Q1] Convert from Decimal System to Binary System

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

81

|  |  |  |
| --- | --- | --- |
|  |  | Reminder |
| 81 | 2 | 1 |
| 40 | 2 | 0 |
| 20 | 2 | 0 |
| 10 | 2 | 0 |
| 5 | 2 | 1 |
| 2 | 2 | 0 |
| 1 | 2 | 1 |

(1010001)2

وبنضيف الصفر في الشمال لو ما كانش مجموعات متماثلة علشان الشكل كدة :

(0101 0001)2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

72

|  |  |  |
| --- | --- | --- |
|  |  | Reminder |
| 72 | 2 | 0 |
| 36 | 2 | 0 |
| 18 | 2 | 0 |
| 9 | 2 | 1 |
| 4 | 2 | 0  وبنضيف الصفر في الشمال لو ما كانش مجموعات متماثلة علشان الشكل كدة : |
| 2 | 2 | 0 |
| 1 | 2 | 1 |

(0100 1000)2

(1001000)2

34

|  |  |  |
| --- | --- | --- |
|  |  | Reminder |
| 34 | 2 | 0 |
| 17 | 2 | 1 |
| 8 | 2 | 0 |
| 4 | 2 | 0 |
| 2 | 2 | 0 |
| 1 | 2 | 1 |

وبنضيف الصفر في الشمال لو ما كانش مجموعات متماثلة علشان الشكل كدة :

(100010)2

Q2] Convert from Binary System to Decimal System

(0010 0010)2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

( 1 0 0 1 1 0 )2

Answer

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | 0 | 0 | 1 | 1 | 0 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1x 25 | 0 x 24 | 0 x 23 | 1 x 22 | 1 x 21 | 0 x 20 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 32 | 0 | 0 | 4 | 2 | 0 |

**(38)10**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

( 1 1 1 0 1 1 1 )2

Answer

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1 x 26 | 1x 25 | 1 x 24 | 0 x 23 | 1 x 22 | 1 x 21 | 1 x 20 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 64 | 32 | 16 | 0 | 4 | 2 | 1 |

**(119)10**

( 1 1 1 0 0 0 0 1 )2

Answer

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 x 27 | 1 x 26 | 1 x 25 | 0 x 24 | 0 x 23 | 0 x 22 | 0 x 21 | 1 x 20 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 128 | 64 | 32 | 0 | 0 | 0 | 0 | 1 |

**(225)10**

Q3] Convert from Binary System to Hexa Decimal System

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

( 1 0 0 1 0 1 1 1 1 )2

1. نقسم الرقم لمجموعات مكونة من 4 خانات ونضيف اصفار من اليسار لو احتجنا

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | 0 | 0 | 0 | 1 |  |  |  |  |  | | --- | --- | --- | --- | | 0x 23 | 0x 22 | 0x 21 | 1 x 20 |  |  |  |  |  | | --- | --- | --- | --- | | 0 | 0 | 0 | 1 |   1 | |  |  |  |  | | --- | --- | --- | --- | | 0 | 0 | 1 | 0 |  |  |  |  |  | | --- | --- | --- | --- | | 0x 23 | 0x 22 | 1 x 21 | 0x 20 |  |  |  |  |  | | --- | --- | --- | --- | | 0 | 0 | 2 | 0 |   2 | |  |  |  |  | | --- | --- | --- | --- | | 1 | 1 | 1 | 1 |  |  |  |  |  | | --- | --- | --- | --- | | 1 x 23 | 1 x 22 | 1 x 21 | 1 x 20 |  |  |  |  |  | | --- | --- | --- | --- | | 8 | 4 | 2 | 1 |   15  F  0 |
| (12F)16 | | |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

