| C1 | Non-Calculator Paper |  |
| :---: | :---: | :---: |
| 1 | Evaluate $6 \frac{1}{5}-\frac{3}{4}$ <br> Give your answer in the simplest form. | 2 |
| 2 | Expand and simplify $(x-3)^{2}+15$ | 2 |
| 3 | Solve, algebraically, the system of equations $\quad 4 x+5 y=22$ $6 x+y=7$ | 3 |
| 4 |  <br> Sales from an ice cream van were recorded through the summer. The graph shows the number of ice creams sold $S$, compared to the amount of rainfall $R \mathrm{~mm}$. <br> 70 ice creams were sold on a day with 3 mm of rainfall. <br> 40 ice creams were sold on a day with rainfall of 6 mm . <br> (a) Find the equation of the line of best fit in terms of $S$ and $R$. Give your equation in its simplest form. <br> (b) Use the answer from part (a) to estimate the number of ice creams sold on a day with 7 mm of rainfall. | 3 1 |
| 5 | Solve, algebraically, the inequation $5-(x-3) \leq x+10$ | 3 |
| 6 | (a) Factorise $x^{2}-10 x+24$ <br> (b) Hence simplify $\frac{x^{2}-10+24}{x^{2}-36}$ | 1 3 |
| 7 | Change the subject of the formula $y=3 \sqrt{h}+a$ to $h$ | 3 |
| 8 | Evaluate $\sqrt{400}-\sqrt{100}$ | 2 |
| 9 | Simplify $\frac{12 v^{3} w^{4}}{3 v^{2} w^{-2}}$ | 3 |
| 10 | Determine the nature of the roots of the function $f(x)=4 x^{2}-4 x+1$ | 2 |
|  | 28 marks |  |

