



# RAN-2311001101010001

## B.S.C. (IT) (NEP) (Sem. - I) Examination November - 2025 Major - 104 : Fundamentals of Programming Using C - I

Time: 2 Hours ]

[ Total Marks: 50

### સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.  
Fill up strictly the above details on your answer book.

Seat No.:

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Student's Signature

### Q. 1. Do as directed: (Any Ten)

[10]

- List various control characters used in printf function.
- \_\_\_\_\_ keyword is used to rename datatype in C.
- Which level of language is closest to machine code?
- What's the difference between = and == in C?
- What is the output of printf ("%d", 10 > 5);?
- Can we use char variable to store small numbers?
- What is range for char data type?
- scanf() is a predefined function in \_\_\_\_\_ header file.
- What will be output of the following line in C?

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int a[2][2] = {{1,2},{3,4}};
```

```
    printf ("%d", a[0][1] + a[1][0]);
```

```
    return 0;
```

```
}
```

- strcat() is used for \_\_\_\_\_

- Find the output:

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int i=0;
```

```
    while(i++ <3)
```

```
        printf("%d ",i);
```

```
    return 0;
```

```
}
```

12. Find the output:

```
#include <stdio.h>
int main()
{
    int a=0;
    if(a=1)
        printf("zero\n");
    else
        printf("non zero\n");
    return 0;
}
```

**Q. 2. (A) Answer following questions(Any Two) [10]**

- (1) Write note on data types of 'C'. Explain type casting with example.
- (2) Explain go to, break and continue statements with example.
- (3) Define Algorithm, Explain characteristics of good algorithm.

**Q. 2. (B) Answer following questions(Any Two) [04]**

- (1) Explain bitwise and conditional operator with example.
- (2) Explain any two string functions with appropriate example.

**Q. 3. (A) Answer following questions(Any Two) [10]**

- (1) Differentiate between Compiler and Interpreter.
- (2) What is loop? Explain different types of loops in C with example.
- (3) What is array? Explain 1D and 2D types array with example.

**Q. 3. (B) Answer following questions(Any One) [04]**

- (1) Write a note on If Else and switch case control structure.
- (2) Explain Enumeration in C with example.

**Q. 4. Answer following question (Any Three) [12]**

- (1) Write a C program to multiply two number without using \*operator. A city has a fixed bus fare system:
  - ₹20 for the first 5 km
  - ₹3 for every additional km
- (2) Write an algorithm and draw a flowchart to calculate the total fare for a given distance traveled.
- (3) Write C program to count number of digits in integer number N entered by user.
- (4) Write C program to display first N prime numbers where N will be entered by user.