FOREX CLASS 8 PART 1

CLASS WORK COVERAGE

To streamline our learning process, I've categorized the questions we'll tackle in class into four distinct groups:

1. ***Classic:*** *These questions are exactly as presented in your book, providing a familiar foundation.*
2. ***Transformed:*** *Here, we've converted book questions into multiple-choice format to enhance your analytical skills.*
3. ***Adapted:*** *These are similar to book questions but with altered numbers or names, presented as multiple-choice questions for varied practice.*
4. ***Original:*** *These are entirely new questions not found in your book, designed to challenge and expand your understanding.*

This structure will help us navigate through a range of problems, ensuring a comprehensive grasp of the material. Looking forward to our next session!

Q. No	Type	Book	Page No.	Q No.
Case Study 1	***Adapted***	CW Q BOOK	5	13
1	***Classic***	CW Q BOOK	8	23
2	***Classic***	CW Q BOOK	6	18
3	***Classic***	CW Q BOOK	8	22

CASE STUDY 1

M/s. Seasky Exports Ltd. has submitted a 60-day usance bill for EUR 5,00,000 under an irrevocable Letter of Credit. They wish to retain 50% of the proceeds in an EEFC account and convert the remaining 50% into INR. The following data are available:

	INR/USD	USD/EUR
Spot Rates	67.8000–67.8100	1.0775–1.8000
1 month forward	10/11 paise	0.20/0.25 cents
2 months forward	21/22 paise	0.40/0.45 cents
3 months forward	32/33 paise	0.70/0.75 cents

Transit period : 20 days
Usance : 60 days
Interest on post-shipment credit : 8% p.a. (assume 365 days in a year)
Exchange margin : 0.1%

You are required to determine:

Question 1:

The effective exchange rate (INR per EUR) at which the 50% portion will be converted.

A. 73.4793 INR/EUR

B. 72.9800 INR/EUR

C. 74.0000 INR/EUR

D. 73.6500 INR/EUR

Question 2:

The net INR cash inflow to the company (on the 50% portion).

A. ₹1,82,50,000

B. ₹1,85,00,000

C. ₹1,83,69,825

D. ₹1,84,12,500

Question 3:

The interest amount payable on the post-shipment credit for 80 days.

A. ₹3,14,500

B. ₹3,22,101

C. ₹3,30,000

D. ₹3,25,000

Answer:

Question 1:

A is correct

Question 2:

C is correct.

Question 3:

B is correct.

Explanation:

1. **Determine the Appropriate Forward Period:**
   - Transit is 20 days and usance is 60 days, totaling 80 days.
   - Banks generally round **80 days** to the **lower of whole months**, i.e.\ **2 months**.
   - Hence, we use the **2-month forward** rates.
2. **Compute the INR/USD Forward Bid Rate (for 2 months):**
   - **Spot bid**: 67.80 INR/USD
   - **Add** 2-month forward premium: 0.21 INR (21 paise)

$$67.80 + 0.21 = 68.01\,\text{INR/USD}$$

   - **Less** 0.1% exchange margin:

$$68.01 \times 0.1\% = 0.068\,\text{INR}$$

$$68.01 - 0.068 = 67.942\,\text{INR/USD (effective bid rate)}$$

3. **Compute the USD/EUR Forward Rate (for 2 months):**
   - **Spot bid**: 1.0775 USD/EUR
   - **Add** 2-month forward premium of 0.40 cents = 0.004 USD

$$1.0775 + 0.0040 = 1.0815\,\text{USD/EUR}$$

4. **Cross Rate: INR per EUR**

$$\text{INR/EUR} = (67.942\ \text{INR/USD}) \times (1.0815\ \text{USD/EUR}) = 73.4793\ \text{INR/EUR}$$

5. **Cash Inflow to the Company (50% conversion to INR):**
   - Export bill amount in EUR: 5,00,000
   - 50% for immediate conversion: 2,50,000 EUR

$$\text{Cash Inflow} = 2{,}50{,}000 \times 73.4793 = 1{,}83{,}69{,}825\ \text{INR (approx.)}$$

6. **Interest on Post-Shipment Credit for 80 Days:**
   - Interest rate: 8% p.a., assume 365 days in a year
   - Principal = Inflow on the **converted 50%** (since that portion is financed) = 1,83,69,825 INR

$$\text{Annual interest} = 1{,}83{,}69{,}825 \times 8\% = 14{,}69{,}586$$

$$\text{Interest for 80 days} = 14{,}69{,}586 \times \frac{80}{365} \approx 3{,}22{,}101\ \text{INR}$$

Question 1:

The current spot exchange rate is $1.35/£ and the three-month forward rate is $1.30/£. According to your analysis of the exchange rate, you are quite confident that the spot exchange rate will be $1.32/£ after 3 months.

i. Suppose you want to speculate in the forward market then what course of action would be required and what is the expected dollar Profit (Loss) from this speculation?

ii. What would be your Profit (Loss) in Dollar terms on the position taken as per your speculation if the spot exchange rate turns out to be $1.26/£.

