

**M. Sc. Bioinformatics Sem.-I (C.B.C.S.) (2013 Course) / Advanced
Diploma in Bioinformatics Sem.-I (C.B.C.S.) (2013 Course) :
WINTER - 2018**

SUBJECT: C PROGRAMMING AND DATA STRUCTURE

Day: Thursday
Date: 25/10/2018

W-2018-1252

Time: 10.00 AM TO 01.00 PM
Max. Marks: 60

N.B:

- 1) **Q. No.1 and Q. No.5** are **COMPULSORY**. Attempt **ANY TWO** from the remaining from each section.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Answer to the both the sections should be written in **SEPARATE** answer books.
 - 4) Draw neat labeled diagram **WHEREVER** required.
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SECTION-I

- Q.1** Write a short notes on **(ANY FIVE):** **(10)**
- a) Static variable
 - b) Tokens and identifier
 - c) Logical operator
 - d) Type promotion
 - e) Algorithm
 - f) continue keyword with example
- Q.2** Answer the following questions: **(10)**
- a) Explain the hierarchy of operators with example.
 - b) Explain structure of C-program.
- Q.3** Answer the following: **(10)**
- a) Explain different storage classes available in C.
 - b) Draw flow chart to print prime number from 1-300.
- Q.4** Answer the following: **(10)**
- a) Write a program to reverse elements in an array of 15 user input numbers.
 - b) Write a program to print factorial of number using while, do while and for loop.

SECTION-II

- Q.5** Answer the following questions **(ANY FIVE):** **(10)**
- a) What is Union?
 - b) What is binary search?
 - c) What is the importance of structure?
 - d) How to declare structure? Give any example.
 - e) Difference between string and arrays.
 - f) Differentiate between strdup () and strcpy ()?
- Q.6** Answer the following questions: **(10)**
- a) What is recursion? Write a program to print factorial of number using recursions.
 - b) Explain call by reference. Write a program to demonstrate the use of call by reference.
- Q.7** Answer the following: **(10)**
- a) Differentiate between structure and arrays.
 - b) Discuss on pointer arithmetic? And state advantages of using array of pointers to string instead of an array of string.
- Q.8** Write a short note: **(10)**
- a) Selection Sort.
 - b) File opening modes