# M. SC. BIOINFORMATICS SEM.-I (C.B.C.S.) (2013 COURSE) / ADVANCED DIPLOMA IN BIOINFORMATICS SEM.-I (C.B.C.S.) (2013 COURSE) : SUMMER - 2018

### SUBJECT: C Programming & Data Structure

**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) Constants
 b) Keywords
 c) Control statement
 d) Steps to compile and execute C Program
 e) Operators & operand

**Q.2**    Answer the following: **(ANY TWO)**    **(10)**
 a) Describe the rules to determine variable name and find out invalid variable name in C and Why

   a) #MeAn    b) FLOAT    c) _basse    d) over time

 b) Explain use of operators
    a) ||    b) &&    c)!

 c) a) Predict the output : int   b = 7,   c=2, a;
                             a= b/a;
                             print ("%d", a);

   b) Convert expression into C statement $R = \dfrac{b^2 - 4ac}{2a^3}$

**Q.3**    Answer the following: **(ANY TWO)**    **(10)**
 a) What is type casting? How to achieve type casting in C?

 b) What is data type? Explain different data types in C
 c) What are the different symbols of flow chart

**Q.4**    Answer the following **(ANY TWO)**    **(10)**
 a) Write a program to calculate average of elements in an array having user inputted values

 b) Write a program to find factorial of any user input number

 c) Explain entry control & exit control loops in C.

## SECTION-II

**Q.5**    Writes short notes on :    **(10)**
 a) & operator
 b) #include
 c) Storage class
 d) Enum
 e) Tree

**Q.6**   Answer the following: **(ANY TWO)**                                          **(10)**
  **a)**   What is pointer variable? Explain use of pointer.
  **b)**   Difference between array and structure.
  **c)**   Write a syntax to access array of structure & array within structure.

**Q.7**   Answer the following: **(ANY TWO)**                                          **(10)**
  **a)**   Write a program to swap two no. using function.
  **b)**   Write a program to calculate power of a number using function.
  **c)**   Write a program to reverse user inputted string

**Q.8**   Write short notes on: **(ANY TWO)**                                          **(10)**
  **a)**   What is difference between sequential file & random file access
  **b)**   Short Note on
          i)      fseek ()
          ii)     fflush ()
  **c)**   What are different data structures? Explain any two in details

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