# Junior Lyceum Entrance Examination into Form I - 2002 Mathematics Marking Scheme 

| Question | Requirements | Mark | Additional Guidance |
| :---: | :---: | :---: | :---: |
| $\begin{array}{ll} \hline 1 & \text { i } \\ & \text { ii } \\ & \text { iii } \\ & \text { iv } \end{array}$ | $\begin{array}{\|l\|} \hline 27 \\ 173 \\ 5 \\ 7 \end{array}$ | $\begin{array}{\|l\|} \hline 1 \\ 1 \\ 1 \\ 1 \end{array}$ |  |
| $\begin{array}{cc} \hline 2 & \mathrm{a} \\ & \mathrm{~b} \\ & \mathrm{c} \end{array}$ | $\qquad$ | $\begin{array}{\|l\|} \hline 2 \\ 1 \\ 1 \end{array}$ | both required |
| $\begin{array}{ll} 3 & \mathrm{a} \\ \mathrm{~b} \end{array}$ | 206.9 <br> Dividing by 4 <br> Multiplying by 2 <br> 366 | $\begin{array}{\|l\|} \hline 1 \\ 1 \\ 1 \\ 1 \end{array}$ | or any other valid method |
| $4 i$ <br> ii | Adding and dividing by 3 <br> 4287 <br> Subtracting 3595 from average seen or implied $692$ | $\begin{array}{\|l} \hline 1 \\ 1 \\ 1 \\ 1 \end{array}$ |  |
| $5 \mathrm{i}$ <br> ii | Length $=7.5 \mathrm{~cm}$ <br> Breadth $=3 \mathrm{~cm}$ <br> Correct method for finding the perimeter 21 | $\begin{aligned} & \hline 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |  |
| $\begin{array}{ll} \hline 6 & \text { i } \\ & \text { ii } \\ & \text { iii } \\ & \text { iv } \end{array}$ | $\begin{array}{\|l\|} \hline 7.9 \\ 0.025 \text { (o.e.) } \\ 570 \\ 0.1 \text { (o.e.) } \\ \hline \end{array}$ | $\begin{aligned} & \hline 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |  |
| 7 | 37 | 4 |  |
| 8 a <br> b i <br> ii | $\begin{array}{\|l} \hline 1 / 8 \\ 1 / 4 \end{array}$ <br> Attempt to Change fraction into percentage $75 \%$ | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |  |
| $9 \quad \mathrm{i}$ <br> ii | Dividing by 60 <br> 1 km <br> Dividing by 2 <br> o.e. <br> 30 seconds | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |  |
| $10 \text { i }$ <br> ii | Converting to a common unit seen or implied 10 <br> Any suitable method seen or implied 3 | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |  |


| Question | Requirements | Mark | Additional Guidance |
| :---: | :---: | :---: | :---: |


| $11$ | a <br> b i <br> ii | $75^{\circ}$ <br> $120^{\circ}$ <br> $118^{\circ}$ seen or implied <br> Subtracting from $180^{\circ}$ <br> $62^{\circ}$ <br> Correct explanation | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ | $\left\{\begin{array}{l} \text { Subtracting } 28^{\circ} \text { from } 90^{\circ} \\ \} \text { gains } 2 \text { marks } \end{array}\right.$ |
| :---: | :---: | :---: | :---: | :---: |
| 12 | ii <br> iii | $\begin{aligned} & 240 \div 15 \\ & 16 \mathrm{c} \\ & 16 \mathrm{c} \times 45 \text { or } \mathrm{Lm} 2.40 \times 3 \\ & \mathrm{Lm} 7.20 \\ & (100 \times 15)-(1 \times 15) \\ & 1485 \end{aligned}$ | $\begin{array}{\|l} \hline 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \end{array}$ | or $99 \times 15$ or any other valid method |
| 13 | ii <br> iii | Adding up all data <br> 480 $\begin{aligned} & 24 / 480,1 / 20 \\ & \frac{24}{480} \times 100 \text { or } \frac{1}{20} \times 100 \\ & 5 \% \end{aligned}$ | $\begin{array}{\|l\|} \hline 1 \\ 1 \\ 1,1 \\ 1 \\ 1 \end{array}$ |  |
| 14 | ii | Three <br> South <br> West <br> Any correct answer | $\begin{array}{\|l\|} \hline 1 \\ 1 \\ 1 \\ 3 \end{array}$ | Accept words such as left, right , up, down ... |
| 15 | i <br> ii <br> iii | $\begin{aligned} & \hline 4,12,16 \\ & 13 \times 4 \text { seen or implied } \\ & 52 \\ & \text { Dividing by } 4 \\ & 7 \end{aligned}$ | $\begin{array}{\|l\|} \hline 2 \\ 1 \\ 1 \\ 1 \\ 1 \end{array}$ | or any other valid method |
|  | $\begin{aligned} & \hline \text { i } \\ & \text { ii } \end{aligned}$ | $50,35,85,95$ <br> Bar graph correctly drawn | $\begin{array}{\|l\|} \hline 3 \\ 3 \end{array}$ |  |
|  | $\begin{aligned} & \hline \mathrm{a} \\ & \mathrm{~b} \\ & \mathrm{c} \\ & \mathrm{~d} \\ & \mathrm{e} \end{aligned}$ | $39.7 \text { (o.e.) }$ <br> 97 <br> 50 cm <br> 9 is a factor 243 $\begin{aligned} & 1387 \div 73=19 \\ & 1387=(20 \times 73)-73 \end{aligned}$ | $\begin{array}{\|l\|} \hline 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ \hline \end{array}$ |  |
|  | $\begin{array}{ll} \text { a } & \\ \text { b } & \\ & \\ \text { c } & \\ & \text { i } \\ & \text { ii } \end{array}$ | $8 \mathrm{~cm} \times 8 \mathrm{~cm}$ square <br> Attempt to find centre <br> Circle passing through vertices <br> Any answer between 11.0 cm and 11.6 cm <br> Any answer between 5.4 cm and 5.9 cm | $\begin{array}{\|l\|} \hline 2 \\ 1 \\ 1 \\ 1 \\ 1 \end{array}$ |  |
| Question |  | Requirements | Mark | Additional Guidance |
| 19 | i. | Division by 8 seen or implied | 1 | or any other valid method |


|  | $6,2,3$ seen or implied <br> Multiplication of $6 \times 2 \times 3$ <br> 36 blocks <br> ii. | Any correct method <br> 24 blocks | 1 |
| :--- | :--- | :--- | :--- |
| 1 | 1 |  |  |
| 20 i. | Subtracting from 24:00 | 1 |  |
|  | Adding to 6:30 |  |  |
| 8 h 45 min |  |  |  |
| $06: 30+01: 45$ |  |  |  |
| $08: 15$ | 1 | 1 | or any other valid method |

Legend:

| eeoo | every error or omission |
| :--- | :--- |
| f.t. | follow through |
| o.e. | or equivalent |

