IV Semester M.Com. Examination, June 2016
(CBCS)
COMMERCE
FB – 4.2 : Forex Management

Time : 3 Hours Max. Marks : 70

SECTION – A

Answer any seven questions out of ten. Each question carries two marks. (7x2=14)

1. a) What do you mean by Balance of Payment?
   b) What is the difference between absolute and relative purchase power parity theory?
   c) If the inflation rate in the country is 6.5% and expected real interest rate is 5%, then what is the nominal interest rate an investor should earn?
   d) What is meant by foreign exchange market?
   e) What is a Mark-To-Market (MTM)?
   f) What is meant by Currency Depreciation?
   g) Expand: CHIPS, SWIFT.
   h) Differentiate between risk and exposure.
   i) Consider the following bid-ask prices: Rs. 96.50 – 97.25/GBP. Find the Bid-Ask spread.
   j) What is clean and dirty float?

SECTION – B

Answer any four questions out of six. Each question carries five marks. (4x5=20)

2. What are the functions of foreign exchange market?

3. Explain the meaning and features of over the counter options.

P.T.O.
4. Given the following data:
   - Spot rate: ₹ 66.64 = $1
   - 6 month forward rate: ₹ 67.91 = $1
   - Annualized interest rate on 6 months rupee: 12%
   - Annualized interest rate on 6 months dollar: 7%

   Assume a borrowing of ₹ 1,000 at 12% for 6 months. Work out the arbitrage possibilities.

5. What are the features of interest rate caps and interest rate collars?

6. Futures contract as hedging tools and help in protecting the risks associated with uncertainties in exchange rates, explain.

7. The US dollar is selling in India at ₹ 65.50. If the interest rate for 6 months borrowing in India is 10% per annum and the corresponding rate in USA is 4%.
   a) Do you expect that US dollar will be at a premium or at discount in the Indian forex market?
   b) What will be the expected 6-months forward rate for US dollar in India?
   c) What will be the rate of forward premium or discount?

SECTION – C

Answer any three questions out of five. Each question carries twelve marks. (3×12=36)

8. Explain different internal and external techniques of hedging the exchange rate risk.

9. From the following information find call and put option values (premium) using Black-Scholes model:
   - Spot rate: ₹ 76.54/€; Strike rate (E) – ₹ 78.25/€;
   - Maturity period – 6 months;
   - Continuous compounding interest rate – 10% p.a.; Standard deviation – 0.60.

10. DC Corporation is a US based software consulting firm, specialising in financial software for several fortune 500 clients. It has offices in India, the UK, Europe and Australia. In 2002, DC required £100,000 in 180 days and had four options before it:
   • A forward hedge
   • A money market hedge
   • An option hedge
   • No hedge
Its analysis developed the following information which was used to assess the alternative solutions:

- Current spot rate of pound = $1.50
- 180-day forward rate of pounds as of today = $1.48.

Interest rates were as follows:

<table>
<thead>
<tr>
<th></th>
<th>U.K.</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>180-day deposit rate</td>
<td>4.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>180-day borrowing rate</td>
<td>5.1%</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

The company also had the following information available to it:

- A call option on Pound that expires in 180 days has an exercise price of $1.49 and a premium of $0.03.
- A put option on Pound that expires in 180 days has an exercise price of 1.50 and a premium of $0.02.

The future spot rates in 180 days were forecasted as follows:

<table>
<thead>
<tr>
<th>Possible outcomes</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.44</td>
<td>20%</td>
</tr>
<tr>
<td>$1.46</td>
<td>60%</td>
</tr>
<tr>
<td>$1.53</td>
<td>20%</td>
</tr>
</tbody>
</table>

11. ABC House Ltd. manufactures orange marmalade in England. It is the wholly owned subsidiary of XYZ Inc. of USA. The functional currency for ABC is the pound sterling which currently sells at $1.5000/£. The reporting currency for XYZ is the US dollar. Non-consolidated financial statements for both ABC and XYZ are follows (in thousands):

<table>
<thead>
<tr>
<th>Assets</th>
<th>XYZ Inc. Amount ($)</th>
<th>ABC Ltd. Amount (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>8,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>10,000</td>
<td>4,000</td>
</tr>
<tr>
<td>Inventory</td>
<td>8,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Net Plant and equipment</td>
<td>10,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Investment</td>
<td>4,500</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40,500</strong></td>
<td><strong>14,000</strong></td>
</tr>
</tbody>
</table>
Liabilities and Net Worth

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Liabilities</th>
<th>5 year-term loan</th>
<th>Capital Stock</th>
<th>Retained earnings</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>22,000</td>
<td>500</td>
<td>9,000</td>
<td>9,000</td>
<td>40,500</td>
</tr>
<tr>
<td>Balance</td>
<td>4,000</td>
<td>4,000</td>
<td>2,000</td>
<td>14,000</td>
<td>14,000</td>
</tr>
</tbody>
</table>

a) Prepare a consolidated balance sheet for XYZ Ltd.

b) What is ABC Ltd’s accounting exposure in dollars? Use the current rate method of calculation.

c) Before any business activities take place, the pound sterling depreciates 9% in value relative to the dollar. What is the new spot rate?

d) What is XYZ accounting loss or gain, if any, by the current rate method/monetary/non-monetary method?

12. Write short notes in the following:

a) Interest rate swaps

b) Economic exposure

c) LIBOR.