Averigua y escribe el código ASCII correspondiente, tanto en decimal como en binario, a las letras de sus nombres y apellidos. Distinguir entre mayúsculas/minúsculas, y sin acentos. Crear una tabla donde las filas sean los caracteres del nombre y las columnas sean (carácter, Representación Decimal, Binario)

| CARACTER | BINARIO | DECIMAL |  |  |  |  |  |  |
|----------|---------|---------|--|--|--|--|--|--|
| L        | 1001100 | 76      |  |  |  |  |  |  |
| a        | 1100001 | 97      |  |  |  |  |  |  |
| u        | 1110101 | 117     |  |  |  |  |  |  |
| r        | 1110010 | 114     |  |  |  |  |  |  |
| a        | 1100001 | 97      |  |  |  |  |  |  |
| (espace) | 100000  | 32      |  |  |  |  |  |  |
| D        | 1000100 | 68      |  |  |  |  |  |  |
| a        | 1100001 | 97      |  |  |  |  |  |  |
| n        | 1101110 | 110     |  |  |  |  |  |  |
| i        | 1101001 | 105     |  |  |  |  |  |  |
| е        | 1100101 | 101     |  |  |  |  |  |  |
| I        | 1101100 | 108     |  |  |  |  |  |  |
| a        | 1100001 | 97      |  |  |  |  |  |  |
| (espace) | 100000  | 32      |  |  |  |  |  |  |
| P        | 1010000 | 80      |  |  |  |  |  |  |
| a        | 1100001 | 97      |  |  |  |  |  |  |
| r        | 1110010 | 114     |  |  |  |  |  |  |
| g        | 1100111 | 103     |  |  |  |  |  |  |
| a        | 1100001 | 97      |  |  |  |  |  |  |

- 2. Realiza la conversión a binario del número decimal 843, mostrar proceso.
- 3. Realiza la conversión tanto a decimal como a hexadecimal de los números binarios, mostrar proceso.
- a. 11100101011110.
- b. 1111111111111.
- c. 10000000001.
- d. 10101011110000.

| -  |   |  | 7 |
|----|---|--|---|
| A) | 11100101011110 - Dec  | imal.                                    |   |
|    |   | 0  | 0 |
|    | $0 \times 2^{\circ} = 0 \times 4 = 1 \times 2 = $ | 2  | 0 |
|    | 1 R 24 = 1 X 4 F  | Ч  | 0 |
| -  | 1 x 23 = 1 x 8 = 1 x 16 =   | 8 211 14686.                             |   |
|    |   | 16 211 14686.                            |   |
|    | 1 x 26 = 0 x 52 = 1 x UV =  | 6 V                                      | 1 |
|    | 0 x 27 = 0 x 128 =  | 0  | - |
|    | 1 x 28 = 1x 256 =   | 256                                      | 1 |
|    | $0 \times 29 = 0 \times 512 = 0 \times 1029 = 0$  | 0  |   |
|    | N x 2" = 1 x 2048 =   | 2048                                     |   |
|    | 1 x 212 = 1 x 4096 =  | 2048<br>4696<br>8192                     | 4 |
|    | 1 x 213 = 1 x 8192 =  | 8192                                     |   |
| 8. | Hexadecimal.  |  |   |
| 3. | Hexadecimal.  | 0 10 10 10 10 10 10 10 10 10 10 10 10 10 |   |
|    | 395E  | 0 3 3 5 6 5 5                            |   |
| 0  |   |  |   |
| 8. | 1111111111  |  |   |
|    | 1×2° = 1×1 = 1  |  | 1 |
|    | 1 × 2 = 1 × 2 = 2   |  |   |
|    | 1 x 22 = 1x 4 + 4   | 611 8446                                 |   |
|    | 1 x 2 <sup>3</sup> = 1 x 8 = 8<br>1 x 2 <sup>3</sup> = 1 x 16 = 16<br>1 x 2 <sup>5</sup> = 1 x 32 = 32  |  |   |
| -  | 1 x 2' = 1 x 16 = 16<br>1 x 2' = 1 x 32 = 32  | D11 8191                                 |   |
|    | 1 476 - 12 (4 - 64  | OKE I WARRED                             |   |
| -  | 1 x2+ = 1x 128 = 128  |  | 1 |
|    | 1 x 28 = 1 x 256 - 256  | 100000000000000000000000000000000000000  | - |
|    | 1 x 29 = 1 x 512 = 512  |  | + |
| 4  | 1 x210 = 1 x 162 x - 102 4  |  | 1 |
|    | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$   |  | 1 |
| 1  | 1 x2 11 4046 1046   |  | 1 |
|    | xadeamal = 1 FFF  |  | 1 |

