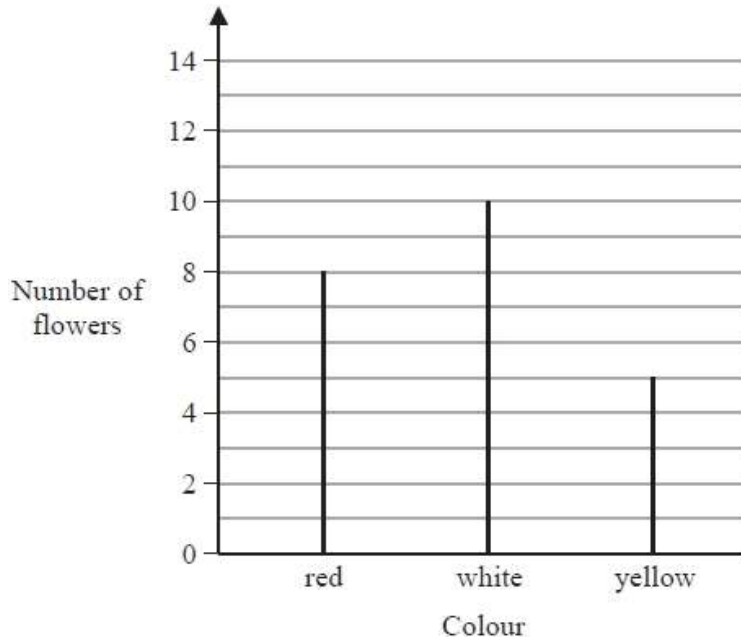


## GCSE QUESTIONS

### Q1. NON-CALCULATOR

In Adam's garden, the flowers are only red or white or yellow or blue.

The chart shows the number of red flowers, the number of white flowers and the number of yellow flowers.



The total number of flowers is 30

(a) Work out the number of blue flowers.

.....  
(2)

(b) Write down the mode.

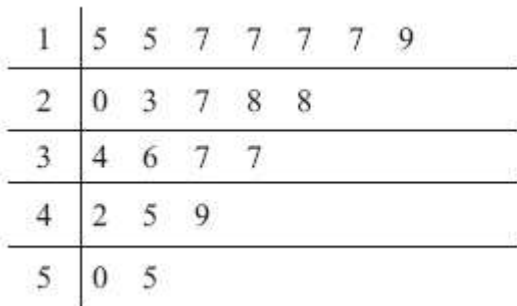
.....  
(1)

(Total for question = 3 marks)

### Q2. NON-CALCULATOR

Yan recorded the ages, in years, of a sample of people at a fairground.

He drew this stem and leaf diagram for his results.



Key:  
1|5 represents 15 years of age

(a) Write down the number of people in the sample.

.....  
(1)

(b) Write down the mode.

.....years

(1)

(c) Work out the range.

.....years

(2)

**(Total for Question is 4 marks)**

**Q3. NON-CALCULATOR**

The table shows information about the ages of all the people at a party.

Age (years)	Frequency
11 – 20	6
21 – 30	16
31 – 40	10
41 – 50	8

(a) Work out the total number of these people who were aged 40 or less.

.....

(1)

Andy says that the range of ages is 39 years because  $50 - 11 = 39$

(b) The range may not be 39 years. Explain why.

.....  
 .....  
 .....

(1)

**(Total for question = 2 marks)**

**Q4. NON-CALCULATOR**

A bus company recorded the ages, in years, of the people on coach A and the people on coach B.

Here are the ages of the 23 people on coach A.

41    42    44    48    52    53    53    53    56    57    57    59  
 60    61    63    64    64    66    67    69    74    77    79

(a) Complete the table below to show information about the ages of the people on coach A.

Median	
Lower quartile	
Upper quartile	
Least age	41
Greatest age	79

(2)

Here is some information about the ages of the people on coach B.

Median	70
Lower quartile	54
Upper quartile	73
Least age	42
Greatest age	85

Richard says that the people on coach A are younger than the people on coach B.

(b) Is Richard correct? You must give a reason for your answer.

.....  
 .....  
 .....

(1)

Richard says that the people on coach A vary more in age than the people on coach B.

(c) Is Richard correct? You must give a reason for your answer.

.....  
 .....  
 .....

(1)

(Total for question = 4 marks)

**Q5. NON-CALCULATOR**

Jake and Sarah each played a computer game six times.

Their scores for each game are shown below.

