1. Test structure
   a) There will be 100 multiple choice questions to be attempted in allotted time of two hours.
   b) There will be a common merit list for the purpose of admission through counselling as per university rules.

2. Syllabus
   
   **Computer Basics:** Organization of a Computer, Central Processing Unit (CPU), Structure of Instructions in CPU, Input/output devices, Computer Memory, Memory organization, back-up devices.

   **Data Representation:** Representation of characters, integers and fractions, binary and hexadecimal representations, Binary Arithmetic: Addition, subtraction, division, multiplication, floating point representation of numbers, normalized floating point representation, Boolean algebra: truth tables, Venn diagrams.

   **Computer Architecture:** Block structure of Computers, communications between processor and I/O devices, Interrupts.

   **Computer Language and Operating Systems:** Flowcharts and algorithms, Concepts of low level and high level Languages, Computer Programming in C (data types, loop and control statements, functions), Fundamentals of operating systems: multiprogramming, multitasking and time sharing systems.

   **Concepts of Data Base Management System, Data Structures and Internet Web Technologies.**

3. Model Questions:

   1. An 8-bit unit of data is called
      (A) Word  (B) Data set  (C) Byte  (D) K
   2. Pick the odd man out
      (A) Internet Explorer  (B) Windows Explorer  (C) Netscape Navigator  (D) Mosaic
   3. Which of the following is not an operating system?
      (A) DOS  (B) JAVA  (C) LINUX  (D) WINDOWS XP
   4. The standard number of characters in the Extension of file name are
      (A) 2  (B) 3  (C) 4  (D) 5
   5. The operator = = is
      (A) Assignment operator  (B) Relational operator  (C) Logical operator  (D) None of the above
6. One GB stands for
   (A) $10^9$  (B) $10^6$
   (C) $10^9$  (D) $10^{12}$

7. Power consumed by a PC without printer is
   (A) About 200W  (B) About One KW
   (C) About 50 W  (D) About 1.5 KW

8. Integer Constant in list below is
   (A) 38.34  (B) Rs 40
   (C) 5,6  (D) -23

9. A header file in c / c++ is of type
   (A) ASCII  (B) Some characters can be made bold in it
   (C) Its listing cannot be got  (D) It cannot be changed by user

10. An 8-list micro controller with an external RAM has the memory map from 8000 H to 9FFFH. The number of bytes this RAM can store is
    (A) 8193  (B) 8191
    (C) 8192  (D) 8000

11. Consider the following C program
    ```c
    main()
    { int x, y, m, n;
      scanf("%d %d", &x, &y);
      /* Assume x>0 and y>0 */
      m = x; n = y;
      while(m != n)
      { if(m>n)
        m = m - n;
      else
        n = n - m;
      } 
    printf("%d",n); }
    ```
    The program computes
    (A) x + y, using repeated subtraction  (B) x mod y using repeated subtraction
    (C) the greatest common divisor of x and y  (D) the least common multiple of x and y

12. In an 8085 microprocessor, which one of the following is the correct sequence of the machine cycles for the execution of the DCR M instruction?
    (A) op-code fetch  (B) op-code fetch, memory read, memory write
    (C) op-code fetch memory read  (D) op-code fetch memory write, memory write