

**M. SC. BIOINFORMATICS SEM.-I (C.B.C.S.) (2013 COURSE) /  
ADVANCED DIPLOMA IN BIOINFORMATICS SEM.-I  
(C.B.C.S.) (2013 COURSE) : WINTER - 2017  
SUBJECT: C Programming & Data Structure**

Date: Wednesday  
Day: 01/11/2017

**W-2017-1008**

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

**N.B.**

- 1) **Q.1 & Q. 5 are compulsory**
- 2) Attempt any two questions from **Q.2 to Q.4** from **Section- I** & any **two questions** from **Q.6 to Q.8** from **sections – II**
- 3) Answers to both the sections should be written in **SEPARATE** answer books.
- 4) Figures to the right indicate **FULL** marks.
- 5) Draw neat and labeled diagrams **WHEREVER** necessary

**SECTION-I**

**Q.1** Write Short Note on the following: (10)

- a) Pre-processor directive
- b) Constant
- c) Keyword
- d) # include
- e) Operators and their types

**Q.2** Answer the following: (ANY TWO) (10)

- a) Write short note on type conversion.
- b) Hierarchy of operators
- c) Evaluate following expression
  - a) `int C= a/b-2*a+b, int a=4 , b = 3;`
  - b) `float d = e+ f* 10.2 - f/3.5*e, int e = 2 int f=5`

**Q.3** Answer the following: (ANY TWO) (10)

- a) Draw flow chart of program to print even numbers from 2 to 100.
- b) Write definition of data type explain in details
- c) Enlist and explain components of flow chart.

**Q.4** Answer the following (ANY TWO) (10)

- a) Differentiate between for while & do while loop
- b) Write a program to print square of elements of user inputted number
- c) Write a program to print following output

```
*      *      *      *      *
      *      *      *
          *
```

Where numbers of rows is user input

**SECTION-II**

**Q.5** Writes short notes on : (10)

- a) Functions
- b) `strcmp ()`
- c) Nested if
- d) switch case
- e) `malloc` and `calloc`

**P.T.O.**

**Q.6** Answer the following: (**ANY TWO**) (10)

- a) Write a note on storage classes
- b) Write a program to input an array of structures and display its content
- c) Explain concept of pointers with example

**Q.7** Answer the following: (10)

- a) Explain use of following functions.  
a) gets() b) puts() c) putchar()
- b) Write a program to swap two numbers without using 3<sup>rd</sup> variable

**Q.8** Answer the following: (**ANY TWO**) (10)

- a) Write a program to demonstrate linked list in C
- b) Write a note on ADT
- c) Write a note on Binary tree

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