Exam.Code:0041

Sub. Code: 18004

2124

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:-

a. Discuss any two characteristics of object oriented programming. (6×2=12)
b. Explain the concept of information hiding in OOPs using example?
c. Explain the use of classes in implementing object oriented concepts.
d. What are libraries in C++?
e. Explain any two features of arrays.
f. Explain the use of this pointer.

UNIT – I

II. How is object oriented programming different from structured programming? Explain various features of object oriented programming taking suitable examples. (12)

III. a. What is operator overloading? Write a program to show overloading of binary operator + (6, 6)

b. What are friend functions? How are these different from other functions of a class

IV. What do you mean by inheritance? What are different types of inheritance? Explain each type of inheritance with the help of examples. (12)

P.T.O.

UNIT – II

V. a. What is polymorphism? Differentiate between runtime and compile time polymorphism. (6, 6)

b. What is template class? What is its use in C++? Explain taking suitable example. (6, 6)

VI. a. What is exception handling? Where is it used? Write an example C++ program to show exception handling

b. What are linked lists? How are these different from arrays? (6, 6)

VII. a. What are virtual functions? How are these different from pure virtual functions. Explain with example.

b. What is binary search? What are the conditions required to implement binary search. Explain taking an example

x-x-x