

QUESTION - 08

\$

USD 10,000 is lying idle in your Bank Account.
You are able to get the following quotes from the dealers:

Dealer

Quote

✓ A

EUR/USD 1.1539

✓ B

EUR/GBP 0.9094

✓ C

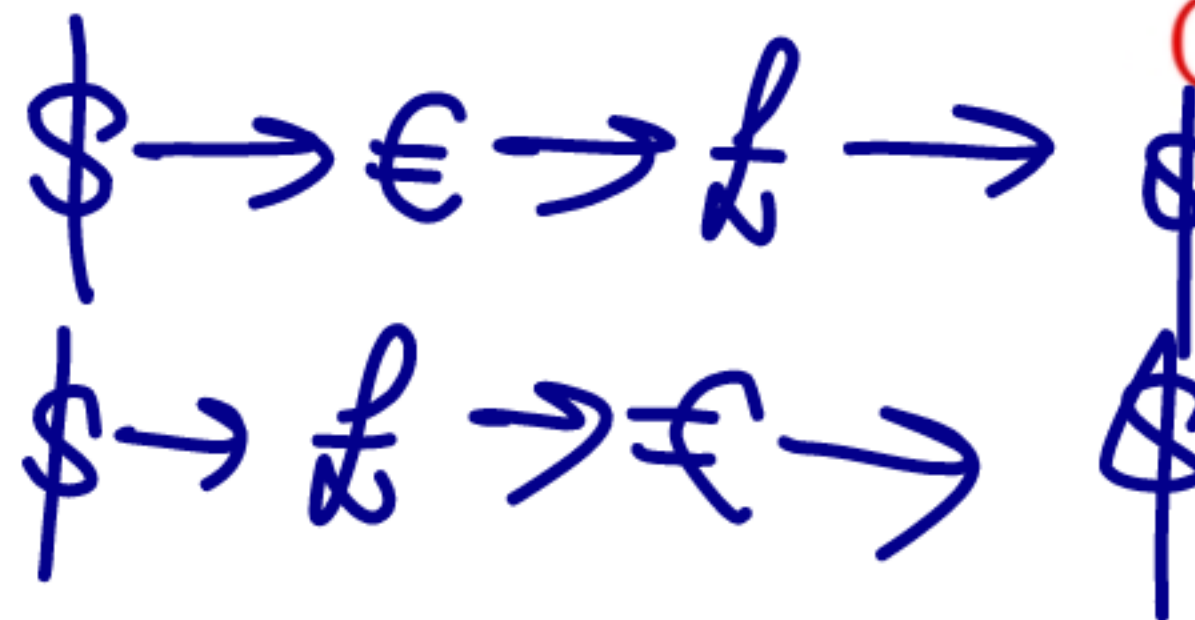
GBP/USD 1.2752

\$/€

£/€

\$/£

Is there an opportunity of gain from these quotes?



(Exam November - 2020)

(Page No. 29)

H.W

class
work

QUESTION – 09

Followings are the spot exchange rates quoted at three different forex markets:

USD/INR	59.25/59.35 in <u>Mumbai</u>
GBP/INR	102.50/103.00 in <u>London</u>
GBP/USD	1.70/1.72 in <u>New York</u>

The arbitrageur has USD 1,00,00,000. Assuming that bank wishes to retain an exchange margin of 0.125%, explain Whether there is any arbitrage gain possible from the quoted spot exchange rates.

Inter Bank
H.W
C.W

₹/€ 98.25/99.45 €

£/€ 0.8025/0.8150

₹/£ 102.45/103.05 970.40

✓ 16984.13

We have ₹ 100000

Arbitrage Gain =

3 forward Contract (Imp)

It is over the counter (OTC) Contract in which Contract to buy or sell Currency in future at predetermine Rate (forward Rate)

