

QUESTION - 31

On April 3, 2016, a Bank quotes the following:

Spot exchange Rate (US \$ 1) INR 66.2525 INR 67.5945

✓ 2 months' swap points	70	90
✓ 3 months' swap points	160	186

In a spot transaction, delivery is made after two days.

Assume spot date as April 5, 2016.

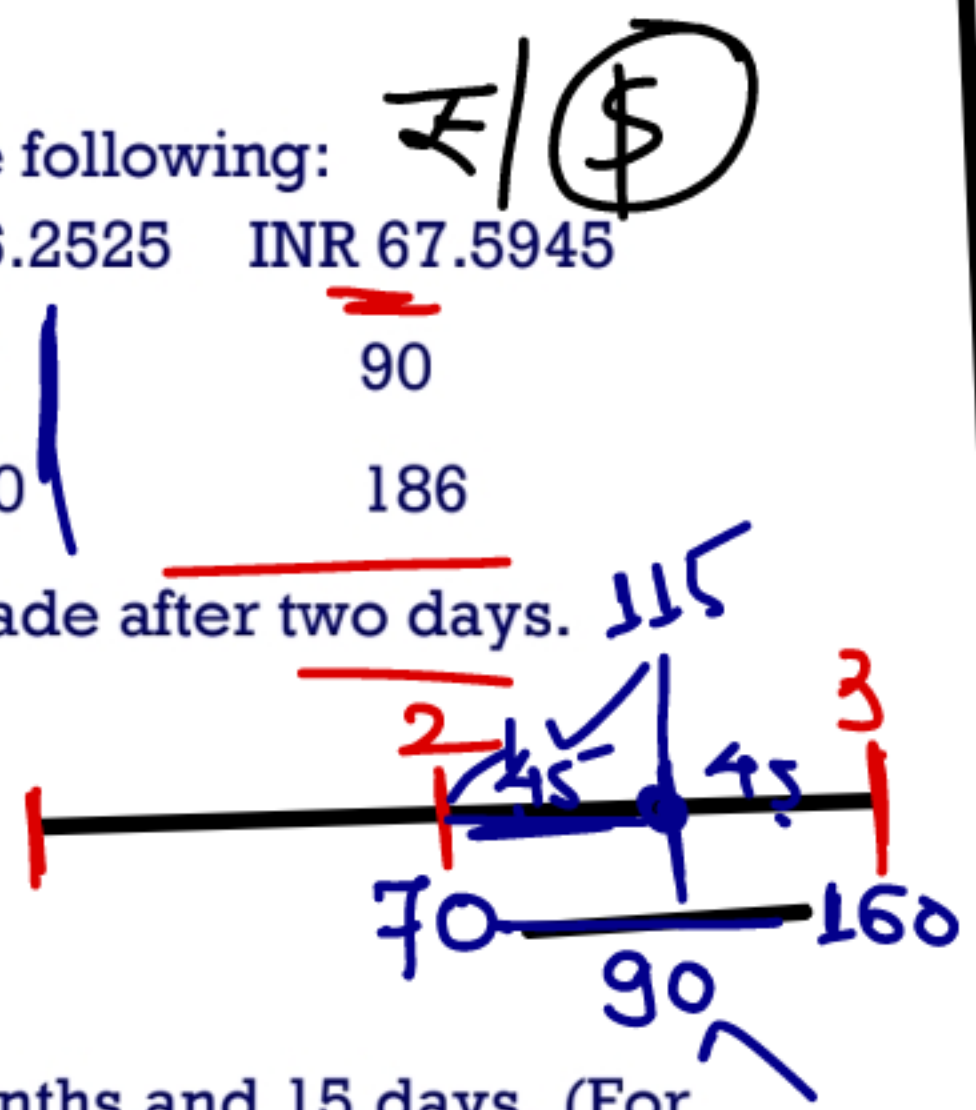
Assume 1 swap point = 0.0001,

You are required to:

- (i) Ascertain swap points for 2 months and 15 days. (For June 20, 2016),
- (ii) Determine foreign exchange rate for June 20, 2016, and
- (iii) Compute the annual rate of premium/discount of US\$ on INR, on an average rate.

(Study Material, PM & Exam November - 2016)

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1 Swap points

	<u>Bid</u>	<u>Ask</u>
3 Month Swap	160	186
(-) 2 Months Swap	70	90
Swap for 1 month	90	96
Swap for 1/2 Month	$\frac{90}{2} = 45$	$\frac{96}{2} = 48$
(+) 2 month swap	<u>70</u>	<u>90</u>
2 months & 15 days	<u>115</u>	<u>138</u>

2 forward Rate for 20 June 2016

	<u>Bid</u>	<u>Ask</u>
SR	66.2525	67.5945
(+) Swap	0.0115	0.0138
FR	<u>66.2640</u>	<u>67.6083</u>

③ premium or disc of \$

$$\text{premium/(DISC)} = \frac{F - S}{\text{Avg Rate}} \times 100 \times \frac{12}{2.5}$$

$$\text{Avg Bid Rate} = \frac{66.2525 + 66.2640}{2} = 66.2582$$

$$\text{Avg Ask Rate} = \frac{67.5945 + 67.6083}{2} = 67.6014$$

$$\text{Bid Rate} = \frac{66.2640 - 66.2525}{66.2582} \times 100 \times \frac{12}{2.5} = 0.0833\%$$

$$\text{Ask Rate} = \frac{67.6083 - 67.5945}{67.6014} \times 100 \times \frac{12}{2.5} = 0.0980\%$$

QUESTION - 10

Citi Bank quotes JPY/ USD 105.00 - 106.50 and Honk Kong Bank quotes USD/JPY 0.0090-0.0093.

