**Chapter-2 (Practice Question Lecture-4)**

1. Convert each binary number to decimal:

**(a)** 110011.11 **(b)** 101010.01 **(c)** 1000001.111

**(d)** 1111000.101 **(e)** 1011100.10101 **(f)** 1110001.0001

1. What is the highest decimal number that can be represented by each of the following numbers of binary digits (bits)?

**(a)** two **(b)** three **(c)** four **(d)** five **(e)** six **(f)** seven **(g)** eight **(h)** nine **(i)** ten

1. How many bits are required to represent the following decimal numbers?

**(a)** 5 **(b)** 10 **(c)** 16 **(d) 16**0 **(e)** 120

1. Convert each decimal fraction to binary:

**(a)** 0.26 **(b)** 0.762 **(c)** 0.0975

1. Convert each decimal number to binary:

**(a)** 13 **(b)** 17 **(c)** 49 **(d)** 60

1. Convert each decimal fraction to binary using repeated multiplication by 2:
2. 0.76 **(b)** 0.456 **(c)** 0.8732
3. Determine the 1’s complement of each binary number:

**(a)** 100 **(b)** 111 **(c)** 1100 **(d)** 10111011 **(e)** 1001010 **(f)** 10101010

1. Determine the 2’s complement of each binary number using either method:

**(a)** 11 **(b)** 110 **(c)** 1010 **(d)** 1001 **(e)** 101010 **(f)** 11001 **(g)** 11001100 **(h)** 11000111