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Odd Semester Examination-2024

Subject: Introduction to 'C' Programming

Paper Code: BCA 101 / BSC 101 (Backlog)

TIME: 2 Hours 30 Minutes

MAX. MARKS: 60

Section – A (20 Marks)

Note: Attempt ALL questions. Each question carries 1 mark.

Q. No.	Questions	CO*	BL*
1.	The main() function is mandatory for every C program. (True/False)	CO1	L2
2.	Algorithm is the graphical representation of logic. (True/False)	CO1	L2
3.	The "if" statement can be used without an else clause in C. (True/False)	CO1	L2
4.	The second generation computers are based on the microprocessor technology. (True/False)	CO1	L2
5.	A binary number with all bits as 1 is always even. (True/False)	CO1	L4
6.	"break" keyword skip a part of the loop? (True/False)	CO2	L2
7.	In C, ++a and a++ always produce the same result. (True/False)	CO1	L4
8.	In C, comments can be written using // for single-line comments and /* */ for multi-line comments. (True/False)	CO1	L2
9.	C programs are converted into machine language with the help of a program called Compiler. (True/False)	CO1	L2
10.	"free()" is used to allocate memory dynamically in C? (True/False)	CO4	L2
11.	Which of the following is the correct syntax to declare a pointer in C? A) int p; B) int *p; C) int p*; D) int ptr;	CO4	L2
12.	What is the output of the following C code? int main() { int a = 23, b = 5, c; printf("%d", c=(a/b)%b); return 0; } A) 1 B) 2 C) 3 D) 4	CO1	L5
13.	Which of the following is not a valid C variable name? A) int_x1Ay B) _floatcar C) 1x23gvar D) vxarx_12b3	CO1	L2
14.	In a flowchart, which symbol is typically used to represent a decision or branching point? A) Rectangle B) Oval C) Parallelogram D) Diamond	CO1	L2
15.	How do you end a while loop in C? A) break B) stop C) end D) exit	CO1	L2
16.	C does not support the concept of: A) Structured Programming B) Object Programming C) Procedural Programming D) Modular Programming	CO1	L2
17.	Which operator has the highest precedence in C? A) + B) && C) * D)	CO1	L2
18.	How is an array initialized in C language? A) char a={'A', 'B', 'C'}; B) char a[] = {'A', 'B', 'C'}; C) char a(3) = ['A', 'B', 'C'] D) char a[] = new char[3];	CO3	L2

19.	What is #include <stdio.h>? A) Preprocessor Directive B) Inclusion directive C) File inclusion directive D) None of the mentioned	CO1	L2
20.	What will be the final value of x and y in the following C code? int x=100, y=1; y=++x + y++ ; x=y++ * x++ ; printf("%d %d", x, y); A) 10201 102 B) Depends on compiler C) 10506 103 D) 10302 103	CO2	L5

SECTION – B (20 Marks)

❖ Attempt any FOUR questions. Each question is of 5 marks.

Q. No.	Questions	CO*	BL*
1.	Draw the flow chart to print all the Prime numbers from 1 to 1000.	CO1	L3
2.	Describe the logical and Bitwise operators in C with the help of suitable examples.	CO1	L3
3.	Demonstrate the use of "break" and "continue" keywords with programming examples and also show output of your programs.	CO2	L3
4.	Define array. Write a program to find second largest and second smallest number in an integer array.	CO3	L6
5.	What are the storage classes in C? Discuss the different types of storage classes with examples.	CO4	L2
6.	Differentiate between structure and union with suitable examples.	CO5	L2

SECTION – C (20 Marks)

❖ Attempt any TWO questions. Each question is of 10 marks.

Q. No.	Questions	CO*	BL*
1.	Define a recursive function in C. Write a program to find the GCD of given two numbers using recursion.	CO4	L6
2.	What is a pointer? How can a pointer variable be initialized? Write a program to demonstrate the use of call by reference using pointer.	CO4	L4
3.	Write a program to concatenate two strings without using any library functions and display output of the program.	CO3	L6
4.	Explain any two of the following terms with proper syntaxes and examples: (a) Self-Referential Structure (b) File (c) Dynamic Memory Allocation	CO5	L2

CO* - Course Outcomes from Syllabus, BL* - Bloom's Taxonomy Levels (1: Remembering, 2: Understanding, 3: Applying, 4: Analyzing, 5: Evaluating, 6: Creating)

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