## Statistics (Q 7, Paper 2)

## 1998

7 (a) Find the mean and the median of the following array of numbers:

$$
2,5,7,11,15,3,6
$$

(b) The distribution of percentage marks awarded to a group of 200 Leaving Certificate students in a particular subject is shown in the histogram below.

(i) If 45 students obtained between $50 \%$ and $60 \%$, copy and complete the frequency table below.

| Marks (\%) | $0-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-80$ | $80-100$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency |  |  |  |  | 45 |  |  |

(ii) What is the greatest possible number of students who could have obtained a grade C or better (i.e. mark $\geq 55$ )?
(c) The following table shows the sizes, in hectares, of 20 farms in a particular area:

| No. of hectares | $15-45$ | $45-75$ | $75-105$ | $105-195$ |
| :--- | :---: | :---: | :---: | :---: |
| Number of farms | 1 | 4 | 8 | 7 |

By taking the data at mid-interval values, calculate
(i) the mean number of hectares per farm
(ii) the standard deviation, correct to the nearest hectare.

## Answers

(a) $7 ; 6$

(b) (i) | Marks (\%) | $0-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-80$ | $80-100$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 10 | 10 | 15 | 40 | 45 | 60 | 20 |

(ii) 125
(c) (i) 102
(ii) 38

