Quiz 1 **Time: 10 Minutes** **Total Marks: 12**

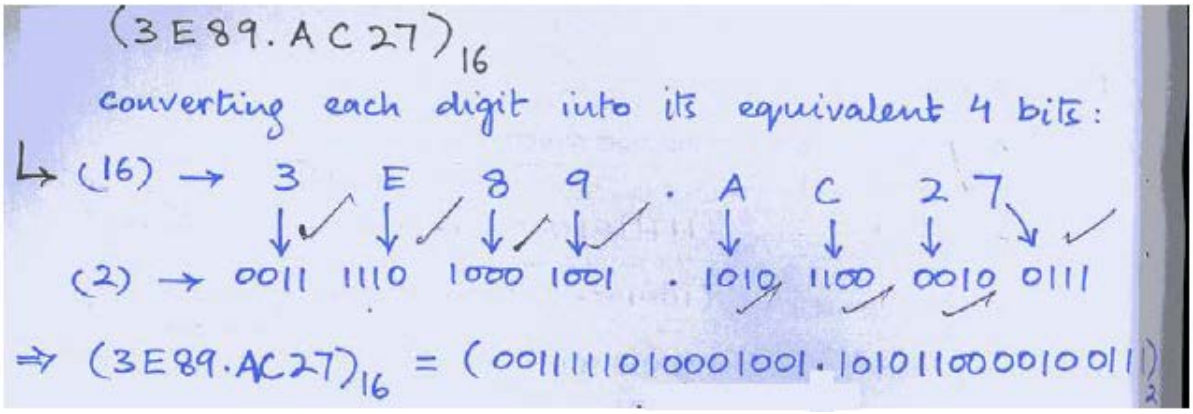
1. Convert the following numbers directly to binary *without using an intermediary base*:
   a. $(3E89.AC27)_{16}$ _____ (2 Marks)
   b. $(22144.3561)_8$ _____ (2 Marks)

2. Convert $(1100110111001010.1011101)_2$ to:
   a. Octal _____ (2 Marks)
   b. Hexadecimal _____ (2 Marks)
   Don't use an intermediary base.

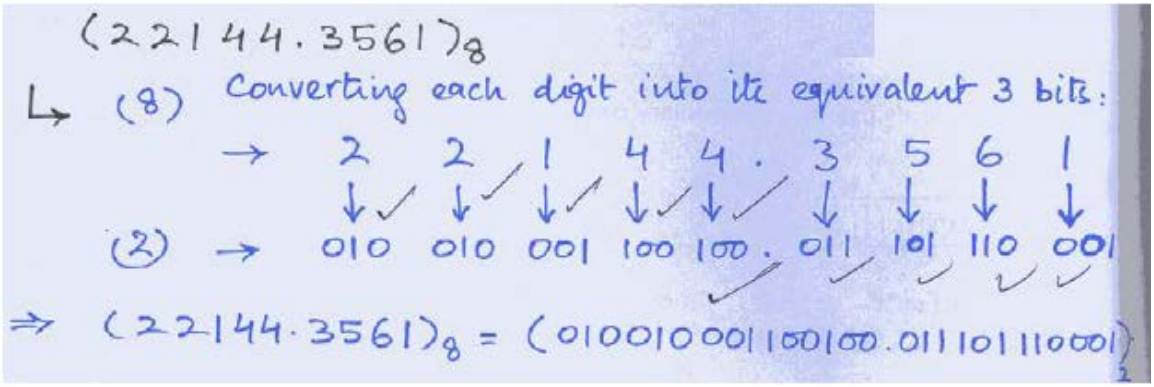
3. Convert the following numbers to decimal:
   a. $(8.3)_9$ _____ (2 Marks)
   b. $(50)_7$ _____ (2 Marks)

Solution:

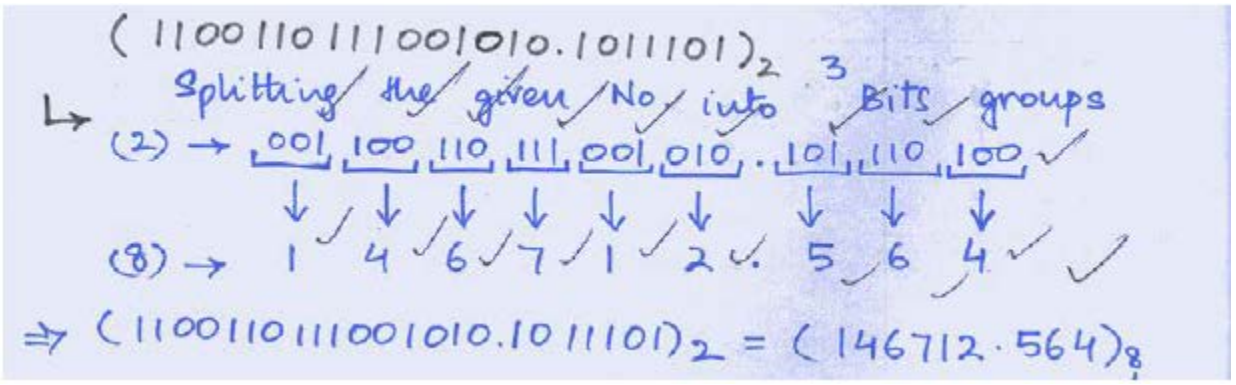
1a.



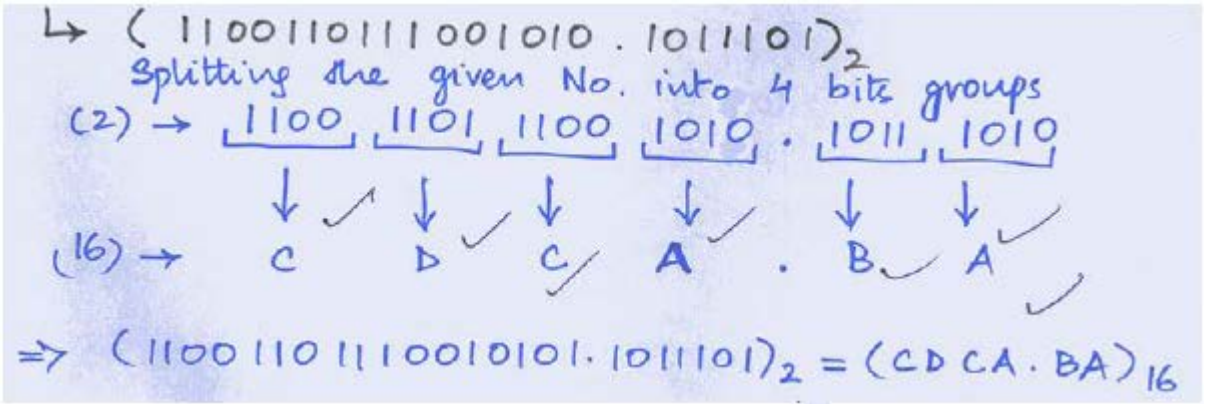
1b.



2a.


(1100110111001010.1011101)2
Splitting the given No into 3 Bits groups
(2) → 001 100 110 111 001 010 . 101 110 100
(8) → 1 4 6 7 1 2 . 5 6 4
⇒ (1100110111001010.1011101)2 = (146712.564)8

2b.


(1100110111001010.1011101)2
Splitting the given No. into 4 bits groups
(2) → 1100 1101 1100 1010 . 1011 1010
(16) → C D C A . B A
⇒ (1100110111001010.1011101)2 = (CDCA.BA)16

3a.


(8.3)9
= 8×9^0 + 3×9^-1
= (8.333)10

3b.


(50)7
= 5×7^1 + 0×7^0
= (35)10