- (a) Are these quotes identical if not then how they are different?
- (b) Is there a possibility of arbitrage?
- (c) If there is an arbitrage opportunity, then show how would you make profit from the given quotation in both cases if you are having JPY 1,00,000 or US\$ 1,000.

(RTP November - 2020)

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₹/\$

City Bank

Honk kong Bank

¥/\$ 105.00/106.50

\$/¥ 0.0090/0.0093

NO these quotes are not identical.

City Bank quotes ¥/\$

- Direct quotes for Yen
- & Indirect quotes for \$

Honk kong Bank quotes \$/¥

- Direct quotes for \$
- & Indirect quotes for ¥

(ii) City Bank

~~¥/\$ 105/106.50~~

\$/¥ 0.0094/0.0095

Hk Bank

~~\$/¥ 0.0090/0.0093~~

~~¥/\$ 107.53/111.11~~

Arbitrage

Case 1 If you are having ¥100,000

• Buy \$ from city Bank $\frac{¥100,000}{106.50} = \938.967

• Sell \$ in Hk Bank = $\frac{\$938.967}{0.0093} = ¥100,964.19$

Arbitrage Gain = $¥100,964.19 - ¥100,000 = ¥964.19$

Case - 2 If you are having \$1,000

• Buy ¥ from from Hk Bank $\frac{\$1,000}{0.0093} = ¥107,526.88$

• Sell ¥ in city Bank = $\frac{¥107,526.88}{106.50} = \$1,009.64$

Gain = $\$1,009.64 - \$1,000 = \$9.64$

QUESTION - 02

Mr. Mammen, an Indian investor invests in a listed bond in USA. If the price of the bond at the beginning of the year is USD 100 and it is USD 103 at the end of the year. The coupon rate is 3% payable annually. \$3

Find the return on investment in terms of home country currency if:

- (i) USD is Flat. 6%
- (ii) USD appreciates during the year by 3%.
- (iii) USD depreciates during the year by 3%. 2.82%
- (iv) Indian Rupee appreciates during the year by 5%.

Will your answer differ if Mr. Mammen invests in the bond just before the interest payable.

(RTP May - 2022 & Exam July - 2021)

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\$100 \$106

$(1.06)(1.03) \cdot 1$

1.06×0.97

1.06×0.91

(v)

4. Cover deal

EXAMPLE - 46

You sold to your customer HK \$ 10,00,000 at ₹ 7.25 & Covered yourself in below market.

