## GCSE QUESTIONS

## Q1. NON-CALCULATOR

The table shows the number of TVs sold in a shop on each of five days.

| Day | Mon | Tue | Wed | Thu | Fri |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of TVs sold | 8 | 12 | 9 | 6 | 8 |

David uses this information to draw the graph below.


Write down three things wrong with this graph.

1

2 $\qquad$

3
(Total for question = 3 marks)

## Q2. NON-CALCULATOR

Here are the ages of 16 men.

| 28 | 30 | 40 | 37 | 35 | 31 | 29 | 39 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 34 | 33 | 35 | 28 | 40 | 29 | 27 | 35 |

(a) Complete the table to show this information.

| Age | Tally | Frequency |
| :---: | :---: | :---: |
| $27-29$ |  |  |
| $30-32$ |  |  |
| $33-35$ |  |  |
| $36-38$ |  |  |
| $39-41$ |  |  |

(b) On the grid, draw a suitable diagram or chart for the information in the table.


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Q3. NON-CALCULATOR

The table shows information about the favourite instrument played by each of 24 students.

| Instrument | Number of boys | Number of girls |
| :--- | :---: | :---: |
| guitar | 6 | 2 |
| violin | 2 | 5 |
| keyboard | 3 | 2 |
| recorder | 1 | 3 |

(a) On the grid below, draw a suitable diagram to show this information.


One of the students is chosen at random.
(b) What is the probability that this student's favourite instrument is not the recorder?

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Q4. NON-CALCULATOR
The table shows information about the sports some students like best.

|  | Hockey | Tennis | Football | Golf |
| :--- | :---: | :---: | :---: | :---: |
| Boys | 3 | 8 | 15 | 9 |
| Girls | 6 | 14 | 7 | 1 |

Draw a suitable diagram or chart for this information.


## Q5. NON-CALCULATOR

A shop sells desktop computers, laptops and tablets.
The composite bar chart shows information about sales over the last three years.


| Key: |  |
| :--- | :--- |
| $\square$ | desktop computers |
| $\square$ | laptops |
| $\square$ | tablets |

(a) Write down the number of desktop computers sold in 2015
(b) Work out the total number of laptops sold in the 3 years.
(c) State the item that had the greatest increase in sales over the 3 years. Give a reason for your answer.
$\qquad$
$\qquad$
$\qquad$

Alex says, "In 2017, more tablets were sold than desktop computers. This means the shop makes more profit from the sale of tablets than from the sale of desktop computers."
(d) Is Alex correct? You must justify your answer.
$\qquad$
$\qquad$
$\qquad$

## Q6. CALCULATOR ALLOWED

The bar chart shows the number of hours of sunshine each day last week in Margate and in Newquay.

(a) On how many days did Newquay have less than 5 hours of sunshine?
days

In total, Margate had more hours of sunshine than Newquay last week.
(b) How many more?

## Q7. CALCULATOR ALLOWED

A teacher asks the students in Year 6 what type of transport they use to get to school. The dual bar chart shows some of the results.

(a) What is the most popular type of transport used by the boys?
(c) How many more?

The number of students in Year 5 is the same as the number of students in Year 6
(d) What is the total number of students in Years 5 and 6 ?

## Q8. CALCULATOR ALLOWED

Sam and Max work in a shop from Monday to Friday.
Sam draws a graph to show the number of TVs they each sell.


Write down three things that are wrong with this graph.

## Q9. CALCULATOR ALLOWED

Mrs Brown asked each child in her class which pet they liked best.
Here are her results.

| dog | rabbit | cat | dog | dog | hamster |
| :--- | :--- | :--- | :--- | :--- | :--- |
| cat | dog | rabbit | hamster | cat | cat |
| dog | dog | cat | dog | rabbit | dog |

(a) Complete the frequency table for this information.

| Pet | Tally | Frequency |
| :--- | :--- | :--- |
| dog |  |  |
| rabbit |  |  |
| cat |  |  |
| hamster |  |  |

(b) On the grid below, draw a bar chart for this information.

(c) Write down the most popular pet.

## Q10. CALCULATOR ALLOWED

Bruna asked 20 students in each of Year 7 and Year 8 what pet they liked best.
The table gives information about her results.

|  | Year 7 | Year 8 |
| :---: | :---: | :---: |
| Cat | 7 | 4 |
| Dog | 8 | 10 |
| Rabbit | 5 | 6 |

Draw a suitable bar chart for this information.


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## Q11. 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?
(b) Work out the range for the numbers of letters in a word.
(c) Work out the fraction of the words that have at least six letters.

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## Q12. CALCULATOR ALLOWED

Fran asks each of 40 students how many books they bought last year.
The chart below shows information about the number of books bought by each of the 40 students.

(a) Work out the percentage of these students who bought 20 or more books.
(b) Show that an estimate for the mean number of books bought is 9.5

You must show all your working.