| C.   | 10  | 00  | 00  | 00  | $\infty$ | 10    |     | 1        |           |     |       |     |    | -   | 1  | 1   |     |     |      |     |          |     | 1 82 |     | 1        | 7   | 17  |     | 1  | 1 |
|------|-----|-----|-----|-----|----------|-------|-----|----------|-----------|-----|-------|-----|----|-----|----|-----|-----|-----|------|-----|----------|-----|------|-----|----------|-----|-----|-----|----|---|
|      | +   | 1   | ,   | 29  |          |       |     | 1        |           |     | 5     | 1   |    |     |    | 101 | 110 | 8-  | 100  |     |          | -   | 100  | +   |          | V   |     |     | 1  | - |
|      |     | 10  | X   | 20  |          | 0 13  | 1   | 11       | ( 1       |     | 17    | 0   |    |     |    | -   |     |     | 2    | 1   | 1 4      | 1   | 1    | 1   |          | -   | 0   |     | 0  |   |
|      |     | 0   | X   | 22  |          | ti    | 0   | DY       | 4         |     | 5     | 0   |    | 0   | -  | -   |     |     |      | 100 | -        | -   | 1    | 1   |          |     | R   | 13  | 1  |   |
|      |     | 0   | 17  | 3   |          | C     | (   | X        | 8         | )   | -     | 0   |    | U   | -  | 11  |     | 2   | 04   | 9.  | 1        | 3 3 |      |     |          | -   | 1   | 13  |    | 1 |
|      |     | 0   | X Z | Y   |          | t)    | C   | X        | 1         | 6   |       | C   |    | 10  |    | 41  |     |     |      |     |          | 1   |      |     |          |     | 18  | 1   | -  | 1 |
|      |     | 0)  | 12  | 5   |          | 3     |     | >4       | 3         | L   | 5     | 0   | -  | O A | +  |     |     |     |      | 1   |          | 9   | 1    |     |          | 1   | 100 |     |    |   |
|      |     | 0)  | 12  | 2   | 100      | *     |     | 74       | 6         | 11  | 11 11 | C   |    | 0   |    |     |     |     |      |     |          | 1   | 0    |     |          |     |     | 30  | XX |   |
|      |     | 0   | ×2  | ę e |          | 20 20 |     | XC       | 12        | 8   | 2     |     |    | W   |    |     |     |     |      | 1   | 10       | V   | 1    |     |          | -   |     | 7   |    | 3 |
|      |     | OX  | 12  | 9   |          |       | 0   | ) X      | 51        | 7   | 2     | (   | 5  | 0   |    |     |     |     |      | 8   | 5/       |     | 10   |     |          | -   |     | 1   | -  | N |
|      |     | DY  | 2   | 10  |          | 5     | -   | SX:      | 101       | 4   | 5     | (   | >  | 8   | 3  |     |     |     | -    | 1   | 110      | 2   | 4    |     |          | -   |     | 13  |    |   |
|      |     | 1   | XZ  | 45  | 1-8      | 7     | 1   | X        | 20        | 940 | 5 0   | 20  |    | 0   |    |     |     |     | 1    | 100 | 1        | 2   | VI   | 0   | -        | -   |     | 1 3 |    | - |
|      |     | 1   | 1   |     |          |       |     |          |           |     |       |     |    | C   |    |     |     |     |      | 1   | 300 15   | 211 | R    | 0   | -        | +   | -   | -   | 6  |   |
|      |     |     |     |     |          |       |     |          |           |     |       |     |    | 18  | PI | 15  | -   |     |      | -   | P        | 18  | 12   | 1   | -        | -   |     | -   | -  | 1 |
| Hex  | ade | CIN | a   |     | 80       | 1     |     |          |           |     |       |     |    | 0   | 17 | 03  |     | -   |      |     | (1)      | 70  | 9    | 1   | -        | -   |     |     | A. |   |
|      |     |     |     |     |          |       |     |          |           |     |       |     |    | 100 |    | 1.0 |     | -   | -    | -   | 2 1      | 100 | 7    | 1   | +        | +   |     |     |    |   |
| D.   | 11  | 01  | 0   | 10  | 11       | 111   | COC | $\alpha$ |           |     |       |     |    | -   | -  | -   | -   | -   |      | +   | -        |     |      | +   | -        | -   | 16  | 137 | 30 | - |
|      |     |     |     |     |          |       |     |          |           |     |       | -   | 13 | -   |    |     | 7   |     | -    |     |          |     |      | -   | +        |     |     |     |    | 1 |
|      |     | 0   | 100 | - D | J.       |       |     |          |           | x 1 |       |     |    |     |    |     | 0   | 1   |      |     |          | 0   |      | 1   | +        |     |     | 13  | PI | 1 |
|      |     | 0   |     | 4   | 21       |       |     | -        | 0)        | 2   |       |     | 20 |     |    |     | 0   |     | -    |     |          |     | 100  | -   | 1        |     |     |     |    | 1 |