EXAMPLE - 34

Spot Rate

$$₹/\$ = 70.50/71.25$$

3 Months Expected SR

$$₹/\$ = 74.00$$

3 Months Forward Rate

$$₹/\$ = 72.50$$

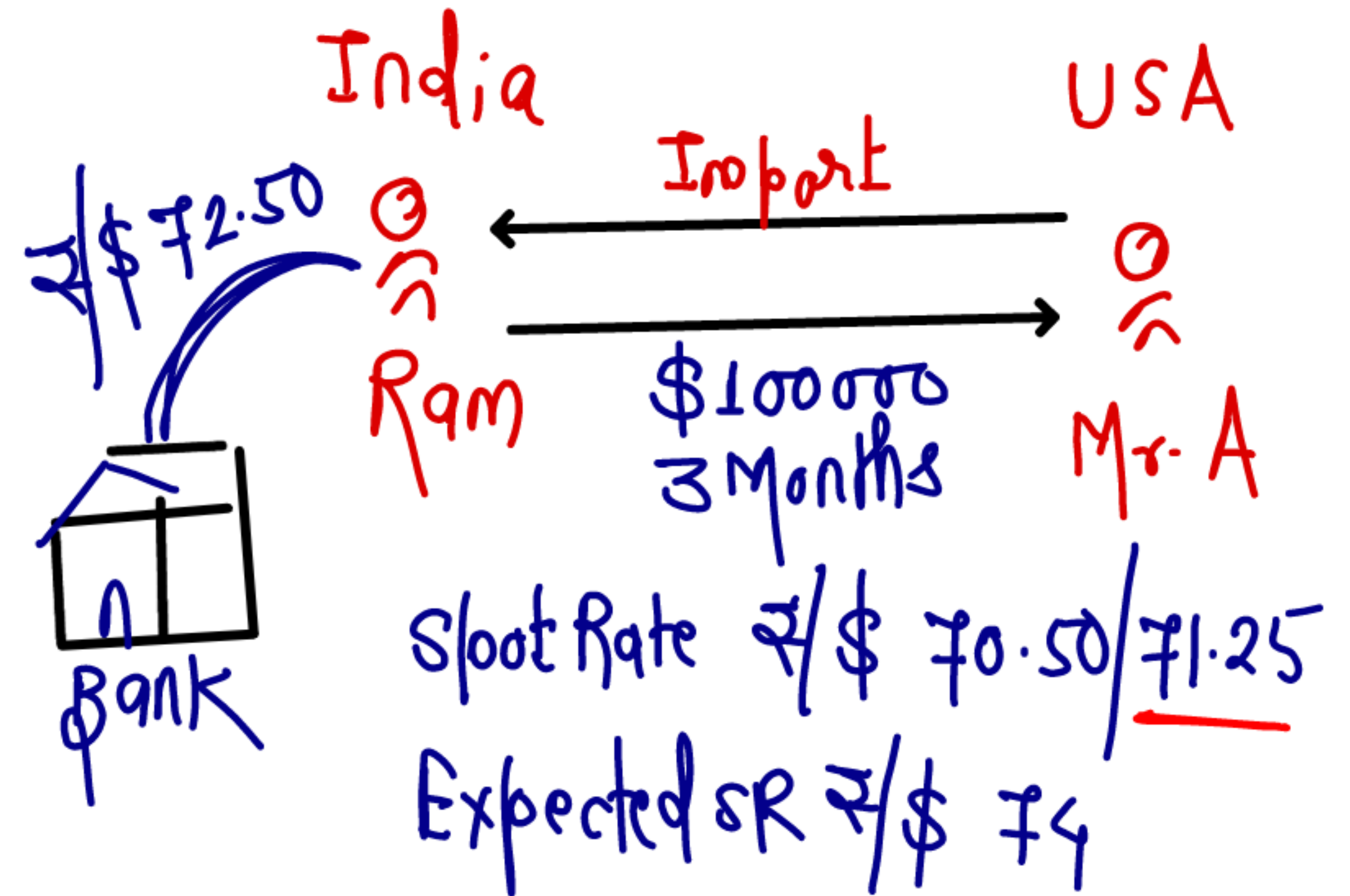
Import proceeds
= \$1,00,000

(i) Calculate expected loss.

(ii) Whether Ram should enter into forward contract?

(iii) If yes, saving in loss due to the forward contract?

(Page No. 05)



① Expected Loss

$$\begin{aligned} \text{If Buy \$ at SR } (\$100000 \times 71.25) &= ₹ 7125000 \\ \text{If Buy \$ at Expected SR } (\$100000 \times 74) &= ₹ 7400000 \\ \text{Expected Loss} &= \underline{\underline{₹ 275000}} \end{aligned}$$

② Since Expected SR is more than FR
hence Ram should enter into forward contract.

③ Savings in Loss due to Hedging

$$\begin{aligned} \text{If Buy \$ at Expected SR} & 7400000 \\ & \text{[Hedging is not done]} \\ \text{If Buy \$ at FR } (\$100000 \times 72.50) & 7250000 \\ & \text{[Hedging is done]} \\ \text{Savings in Loss} &= \underline{\underline{₹ 150000}} \end{aligned}$$