<b>Jake</b>	10	9	8	11	12	8
<b>Sarah</b>	2	10	7	14	4	10

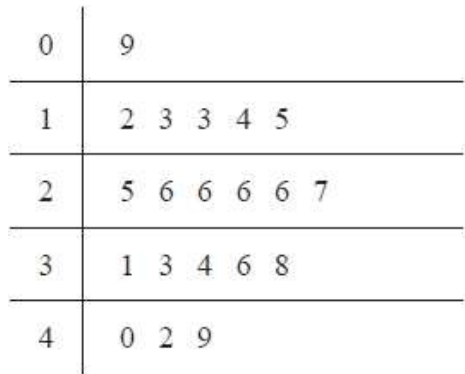
(a) Who had the most consistent scores, Jake or Sarah? You must give a reason for your answer.

.....  
 .....

(1)

Jake played a different game 20 times.

The stem and leaf diagram shows information about his scores.



<b>Key</b> 1   2 represents 12 points
--

Jake said his modal score was 6 points because 6 occurs most often in the diagram.

(b) Is Jake correct? You must explain your answer.

.....  
 .....

(1)

(Total for question = 2 marks)

**Q6. CALCULATOR ALLOWED**

Here is a list of numbers

12    19    12    15    11    15    12    13    17

Find the median.

.....  
(Total for question = 2 marks)

**Q7. CALCULATOR ALLOWED**

Matthew has eight cards.

There is a number on each card.



(a) Work out the range of the numbers on the cards.

.....  
(1)

(b) Work out the median of the numbers on the cards.

.....  
(2)

(Total for question = 3 marks)

**Q8. CALCULATOR ALLOWED**

Here is a list of numbers.

12    15    14    17    22    19    13

Bridgit says,

"To work out the median you find the middle number,  
so the median of these numbers is 17"

Bridgit's answer is **not** correct.

(a) What is wrong with Bridgit's method?

.....  
.....

(1)

(b) Work out the range of the numbers in the list.

.....  
(2)

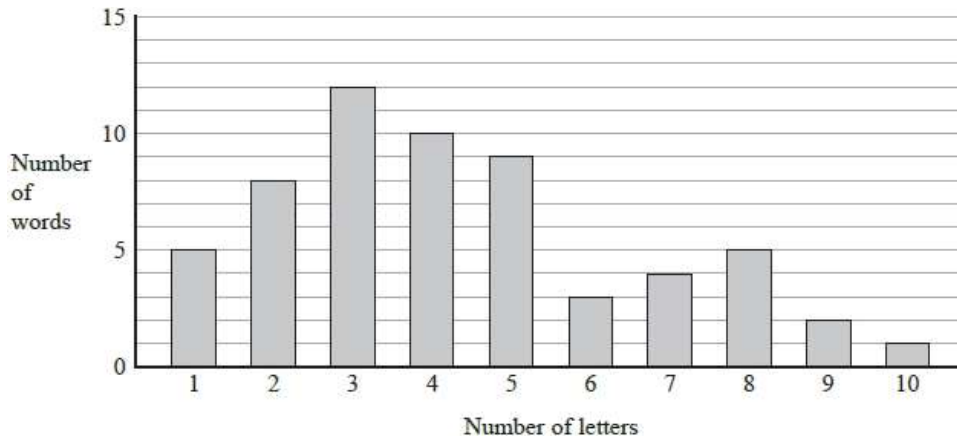
(c) Work out the mean of the numbers in the list.

.....  
(2)

(Total for question = 5 marks)

**Q9. CALCULATOR ALLOWED**

The bar chart shows some information about the number of letters in each word in a paragraph.



(a) What is the modal number of letters in a word?

.....  
(1)

(b) Work out the range for the numbers of letters in a word.

.....  
(2)

(c) Work out the fraction of the words that have at least six letters.

.....  
(3)

(Total for question = 6 marks)

**Q10. CALCULATOR ALLOWED**

Jenny is asked to find the value of  $12 - 2 \times 4$

Here is her working.

$$12 - 2 \times 4 = 10 \times 4 = 40$$

Jenny's answer is wrong.

(a) Explain what Jenny has done wrong.

.....  
.....

(1)

Rehan is asked to find the range of the numbers 3 1 8 7 5

Here is his working.

$$\text{Range} = 5 - 3 = 2$$

This is wrong.

(b) Explain why.

.....  
.....

(1)

(Total for question = 2 marks)

**Q11. CALCULATOR ALLOWED**

Here is a list of numbers.

6      4      8      9      4      3

(a) Work out the median.

.....  
(2)

Aisha picks at random one of the numbers.

(b) What is the probability that she picks an odd number?

.....  
(2)

Clara has five cards.

There is a number on each card.

Two of the numbers are hidden.

3	?	8	5	?
---	---	---	---	---

The mode of the five numbers is 3

The mean of the five numbers is 5

(c) Work out the two numbers that are hidden.

..... , .....

(2)  
**(Total for question = 6 marks)**