Assume that you would like to buy or sell £1,000,000.

(Source: ICAI)

Answer:

i. If you believe the spot exchange rate will be $ 1.32/£ in three months, you should buy £ 1,000,000 forward for $1.30/£ and sell at $ 1.32/£ 3 months hence.
Your expected profit will be: £1,000,000 x ($1.32 - $1.30) = $20,000

ii. If the spot exchange rate turns out to be $1.26/£ in three months, your loss from the long position in Forward Market will be:
£ 1,000,000 x ($ 1.26 - $1.30) = $ 40,000

Question 2:

ZX Ltd. has made purchases worth USD 80,000 on 1st May 2020 for which it has to make a payment on 1st November 2020. The present exchange rate is INR/USD 75. The company can purchase forward dollars at INR/USD 74. The company will have to make an upfront premium @ 1 per cent of the forward amount purchased. The cost of funds to ZX Ltd. is 10 per cent per annum. The company can hedge its position with the following expected rate of USD in foreign exchange market on 1st May 2020:

Exchange Rate	Probability
i. INR/USD 77	0.15
ii. INR/USD 71	0.25
iii. INR/USD 79	0.20
iv. INR/USD 74	0.40

You are required to advise the company for a suitable cover for risk.

(Source: ICAI)

Answer:

i. If ZX Ltd. does not take forward (Unhedged Position):

Expected Rate = ₹ 77 × 0.15 + ₹ 71 × 0.25 + ₹ 79 × 0.20 + ₹ 74 × 0.40

= ₹ 11.55 + ₹ 17.75 + ₹ 15.80 + ₹ 29.60

= ₹ 74.70

Expected Amount Payable = USD 80,000 × ₹ 74.70 = ₹ 59,76,000

ii. If the ZX Ltd. hedge its position in the forward market:

Particulars	Amount (₹)
If company purchases US$ 80,000 forward premium is (80000 × 74 × 1%)	59,200
Interest on ₹ 59,200 for 6 months at 10%	2,960
Total hedging cost (a)	62,160
Amount to be paid for US$ 80,000 @ ₹ 74.00 (b)	59,20,000
Total Cost (a) + (b)	59,82,160

Advise: Since cashflow is less in case of unhedged position company should opt for the same.

Question 3:

A company is considering hedging its foreign exchange risk. It has made a purchase on 1st July, 2016 for which it has to make a payment of US$ 60,000 on December 31, 2016. The present exchange rate is 1 US $ = ₹ 65. It can purchase forward 1 $ at ₹ 64. The company will have to make an upfront premium @ 2% of the forward amount purchased. The cost of funds to the company is 12% per annum.

In the following situations, compute the profit/loss the company will make if it hedges its foreign exchange risk with the exchange rate on 31st December, 2016 as:

i. ₹ 68 per US $.
ii. ₹ 62 per US $.
iii. ₹ 70 per US $.
iv. ₹ 65 per US $.

(Source: ICAI)

Answer:

	(₹)
Present Exchange Rate ₹65 = 1 US$	
If company purchases US$ 60,000 forward premium is	
60000 × 64 × 2%	76,800
Interest on ₹76,800 for 6 months at 12%	4,608
Total hedging cost	**81,408**
If exchange rate is ₹68	
Then gain (₹68 – ₹64) for US$ 60,000	2,40,000
Less: Hedging cost	81,408
Net gain	**1,58,592**
If US$ = ₹62	
Then loss (₹64 – ₹62) for US$ 60,000	1,20,000
Add: Hedging Cost	81,408
Total Loss	**2,01,408**
If US$ = ₹70	
Then Gain (₹70 – ₹64) for US$ 60,000	3,60,000
Less: Hedging Cost	81,408
Total Gain	**2,78,592**
If US$ = ₹65	
Then Gain (₹ 65 – ₹ 64) for US$ 60,000	60,000
Less: Hedging Cost	81,408
Net Loss	**21,408**