EXAMPLE - 35

Spot Rate

$$₹/£ = 90.00/90.50$$

Expected Spot Rate

$$₹/£ = 87.50$$

3 Months Forward Rate (Bank)

$$₹/£ = 89.00$$

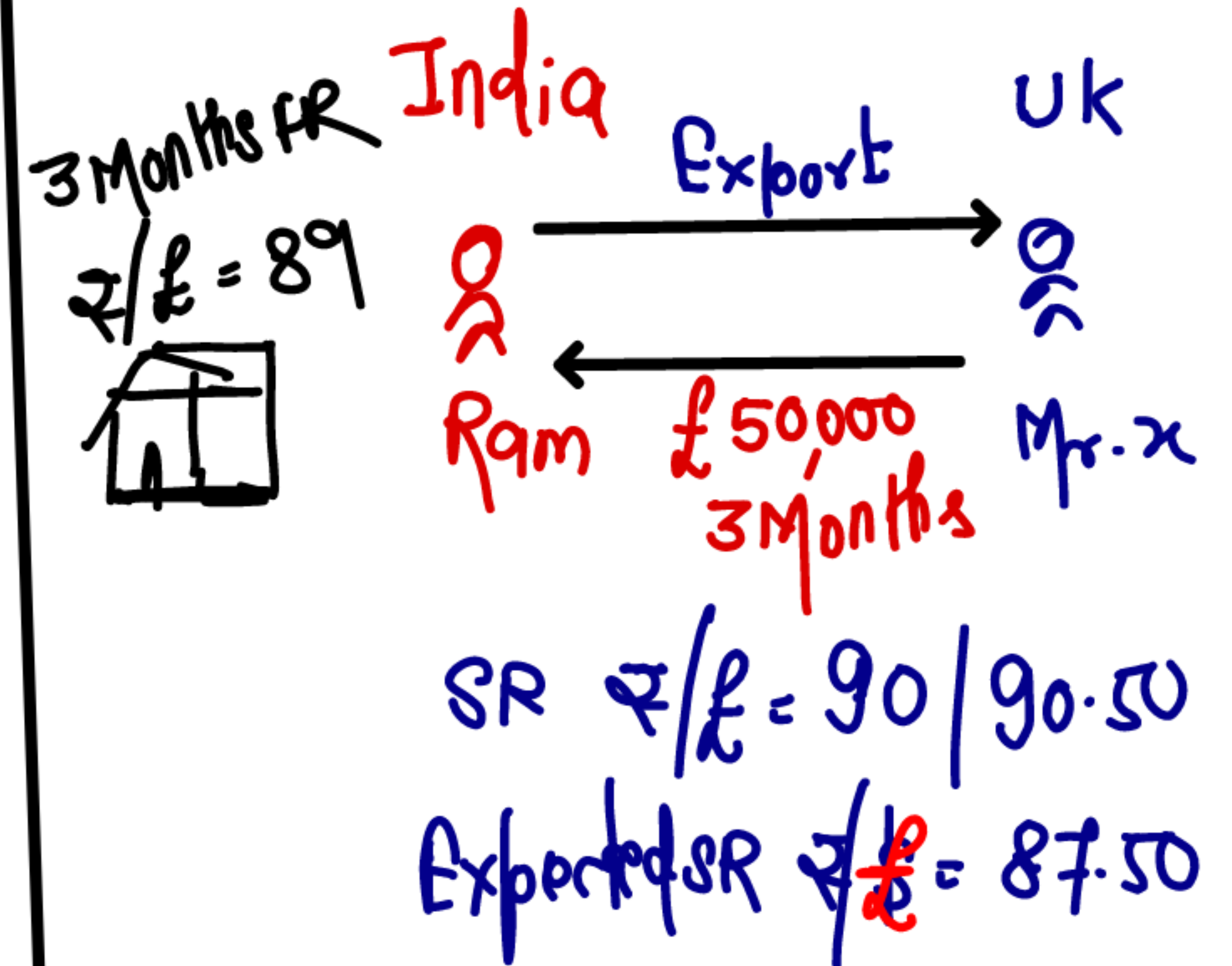
*£ receivable
= £50,000*

(i) Calculate expected loss. ₹ 125,000

(ii) Whether Ram should enter into forward contract? *yes*

(iii) If yes, saving in loss due to forward contract.
₹ 75,000

(Page No. 06)



