Name:	Teacher:	Mark: /25

National 5 Computer Systems Revision Questions

Question 1 – 2 marks

The value 765·2 would be stored in a computer system using 'floating-point representation' as shown below.

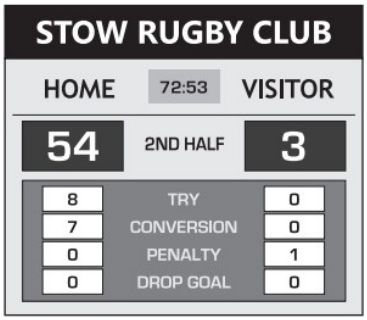
$$0{\cdot}7652 \times 10^{3}$$

Identify the mantissa and exponent in the above floating-point representation.

Mantissa _____

Exponent _____

Question 2 – 1 marks



The computer system stores the time and scores as binary numbers and the text using extended ASCII code.

(i) In the box below, show how the value 54 would be stored as an 8-bit binary number.

Question 3 – 3 marks

The scoreboard highlights some of the information it displays using coloured objects. These are stored as vector graphics.

(i) State the name of the object.

_____

(ii) State two attributes of this object.

Attribute 1 _____

Attribute 2 _____

Question 4 – 1 marks

Describe a feature or function of the computer system that could be used to reduce the amount of energy it uses.

_____

_____

Question 5 – 2 marks

Convert the following numbers to decimal. You must show your working.

a) 11001101

b) 11110000

Question 6 – 2 marks

Convert the following numbers to binary. You must show your working.

a) 125

b) 87

Question 7 – 3 marks

Explain each of the part of the processor do.

ALU

CONTROL UNIT

REGISTERS

Question 8 – 1 mark

Describe the difference between ASCII and Extended ASCII.

Question 9 – 1 marks

State the number of bits required to store the word below using extended ASCII.

COMPUTING

Question 10 – 4 marks

Describe how a bit mapped and vector graphic are stored in a computer systems memory.

Bitmapped

Vector

Question 11 – 3 marks

State the part of the processor that will carry out the following tasks:

Compare password to the password the user has entered

Ensures instructions are carried out in the correct order

Question 12 – 2 marks

Below is a simple company logo. State one of the objects used to create the logo and name an attribute of this object.

Object:

Attribute: