

**PGDCSA Sem.-1 Examination
Fundamentals of Programming**

Time : 3-00 Hours]

January-2025

[Max. Marks : 50

Instructions:

- Write both the Sections in the separate answer book.
- Both Sections having equal weightage.
- Draw Diagrams wherever necessary.
- Make Assumptions wherever necessary.

SECTION – I

- Q-1** What is looping? Mention the difference between entry control loop and exit control loop? Explain both type of loop with syntax and example. **09**
- Q-2** Attempt the following : (Any Two) **08**
1. What is the use of switch statement? Write a syntax and define rules for using switch statement.
 2. Write a short note on basic structure of C program.
 3. What is an array? Explain one dimensional array using an example.
- Q-3** Attempt the following : **08**
1. Explain the compilation process in C.
 2. Write a short note on string functions.

OR

- Q-3** Attempt the following :
1. Draw a flowchart to define given number is odd or even.
 2. What is user defined function? Explain different type of function with syntax and example.

SECTION – II

- Q-4** Explain the following. (Any Three) **09**
1. Local scope vs Global scope
 2. Bit field
 3. Call by value and Call by reference
 4. Enum
- Q-5** Attempt the following: **08**
1. What is pointer? Why pointer is required? Explain with an example how pointer can be used.

(P.T.O)

2. What is recursion in 'C'? Give an example. Can we replace it with loop? Justify.

OR

Q-5 Write a note on following :

1. Array of structure
2. File handling functions

Q-6

1. What will be the output of following Codes a and b? If error, mention the line in which error occurs and why?

08

- a.

```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1; i <= 2; i++) {
        for (j = 1; j <= 2; j++) {
            if (i == j)
                continue;
            printf("%d %d\n", i, j);
        }
    }
    return 0;
}
```
- b.

```
#include <stdio.h>
int main()
{
    int a[5]={11,12,13,14,15};
    int *p=a;
    printf("\n1. Value of pointer : %d", *p);
    p++;
    printf("\n2. Value of pointer : %d", *(p+2));
}
```

2. What is operator? Explain any four types of operators in detail.

__________***