1. Put the following in order of size (smallest to largest) by numbering them.

Megabyte	Byte	Bit	Gigabyte	Petabyte	Nibble

2. José wants to buy a new laptop. He wants to store plenty of files and has been told that the laptop he is looking at is perfect, because it has 16GB of RAM. Discuss whether you think this would be a good purchase or not.

   --- [2]

3. José is using his phone to record some videos for a school film club competition. He has 2 Gigabytes left on his phone and wants to record some videos of 500MB. How many videos will be able to record?

   --- [2]

4. How is data stored in a computer in binary format?

   --- [1]

5. George has sent a photograph that he has taken with his mobile phone to National Geographics Nature Capture competition using email. He has used lossy compression on the photo.
   Explain 2 reasons why lossy compression is beneficial in this case.

   1 _____

   _____

   2 _____

   _____ [4]

6. Convert the decimal number 97 into an 8 bit binary number.

_____ [1]

7. Convert the decimal number 97 into a hexadecimal number. Show your working

_____

_____ [2]

8. Add the following 2 binary numbers:

| 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |

[2]

9. Lowercase ASCII characters begin from the denary number 97. This is represented as 1100001 in binary and would represent the letter a. c would be represented by 99 and as such the binary number would also increase by 2 (01100011).
   Your teacher wants to write the word codefez in binary ASCII representation. Complete the table below.

Character	Denary	ASCII Code
c	99	01100011
d		
e		
f		
o	111	01101111
z	122	

[6]

10. Complete a 2 place right shift on the binary number 0010 0100

_____ [1]

11. What was the result of the binary shift on question 10?

_____ [1]