Expected Responses

Let x be the required amount of the 90% pure chemical used. Thus the total amount used by the industrialist to obtain the mixture will be equal to (450 + x) litres.

Candidates, therefore, could have used the above information to come up with the equation,

$$\frac{70}{100} \times 450 + \frac{90}{100}x = \frac{75}{100}(450 + x)$$

$$\frac{90}{100}x - \frac{75}{100}x = \frac{75}{100} - \frac{70}{100} \times 450$$

$$x = \frac{100}{15} \times \frac{5}{100} \times 450$$

$$x = 150 \text{ litres}$$

Question 14

In this question, mathematical tables should **not** be used.

A Kenyan bank buys and sells foreign currencies as shown below:

	Buying (Kenya shillings)	Selling (Kenya shillings)
1 Euro	84·15	84·26
100 Japanese yen	65·37	65·45

A Japanese travelling from France arrives in Kenya with 5000 Euros. He converts all the 5000 Euros to Kenya shilling at the bank.

While in Kenya he spends a total of Kenya shillings 289 850 and then converts the remaining Kenya shillings to Japanese yen at the bank.

Calcalute the amount in Japanese yen, that he receives. (4 marks)

This question tested candidates' ability to work out currency conversions involving Euros, Japanese yen and Kenya shillings.

Weaknesses

Many candidates showed lack of understanding of the concept of **buying** and **selling** of currency. This resulted in wrong conversions.