6-A-Day – Computer Science GCSE (30)

Q1

In the ASCII character set, the character codes for the first three capital letters are given below.

Letter	ASCII character code
A	0100 0001
B	0100 0010
C	0100 0011

(b) The program uses the letters in the following list to represent musical notes.

C D E F G A B

When the user inputs a letter from this list, the program outputs the next three notes in the list. If it gets to the end of the list, it starts again from the beginning, so the next note after B is C.

Complete the test plan below by stating, for each input data, the expected outcome and a reason for the test.

Input Data	Expected outcome	Reason for test
C		
A		
H		

[6]

Q2

Explain why the ASCII character set is **not** suitable for representing text in all the languages of the world.

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....

....

.... [2]

Q3

Describe what is meant by open source software.

....

....

....

.... [2]

Q4

The table below shows some of the utilities in Amin's computer.

Tick **one** box in each row to show whether the utility is used for security or disk organisation.

Utility	Used for security	Used for disk organisation
Antivirus		
Defragmenter		
File transfer		
Firewall		

[4]

Q5

Describe what is meant by a database.

....

.... [2]

Q6

When a person joins the website, they need to enter some personal data which is validated using rules. For example, the date of birth must be in the past.

State **one** rule that could be used when validating each of the following.

Email address

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Gender

....

....

Password

....

....

[3]