

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)  
BCA DEGREE EXAMINATION DECEMBER 2023  
(First Semester)

Branch - COMPUTER APPLICATIONS

PRINCIPLES OF COMPUTER PROGRAMMING

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	All keywords in C are in _____. a) LowerCase letters    b) UpperCase letters c) Camelcase letters    d) Init cap letters	K1	CO1
	2	Which of the following is not a valid C variable name? a) int number;            b) float rate; c) int \$main;             d) int variable_count;	K2	CO1
2	3	The C-preprocessors are specified with _____ symbol. a) &            b) #            c) %            d) *	K1	CO1
	4	Find the output for the following: int main() { int a = 1; if (a==0) printf("True"); a) True            b) False            c) Error            d) No output	K2	CO1
3	5	How do you initialize an array in C? a) int arr[3] = (1,2,3);    b) int arr(3) = {1,2,3}; c) int arr[3] = {1,2,3};    d) int arr(3) = (1,2,3);	K1	CO1
	6	Group of elements having different data type is known as _____ a) Array            b) Structure    c) Class            d) Union	K2	CO1
4	7	In C, a pointer variable to an integer can be created by the decalaration _____. a) int p*;            b) int *p;            c) int \$p;            d) int #p;	K1	CO2
	8	A pointer variable can be _____. a) Passed            b) Changed            c) Return            d) assigned	K2	CO2
5	9	The mechanism that allows to overload the method or constructor is known as _____. a) Abstraction            b) Encapsulation c) Inheritance            d) Polymorphism	K1	CO1
	10	Destructor is prefixed with _____. a) *            b) &            c) %            d) ~	K2	CO1

Cont...

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Demonstrate the basic Structure of C Program.	K2	CO1
	(OR)			
	11.b.	Summarize the Rules for Variables in C.		
2	12.a.	Apply the else if ladder statement to check the given number is positive or negative or zero.	K3	CO2
	(OR)			
	12.b.	Construct the two dimensional array to calculate the addition of two matrices.		
3	13.a.	Simplify the recursion function to find the factorial of n Number.	K4	CO3
	(OR)			
	13.b.	How will you examine the Formatted Input and Output operations in C++?		
4	14.a.	Experiment with the declaration and initialization of Structures in C++.	K3	CO4
	(OR)			
	14.b.	Identify the Reading and writing file operations in C.		
5	15.a.	Assume that there is a list of elements and store it in a array of pointers.	K4	CO5
	(OR)			
	15.b.	Inference the Working principles of Virtual functions in C++.		

**SECTION -C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	List out the Operators in C and explain it in detail.	K4	CO3
2	17	Demonstrate a program to print the day of the week using a switch case.	K4	CO5
3	18	Classify the concept of Inheritance and explain its types.	K4	CO3
4	19	Examine the concept of function overloading in polymorphism and give an example.	K4	CO5
5	20	Write a program to analyze the employee payroll form using Constructors with example.	K4	CO3