

QUESTION – 20

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

74.70

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

(Exam November – 2020)

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H.W

Classwork
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QUESTION – 21

Digital Exporter are holding an Export bill in United States Dollar (USD) 5,00,000 due after 60 days. They are worried about the falling USD value, which is currently at ₹ 75.60 per USD. The concerned Export Consignment has been priced on an Exchange rate of ₹ 75.50 per USD. The Firm's Bankers have quoted a 60-days forward rate of ₹ 75.20

Calculate:

- (i) Rate of discount quoted by the Bank, assuming 365 days in a year.
- (ii) The probable loss of operating profit if the forward sale is agreed to.

(Exam November - 2018)

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QUESTION - 22

Excel Exporters are holding an Export bill in United States Dollar (USD) 1,00,000 due 60 days hence. They are worried about the falling USD value which is currently at ₹ 45.60 per USD. The concerned Export Consignment has been priced on an Exchange rate of ₹ 45.50 per USD. The Firm's Bankers have quoted a 60-day forward rate of ₹ 45.20.

Calculate:

- (i) Rate of discount quoted by the Bank
- (ii) The probable loss of operating profit if the forward sale is agreed to.

(Study Material & PM)

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① Rate of discount (1 YEAR = 365 day)

$$\begin{aligned} \text{Premium / (Disc)} &= \frac{F - S}{S} \times 100 \times \frac{365}{60} \\ &= \frac{₹ 45.20 - 45.60}{45.20} \times 100 \times \frac{365}{60} \\ &= 5.34\% \end{aligned}$$

② Probable Loss of operating profit if Hedging is done

$$\begin{aligned} \text{Probable Loss} &= (45.20 - 45.50) \times \$1,00,000 \\ &= ₹ 30,000 \end{aligned}$$

QUESTION – 26

Following information relates to AKC Ltd. which manufactures some parts of an electronics device which are exported to USA, Japan and Europe on 90 days credit terms.

Cost and Sales information:

	Japan	USA	Europe
Variable cost per unit	₹225	₹395	₹510
Export sale price per unit	Yen 650	US\$10.23	Euro 11.99
Receipts from sale due in 90 days	Yen 78,00,000	US\$1,02,300	Euro 95,920

Contribution
Sales $\times 100$

Foreign exchange rate information:

	Yen/₹	US\$/₹	Euro/₹
Spot market	2.417-2.437	0.0214-0.0217	0.0177-0.0180
✓ 3 months forward	2.397-2.427	0.0213-0.0216	0.0176-0.0178
→ 3 months spot	2.423-2.459	0.02144-0.02156	0.0177-0.0179

Advise AKC Ltd. by calculating average contribution to sales ratio whether it should hedge its foreign currency risk or not.

(Study Material, PM & Exam Nov – 2019)

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Contribution to Sales Ratio

	Japan	USA	Europe	Total
Recapt in 90 days	¥780000	\$102300	€95920	
Selling price per unit	¥650	\$10.23	€11.99	
No. of units	12000 units	10000 units	8000 units	
VC per unit	₹225	₹395	510	
Variable cost	₹270000	₹395000	408000	1073000
Sales if Hedging is done (Forward)	$\frac{780000}{2.427}$	$\frac{\$102300}{0.0216}$	$\frac{€95920}{0.0178}$	$\frac{13338719}{2608719}$
	₹3213844	₹4736111	₹5388764	
Contribution (Sales - VC)				
Contribution to Sales Ratio				$\frac{2608719}{13338719} \times 100 = 19.557\%$
Sales if Hedging is not done	$\frac{¥780000}{2.459}$	$\frac{\$102300}{0.02156}$	$\frac{€95920}{0.0179}$	$\frac{13275578}{2545578}$
	₹3172021	₹4744898	₹5358659	
Contribution				
Contribution to Sales Ratio				$\frac{2545578}{13275578} \times 100 = 19.17\%$

Since Contribution to Sales Ratio is higher in forward cover hence it is better to Hedge

QUESTION - 27

You have following quotes from Bank A and Bank B:

