



Sri Sai Vidya Vikas Shikshana Samithi®

SAI VIDYA INSTITUTE OF TECHNOLOGY

Approved by AICTE, New Delhi, affiliated to VTU, Recognized by Govt. of Karnataka.

Accredited by NBA, New Delhi (CSE, ECE, ISE, MECH & CIVIL), NAAC – “A” Grade

RAJANUKUNTE, BENGALURU – 560 064, KARNATAKA

Phone: 080-28468191/96/97/98 * E-mail: hodece@saividya.ac.in * URL www.saividya.ac.in

Module-1 Question bank	BTL	CO
1. What is Computer? Explain the characteristics of a computer.	L1	CO1
2. Describe the various types of computers based on speed, memory and cost.	L1	CO1
3. Explain various input devices.	L1	CO1
4. Mention various output devices and explain hardcopy devices	L1	CO1
5. Explain the components of a computer with a neat diagram.	L1	CO1
6. Explain basic organization of computer.	L1	CO1
7. Explain different programming paradigms.	L1	CO1
8. Explain the SDLC life cycle for the efficient design of a program with a neat diagram.	L1	CO1
9. Explain different types of error.	L2	CO1
10. Explain the structure of C program in detail. Write a sample program to demonstrate the components in the structure of C program	L2	CO1
11. Explain different files used in C program.	L2	CO1
12. Define token. Explain different tokens used in C program.	L2	CO1
13. Explain how compiling and executing of C program is done.	L2	CO1
14. Define token. Explain different tokens used in C program.	L2	CO1
15. What is an Identifier? Explain the various rules for forming identifiers names. Classify the following as valid/invalid Identifiers. i) num2 ii) #12 v) if ii) \$num1 iii) \$roll no vi) Name__ iii) +add iv) _name123 iv) a_2 v) 199_space	L2	CO1
16. Explain all the basic data types available in C.	L2	CO1
17. What is variable? What are the rules to construct variable?	L2	CO1
18. Explain printf() and scanf() functions with syntax and illustrative example.	L2	CO1
19. Summarize the formatted input and output statements with suitable syntax and example	L2	CO1
20. Develop an algorithm to find the area and perimeter of a circle. Also define an algorithm.	L3	CO1
21. Draw a flowchart and C program which takes as input p,t,r. Compute the simple interest and display the result.	L3	CO1
22. WAP to swap 2 numbers using temporary variable.	L3	CO1
23. WAP to find Mechanical Energy of a particle.	L3	CO1
24. WAP to convert km to m and cm.	L3	CO1

Mishra

Course Coordinator



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Module-2 Question bank	BTL	CO
1. What are operator, operand and expression?	L1	CO2
2. Explain the following operators with an illustrative program/example. <ul style="list-style-type: none">• Arithmetic operators• Relational Operators• Equality Operators• Logical Operators• Unary Operators• Conditional Operators• Bitwise Operators• Assignment operators• Comma Operator• Sizeof Operator	L3	CO2
3. What is type conversion and type casting? Explain with an example.	L2	CO2
4. With syntax and example, explain conditional operator.	L2	CO2
5. What are decision control statements? List and explain different decision control statements with syntax, flowchart and an example.	L3	CO2
6. Write a C program using switch for simulation of simple calculator.	L3	CO2
7. Write a C program to compute the roots of Quadratic Equation by accepting the coefficients and also print appropriate messages.	L3	CO2
8. What are iterative statements? List and explain different iterative statements with syntax, flowchart and an example.	L3	CO2
9. Write difference between while and do-while loop.	L2	CO2
10. Explain break, goto and continue statements with example.	L2	CO2
11. Write a C program to check if the given character is in upper case/lower case or special character.	L3	CO2
12. Write a C program to check if the given number is positive/negative/equal to 0.	L3	CO2
13. Write a C program to find a factorial of a number.	L3	CO2
14. Write a C program to generate the Fibonacci series	L3	CO2
15. Write a C program to check if the given number is palindrome or not.	L3	CO2

