**Assignment**

Q 1. Convert decimal to binary:- a) 27 b) 77

Q 2. Convert binary to decimal:- a) 100010 b) 11101

Q 3.Convert decimal to hexadecimal:- a) 123 b) 99

Q 4.Convert hexadecimal to decimal:- a) 2B9H b) 912H

Q 5.Convert decimal to octal:- a) 123 b) 99

Q 6.Convert octal to hexadecimal:- a) 456 b) 75

Q 7. Find 2’s compliment:- a) 1001101 b) 111001

Q 8. Add the hex values :- a) 2CH + 3FH b) F34H+5D6H

Q 9. Subtract the hex values :- a) 56H - 3EH b) 76FH-2ADH

Q 10. How many nibbles are 16 bits?

Q 11. How many bytes are 32 bits?

Q 13. If a word is defined as 16 bits, how many words is a 64 bit data item?

Q 14. How many K is 1 meg?

Q 15. If a given computer has a total of 8 megabytes of memory, how many bytes is this(in decimal)? How many kilobytes is this?

**Q 16. In a given byte-addressable computer, memory locations 10000H to 9FFFFH are available for user programs. The first location is 10000H and the last location is 9FFFFH. Calculate:- a) The total no of bytes available(in decimal) b) The total no of kilobytes(in decimal).**

Q 17. Find the total amount of memory for 16-bit address bus(in K).

Q 18. A microprocessor has a 20-bit address bus. What is its memory addressing capability?