( 1 1 1 0 1 0 0 0 0 0 1 1 )2

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | 1 | 1 | 1 | 0 |  |  |  |  |  | | --- | --- | --- | --- | | 1 x 23 | 1 x 22 | 1 x 21 | 0x 20 |  |  |  |  |  | | --- | --- | --- | --- | | 8 | 4 | 2 | 0 |   E  14 | |  |  |  |  | | --- | --- | --- | --- | | 1 | 0 | 0 | 0 |  |  |  |  |  | | --- | --- | --- | --- | | 1 x 23 | 0x 22 | 0x 21 | 0x 20 |  |  |  |  |  | | --- | --- | --- | --- | | 8 | 0 | 0 | 0 |   8 | |  |  |  |  | | --- | --- | --- | --- | | 0 | 0 | 1 | 1 |  |  |  |  |  | | --- | --- | --- | --- | | 0x 23 | 0x 22 | 1 x 21 | 1 x 20 |  |  |  |  |  | | --- | --- | --- | --- | | 0 | 0 | 2 | 1 |   3 |
| (E83)16 | | |

­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | 1 | 1 | 1 | 0 |  |  |  |  |  | | --- | --- | --- | --- | | 1 x 23 | 1 x 22 | 1 x 21 | 0x 20 |  |  |  |  |  | | --- | --- | --- | --- | | 8 | 4 | 2 | 0 |   E  14 | |  |  |  |  | | --- | --- | --- | --- | | 0 | 1 | 1 | 1 |  |  |  |  |  | | --- | --- | --- | --- | | 0x 23 | 1 x 22 | 1 x 21 | 1 x 20 |  |  |  |  |  | | --- | --- | --- | --- | | 0 | 4 | 2 | 1 |   7 | |  |  |  |  | | --- | --- | --- | --- | | 1 | 0 | 0 | 1 |  |  |  |  |  | | --- | --- | --- | --- | | 1 x 23 | 0x 22 | 0x 21 | 1 x 20 |  |  |  |  |  | | --- | --- | --- | --- | | 8 | 0 | 0 | 1 |   9 |
| (E79)16 | | |

( 1 1 1 0 0 1 1 1 1 0 0 1 )2

Q4] Convert from Binary System to Octa System

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

( 1 0 0 1 1 0 )2

1. نقسم الرقم لمجموعات مكونة من 3 خانات ونضيف اصفار من اليسار لو احتجنا

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | 1 | 0 | 0 |  |  |  |  | | --- | --- | --- | | 1 x 22 | 0x21 | 0x20 |  |  |  |  | | --- | --- | --- | | 4 | 0 | 0 |   4 | |  |  |  | | --- | --- | --- | | 1 | 1 | 0 |  |  |  |  | | --- | --- | --- | | 1 x 22 | 1 x21 | 0x20 |  |  |  |  | | --- | --- | --- | | 4 | 2 | 0 |   6 |
| (46)8 | |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

( 1 1 1 0 1 1 1 )2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | 0 | 0 | 1 |  |  |  |  | | --- | --- | --- | | 0x 22 | 0x21 | 1 x20 |  |  |  |  | | --- | --- | --- | | 0 | 0 | 1 |   1 | |  |  |  | | --- | --- | --- | | 1 | 1 | 0 |  |  |  |  | | --- | --- | --- | | 1 x 22 | 1 x21 | 0x20 |  |  |  |  | | --- | --- | --- | | 4 | 2 | 0 |   6 | |  |  |  | | --- | --- | --- | | 1 | 1 | 1 |  |  |  |  | | --- | --- | --- | | 1 x 22 | 1 x21 | 1 x20 |  |  |  |  | | --- | --- | --- | | 4 | 2 | 1 |   7 |
| (167)8 | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | 0 | 1 | 1 |  |  |  |  | | --- | --- | --- | | 0x 22 | 1 x21 | 1 x20 |  |  |  |  | | --- | --- | --- | | 0 | 2 | 1 |   3 | |  |  |  | | --- | --- | --- | | 1 | 0 | 0 |  |  |  |  | | --- | --- | --- | | 1 x 22 | 0x21 | 0x20 |  |  |  |  | | --- | --- | --- | | 4 | 0 | 0 |   4 | |  |  |  | | --- | --- | --- | | 0 | 0 | 1 |  |  |  |  | | --- | --- | --- | | 0x 22 | 0x21 | 1 x20 |  |  |  |  | | --- | --- | --- | | 0 | 0 | 1 |   1 |
| (341)8 | | |