Local

₹/\$ = 70/71

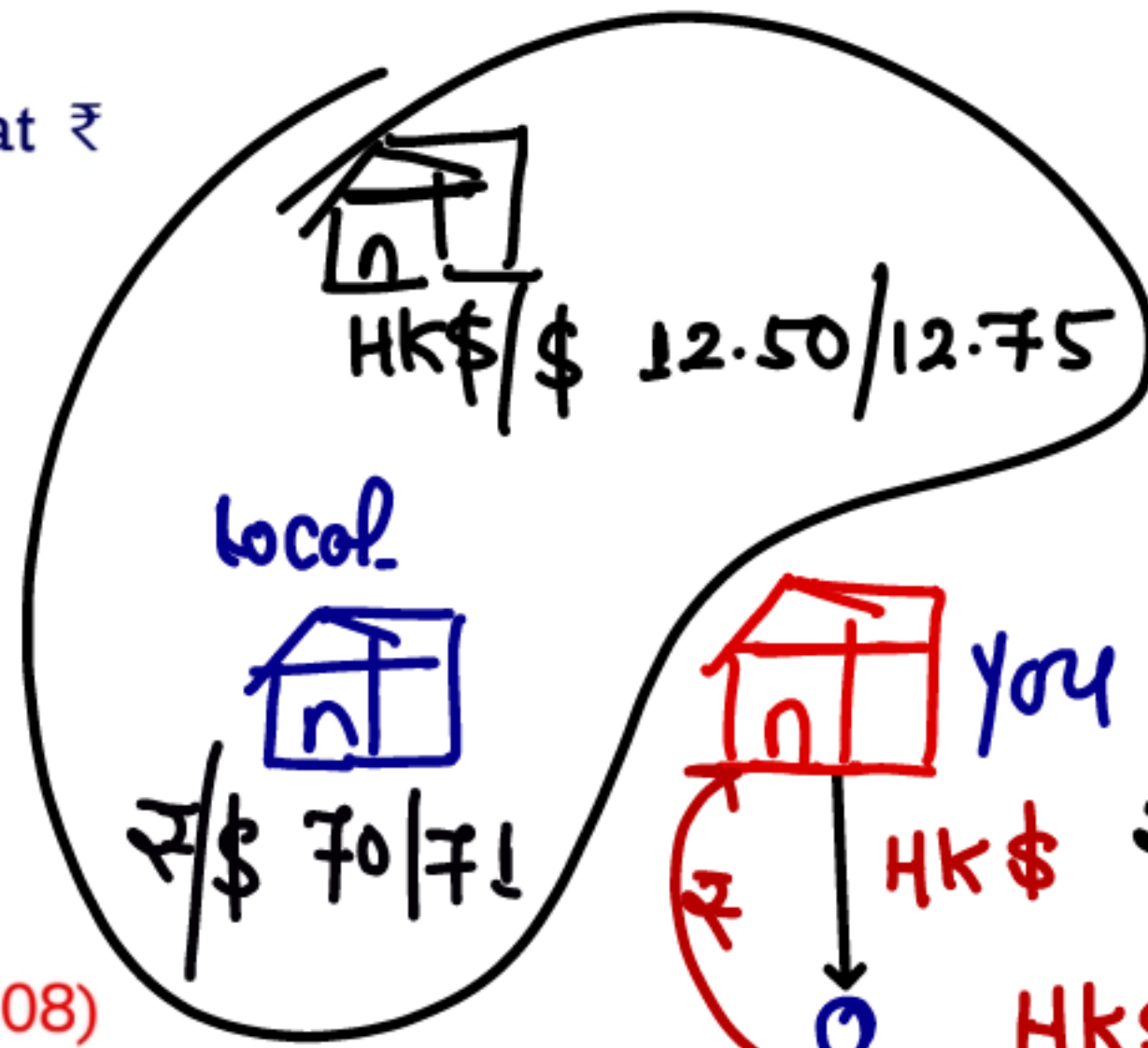
International

HK\$/\$ = 12.50/12.75

(i) Calculate cover rate. ✓

(ii) Calculate profit/loss.

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$$(7.25 - 5.68) \times 10,00,000 = 15,70,000$$

Cover Rate

• First Buy \$ from Local Bank
₹/\$ 71

• After that Buy HK\$ from International Bank
HK\$/\$ 12.50

Cover Rate ₹/HK\$ = $\frac{71}{12.50} = ₹5.68$

profit or Loss

Sell HK\$ (HK\$ 10,00,000 × 7.25) = ₹ 72,50,000

Buy HK\$ (HK\$ 10,00,000 × 5.68) = ₹ 56,80,000

profit ₹ 15,70,000

QUESTION – 32

You sold Hong Kong Dollar 1,00,00,000 value spot to your customer at ₹ 5.70 & covered yourself in London market on the same day, when the exchange rates were

US\$ 1 = H.K.\$ 7.5880 7.5920

Local inter bank market rates for US\$ were

Spot US\$ 1 = ₹ 42.70 42.85

Calculate cover rate and ascertain the profit or loss in the transaction. Ignore brokerage.

(Study Material & PM)

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QUESTION – 33

A Bank sold Hong Kong Dollars 40,00,000 value spot to its customer at ₹ 7.15 and covered itself in London Market on the same day, when the exchange rates were;

US\$ = HK\$ 7.9250 7.9290

Local inter-bank market rates for US\$ were

Spot US\$ 1 = ₹ 55.00 55.20

You are required to calculate rate and ascertain the gain or loss in the transaction. Ignore brokerage.

You have to show the calculations for exchange rate up to four decimal points.

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QUESTION – 34

English Bank Ltd. sold Hong Kong Dollar 10 Crores value spot to its customer at ₹ 9.70 and covered itself in the London market on the same day, when the exchange rates were US \$ 1 = HK \$ 7.7506 – 7.7546. Local inter-bank market rates for US \$ were Spot US \$ 1 = ₹ 74.70 – 74.85. Calculate the cover rate and ascertain the profit or loss on the transaction. Ignore brokerage.

Figures are to be rounded off to 4 decimals.

(Exam November - 2020)

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QUESTION - 35

You, a foreign exchange dealer of your bank, are informed that your bank has sold a T.T. on Copenhagen for Danish Krone 10,00,000 at the rate of Danish Kroner 1 = ₹ 6.5150. You are required to cover the transaction either in London or New York market. The rates on that date are as under:

Mumbai - London	₹ 74.3000	₹ 74.3200
Mumbai - New York	₹ 49.2500	₹ 49.2625
London - Copenhagen	DKK 11.4200	DKK 11.4350
New York - Copenhagen	DKK 07.5670	DKK 07.5840

In which market will you cover the transaction, London or New York, and what will be the exchange profit or loss on the transaction? Ignore brokerages.

(Study Material, PM & Exam November - 2013)

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New York

₹/\$ 49.2500/49.2625

DKK/\$ 7.5670/7.5840

London

₹/£ 74.3000/74.3200

DKK/£ 11.42/11.4350

②

DKK 10,00,000

₹/DKK 6.5150

₹/DKK