Exam.Code:0041
Sub. Code: 1005

2123

B.Sc. (Hons.) Bio-Informatics

Third Semester

BIN-3005: Object Oriented Programming in C++

Time allowed: 3 Hours

Max. Marks: 60

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:- (2×6)

a. What are classes? Give any example

b. What are inline functions?

c. Explain any two advantages of OOPS?

d. Which input and output streams are used in C++? Explain their syntax.

e. What are template classes?

f. What is the use of arrays? Explain giving example.

UNIT – I

II. What is object oriented programming? Explain main features of OOPs. (12)

III. a. What are friend functions? Explain with the help of an example. (6, 6)

b. Explain various access specifiers available in C++ classes. Differentiate between them with the help of an example.

IV. a. What is inheritance? What are the problems faced in multiple inheritance? How can these be solved? Explain taking suitable example. (7,5)

b. Explain function overloading.

UNIT – II

V. a. Differentiate between compile time and runtime polymorphism. Give examples of both. (6, 6)

b. Write a program in C++ to read student records from a text file and display the same on screen

VI. a. What are exceptions? How are these handled in C++? Give example. (6, 6)

b. Write a program in C++ to search for an element in array.

VII. a. What is a linked list? How is it different from an array? Explain implementation of linked list. (6,6)

b. Write a program in C++ to sort elements of an array. Also explain its functioning.

x-x-x