GLS UNIVERSITY
Faculty Of Computer Applications & Information Technology

SUBJECT: 1601101 Introduction to Information Technology
Integrated MSc(IT) Sem – I
Theory Assignment – III

I Perform the following Conversions

1. $(2584)_{10}$ = (_____)$_2$ = (_____)$_8$ = (_____)$_{16}$
2. $(458)_{10}$ = (_____)$_2$ = (_____)$_8$ = (_____)$_{16}$
3. $(112)_{10}$ = (_____)$_2$ = (_____)$_8$ = (_____)$_{16}$
4. $(745)_8$ =(_____)$_2$ = (_____)$_{10}$ = (_____)$_{16}$
5. $(152)_8$ = (_____)$_2$ = (_____)$_{10}$ = (_____)$_{16}$
6. $(101101)_2$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_{16}$
7. $(156)_{10}$ = (_____)$_2$ = (_____)$_8$ = (_____)$_{16}$
8. $(8023)_{10}$ = (_____)$_2$ = (_____)$_8$ = (_____)$_{16}$
9. $(105)_{10}$ =(_____)$_2$ = (_____)$_8$ = (_____)$_{16}$
10. $(110110)_2$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_{16}$
11. $(110011001010)_2$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_{16}$
12. $(101010)_2$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_{16}$
13. $(254)_8$ = (_____)$_{10}$ = (_____)$_2$ = (_____)$_{16}$
14. $(AB6)_{16}$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_2$
15. $(D6)_{16}$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_2$
16. $(365)_8$ = (_____)$_{10}$ = (_____)$_2$ = (_____)$_{16}$
17. $(7165)_8$ = (_____)$_{10}$ = (_____)$_2$ = (_____)$_{16}$
18. $(EEDD)_{16}$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_2$
19. $(5444)_8$ = (_____)$_{10}$ = (_____)$_{16}$ = (_____)$_2$
20. $(12AF)_{16}$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_2$

II Perform the following Conversions:

1. $(1011.0101)_2$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_{16}$
2. $(11011001.111011)_2$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_{16}$
3. $(1023.335)_{10}$ = (_____)$_{16}$ = (_____)$_8$ = (_____)$_2$
4. $(3566.123)_{10}$ = (_____)$_{16}$ = (_____)$_8$ = (_____)$_2$
5. $(654.55)_8$ = (_____)$_{10}$ = (_____)$_{16}$ = (_____)$_2$
6. $(2215.33)_8$ = (_____)$_{10}$ = (_____)$_{16}$ = (_____)$_2$
7. $(A5.B)_{16}$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_2$
8. $(3D.FF)_{16}$ = (_____)$_{10}$ = (_____)$_8$ = (_____)$_2$

III Fill in the Blanks:

1. The group of symbols is called as a _____.
2. The digital data is represented, stored and transmitted as group of binary bits called _____.
3. Binary Codes are suitable for the _____ communications.
4. The binary code is represented by the _____ as well as _____.
5. In _____ code, each decimal digit is represented by a 4-bit binary number.
6. In the BCD, with four bits we can represent s_____ sixteen numbers.
7. BCD is similar to decimal system. (True/ False)
8. The addition and subtraction of BCD have same rules. (True/ False)
9. BCD is more efficient than binary. (True/ False)
10. BCD needs more number of bits than binary to represent the decimal number. (True/ False)
11. ASCII is a _____ bit code.
12. ASCII consist of _____ symbols.
13. New version of ASCII is known as _____.
14. _____ is a 16 bit universal character coding standard.
15. Unicode is used to represent _____.
16. Unicode is capable of representing approximately _____ characters.

17. The first 100 characters of Unicode and ASCII are same. (True/ False)
18. Unicode is that it is compatible with ASCII. (True/ False)
19. A _____ is defined as a set of values to represent quantity.
20. The _____ number system consists of different symbols that are used to represent numbers.
21. Roman number system is an example of _____ number system.
22. The _____ is defined as the total number of digits available in the number system
23. Base is also known as _____.
24. Full Form of BCD is _____.
25. Full Form of ASCII is _____.
26. Full Form of EBCDIC is _____.

IV Write Base and Digits of Following number systems:

1. Decimal Number System
2. Octal Number System
3. Hexa Number System
4. Binary Number System