Nalanda College – Colombo 10

Unit Evaluation

Grade	10	Information and Communication Technology	Unit 03

- **Answer All Questions**

- **Underline the most suitable answer.**

01) Which of the following statements are true?
   A. A bit is the smallest unit of information that a computer can process.
   B. A byte contains 8 bits.
   C. A bit contain 4 nibble.
   i) A and B   ii) B and C   iii) A and C   iii) All of them

02) The Decimal equivalent of 100011_2 is
   i) 34   ii) 35   iii) 49   iii) 36

03) The binary equivalent of decimal 125_{10} is
   i) 1011111_2 ii) 1111110_2 iii) 1111101_2 iii) 11110111_2

04) Which of the following has least value?
   i) 11100_2 ii) 45_8 iii) 111_{10} iii) AF_{16}

05) Which of the following statements are true?
   A. A Register Memory has less storage capacity than a RAM
   B. A Hard disk has more storage capacity than a Compact disk.
   C. A Cache memory has less storage capacity than a Magnetic Tape.
   i) A and B   ii) B and C   iii) A and C   iii) All of them

06) The ASCII code of the character "A" is 65. Which one of the following represents the character "C" in binary?
   i) 1000001_2 ii) 1000010_2 iii) 1000011_2 iii) 1000000_2

07) If 1000000_2 represents A in ASCII, Which of the following is represented by 1000101_2?

   i) C   ii) D   iii) E   iii) F

08) Which one is the smallest out of the following Binary Coded Decimal(BCD) representations?

   i) 00110110   ii) 00101000

   iii) 01011000   iii) 00011001

09) Which is the base value of the number system that consist of the digit set (0,1,2,3,4,5,6) ?

   i) 4   ii) 5   iii) 6   iii) 7

10) What is the MSD and LSD of the 0.10_2 respectively?

   i) 0, 1   ii) 1, 0   iii) 1, 1   iii) 0, 0

- **Complete the following table.**

Number System	Base Value	Number and Alphabetic character used
Binary		
Octal		
Decimal		
Hexa -decimal		

- **Do the following calculations and Show your computations.**

01) Convert the Binary number 11111111 into the Decimal equivalent.

02) Convert the Binary number 11111111 into the Octal number equivalent.

03) Convert the Binary number 11111111into the Hexadecimal equivalent.

04) Convert the Decimal number 255 into the Binary equivalent.

05) Convert the Decimal number 255into the Octal number equivalent.

06) Convert the Decimal number 255into the Hexadecimal equivalent.

07) Convert the Octal number 377 into the Decimal equivalent.

08) Convert the Octal number 377 into the Binary number equivalent.

09) Convert the Octal number 377 into the Hexadecimal equivalent.

10) Convert the Hexadecimal FF into the Decimal equivalent.

11) Convert the Hexadecimal FF into the Binary number equivalent.

12) Convert the Hexadecimal FF into the Octal number equivalent.

- **Write down the Short answers.**

01) How many Bytes are in ½ MB?

02) The Most commonly used standard data code to represent alphabetical, numerical and punctuation characters used in electronic data processing system is called ………………

03) 3 Kilobytes contain ……………….. bytes.

04) Why we used the Number system?

05) Why we used the Coding System?

06) Write down the ASCII coded of "Nalanda College" in binary numbers.

- **Filling the blank.**

Binary	Octal	Decimal	Hexa -decimal
110101001		425	
	123		83
		2748	ABC
11001110			
	345		