**WORKSHEET 2-2**

TOPIC

2

**BINARY REPRESENTATION**



**TIME TO COMPLETE: 1 HOUR**

Please do the work either on the sheet or by hand and show it, that way I know you’re able to replicate it on the exam.

***MAX MARKS: 21***

**1.1 Number Systems**

1. What is another name for the base-2 number system?
2. To make reading and writing large numbers easier we use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ notation.
3. Convert the following numbers from binary to decimal (base-10).
   1. 110

* 1. 1001
  2. 10011

* 1. 11010

1. List the numerals that make up the hexadecimal (hex) number system.
2. Convert the following numbers from hex to decimal.
3. E

1. 16
2. 5C

1. A1

**1.2 Number Conversion**

1. Convert the following numbers from binary to decimal.
2. 110101
3. 10001001

1. Convert the following binary numbers to hex.
2. 110110111

1. 101100111100

1. Convert the following decimal numbers to binary.
2. 40

1. b. 157  
   1. 37
   2. 257

1. Convert the following hexadecimal numbers to binary.
2. F6

1. 3BC