N5 Computing Science - Revision

Revision 1

1. Convert the following decimal numbers to binary using the table below.

	128	64	32	16	8	4	2	1
22								
144								
73								

2. How does a computer represent characters in a computer system?

3. Calculate the backing storage required for a 16-bit colour image 1600 pixels by 900 pixels. Give your answer in megabytes. Show your working below.

4. Explain the difference between a compiler and an interpreter.

```
Line 1  RECEIVE age FROM (INT) KEYBOARD
Line 2  WHILE age < 18 OR age > 65 DO
Line 3                  SEND “Error: Re-enter age 18-65” TO DISPLAY
Line 4                  RECEIVE age FROM (INT) KEYBOARD
Line 5  END WHILE
```

Read the code above.

5. What kind of loop is used in the above program?

6. What standard algorithm is this?

7. What data type is the variable age?

8. Describe what happens when a user enters their age as 10?

N5 Computing Science - Revision

Revision 2

1. Describe what the code below does.

SET age TO 15
SET name TO “Samantha”
SET total TO salary - tax

2. Jack has created a program to record his test results. His tests are out of 10. The maximum mark Jack could achieve is 10 and the lowest is 0. Jack will test his program using normal, extreme and exceptional test data. State appropriate test data below.

Normal	
Extreme	
Exceptional	

3. Jack's program has come up with an error saying a variable name is not defined. This probably means the variable name has been spelt wrong. What type of error is this?

4. What is the difference between a fixed loop and a conditional loop?

5. What is the difference between a simple condition and a complex condition?

N5 Computing Science - Revision

Revision 3

1. Describe one advantage of using linked tables.

2. When ordering clothes online, users select their choice the following drop down menu:

This is a restricted choice. State one advantage of this type of interface.

3.Describe what a database is.

4. State the three parts the processor is made up from.

5. What job does the ALU perform?

6. When signing up to Facebook you **must** enter an email address. What type of validation should be used on this field?

7. What type of validation is used when a cost has to be between £100 and £200?

8. What type of validation is used when a password has to be greater than or equal to 8 characters long?

N5 Computing Science - Revision

Revision 4

1. A computer program is created to store data about the total number of pupils who pass an exam. State the most suitable data type for the total.

2. State what data type would be used if the only two possible values could be true or false?

```
…
Line 4      SET password TO “h1gh@sch001”
Line 5      REPEAT
Line 6          SEND “Please enter your password” TO DISPLAY
Line 7          RECEIVE user_guess FROM (STRING) KEYBOARD
Line 8      UNTIL password = user_guess
```

3. Read the code above and explain the purpose of lines 5 to 8 in this pseudocode.

4. State what URL stands for.

5. A URL is split up into three parts. State the names of the three parts.

6. Describe the difference between an internal link and an external link.

7. Web browsers such a Google Chrome and Internet Explorer are used to view web pages. State one other feature of a web browser.

8. Explain the three main steps of how a search engine, such as Google or Bing, works.

N5 Computing Science - Revision

Revision 5

A program is written to calculate the cost of feeding chickens for one month. Chickens eat 5 Kilograms of grain each month. An incomplete design for the program is shown below.

```
Line 1    SEND "Enter the number of chickens and the cost of grain" TO
          DISPLAY
Line 2    RECEIVE numberOfChickens FROM (_____) KEYBOARD
Line 3    RECEIVE pricePerKilo FROM (_____) KEYBOARD
Line 4    SEND "Is the grain full price?" TO DISPLAY
Line 5    RECEIVE fullPrice FROM (_____) KEYBOARD
Line 6    IF fullPrice = True THEN
Line 7        SET totalPrice TO numberOfChickens *5*pricePerKilo
Line 8    END IF
Line 9    IF fullPrice = False THEN
Line 10   SET totalPrice TO numberOfChickens *5*(pricePerKilo*0.8)
Line 11   END IF
Line 12   SEND ["The total cost of grain required for" & numberOfChickens
          & "chickens is £" & totalPrice] TO DISPLAY
```

1. The above design should show the type of data being entered by keyboard in Lines 2, 3 and 5. State the most appropriate data types for the following variables.

numberOfChickens	
pricePerKilo	
fullPrice	

2. State the lines of pseudocode that contain conditional statements (if statements).

N5 Computing Science - Revision

3. State the part of the processor that compares the values in the conditional statements and carries out the logical thinking.

4. The program is later improved to store the totalPrice for each month of a year.

State the data structure that would be required to store the **list** of totalPrice values.

5. State the **type** of loop required to repeat the code in lines 1 to 12 for each month of the year. Explain why this type of loop would be used.

Type of Loop	
Explanation	

N5 Computing Science - Revision

Revision 6

1. What does HTML stand for?

2. What is HTML used for?

3. What is JavaScript used for?

4. Explain the difference between an expert user and a novice user.

5. A novice user may use a wizard to perform a complex operation. Describe what a wizard is.

6. Calculate the backing storage required for a 8-bit colour image 600 pixels by 800 pixels. Give your answer in Kilobytes and show your working below.

7. Convert the following decimal numbers to binary using the table below.

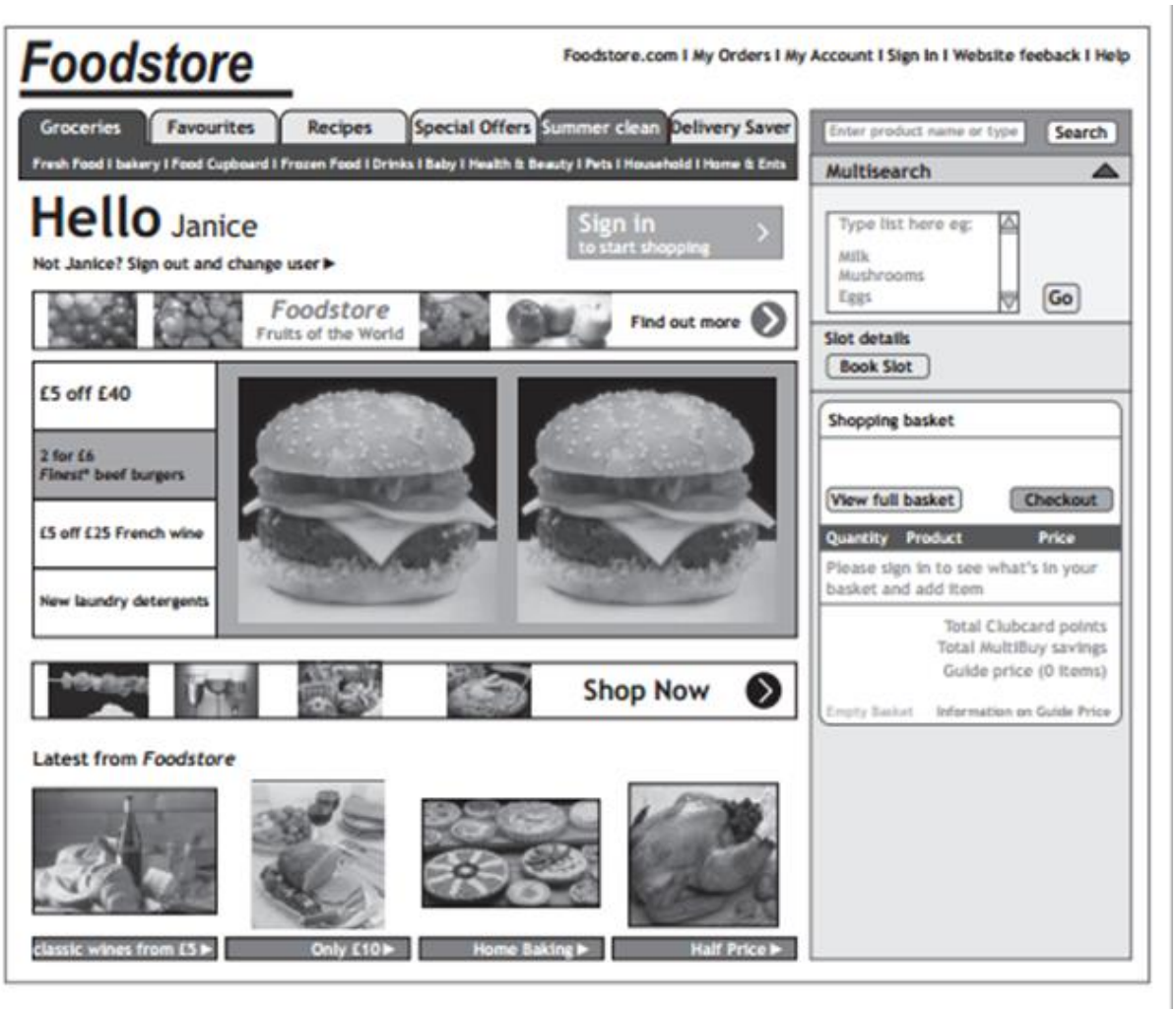
	128	64	32	16	8	4	2	1
45								
77								
234								

7. Convert the following binary numbers to decimal using the table below.

	128	64	32	16	8	4	2	1
	0	0	1	1	1	0	1	0
	1	0	0	1	1	1	1	1
	1	1	1	0	0	1	0	1

N5 Computing Science - Revision

Revision 7



1. The company has received complaints from some customers that the website is difficult to use on their tablet or smartphone.

Identify two reasons why the webpage above would be unsuitable for such portable devices.

Reason 1	
Reason 2	

2. State two standard file formats for text.

3. State two standard file formats for audio.

4. State two standard file formats for video.

N5 Computing Science - Revision

5. Describe what a standard file format is.

6. State two input devices and two output devices below.

Input Devices	Output Devices

7. State what ROM stands for.

8. State what RAM stands for.

9. Describe two differences between RAM and ROM.

N5 Computing Science - Revision

Revision 8

1. State the units of storage in order starting from Bit up to Terabyte below.

Bit
Terabyte

2. State one advantage of using a 8GB USB Pen Drive to store photographs on.

3. Describe the difference between a DVD-R and DVD-RW.

4.State what LAN stands for.

5. State what WAN stands for.

6. State one advantage and one disadvantage of using local storage.

7. State one advantage and one disadvantage of using cloud storage.

N5 Computing Science - Revision

Revision 9

1. Describe what a keylogger does.

2. Describe what phishing is.

3. Describe what identity theft is.

4. Describe what a DOS attack is.

5. Describe what would make a password more secure.

6. Describe why encryption makes communication more secure.

N5 Computing Science - Revision

Revision 10

1. If I logged into another person's account in school, what law am I breaking?

2. If I installed a virus on another person's computer, what law am I breaking?

3. State the name of the law that is used to give legal rights to people who have information stored about them?

4. State the name of the law that covers illegal downloading of music and videos if you do not have the permission to do so.

5. Copying and pasting an image from a website without the owner's permission would be breaking what law?

6. State the name of the law you would be breaking if you are using your neighbours WiFi without their permission.

7. People can suffer a repetitive strain injury (RSI) from working on computer for a long period of time. Suggest one way the risk of this happening can be reduced.