** questions. **Each** carrying **12** marks. **(3×12=36)**

8. The rate on a 180 day $ deposit is 67/16-5/16%(ask and bid). Aus $ deposit rate is 93/8 – 1/8%.

Spot rates for Aus $ are 31.5107 – .5146/$ and 180 day forward 32.1027 – 32.1087.

- Is there an arbitrage opportunity ?
- What is the profit/loss on an Aus $ 10 million trade ?

9. a)

SPOT	3 MONTHS	6 MONTHS
LKR/HKD16.9100/9200	15/65	50/20

How to convert from Swap quote to outright quote ?

Forward rate differential = FR-SR/SR *12/3*100

6 months = 16.9180 – 16.9050/16.9050*12/6=(0.02)%

b) From the following data calculate the possibility of Gain/loss in arbitrage :

Spot rate is CNY 6.60/EUR, Six months forward rate is CNY 6.85/EUR

Annualized interest rate on 6 months EUR is 8.3%.

Annualized interest rate on 6 months CNY is 10.5%.

10. a) Explain the trading process involved in futures market.

b) "Foreign exchange markets make extensive use of the latest developments in telecommunications for transmitting as well settling foreign exchange transaction". Explain.

11. Wipro is currently trading at Rs. 340/- and the 91 Days T-Bill rate is 12.00% PACC. Using Binomial Options Pricing Model calculate the fair value of a call premium and a put premium for a contact with a strike price of Rs. 370/- expiring in the next 3 months. The probability of the spot price moving up is to Rs. 391/- or falling to Rs. 306/-. Suppose if the call option premium is currently trading at Rs. 8/- instead of the equilibrium price, is there an arbitrage opportunity ? What would be the Hedge Ratio applicable for arbitrage under Bionomial Model ?

12. a) Explain the purchasing power parity theory (PPPT).

b) Inflation rates in UK and India are respectively 3% and 6% p.a. respectively. What is the expected exchange rate after one year, if it was INR 78/GBP at the beginning of the period ? REG NO : Page 2 of 2.

c) The inflation rates in India and UK are 2.5% and 5.5.% respectively. If the exchange rate at time zero is INR 79/GBP, calculate expected exchange rate a year later and also the appreciation/depreciation of GBP.

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