C   **Reg. No. :**

PART A - (5 x 1 = 5 Marks)

1. Which of the following provides step by step procedure for solving a problem?   CO1-U

   (a) Flow chart   (b) Algorithm   (c) Program   (d) Pseudo code

2. What is the output of the following code segment?   CO2-App
   Void main ()
   {
   int n = 7;
   printf("%d%d%d",n++,n,n--);
   }
   (a) 6 6 7   (b) 6 7 7   (c) 7 7 8   (d) 8 8 7

3. Which statement is used to terminate the control from the loop?   CO1-U

   (a) break   (b) go to   (c) exit   (d) all the above

4. In an array x[10], the x represents the   CO1-U

   (a) base address   (b) base value   (c) void pointers   (d)None of the above

5. The following program will display _____.   CO2-App

   void main( )
   {
   int t = 2, *p;
   p = &t;
   printf("%u",p);
   }
   (a) address of P   (b) value of P   (c) error message   (d) None of the above

PART – B (5 x 3= 15 Marks)

6. Write the differences between an algorithm and a flowchart.   CO1-U

7. Write Short notes on different types of data types in C.   CO1-U

8. Write a C program to determine the whether a person is eligible to vote.   CO2-App

9. What is recursion? List out the advantages.   CO1-U

10. How typedef is used in structure?   CO1-U

PART – C (5 x 16 = 80 Marks)

11. (a) Write detailed notes on generation of computers.   CO1-U   (16)

Or

     (b) (i) Explain various phases involved in problem solving.   CO1-U   (8)

         (ii) With suitable example, explain about flowchart.   CO1-U   (8)

12. (a) Describe the structure of a C program with an example.   CO1-U   (16)

Or

     (b) Explain different types of operators in C with an example.   CO1-U   (16)

13. (a) Admission to a professional course is subject to the following conditions: CO2 App   (16)

(i) Marks in Mathematics >= 60

(ii) Marks in Physics >= 50 and Chemistry >= 40

(iii) Total in all Three Subjects >= 200

(iv) Total in Mathematics and Physics >=150

Given the marks in three subjects, Write a C program to process the application to list the eligible candidates.

Or

     (b) Write a C program to display the traffic control signal lights based on the following.   CO2 App   (16)

(i) If user entered character is 'R' or 'r' then print "RED Light Please STOP".

(ii) If user entered character is 'Y' or 'y' then print "YELLOW Light Please Check and Go".

(iii) If user entered character is 'G' or 'g' then print "GREEN Light Please GO".

(iv) If user entered some other character then print "THERE IS NOSIGNAL POINT".

U1207

14. (a) (i) Explain any four string handling functions with suitable example.   CO1-U   (8)

         (ii) Write a C program to concatenate any two given strings.   CO2-App   (8)

Or

   (b) (i) Differentiate pass by value and pass by reference with suitable example.   CO1-U   (8)

         (ii) Write a function which is used to increment an integer using call by reference method.   CO2 App   (8)

15. (a) Elaborate the concept of pointers, Also Write a C program to exchange two integers using pointers.   CO3- App   (16)

Or

   (b) Explain the concept of Structures. Write a C program to maintain the details of five students such as Roll no, Name, Department, Year of study and five subject marks.   CO3- App   (16)

U1207