Printed Pages : 3   PHAR – 124 / PH – 124

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 1056   Roll No. ☐☐☐☐☐☐☐☐☐☐

B. Pharm.

(SEM. II) EXAMINATION, 2006-07

COMPUTER FUNDAMENTALS & PROGRAMMING

Time : 3 Hours]   [Total Marks : 80

Note : Attempt **all** questions.

1   Answer any **four** of the following :   4×4=16

   (a)   What do you mean by computer organization? Name and explain all the functional units of a computer system.

   (b)   What is a memory? Write down the main differences between the primary and the secondary memory.

   (c)   Convert the following binary numbers into their equivalent decimal and hexadecimal number system.
      (i)   1110110
      (ii)   100011.

   (d)   What is 4GL? Write down its advantages over third generation languages.

   (e)   Differentiate between Wide Area Networks and Local Area Networks.

   (f)   What is a modem? What do you understand by external and internal modems.

2   Answer any **four** of the following :   4×4=16

   (a)   What are the basic flowcharting symbols? What function does each represent?

   (b)   Draw a flowchart to read a number N and print all its divisors.

   (c)   Write an algorithm to compute the sum of the digits of any given number.

   (d)   Draw a flowchart to illustrate the logic to convert a number to decimal from another base.

   (e)   Answer the following questions:
      (i)   Define program.
      (ii)   Write down the steps for planning to write a successful program.
      (iii)   What do you understand by testing of programs?

       (iv)   What do you understand by modular programming?

(f)   Write a short note on decision table.

3   Answer any **four** of the following :   4×4=16

(a)   What do you understand by nested looping? Write down the applications where nested looping is used. Also write down the necessary conditions for writing nested loops.

(b)   Differentiate between the followings with suitable examples.

       (i)   break and continue statements

      (ii)   printf() and scanf() functions.

(c)   Write a program in C language to find out the average of ten numbers stored in an array.

(d)   Write a program in C language to accept any string from the keyboard and display it in the reverse order on the screen.

(e)   What is function? Why is its importance in C language? Explain with the help of a suitable example.

(f)   Discuss the various file opening modes in C language.

4   Answer any **two** of the following :   8×2=16

(a)   What are the various control structures in FORTRAN language? Write down the purpose and syntax of each of the control structure?

(b)   Write a program in FORTRAN to add two matrices of 3X3.

(c)   Write a program in FORTRAN to find the roots of a quadratic equation. $ax^2 + bx + c = 0$. Also explain that how do you write, save, compile and execute the same program on your computer?

5   Write short notes on any **two** of the followings :   8×2=16

(a)   What do you understand by a database? How do you create a table in MS Access?

(b)   Explain the followings in reference of   2×4=8 MS Access :

      (i)   .mdb files

     (ii)   insertion of records in a table

    (iii)   role of primary key

    (iv)   sorting of records.

(c)   Explain the various applications of computer in pharmaceutical and clinical studies.