CA FINAL
STRATEGIC FINANCIAL MANAGEMENT
FOREX TEST
CURRENCY CONVERSION
SOLUTIONS

Question 1 :

Spot Rate = Rs. 50/$

Price of Index = $2,000. (S &P)

Expected return on S & P = 20% in $ terms

Amount Invested = Rs. 5000 crores.

Dollar invested in S & P = $\frac{5,000}{50}$ = $ 100 cr.

Number of units of S & P = 100cr./2000 = 0.05 cr hypothetical units of S&P 500 index

Expected Value of S&P 500 index after 1 year = 2000×1.2 = $2400

So, expected sales proceeds after 1 year = 0.05cr. × $2400 = $120cr.

On account of $ appreciation, expected spot rate after 1 year = 50×1.1 = 55

Hence, expected rupee inflow after 1 year = 120×55 = Rs. 6600cr.

Hence, return on Rs. terms = $\left(\frac{6,600-5,000}{5,000}\right)\times 100 = 32\%$

Note : *Short cut = [(1.2 × 1.1)-1]×100 = 32%*

Question 2 :

Amount invested in Microsoft stock = ₹ 25 l.

Hence, he invested = $\frac{25,00,000}{50} = \$50,000.$

No. of stocks he bought = $\frac{50,000}{200} = 250$

Expected return on Microsoft = (5 × 2) + 4 = 14%

Price of 1 share = $200.

Expected price on 1 share of Microsoft after 1 year = $(200 × 1.14) = $ 228.

So, expected sales proceeds after 1 year = $ 228 × 250 = $ 57,000

a. If $ appreciate by 10 % (Expected Spot rate after 1 year = 50×1.1 = 55)

= 57,000 × 55 = Rs.31,35,000.

$$\text{Return} = \left(\frac{31,35,000 - 25,00,000}{25,00,000}\right) \times 100 = 25.4\%$$

Short-cut : [(1.14 × 1.1) – 1] ×100 = 25.4%

b. If $ depreciate by 10% (Expected Spot rate after 1 year = 50 × 0.9 = 45

= 57,000 × 45 = 25,65,000

$$\text{Return} = \left(\frac{25,65,000 - 25,00,000}{25,00,000}\right) \times 100 = 2.6\%$$

Short-cut : [(1.14 × 0.9) – 1] × 100 = 2.6%

Question 3 :

T.T buying rate (Rate at which bank will buy and retail customer will sell) = 61.30 – 0.1% of 61.30 = 61.2387

T. T. Selling rate (Rate at which bank will sell and retail customer will buy) = 61.3+0.15% of 61.3 = 61.39195

Question 4 :

Indirect quote of UK refers to the price of pound in terms of other currencies.

1 Pound	= Dollar1/0.6350	= 1.5748
1 Pound	= Rupee45.0620/0.6350	= 70.9637
1 Pound	= Euro0.8040/0.6350	= 1.2661
1 Pound	= HK$7.2040/0.6350	= 11.3448
1 Pound	= Yen82.3050/0.6350	= 129.6141

Question 5

INR/Euro = 74.3/75.2

1.

Bank's point of view

Bank is ready to buy 1 Euro at 74.3

Bank is ready to sell 1 Euro at 75.2

Customer point of view

Customer can buy 1 Euro at 75.2

Customer can sell 1 Euro at 74.3

2. Bid-Ask spread $= \frac{(75.2 - 74.3)}{75.2} \times 100 = \frac{0.9}{75.2} \times 100 = 1.1968\%$

Question 6 :

Cost of Trip		Quote	Dollar Required
To UK	£ 80,000	£/$ 0.6220	$ 1,28,617.36
To Germany	€90,000	$/€ 1.1520	$ 1,03,680.00
To Japan	¥ 6,00,00,000	$/¥ 0.0095	$ 5,70,000.00
			8,02,297.36

Question 7 :

a. British Pound that can be acquired with $ 1000 = 1000 × 0.62 = £ 620

b. Dollar with 50 Dutch Guilder = 50/1.9 = 26.31

c. Swedish Krona with $ 40 = 40 × 6.4 = 256

d. Dollar with 200 Swiss Franc = 200/1.5 = 133.33

e. Lira with $ 10 = 1300 ×10 = 13,000

f. Dollar with 1000 Yen = 1000/140 = $7.14

Question 8 :

Cost of Travel		Quote	$ Required
UK for	£ 20,000	USD/GBP = 11.6250/11.6310	$ 2,32,620 (a)
Europe for	€ 70,000	Euro/USD = 1.0890/1.0950	$64,279 (b)
Japan for	¥ 5,30,000	Yen/USD = 112.5/113.7	$ 4,711.11 (c)
			3,01,610.11

(a) 11.6310 × 20,000	2,32,620.00
(b) 70,000 / 1.0890	64,279.00
(c) 5,30,000 / 112.5	4,711.11
	3,01,610.11

Question 9 :

$ / ¥ = 0.0092 / 0.0095 £ / € = 0.6827 / 0.6895

1. Amount to be invested in Japan = $\frac{80,000}{0.0095} = ¥84,21,052.632$

2. € 7,50,000 = 7,50,000 × 0.6827 = £ 5,12,025

3. £ 6,20,000 = 6,20,000 / 0.6827 = € 9,08,158.78

4. Amount of ¥ required = $\frac{\$5,00,000}{0.0092} = ¥\ 54,347,826.087$

(Note – Remember, we borrow at Yen at interest rate and not on Exchange rate, hence, after borrowing yen, we need to convert it into equivalent dollars, therefore, selling rate of Yen that is 0.0092 is to be applied stead of 0.0095)

Question 10 :

Current Spot = ¥/$ = 109.7 / 110.5

10 days later = $/¥ = 0.0091/0.0094

Purchase consideration = Yen 500 m

This has to be Purchased by the US firm

Purchase consideration in dollar terms

Initially $\frac{500}{109.7} = \$4.5578$

10 days later = 500 x 0.0094 = \$4.7

Loss = (4.7 – 4.5578) = \$ 0.14211 m

Question 11 :

\$/¥ = 0.0105/0.0115

CPA fees = \$ 1800

So, ¥ required $= \frac{1,800}{0.0105} =$ ¥ 1,71,428.57

Question 12 :

	Spot	**2-months forward**
Rs./€	₹62.20 / ₹62.50	₹63.70 / ₹64.10

i. No. of Euro the firm should sell after 2m

$$= \frac{55,00,000}{63.7} = 86,342.23$$

ii. Rupee required to be paid today = 5,00,000 × 62.5 = ₹ 3,12,50,000

iii. In current A/c = € 84,000

ROI on Rupee = 9%

If encased now

(84,000 × 62.2) = 5224800
5224800 + (9% of 5224800 × 2/12) = Rs. 5303172

If encased after 2 m

(84,000 × 63.7) = ₹Rs.5350800

Hence, it is wise to encash after 2 months.