( 1 1 1 0 0 0 0 1 )2

Q5] Convert from Decimal System to Octa System

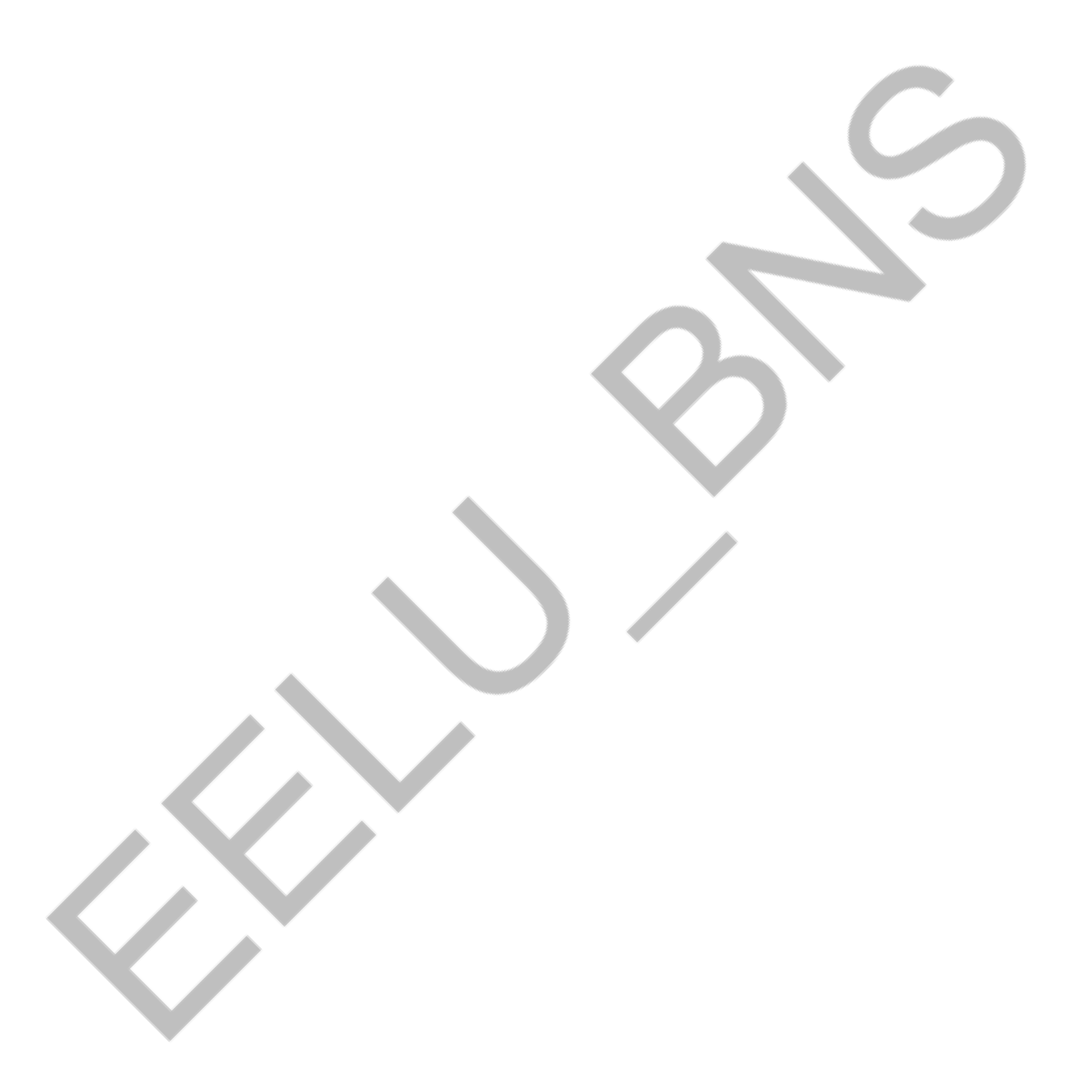
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

