

Question No.

Question TWO.

i) Convert the following binary numbers to base 10

a 11010111

$$1 \times 2^7$$

$$1 \times 2^6$$

$$0 \times 2^5$$

$$1 \times 2^4$$

$$0 \times 2^3$$

$$1 \times 2^2$$

$$1 \times 2^1$$

$$17$$

0/2

ii Convert the following hex numbers to binary.

a 6F

0/2

b EA

0/2

iii Convert the following decimal numbers to Binary.

$$\begin{array}{rclcl}
 84 & \div & 2 & = & 42 & \text{rm } 0 \\
 42 & \div & 2 & = & 21 & \text{rm } 0 \\
 21 & \div & 2 & = & 10 & \text{rm } 1 \\
 10 & \div & 2 & = & 5 & \text{rm } 0 \\
 5 & \div & 2 & = & 2 & \text{rm } 1 \\
 2 & \div & 2 & = & 1 & \text{rm } 0 \\
 1 & \div & 2 & = & 0 & \text{rm } 1
 \end{array}$$

1010100₂

2/2

3/2

b)

246	÷ 2	= 123	rm 0
123	÷ 2	= 61	rm 1
61	÷ 2	= 30	rm 1
30	÷ 2	= 15	rm 0
15	÷ 2	= 7	rm 1
7	÷ 2	= 3	rm 1
3	÷ 2	= 1	rm 1
1	÷ 2	= 0	rm 1

1111110₂

✓

W Convert the following ^{hex numbers} decimal to ~~decimal~~ ^{binary}.

a A1

Question Three.

A A Suitable CPU

b What is a sensible amount of RAM.

c

d Rom →