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G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.
UG DEGREE END SEMESTER EXAMINATIONS - NOVEMBER 2024.

(For those admitted in June 2024 and later)


PROGRAMME AND BRANCH: B.Sc., COMPUTER SCIENCE

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
I	PART - III	CORE-1	U24CS101	C PROGRAMMING

Date & Session: 09.11.2024/FN

Time : 3 hours

Maximum: 75 Marks

Course Outcome	Bloom's K-level	Q. No.	SECTION - A (10 X 1 = 10 Marks) Answer <u>ALL</u> Questions.
CO1	K1	1.	Which of the following data types is best suited for storing a single character in C? a) int b) float c) char d) double
CO1	K2	2.	Which of the following operators is used to obtain the remainder of a division operation in C? a) + b) * c) % d) /
CO2	K1	3.	What will be the output of the following C code snippet? <pre>#include <stdio.h> int main() { int i = 3; while (i > 0) { printf("%d ", i); i--; } return 0; }</pre> a) 1 2 3 b) 3 2 1 c) 1 2 3 4 d) 3 2 1 0
CO2	K2	4.	What does the if statement in C do? a) It defines a block of code that executes repeatedly based on a condition. b) It allows conditional execution of a block of code based on whether a condition is true. c) It declares a variable to hold a value. d) It performs arithmetic operations on variables.
CO3	K1	5.	Which of the following statements is true about arrays in C? a) can be resized dynamically during runtime. b) can store multiple values of different data types. c) The size of an array in C must be known at compile time and cannot be changed during execution. d) Initialized with random values by default.
CO3	K2	6.	What happens when a function is called by value in C? a) The function receives a reference to the original variable, allowing it to modify the original variable. b) The function receives a copy of the variable's value, so changes to the parameter inside the function do not affect the original variable. c) The function receives the memory address of the variable, allowing it to modify the original variable. d) The function cannot modify the variable at all.
CO4	K1	7.	What is a structure in C? a) To define a block of code that executes repeatedly based on a condition. b) To store multiple values of different data types under a single name. c) To perform arithmetic operations on data. d) To manage the memory allocation for variables dynamically.
CO4	K2	8.	What is a union in C? a) To store multiple values of different data types at different memory locations. b) To allocate memory dynamically for variables. c) To store multiple values of different data types at the same memory location, allowing only one value to be stored at a time. d) To define a block of code that executes repeatedly based on a condition.

CO5	K1	9.	What is a pointer in C? a) A variable that stores the address of another variable in memory. b) A type of variable that can only hold integer values. c) A function that returns the address of a variable. d) A constant that represents the memory size of a variable.
CO5	K2	10.	Which of the following is the correct way to declare a pointer to an integer in C? a) int ptr; b) int *ptr; c) ptr int; d) *int ptr;
Course Outcome	Bloom's K-level	Q. No.	SECTION – B (5 X 5 = 25 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K3	11a.	Make use of appropriate data types in C to handle data efficiently. (OR)
CO1	K3	11b	Write a C program to read various types of user input, such as integers, floating-point numbers, and strings.
CO2	K3	12a.	Demonstrate If-else statements with suitable examples. (OR)
CO2	K3	12b	Identify how while loop handles user input and controls the flow of execution.
CO3	K4	13a.	Analyze the implications of using multi-dimensional arrays in terms of memory usage and data organization. (OR)
CO3	K4	13b	Analyze the implementation of recursion.
CO4	K4	14a.	Examine the arrays within structures with an example. (OR)
CO4	K4	14b	Illustrate the integration of structures and functions in a C program.
CO5	K5	15a.	Appraise declare and initialize pointers to handle various data types? (OR)
CO5	K5	15b	Evaluate the concept of integration of pointers with arrays to efficiently handle the data.

Course Outcome	Bloom's K-level	Q. No.	SECTION – C (5 X 8 = 40 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K3	16a.	Make use of arithmetic, relational, logical, and bitwise operators in your code to achieve specific outcomes. (OR)
CO1	K3	16b.	Utilize getchar and putchar functions to handle character input and output with suitable example.
CO2	K4	17a.	Analyze the use of the switch statement in a C program designed to handle multiple choices based on user input. (OR)
CO2	K4	17b.	Examine do-while loop is used to manage user input or iterative processing with an example.
CO3	K4	18a.	Analyze the structural differences between one-dimensional and two-dimensional arrays. (OR)
CO3	K4	18b.	Analyze the characteristics that differentiate various categories of functions.
CO4	K5	19a.	Appraise the impact of using nested structures in C programming on data representation and access. (OR)
CO4	K5	19b.	Discover the impact of file inclusion mechanisms.
CO5	K5	20a.	Criticize how does pointer to a pointer relate to structures? (OR)
CO5	K5	20b.	Criticize how you can access a variable through its address in C?