	Bank A	Bank B
SPOT	USD/CHF 1.4650/55	USD/CHF 1.4653/60
3 Months	5/10	1.4650
6 Months	10/15	
SPOT	GBP/USD 1.7645/60	GBP/USD 1.7640/50
3 Months	25/20	1.7650
6 Months	35/25	

Calculate :

- CHF/£
- (i) How much minimum CHF amount you have to pay for 1 Million GBP spot? *यु करना है*
- (ii) Considering the quotes from Bank A only, for GBP/CHF what are the Implied Swap points for Spot over 3 months? *कुलना CHF जगेगा*

CHF/£

(Study Material & PM)

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① CHF Amt to buy £1000000

first Buy \$ from Bank A

at CHF/\$ 1.4655

thereafter Buy £ from Bank B at \$/£ 1.7650

$$\text{CHF}/\text{£} = 1.4655 \times 1.7650 = 2.5866$$

CHF for £1000000

$$\text{£}1000000 \times 2.5866 =$$

CHF 2586600

(ii) Calculation of 3 months swap

CHF/£

Spot Rate

CHF/\$ 1.4650/1.4655

\$/£ 1.7645/1.7660

CHF/£ Bid = 1.4650×1.7645
= 2.5850

Ask = 1.4655×1.7660
= 2.5881

3 months FR

CHF/\$ 1.4655/1.4665

\$/£ 1.7620/1.7640

CHF/£ 2.5822/2.5869

Swap points

3 months FR
SR

2.5822/2.5869

2.5850/2.5881

-0.0028/-0.0012

Swap

28/12

QUESTION - 30

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.

(RTP November - 2020)

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① We Expect that Expected price of £ is more than forward Rate. In this situation we buy £ at FR (\$1.30) & Sell at Expected SR (\$1.32)

$$\begin{aligned}\text{Gain} &= (\$1.32 - \$1.30) \times £1,000,000 \\ &= \$20,000\end{aligned}$$

② If Rate of £ is \$1.26

$$\begin{aligned}\text{Loss} &= (1.26 - 1.30) \times £1,000,000 \\ &= \$40,000\end{aligned}$$

QUESTION - 29

H.W

In International Monetary Market an international forward bid for December, 15 on pound sterling is \$ 1.2816 at the same time that the price of IMM sterling future for delivery on December, 15 is \$ 1.2806. The contract size of pound sterling is £ 62,500. How could the dealer use arbitrage in profit from this situation and how much profit is earned?

$$\begin{aligned} & (\$1.2816 - \$1.2806) \\ & \times £62,500 \\ & = \$62.50 \end{aligned}$$

(Study Material)

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QUESTION - 28

An importer customer of your bank wishes to book a forward contract with your bank on 3rd September for sale to him of SGD 5,00,000 to be delivered on 30th October

The spot rates on 3rd September are USD 49.3700/3800 and USD/SGD 1.7058/68. The swap points are:

USD/₹		USD/SGD	
Spot/September	0300/0400	1 st Month Forward	48/49
Spot/October	1100/1300	2 nd Month Forward	96/97
Spot/November	1900/2200	3 rd Month Forward	138/140
Spot/December	2700/3100		
Spot/January	3500/4000		

Calculate the rate to be quoted to the importer by assuming an exchange margin of 5 paisa.

(Study Material, PM & Exam May - 2018)

FEDA -

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2 Months FR

SGD/\$

Spot

1.7058 / 1.7068

2 Month Swap

0.0096 / 0.0097

SGD/\$

1.7154 / 1.7165

₹/\$

Spot

49.3700 / 49.3800

(+) Swap
₹/\$

0.1100 / 0.1300

49.4800 / 49.5100

• first Buy \$ from ₹

₹/\$	49.5100
(+) Margin	<u>0.0500</u>
₹/\$	<u>49.5600</u>

• Thereafter Buy SGD from \$

SGD/\$	1.7154
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$$\text{₹/SGD} = 49.5600 \times \frac{1}{1.7154} = ₹ 28.8912$$