EXAMPLE – 36

Spot Rate \$/₹ = 0.01428

3 Months Expected Spot Rate

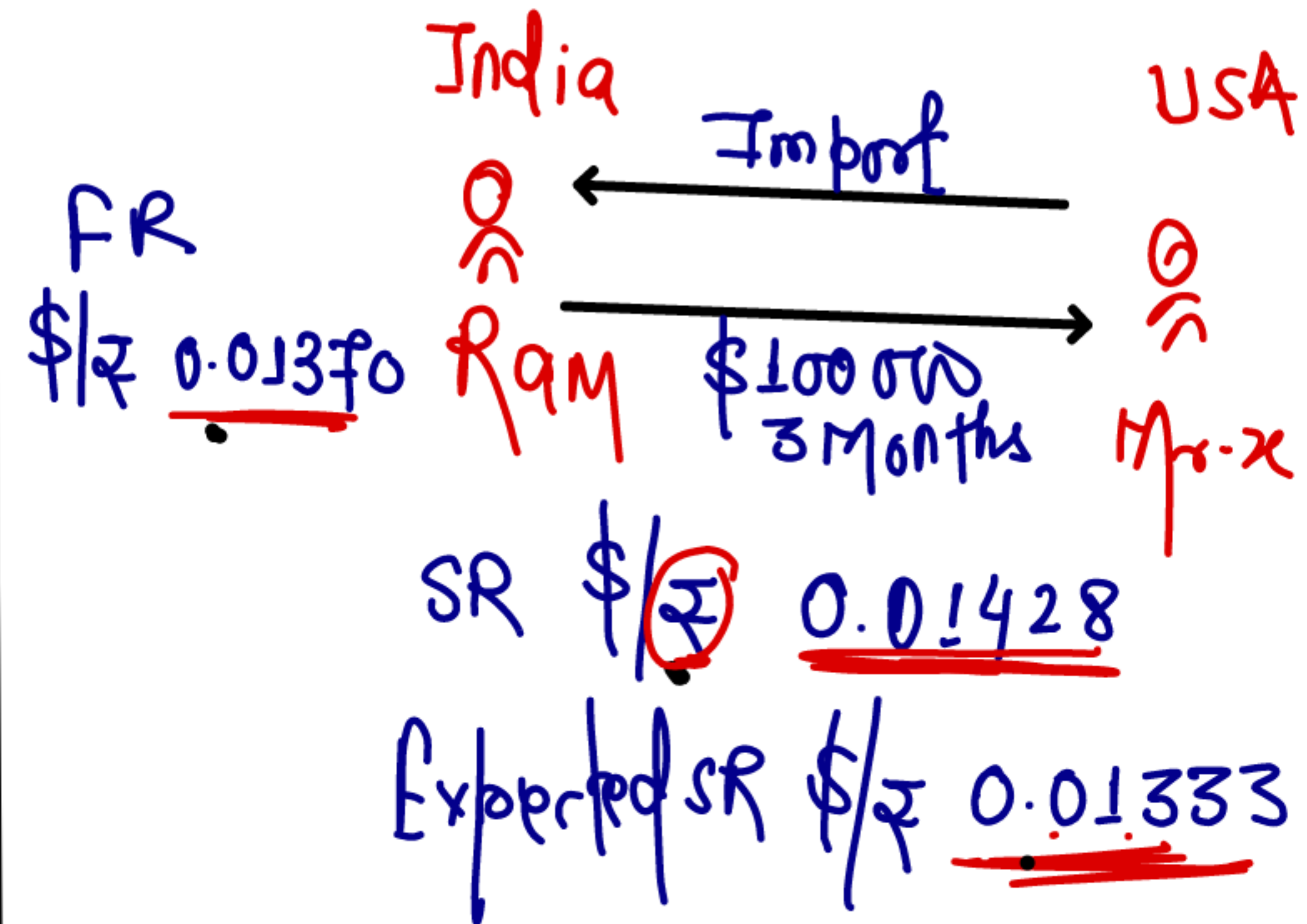
\$/₹ = 0.01333

3 Months Forward Rate

\$/₹ = 0.01370

- Whether importer should enter into forward contract.
- If yes, calculate savings in loss due to forward contract.

\$ Payable = \$100000 (Page No. 06)



① Expected Loss

$$\text{If Buy \$ at SR} = \frac{\$100000}{0.01428} = ₹7002801$$

$$\text{If Buy \$ at Expected SR} = \frac{\$100000}{0.01333} = ₹7501875$$

$$\text{Expected Loss} = \underline{\underline{499075}}$$

② Yes, Importer should enter into forward contract because FR is more than Expected SR.

③ Savings in Loss due to forward contract

$$\begin{array}{r} \text{If Hedging is not done (Expected SR)} \\ \text{If Hedging is done } \left(\frac{\$100000}{0.01370} \right) \end{array} \quad \begin{array}{r} ₹7501875 \\ ₹7299270 \end{array}$$

$$\text{Savings} = \underline{\underline{202605}}$$

\$ premium

[

SR = $\text{N}/\$ 82.50$

3 Months FR $\text{N}/\$ 83.25$

$$\frac{83.25 - 82.50}{82.50} \times 100 \times \frac{12}{3}$$

forward premium or discount

$$\text{premium/(discount)} = \frac{f - \text{\text{£}}}{\text{\text{£}}} \times 100 \times \frac{12}{\text{period}}$$