Khaja Bandanawaz University
Faculty of Engineering and Technology
C- PROGRAMMING FOR PROBLEM SOLVING
(19KBPPS13/23)
QUESTION BANK

Module-1

2-Marks

Q1. Define Computer? What are the components of a Computer System?
Q2. Define the following:
a. Primary Memory b. Secondary Memory
Q3. Define Operating System? Mention the different types of Operating Systems.
Q4. What do you mean by Compiler? How it is different from Interpreter.
Q5. Define Algorithm? Write the algorithm to find Area of Circle.
Q6. Define Flowchart? Draw a flowchart to find the greatest among two numbers.
Q7. Mention the Components of C Language with an example for each?
Q8. Define Variables? What are the different data types in C.?
Q9. What do you mean by Syntax and logical error?
Q10. With the help of their general syntax mention the formatted input/output functions in C.
Q11. Mention the different types of Operators available in C.
Q12. Briefly explain the assignment operator in C.

4-Marks

Q1. What are the essential parts of a Computer System? Briefly explain them.
Q2. Explain the following:
a. Compiler b. interpreter c. assembler d. debugger.
Q3. Write an algorithm and draw the flowchart to find the roots of a quadratic equation.
Q4. What are the rules to declare a Variable in C.?
Q5. What are C Tokens? Briefly explain them.
Q6. What is an operator? Explain relational operators in C.

6-Marks

Q1. With the help of block diagram explain the components
Q2. Explain the Basic Structure of a C Program.
Q3. Draw the flowchart and Write a C Program to find the square of a given number.
Q4. Define Keywords? Explain any 5?
Q5. Briefly explain increment and decrement operators in C.
Q6. Explain the bitwise and logical operators in C.

8-Marks

Q1.Write a C program to compute simple interest. Write an Algorithm and draw the flow chart for the same.

Q2. What are the primitive data types in C? Explain them with the help of example.
Q3. Write a C Program and draw a flowchart to find the area and perimeter of a Rectangle.
Q4. What is Type Conversion? Illustrate different ways of type conversion with an example

10Marks

Q1. With the help of an example program explain the basic structure of a C program.

12 Marks

Q1. Write a C program to find the largest among three integer numbers. Also draw the flowchart and write an algorithm for the same.
Q2. What are the formatted and unformatted input/output statements in C? With the help of general syntax and example explain the formatted input/output statements in C.

Module-2

2-Marks

Q1. What are the conditional and unconditional Statements in C.
Q2. Define looping? What are the different types of looping statements in C?
Q3. Explain pre test looping statement with its general syntax.

4-Marks

Q1. With the help of general syntax explain for statement in C
Q2. With the help of general syntax explain the simple if statement in C.
Q3. Briefly explain Goto and Continue statements.
Q4. Write a C program to check the given number is even or odd.

6-Marks

Q1. With the help of general syntax and example program explain cascaded if else.
Q2. With the help of general syntax explain nested if else.

8 Marks

Q1. Write C programs to display 1 to 10 integer numbers on the output using while and do while statement .
Q2. Write a C program to check whether the entered character is a vowel or a consonant using switch statement.
Q3. With the help of an example program explain ladder if else.

10 Marks

Q1. Write a C program and draw the flowchart to find the roots of quadratic equation.
Q2. With the help of general syntax explain switch statement. Write a C program to simulate simple Calculator.
Q3. With the help of general syntax and example program differentiate pre test and post test looping statements in C

12 Marks

Q1. Explain if, if else, cascaded if and ladder if else with their general syntax and example program.

Module-3

2 Marks

Q1. What do you mean by Searching? Mention any three commonly used sorting Techniques.
Q2. Define Arrays? What are the different types of arrays.
Q3. Define Strings? Write the general syntax for declaring a string.
Q4. Explain how two dimensional arrays are declared and initialized.

4-Marks

Q1. With the help of general syntax explain how 1D and 2D arrays are declared and initialized.
Q2. Explain how strings are declared and initialized.

6-Marks

Q1. Explain with the help of an example program how one dimensional arrays are declared and initialized.
Q2. Write a C program to check whether the given number is a palindrome or not.
Q3. Briefly explain any six String Handling functions.
Q4. Write a C program to generate given N numbers of a Fibonacci series.

8-Marks

Q1. Write a c program to perform the addition of two matrices.
Q2. Write a C program to search a given number in a set of integer numbers using binary search technique.
Q3. Write a C program to sort N integer numbers using bubble sort.

10-Marks

Q1. Write a C program to perform multiplication of two matrices.
Q2. Write a C program and draw a flowchart to generate all the prime numbers between 1 and N, where N is the value supplied by the user.

12-Marks

Q1. Write C program for the following without using library functions.
a. copy one string from one location to another.
b. Join two strings.

Module -4

2-Marks

Q1. Define Functions? What are the different types of functions are there in C.
Q2. What are the components of a user defined function?
Q3. What do you mean by function prototype?
Q4. Briefly explain any two in built functions used in C.
Q5. What are structures in C? Give the general syntax of structures.

4-Marks

Q1. Define Recursive function. Explain with the help of an example.
Q2. Briefly explain the two parameter passing techniques in C.
Q3. Write a C program to swap two integer numbers using functions.

6-Marks

Q1. Write a C program to find the factorial of a given number using functions.

Q2. With the help of an example program explain the call by value parameter passing mechanism in C.

Q3. Explain function definition, function call and function declaration with example.

Q4. What are actual parameters and formal parameters? Illustrate with the help of an example.

8-Marks

Q1. With the help of an example program explain call by reference parameter passing mechanism in C.

Q2. Explain the different types of functions based on the number of parameters.

10-Marks

Q1. Write a C program to display Fibonacci series using recursive function.

Q2. Write a C program to sort the set of N integer numbers using selection sort.

Q3. Write a C program to perform insertion sort in order to sort N integer numbers.

Q4. Create a Book structure containing book_id, title, author name and price. Write a C program to pass a structure as a function argument and print the book details.

Module-5

2-Marks

Q1. Define File? Mention any four file handling functions in C.

Q2.Define pointer? Give the general syntax how pointers are declared.

4-Marks

Q1. Explain with example how pointers are declared and initialized.

Q2. Illustrate with the help of C program, the concept of pointers with functions.

6-Marks

Q1. Explain any six file handling functions in C.

Q2. What are preprocessor directives? Explain any two.

8-Marks

Q1. Write a C program to copy the content of one File to another.

Q2. What do you mean by dynamic memory allocation? With the help of general syntax explain the DMA functions.

Q3. Write a C program using pointers to compute the sum, mean and standard deviation of all elements stored in an array of n integer numbers.

Q4. Write a C program to swap two numbers using pointers.

10- Marks

Q1. With the help of example program explain malloc and calloc functions.

Q2. What is the need of realloc function? Explain with the help of an example program.