



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.

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### 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.

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**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 MS Access : **2×4=8**
  - (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.