81

72

34

Q6] Convert from Decimal System to Hexa Decimal System

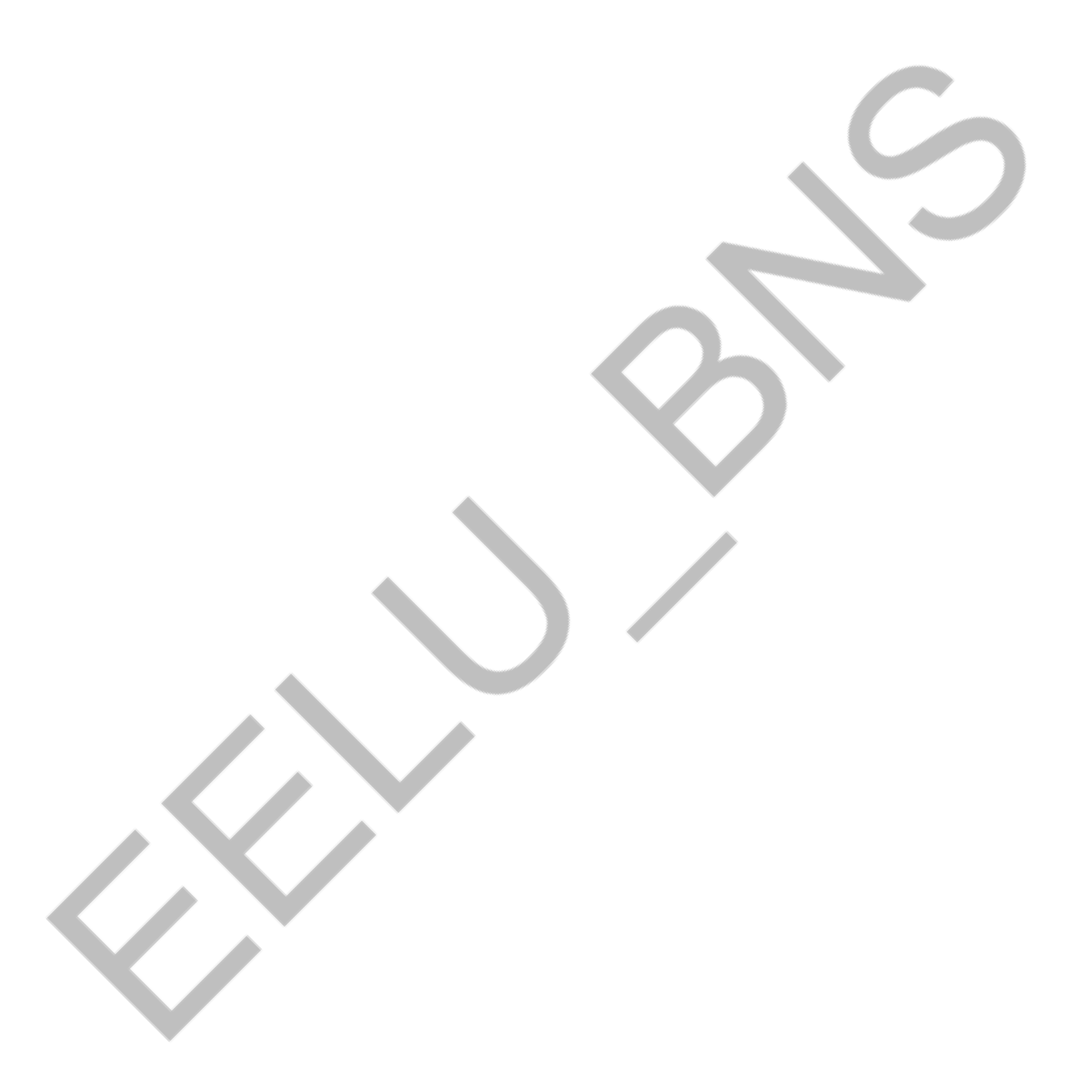


81

72

34

Q7] Convert from Hexa Decimal System to Binary System