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Module-3 Question bank		BTL	CO
Functions			
1. Define function. Explain function definition and function declaration with syntax and example. Write a C program to add two integers using call by value method in functions.	L3	CO5	
2. Explain the terminologies of functions.	L1	CO5	
3. Explain the difference between actual parameters and formal parameters.	L1	CO5	
4. Explain passing parameters of a function using an example of swapping 2 numbers.	L3	CO5	
5. Differentiate between Call by value and Call by reference method.	L3	CO5	
6. Explain different scope of variables with an example.	L3	CO5	
7. Explain different storage classes with an example.	L3	CO5	
8. What is recursion? Write a C program to find factorial of a number using recursive function.	L3	CO5	
9. Write a C program to find Fibonacci series using recursive function.	L3	CO5	
10. Write a C program to find GCD using recursive function.	L3	CO5	
11. Write a C program to find exponent of a number using recursive function.	L3	CO5	
12. Program to balance the given Chemical Equation values x, y, p, q of a simple chemical equation of the type: The task is to find the values of constants b1, b2, b3 such that the equation is balanced on both sides and it must be the reduced form.	L3	CO5	
Arrays			
1. What is an array? Explain how 1-D array are initialized and declared with an example.	L2	CO3	
2. List different operations done on 1-D array.	L1	CO3	
3. Write a C Program to insert a number at a given location in an array.	L3	CO3	
4. Write a C Program to delete a number from a given location in an array.	L3	CO3	
5. Write a C Program to merge two unsorted array.	L3	CO3	
6. Write a C program to implement linear search on integers.	L3	CO3	
7. Write a C program to implement Binary search on integers.	L3	CO3	
8. Write a C program to Bubble sort on integers in ascending order.	L3	CO3	
9. Write a C program to Bubble sort on integers in descending order.	L3	CO3	
10. Explain how to pass an individual element of an array using functions.	L3	CO3	
11. Explain how to pass an whole array using functions.	L3	CO3	

Nishu

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Module-4 Question bank		BTL	CO
Arrays			
1.	What are 2-D arrays? Explain how 2-D array are initialized and declared with an example.	L2	CO3
2.	Write a C program to read and display 3X3 matrix.	L3	CO3
3.	List the operation done on 2-D array	L1	CO3
4.	Write a C Program to transpose 3 X 3 matrix.	L3	CO3
5.	Write a C program to input 2 m x n matrices and then calculate the sum of their corresponding elements and store it in third m x n matrix.	L3	CO3
6.	Write a C program to input 2 m x n matrices and then calculate the product of their corresponding elements and store it in third m x n matrix. Also validate their rules.	L3	CO3
7.	Write a C Program to read and display 2 x 2 x 2 array.	L3	CO3
8.	List applications of an array.	L1	CO3
Strings			
1.	Define a string. Explain Declaration and initialization of string variables with examples.	L2	CO4
2.	Explain sprintf and sscanf with example.	L2	CO4
3.	Explain with syntax and example the use of scan set functions.	L2	CO4
4.	Explain the string concept and ways of reading the strings and display the strings with suitable example.	L2	CO4
5.	Explain the difference between gets() and scanf() functions.	L2	CO4

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Module-5 Question bank		BTL	CO
Strings			
1.	List and illustrate the use of string manipulation functions.	L3	CO4
2.	Explain character manipulation functions with example.	L3	CO4
3.	Write a C program for following operations on strings without using string manipulation functions/library functions. <ul style="list-style-type: none">• To find length of a string	L3	CO4
4.	Explain array of strings with example.	L3	CO4
5.	Write functions to implement string operations such as compare, concatenate, and find string length. Use parameter passing technique	L3	CO4
Pointers			
1.	Define a Pointer. Explain Declaration and initialization of pointers with examples.	L3	CO4
2.	List application of pointers.	L1	CO4
3.	WAP to compute sum, mean and Standard Deviation of all elements of an array using pointer.	L3	CO4
4.	Discuss the different memory areas available in C.	L1	CO4
5.	Write a C program to swap 2 numbers using pointers	L3	CO4
Structures			
1.	What is structure? Declaration of structure with example.	L2	CO4
2.	Write a C program to read and display 'n' student information using structure.	L3	CO4
3.	Write a C program to implement structure to read, write and compute average marks and the students scoring above and below the average marks for a class of N students.	L3	CO4

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