Unit 4 · Currency and Exchange Rate

HARDER WORKSHEET · ANSWER KEY

Full marks 22

Give the marks for the points in the marking scheme; an answer in other words that says the same is right.

1 Find the rates

ANSWER A · 3

Selling rate: $\frac{255900}{2000} = \textbf{Rs 127.95}$. Buying rate: $\frac{63675}{500} = \textbf{Rs 127.35}$.

The bank keeps $127.95 - 127.35 = 0.60$ on each dollar: $\frac{0.60}{127.95} \times 100\% \approx \textbf{0.47\%}$.

MARKING SCHEME

- ✓ Selling rate Rs 127.95.
- ✓ Buying rate Rs 127.35.
- ✓ Rs 0.60, about 0.47%.

2 Spot the error

MARKING SCHEME U · 2

- ✓ The rate is for ¥10: divide by 10.
- ✓ Rs 47,900.

3 Work backwards

ANSWER A · 3

New rate: $140 \times 1.05 = 147$, so each dollar brought back Rs 7 more.

Dollars: $\frac{70000}{7} = 10000$.

Rupees at first: $10000 \times 140 = \textbf{Rs 14,00,000}$.

Check: $10000 \times 147 = 1470000$, Rs 70,000 more ✓.

MARKING SCHEME

- ✓ New rate Rs 147: Rs 7 a dollar.
- ✓ $10,000.
- ✓ Rs 14,00,000.

4 Is the claim true?

ANSWER HA · 3

Devalued: $140 \times 1.1 = 154$. Revalued from there: $154 \times 0.9 = \textbf{Rs 138.60}$.

He is not right: the 10% revaluation is of the bigger rate, Rs 154, so the dollar ends Rs 1.40 (1%) cheaper than at the start.

MARKING SCHEME

- ✓ Rs 154 after the devaluation.
- ✓ Rs 138.60 after the revaluation.
- ✓ Not right: the second 10% is of a different rate.

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5 A chain of four

ANSWER **A · 3**

Chain: Rs x = €500; €1 = \$1.16; \$1 = ₹88; ₹100 = Rs 160.

$x \times 1 \times 1 \times 100 = 500 \times 1.16 \times 88 \times 160$

$x = \dfrac{8166400}{100} =$ **Rs 81,664**.

MARKING SCHEME

- ✓ The chain written with each line starting with the last line's currency.
- ✓ The two products equated.
- ✓ Rs 81,664.

6 Which route?

MARKING SCHEME **A · 3**

- ✓ MYR 1,200 in Doha.
- ✓ MYR 1,218.33 through the rupee.
- ✓ Through Nepal, about MYR 18.33 more.

7 Two ideas together

ANSWER **HA · 3**

Let the old cost be C. Selling price $1.2C$; new cost $1.05C$.

Profit: $1.2C - 1.05C = 0.15C$; $\dfrac{0.15C}{1.05C} \times 100\% \approx$ **14.29%**.

It is not $20 - 5 = 15\%$: profit percent is of the new, bigger cost.

MARKING SCHEME

- ✓ Selling price $1.2C$ and new cost $1.05C$.
- ✓ Profit $0.15C$.
- ✓ About 14.29%.

8 Make your own

ANSWER **HA · 2**

For example: £1 = \$1.25 and \$1 = Rs 152. How many rupees is £40? Chain: Rs x = £40; £1 = \$1.25; \$1 = Rs 152. $x = 40 \times 1.25 \times 152 =$ **Rs 7,600**, a whole number ✓. (Any question whose chain closes and whose product gives a whole number is right.)

MARKING SCHEME

- ✓ A chain that closes (each line starts with the last line's currency).
- ✓ Solved correctly to a whole number.

Marks by level	Knowledge	Understanding	Application	Higher ability	Total
Marks	0	2	12	8	**22**

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