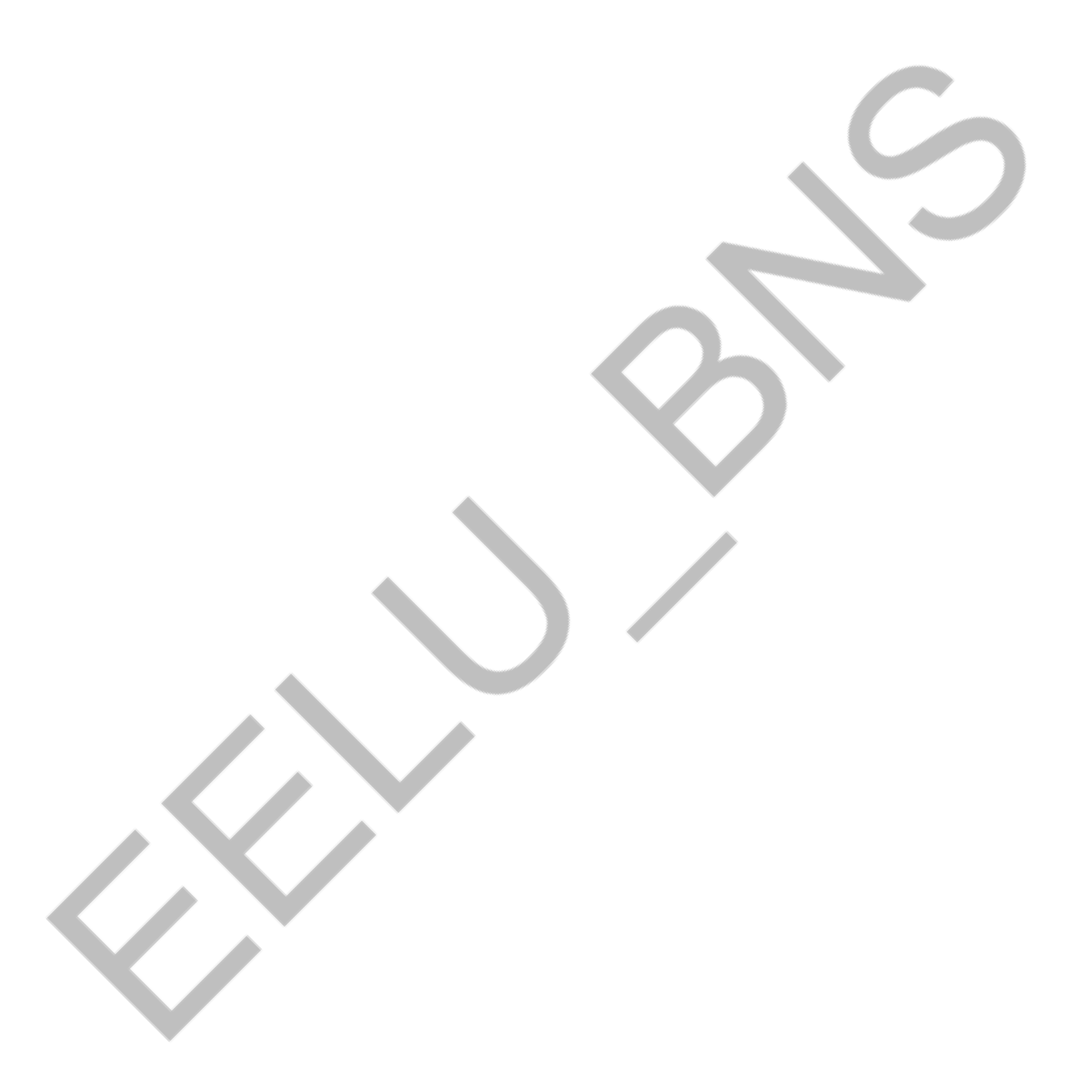


( A 0 B 1 )16

( F C D 0 B 1 )16

( 6 D C 0 )16

Q8] Convert from Hexa Decimal System to Octa System

