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STATISTICS (Q 7, PAPER 2)

2010

7 (a) The following table gives the distribution of donations, in euro, made by 20 people to an appeal fund:

Amount of donation, €	5 – 15	15 – 25	25 – 35	35 – 65
Number of people	2	4	8	6

[Note: 5 - 15 means 5 or over but less than 15 etc.]

(i) Draw a histogram to represent the data.

(ii) Taking mid-interval values, calculate the mean amount donated.

(iii) Taking mid-interval values, calculate the standard deviation, correct to one decimal place.

(b) The cumulative frequency table below refers to the scores, in an aptitude test, of 400 candidates who applied for places on a particular course:

Score	≤ 20	≤ 40	≤ 60	≤ 80	≤ 100
Cumulative frequency	40	150	300	380	400

(i) Draw the cumulative frequency curve.

(ii) Use your curve to estimate the median score.

(iii) Candidates who scored above 65 in the test were called for interview. Use your curve to estimate the number of candidates who were called for interview.

ANSWERS

7 (a) (ii) 32 (iii) 13.3

(b) (ii) 47 (iii) 74