

C Assignments (by Er. Yuba Raj Devkota)

[Use your own copy for assignment]

Assignment-1 (Deadline: End Of Year 2019)

1. What is Program Development Life Cycle? Write Steps used in programming development.
2. What is Algorithm? What are the properties of a good algorithm?
3. What is Flowchart? What are symbols used in flowchart? Write advantages and disadvantages of it.
4. Write an algorithm and flowchart to determine whether a given number is odd or even.
5. Write an algorithm and flowchart to determine the largest of three given numbers.
6. Write an algorithm and flowchart to print sum of first 10 natural numbers.
7. What is Structured Programming Approach? Explain why C is Structured Programming Language.
8. Write short notes on history of C.
9. What are Features of C Language? Also list advantages and disadvantages of C language.
10. Explain structure of C program with an example.
11. How Variables are different from constants in C? Also write rules for writing valid variables.
12. What is data types in c. write different data types with their ranges?
13. What do you mean by operators and operands? List different types of operators in C.
14. What is Unary, binary and ternary operators? Explain with examples of each.
15. What is type casting in C? Explain different types of type casting with an example of each.
16. How formatted IO is different from unformatted IO? Give examples of each.

Assignment-2 (Deadline: 21 Jan 2020)

1. What do you mean by control statements in C? List them.
2. How nested if else is different from if else if ladder? Explain with an example of each.
3. Differentiate between break and continue statements.
4. What do you mean by looping statements in C? List them.
5. How while loop is different from do-while loop? Explain with an example of each.
6. What is Array? Why we need them?
7. How to initialize and declare single dimensional array? Explain.
8. How multi-dimensional array is different from one dimensional array? Explain with initialization and declaration of multi-dimensional array.
9. What is string? Write different string functions in C.
10. What is null character? Why we need it?
11. Write a process of reading and writing strings in C.

Assignment-3 (Deadline: 4th Feb 2020)

1. What is function? Why we need it?
2. What is library function? Explain with examples.
3. What is User defined function? List its types with syntax.
4. What is function prototype? Why we need it? Explain with its example.
5. What is recursive function? Explain with a suitable example.
6. How array can be passed as arguments? Give example.
7. What do you mean by passing by value? Give example.
8. What do you mean by passing by reference (address)? Give example.
9. What do you mean by Scope, Visibility and lifetime of a variable? Explain.
10. How local variable is different from global variable? Explain with suitable Example of each.

Assignment-4 (Deadline: Before pre-board 2020)

1. What is Structure? Why we need it?
2. How to define structure? Explain different ways to create structure variables.
3. Give an example of passing structure to a function.
4. What is nested structure? Give syntax.
5. What is Union? How is it different from Structure?
6. What is pointer? Why we need it? Give its syntax.
7. What is * and & Operator? Give its examples.
8. What do you mean by pointer arithmetic? Explain with an example.
9. What is Dynamic Memory Allocation (DMA)? Why we need it?
10. Give different functions used in DMA with examples.

Assignment-5 (Deadline: Before pre-board 2020)

1. What is File? Why we need file handling in C?
2. How to open and close file in C? Give examples.
3. What are different modes in file system? Explain them.
4. How to read data from file and write data to file? Give examples of each.
5. What is random access in file? Explain different functions used in random access.
6. How error handling is done in file system of C? Explain with an example.
7. What is Graphics? Why we need it?
8. Explain Graphics initialization and modes.
9. List any five functions used in graphics. How floodfill() function works in C?
10. How to create circle, rectangle and line in C? Give examples of each.