|      |     | 0   |     |     | 22       |       |     |          |           | × 4 |       |     | 5  |     |    |     | (   | 200 |      |     |          |     |      | 1   |          |     | 1   | 111 | 10 | 1 |
|      |     | 0   | ) 7 | 1   | 3        |       |     |          | - (J) (J) | 3 1 | 3     |     |    |     |    |     | 16  |     |      |     | 100      |     | -    | 1   |          |     |     |     |    |   |
|      |     | 1   | *   | 2   |          |       |     |          | X         |     |       | 1   | 7  |     |    |     | 37  | 7   |      |     | d        | T   | 11   |     | 10       | C   | 97  |     |    |   |
|      |     | 1   | X   | 2   | 5        |       |     |          | UX.       |     | 1     |     | 1  |     |    |     | 64  | 0   |      |     | 100      | F   | 71   |     | TI       |     |     |     |    |   |
|      |     | 1   | ×   | 2   | 6<br>F   |       |     |          |           | +   |       | 100 | -  |     |    | 1   | 2 8 | 2   |      |     | 1        |     | 1    |     |          |     | 31  |     |    |   |
|      |     | 1   | K   |     |          |       |     | _        | X         |     | 35    |     |    |     |    | 7   |     | 5   |      |     | 100      |     | 1    |     | The same |     |     | 1   |    |   |
|      |     | 0   | *   | 2   | 8        |       |     | (        | XC        | 2   | 56    | 5   | 1  |     |    | C   | 1   | -   |      |     | 0        | 1   | 1    | -   |          |     | 8/1 | 1   | 1  | 1 |
|      |     | 1   | X   | 2   | 9        |       |     |          |           | 5   |       |     | 3  |     | 13 | P   | 11  | )   |      |     | The same |     |      | 100 | 18       | 1   | 01  |     |    | f |
|      |     | 0   | X   | 2   | 16       |       |     |          |           | 1   |       |     | 7  |     |    | 20  | U   | 2   |      |     | 13       |     |      |     | 1        | 4   | 1   |     |    |   |
|      |     | 1   | X   | 2   | 11       |       |     | 1        | X         | 2   | 0     | 18  | 7  |     |    | -   |     | 0   |      |     | 1        | 7   |      |     |          | -   | 2   | +   | 1  |   |
|      |     | 0   | X   | 2   |          |       |     | C        | 18        | 41  | 00    | 16  | 7  |     |    | 0   | -   |     |      |     |          | 3   |      |     | 100      | 2   | 1   | -   | -  |   |
|      |     | 1   | X   | 200 | 1        |       |     | 1        | X         | 8.  | 10    | 12  | (d |     |    | 81  | 9   | 4   |      |     | K        | 1   | 100  |     | 18       | 1   | 21  | -   | -  |   |
|      |     |     |     |     |          |       | 7   |          |           |     |       |     |    |     |    |     |     |     |      |     |          | K   | 1    |     |          | 3   |     | -   |    | - |
| Hexa | dec | ma  | 11  | =   | 2        | AF    | 0.  |          |           |     |       |     |    |     |    |     | 100 | 100 |      |     |          | 34  |      | 13  | 1        | 9.8 | 19  |     |    | - |
|      | 141 |     |     | 10  |          |       |     |          |           |     |       |     |    | 1   | 1  |     |     |     | 10   |     | 8        | 01  |      | 183 | 1        | M   | 3 . |     |    | + |
|      |     |     |     | 1   |          |       |     |          |           |     |       |     |    |     |    | 1   |     |     | 1    |     | 2119     | 03  |      | 10  | 118      | 213 | 1   |     | -  | + |
|      |     |     |     | 1   | 1        |       |     |          |           |     |       |     |    |     |    |     |     |     |      |     | 1        |     |      | -   |          | 200 | 1   |     | -  | 1 |
|      |     | -   |     | +   | +        |       |     |          |           | 14  |       | 1   |    |     |    |     |     |     |      |     |          |     |      | 1   | 1        |     | 1   | 1   |    |   |
|      |     | 1   | -   | -   | +        | -     | -   | -        |           |     | -     | -   | 1  |     |    |     |     | 1   | 1    |     |          |     |      |     |          |     |     |     |    |   |
| 139  |     | 1   |     |     | 1        |       |     | -        |           |     |       | -   | -  | -   |    | 1   |     | -   | 1    | 1   | 1        |     | 1    | 1   |          |     |     | 16  |    |   |
|      |     | -   |     |     |          |       |     |          |           |     |       |     |    |     |    |     |     |     | 0.00 |     |          |     | 100  |     |          | -   | -   | -   | 1  |   |

