

Exam. Code : 103204

Subject Code: 1395

B.A./B.Sc. 4th Semester

BIOINFORMATICS

(Computer Programming in C++ & Perl)

Time Allowed—3 Hours]

[Maximum Marks—75

Note :—Section A is compulsory and consists of **10** short answer type questions. Each question in Section A carries **1½** marks. Section—B, C, D and E will consist of **TWO** questions each. Students are required to attempt any **ONE** question from each respective section. Each question in Section B, C, D and E carries **15** marks.

SECTION—A

(Attempt **ALL** questions.)

1. (i) What is the difference between structure and union ?
- (ii) What is a derived class in C++ ?
- (iii) Write the precedence of operators in C++.
- (iv) What is the difference between float and double data type ?
- (v) What is the difference between local and global variable ?

- (vi) What is a virtual function in C++ ?
- (vii) Name any three versions of PERL.
- (viii) What are built-in file handlers in PERL ?
- (ix) What are different Meta characters in PERL ?
- (x) Define a function in PERL. $1\frac{1}{2} \times 10 = 15$

SECTION—B

(Attempt any **ONE** question)

2. (a) What is the use of strings in C++ ? Discuss various operations that can be performed on strings. 8
- (b) Write a program code in C++ to read a word and rewrite its characters in reverse order. 7
3. Explain different control and conditional statements of C++ language with the help of suitable examples. 15

SECTION—C

(Attempt any **ONE** question)

4. (a) When will you make a function in-line ? Explain with example. 8
- (b) Can we have more than one constructor in a class ? If yes, explain with the help of code example. 7

5. Write a C++ program to show multiple and multilevel inheritance. 15

SECTION—D

(Attempt any ONE question)

6. (a) Write a code in PERL to read the input string from a file and reverse the contents of the file and writing the output back to different file. 10
- (b) Write the steps for installation procedure of PERL in Linux. 5
7. How PERL language is different from C++ language in terms of data type declaration, loop statements, input-output functions, adding comments, comparison operations, header files etc. ? 15

SECTION—E

(Attempt any ONE question)

8. (a) Discuss various conditional and logical statements with the help of small example codes in PERL. 10
- (b) Briefly explain subroutines in PERL. 5
9. What is the role of regular expressions in PERL ? How pattern matching is done using PERL ? 15