

## Number System:

Question # 1 : Convert these binary numbers to decimal:

- 10101
- 1101000111101
- 10010110
- 101010101010
- 101011111

Question # 2 : Convert the following decimal values to binary:

- 58
- 2032
- 5696
- 2688
- 1652
- 2313

Question # 3: Convert the following decimal values to octal:

- 59
- b.65536
- c.255
- d.375
- e.819
- f.76524

Question # 4: Convert the following hex values to decimal:

- a.92
- b. FF
- c.2C1
- d.37FD
- e.1B9

Question # 5: Convert the following decimal values to hex:

- a.75
- b.314
- c.4095
- d.25619
- e.65760

Question # 6: Convert the following octal numbers to decimal:

- 743
- 365
- 3777
- 257
- 120

Question# 7: Convert the following numbers with the indicated bases into decimal:

- $(4310)_5$
- $(6241)_7$
- $(85231)_9$
- $(AB36)_{16}$
- $(7D5C)_{16}$

Question# 8 : Perform the following operations:

- $(4817)_{16} + (792B)_{16}$
- $79251_{16} + 3A1E1_{16}$
- $CD66_{16} + B23A_{16}$
- $1402_8 + 2537_8$

Question# 9 : Convert 10101101 to decimal assuming the number is stored in each of the following representations:

- Unsigned magnitude
- Signed magnitude
- One's complement
- Two's complement

Question# 10 : Convert 1000111000101001 to decimal assuming that the number is stored in

- Signed magnitude
- Two's complement

Question# 11: Do the following conversions

- -201 to 16-bit 2's complement
- -6543 to 16-bit 1's complement
- 14567 to 16-bit unsigned magnitude
- 1111000111100101 from 1's complement to decimal
- 1110001001111110 from 2's complement to decimal

Question # 12: Add the following binary numbers:

- $1010 + 1011$
- $1111 + 0011$
- $10011011 + 10011101$