

## LC 2017: PAPER 2

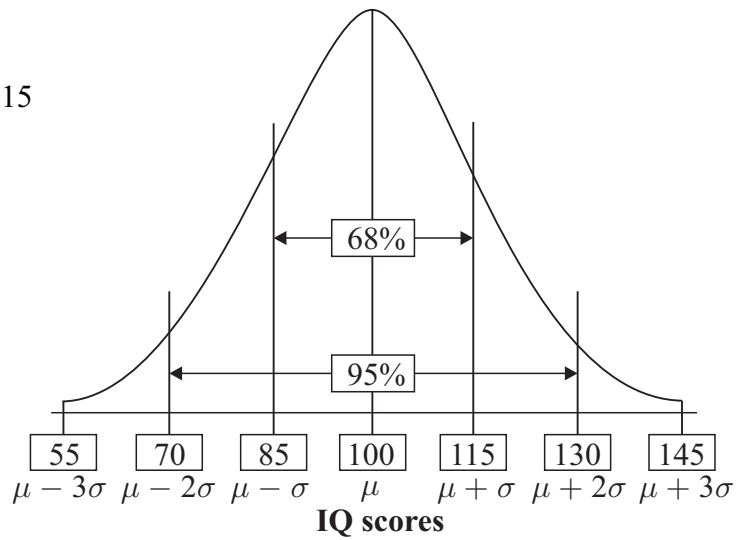
**QUESTION 5 (25 MARKS)**

**Question 5 (a)**

(i) Mean  $\mu = 100$ , standard deviation  $\sigma = 15$

(ii) 95% of those surveyed lie within  $2\sigma$  of the mean [70 to 130 points]  
 $P(\text{IQ score is 70 to 130}) = 0.95$

(iii) 68% of those surveyed lie within  $1\sigma$  of the mean [85 to 115 points]  
 Number of people =  $1200 \times 0.68$   
 = 816



**Question 5 (b)**

	<b>Studies Chemistry</b>	<b>Does not study Chemistry</b>
<b>Boys</b>	<b>6</b>	<b>4</b>
<b>Girls</b>	<b>9</b>	<b>5</b>

$$P(\text{Boy or a pupil not studying Chemistry}) = \frac{15}{24} = \frac{5}{8}$$


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