

Name:.....

Roll Num:.....

**Quiz-2 FCP(CS101)**  
**Indian Institute of Information Technology, Surat**

**Timing: 5:15-5:45PM**

**Date: 13-11-2025**

**Max Marks: 10**

**Read all Instructions: Write your name and roll number.** Attempt all questions. Do not cancel and rewrite your solutions; use the rough space for your calculations. Write the solution only after you are fully satisfied with it.

For questions, 1, 2, 3, and 4, **mark all correct answers**. If a question has more than one correct answer, you need to **mark all of them correctly to get points**. **(1x4=4)**

1. What is the scope of local variables in C?
  - a. **Limited to the function where it is declared**
  - b. Limited to the entire program
  - c. Limited to the statement where it is declared
  - d. Limited to the main function
  
2. Let **F** be a function in C with **void** return type. Which of the following is/are correct?
  - a. **F must not contain any return statement**
  - b. **F may return a pointer**
  - c. The return value of a function call to **F** can be stored in a variable of type **void**
  - d. **F may be a recursive function**
  
3. Which of the following options is/are correct?
  - a. Returning a **float** value in a function with **int** return type is a compilation error.
  - b. **The body of a function may contain many return statements.**
  - c. **A function can return only one value to the calling function.**
  - d. **Return statement is optional for some data types.**
  
4. Which of the following is/are possible output(s) of the following statement?  

```
printf("%d", strlen("push and pull."));
```

  - a. 11
  - b. 12
  - c. 13
  - d. **14**

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**Rough Space**

For questions 5, 6 and 7, write the output of the C code. If you think the code gives any error or it runs into an infinite loop or its behaviour depends on the compiler/runtime environment, clearly state so. **You need to write the exact output to get points.** (2x3=6)

|                                                                                                                                                                |                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.                                                                                                                                                             | 6.                                                                                                                                                                                                                                                                                              |
| <pre>#include&lt;stdio.h&gt; int abc(int x); int abc(int a) {     return a++; } int main() {     int i = abc(10);     printf("%d", --i);     return 0; }</pre> | <pre>#include&lt;stdio.h&gt; int mystery(char c) {     return (c &gt;= 'a') &amp;&amp; (c &lt;= 'z'); } char puzzle(char *c) {     char ans = mystery(*c) ? *c : (*c-'C'+'c');     return ans; } int main() {     printf("%c %c", puzzle("Fizzz..."),puzzle("buzzz..."));     return 0; }</pre> |
| output.                                                                                                                                                        | output.                                                                                                                                                                                                                                                                                         |
| 9                                                                                                                                                              | f b                                                                                                                                                                                                                                                                                             |

|                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7.                                                                                                                                                                                                             |
| <pre>#include&lt;stdio.h&gt; int fact(int n) {     printf("n=%d ", n);     int fact_n = !n    n * fact(n-1);     printf("f=%d ", fact_n);     return fact_n; } int main() {     fact(4);     return 0; }</pre> |
| output.                                                                                                                                                                                                        |
| n=4 n=3 n=2 n=1 n=0 f=1 f=1 f=1 f=1 f=1                                                                                                                                                                        |

Rough Space