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**Question Paper Code: 99278**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2022

Open Elective

Civil Engineering

19UCS978- Introduction to C Programming

(Common to ECE, EEE, MECH,IT, Chemical, AGRI, BME, CSBS & Biotechnology Engineering branches)

(Regulations 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

- For 16 bit compiler allowable range for integer constant is CO1- U  
(a)  $-3.4e38$  to  $3.4e38$  (b)  $-32767$  to  $32768$  (c)  $-32668$  to  $32667$  (d)  $-32768$  to  $32767$
- What is the value of x in this C code? CO1- App  

```
#include <stdio.h>
void main()
{
    int x = 5 * 9 / 3 + 9;
    print(“%d”,x);}

```

(a) 3.75 (b) Depends on compiler (c) 24 (d) Error
- How many integer values can the array N[5][5] store? CO1- U  
(a) 10 (b) 25 (c) 16 (d) 24
- A C structure or User defined data type is also called CO2- App  
(a) Derived data type (b) Secondary data type  
(c) Aggregate data type (d) All the above
- Which of the following status –enquier functions is used to detect I/O errors during file handling? CO1- U  
(a) feof() (b) error() (c) ferror() (d) None of these

PART – B (5 x 3= 15 Marks)

- |     |  |        |
|-----|--|--------|
| 6.  | Write an algorithm to find the ODD or EVEN of the given number | CO1- U |
| 7.  | What is the difference between while and do-while statement    | CO1- U |
| 8.  | What is meant by recursion?                                    | CO1- U |
| 9.  | How to pass a pointer to the function?                         | CO1- U |
| 10. | Define file? What are basic operations of file?                | CO1- U |

PART – C (5 x 16= 80Marks)

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|-----|--|----------|------|
| 11. | (a) Draw and explain the basic organization of the computer.   | CO1- U   | (16) |
|     | Or   |          |      |
|     | (b) Explain in detail about the classification and generation of computers   | CO1- U   | (16) |
| 12. | (a) Explain in detail about Constants with examples.   | CO1- U   | (16) |
|     | Or   |          |      |
|     | (b) Describe the different forms of if statement in C .Write a C Program using if then else ladder condition.  | CO1- U   | (16) |
| 13. | (a) What is two dimensional array and how to declare and initialize a two dimensional array in C? Write a program for Addition of 2 matrices.                        | CO3-App  | (16) |
|     | Or   |          |      |
|     | (b) Write a C program to input an array of 10 integers and find the maximum and minimum number in the array. Also, Calculate the average of all values in the array. | CO3- App | (16) |
| 14. | (a) Explain in detail about structure with example   | CO1- U   | (16) |
|     | Or   |          |      |
|     | (b) Define Union? Write a program for student mark analysis system.  | CO1- U   | (16) |
| 15. | (a) Explain detail about Dynamic memory allocation with suitable example   | CO1- U   | (16) |
|     | Or   |          |      |
|     | (b) Explain detail about command line arguments in C.  | CO1- U   | (16) |