GENERALITAT VALENCIANA
Conselleria d'Educació, Investigació, Cultura i Esport

Unió Europea
Fons social europeu
L'FSE inverteix en el teu futur

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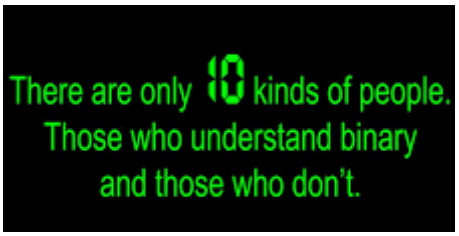
COMPUTER SYSTEMS
UD1_TASKS: INFORMATION REPRESENTATION

CFGS DAW
DPT INF



1. Convert to each format:

Binary	Octal	Decimal	Hexadecimal
11001101			
	246		
		791	
			FA05
11101001			
		945	

2. Which number is the greater, 11111000_2 or $E7_{16}$?. Justify your answer

3. RAM memory addresses are usually represented in hexadecimal system.

What decimal code corresponds to the address 0xCF250? -> 848464.

4. How is hexadecimal number FA05 encoded in binary?

5. Execute the "ifconfig" instruction on your machine and determine your IP. Convert your IP address to binary.

- Do the same with the broadcast address.
- Which one is the MAC address for the wifi card of your computer? (addressHW)

6. How many bits are in 32 Bytes?

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7. How many GigaBytes are in a PetaByte?

8. If a movie in DivX format occupies 700MB, how many movies can fit on a 4.7GB capacity DVD?

9. The ASCII code for the symbol Ø is $10011101_{(2}$. How is it represented in octal and hexadecimal systems?

10. Use the ASCII table to encode your name and surnames in hexadecimal and in binary.

11. Open the notepad and write the following message without quotation marks: "In this exercise we are going to check the size of the same information stored in different representation formats"

- Save the document as ANSI.txt, choosing the ANSI format.
- Save the document as utf8.txt, choosing the UTF-8 format.
- Save the document as Unicode.txt, choosing the UNICODE format.

How much does each file occupy? Why are they different in size if they have the same text?