## Statistics (Q 7, Paper 2)

2002
7 (a) Calculate the mean of the following numbers:

$$
1,0,1,5,2,3,9 .
$$

(b) The following cumulative frequency table refers to the ages of 70 guests at a wedding:

| Age (in years) | $<20$ | $<40$ | $<60$ | $<90$ |
| :--- | :---: | :---: | :---: | :---: |
| Number of guests | 6 | 23 | 44 | 70 |

(i) Copy and complete the following frequency table:

| Age (in years) | $0-20$ | $20-40$ | $40-60$ | $60-90$ |
| :--- | :---: | :---: | :---: | :---: |
| Number of guests | 6 | 23 | 44 | 70 |

[Note: 20 - 40 means 20 years old or more but less than 40 etc.]
(ii) Using mid-interval values, calculate the mean age of the guests.
(iii) What is the greatest number of guests who could have been over 65 years of age?
(c) The grouped frequency table below refers to the marks obtained by 85 students in a test:

| Marks | $0-40$ | $40-55$ | $55-70$ | $70-100$ |
| :--- | :---: | :---: | :---: | :---: |
| Number of students | 16 | 18 | 27 | 24 |

[Note: 40 - 55 means 40 marks or more but less than 55 etc.]
(i) What percentage of students obtained 55 marks or higher?
(ii) Name the interval in which the median lies.
(iii) Draw an accurate histogram to represent the data.

## Answers

7 (a) 3
(b) (i)

| Age (in years) | $0-20$ | $20-40$ | $40-60$ | $60-90$ |
| :--- | :---: | :---: | :---: | :---: |
| Number of guests | 6 | 23 | 44 | 70 |

(ii) 51
(iii) 26
(c) (i) $60 \%$
(ii) 55-70

