SARDAR PATEL UNIVERSITY

M.Sc.(Bioinformatics) I Semester Examination

PS01CMBI03 IT Fundamentals

Thursday, 6th December, 2012

Time : 10:30 a.m. to 1:30 p.m.

Total Marks : 70

Note : Answers to the two sections must be written in separate answer-sheets.

SECTION – I

1.(A) Draw the block diagram of a simple computer. Which buses are used to connect   5
various parts of a computer ? Explain the functions performed by the important
components of a computer.

(B) Explain : Pipeline machines.   5

(C) Explain how information storage is organized on a *hard disk*. What do you mean   5
by *seek time* and *rotational latency* ?

2.(A) Answer the following questions in brief (ANY FIVE) :   10

    (i)   What are the octal and hexadecimal equivalent numbers of the binary
number $(111100111)_2$?

    (ii)   Define : 1's complement and 2's complement of a given binary number.

    (iii)   What is the main function of a CPU ? List the important components of
a CPU.

    (iv)   Write the steps involved in instruction execution by a CPU.

    (v)   Define : *character code*. What is ASCII ?

    (vi)   Construct the Hamming code for the ASCII character 'B' considering
even parity.

    (vii) Distinguish between the primary and secondary memory.

(B) Explain (ANY TWO) :   10

    (i)   Array processors,

    (ii)   Compact Disks,

    (iii)   Addressing techniques,

    (iv)   Interrupts.

3.(A) Fill in the blanks :   5
  (i) The address of the extreme left upper corner cell of the worksheet is _____.
  (ii) Excel displays the address of the active cell in the _____.
  (iii) A formula always begins with _____.
  (iv) =ABS(-17.55) displays _____.
  (v) =ROUND(32767,-2) displays _____.

 (B) Differentiate between :   4
  (i) Function and Formula
  (ii) LEFT( ) and MID( )

 (C) Explain different ways to change column width of a column in worksheet.   2

4.(A) Discuss the following MS-EXCEL functions : (Any TWO)   4
  (i) COUNT()
  (ii) CEILING()
  (iii) FIND()

 (B) What is a macro? Explain steps to create and execute a macro in MS-EXCEL.   3

 (C) Discuss Data -> Filter   3

 (D) What do you mean by a database in EXCEL? Explain the sorting process in EXCEL by taking suitable examples.   3

5.(A) List out atleast five string (text) built-in functions available in MS-Excel and explain any two of them.   5

 (B) What is a PowerPoint? What do you mean by a slide ? What type of information a slide can have ?   3

 (C) Describe the various effects that can be apply to a presentation.   3