| Fractions and Recurring Decimals Mark Scheme |  |  |
| :---: | :---: | :---: |
| 1(a) | $\frac{4}{6}$ | [1] Correctly identified fraction |
| 1(b) | 0.916 | [1] Convert fraction to decimal |
| 1(c) | $\frac{6}{9}$ | [1] Correctly identified fraction |
| 2 | $7 \div 12$ using the bus stop method | [1] By bus stop method or otherwise |
|  | 0.583 | [1] Correct decimal |
| 3 | $\begin{gathered} x=0 . \dot{2} \dot{5} \\ 100 x=25 . \dot{2} \dot{5} \end{gathered}$ | [1] Finding 100x |
|  | $\begin{gathered} 100 x-x=99 x \\ 25 . \dot{2} \dot{5}-0 . \dot{2} \dot{5}=25 \\ 99 x=25 \end{gathered}$ | [1] Difference to find 99x |
|  | $x=\frac{25}{99}$ | [1] Write $x$ as a fraction over 99 |
| 4 | $\begin{gathered} x=0 . \dot{1} 3 \dot{5} \\ 1000 x=135 . \dot{1} 35 \end{gathered}$ | [1] Finding 1000x |
|  | $999 x=135$ | [1] Difference to find 999x |
|  | $x=\frac{135}{999}, \quad x=\frac{5}{37}$ | [1] Write $x$ as a fraction over 999 and simplify |
| 5 | $\frac{4}{11}$ | [1] Form fraction from question |
|  | $4 \div 11$ using the bus stop method | [1] By bus stop or otherwise |
|  | $0 . \dot{3} \dot{6}$ | [1] Correct decimal |
| 6 | In step 2 - Terry using the wrong multiplier $83 . \dot{3} \neq 10 x$ <br> Should be $83 . \dot{3}=100 x$ | [1] Identify error and suggest correction |
|  | Step 3: <br> Need to subtract when number after decimal point is equivalent $83 . \dot{3}=10 x$ $-\quad 0.8 \dot{3}=x$ <br> Should be $\begin{aligned} 83 . \dot{3} & =100 x \\ 8 . \dot{3} & =10 x \\ 75 & =90 x \end{aligned}$ | [1] Identify error and suggest correction |
|  | Step 4: subtracted rather then divide $\begin{gathered} 83-9=x \\ x=74 \end{gathered}$ <br> Should be $75=90 x, \quad x=\frac{75}{90}=\frac{5}{6}$ | [1] Identify error and suggest correction |

DO NOT PHOTOCOPY