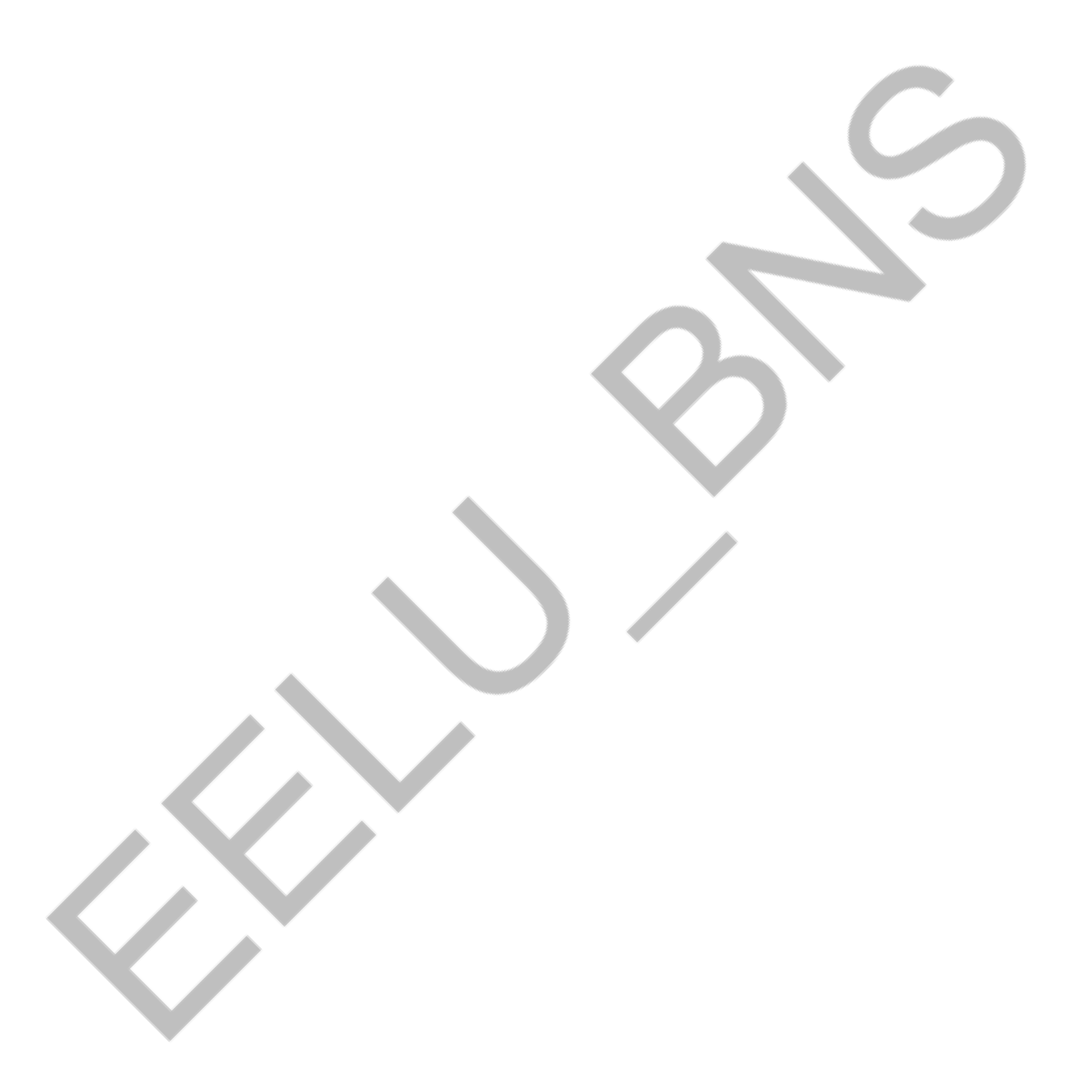


( A 0 B 1 )16

( F C D 0 B 1 )16

( 6 D C 0 )16

Q9] Convert from Hexa Decimal System to Decimal System

