



**KERALA AGRICULTURAL UNIVERSITY**  
**B. Tech. (Agrl. Engg.) 2023 & Previous Admissions**  
**VI Semester Final Examination – June 2026**

Sacs 3214

**Computer Programming and Data Structures (1+2)**

**Marks: 50**  
**Time: 2 hours**

**I Fill in the blanks**

**(10x1=10)**

1. `scanf()` is pre-defined function in ..... header file.
2. .... data structure is used to handle recursion in C.
3. `fopen()` function returns a pointer to a ..... object.
4. Do-while is an ..... controlled loop.
5. .... is used to begin a new line in C.
6. C programs are converted to machine language with the help of .....

**State True or False**

7. Size of a character variable in C is one byte.
8. "programming" is a valid string constant.
9. C is an object oriented type of programming language.

**Answer the following**

10. What is the valid range of numbers for int type of data?

**II Write short on ANY FIVE of the following**

**(5x2=10)**

1. What is an array?
2. Write the syntax of switch statement in C and explain.
3. What are static variables and functions?
4. What are push and pop operations?
5. Write a short note on type casting.
6. What do you mean by modular programming?
7. What is variable initialization and why is it important?

**III Answer ANY FIVE of the following**

**(5x4=20)**

1. What is the purpose of `printf()` and `scanf()` in C program?
2. What are recursive functions? Give an example.
3. Differentiate local and global variables.
4. Write a program to implement a queue using array.
5. Explain scope of a variable in C language.
6. What is `main()`? Write the difference between `void main()` and `int main()`.
7. What are the basic Datatypes supported in C Programming Language?

**IV Write an essay on ANY ONE of the following**

**(1x10=10)**

1. Differentiate while and do-while loop in C.
2. Write a C program to multiply two matrices.

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