

B.Sc. (Part—III) Semester—VI Examination
BIOINFORMATICS
(Advanced Bio-Computing)

Time : Three Hours]

[Maximum Marks : 80

- Note :—** (1) ALL questions are compulsory.
(2) Draw diagrams wherever necessary.

1. (A) Fill in the blanks :— 2
- (i) The process of using same operator for multiple operation is called _____.
 - (ii) The _____ command is used to remove a table from a database.
 - (iii) _____ is used to reset the data to a know savepoint.
 - (iv) _____ is the datatype used to store textual information in C++.
- (B) Choose the correct option :— 2
- (i) Which of the following operators can be overloaded ?
 - (a) + (b) *
 - (c) / (d) All of the above
 - (ii) Which of the following is a DDL command ?
 - (a) SELECT (b) INSERT
 - (c) ALTER (d) DELETE
 - (iii) The _____ command is used to remove privileges.
 - (a) REMOVE (b) REVOKE
 - (c) DELETE (d) RESET
 - (iv) The set of statements that can be involved when needed is called as _____.
 - (a) Subroutine (b) Subsystem
 - (c) Partition (d) None of these

- (C) Define the following :— 4
- (i) User defined datatype
 - (ii) Destructor
 - (iii) SQL Operators
 - (iv) GRANT Command.

2. (a) Explain various datatypes supported by C++. 4
- (b) Write an inline function for addition of two numbers. 4
- (c) What is data type casting ? Explain. 4

OR

- (p) Overload a function “area ()” for calculating the area of a circle and a rectangle. 4
- (q) Explain the nested-if statement with example. 4
- (r) State the differences between structure and class. 4
3. (a) What is data encapsulation ? Explain. 4
- (b) Write a program in C++ for computing the area of circle using class. 4
- (c) Explain hierarchical inheritance with the help of suitable example. 4

OR

- (p) What is copy constructor ? Explain. 4
- (q) Explain array of objects with an example. 4
- (r) What is pointer ? Explain pointer to object. 4
4. (a) Describe the relational database model. 6
- (b) Explain various data types in SQL. 6

OR

- (p) Explain the normal form 2NF. 6
- (q) Explain the DELETE and UPDATE commands. 6

5. (a) What are constraints ? Explain the types of constraints. 6
(b) Explain the use of "join" in SQL. 6

OR

- (p) Describe the concept of Rollback in transactions. 6
(q) What is cursor ? Explain. 6
6. (a) Write procedure for creating rules. 4
(b) Describe the object privileges. 4
(c) Explain the use of REVOKE method. 4

OR

- (p) Explain the procedure for passing privileges. 4
(q) What are roles ? Explain. 4
(r) Describe the system privileges. 4
7. (a) Explain the Edit-Run-Revise approach for programming. 4
(b) Describe how arrays are used in PERL. 4
(c) Describe passing data to subroutine. 4

OR

- (p) What is lists ? Explain. 4
(q) Describe the features of PERL. 4
(r) Explain various modes of opening a file in PERL. 4