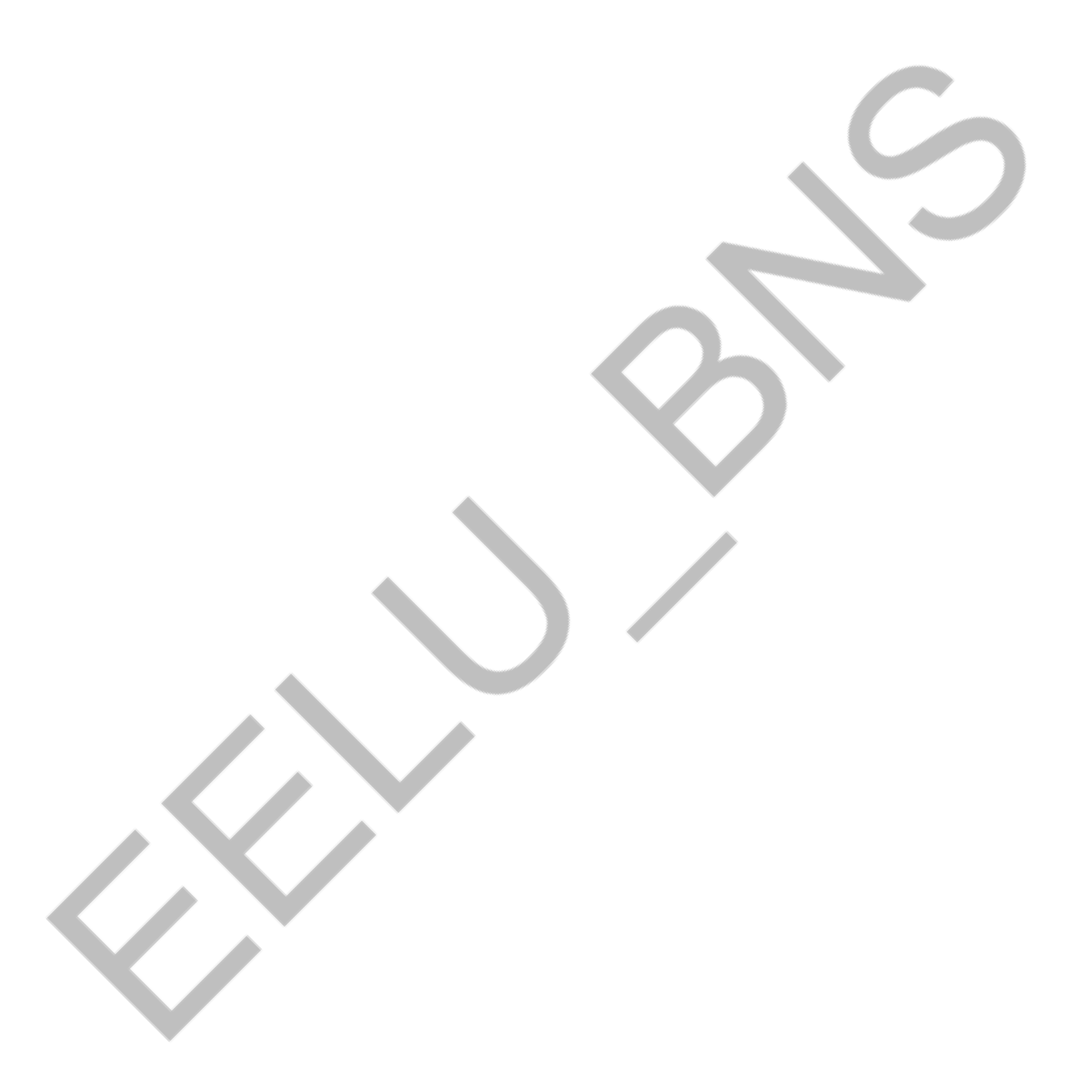


( A 0 1 )16

( F B 1 )16

( 6 D 0 )16

Q10] Convert from Octa System to Decimal System



( 7 3 0 )8

( 4 0 1 )8

( 6 3 2 )8