4. Construir una tabla con la representación de los 32 primeros números en los sistemas de numeración hexadecimal, decimal y binario.

NUMERO HEXADECIMAL DECIMAL

**BINARIO** 

| 1  | 1   | 1  | 1      |
|----|-----|----|--------|
| 2  | 2   | 2  | 10     |
| 3  | 3   | 3  | 11     |
| 4  | 4   | 4  | 100    |
| 5  | 5   | 5  | 101    |
| 6  | 6   | 6  | 110    |
| 7  | 7   | 7  | 111    |
| 8  | 8   | 8  | 1000   |
| 9  | 9   | 9  | 1001   |
| 10 | А   | 10 | 1010   |
| 11 | В   | 11 | 1011   |
| 12 | С   | 12 | 1100   |
| 13 | D   | 13 | 1101   |
| 14 | E   | 14 | 1110   |
| 15 | F   | 15 | 1111   |
| 16 | 10  | 16 | 10000  |
| 17 | 11  | 17 | 10001  |
| 18 | 12  | 18 | 10010  |
| 19 | 13  | 19 | 10011  |
| 20 | 14  | 20 | 10100  |
| 21 | 15  | 21 | 10101  |
| 22 | 16  | 22 | 10110  |
| 23 | 17  | 23 | 10111  |
| 24 | 18  | 24 | 11000  |
| 25 | 19  | 25 | 11001  |
| 26 | 1 A | 26 | 11010  |
| 27 | 1B  | 27 | 11011  |
| 28 | 1C  | 28 | 11100  |
| 29 | 1D  | 29 | 11101  |
| 30 | 1E  | 30 | 11110  |
| 31 | 1F  | 31 | 11111  |
| 32 | 20  | 32 | 100000 |

## 5. ¿Cuál es el siguiente número hexadecimal al 19F