25CAU101 / 22CAU101N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCA DEGREE EXAMINATION DECEMBER 2025
(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)

Question No.	Question	K Level	CO
1	Name the Inventor of C Language. a) Martin Richards b) Thompson c) Dennis Ritchie d) Jemes Ritchie	K1	CO1
2	How many keywords are available in ANSI C? a) 34 b) 32 c) 36 d) 33	K2	CO1
3	Select the statement which passes the control to the beginning of the loop. a) break b) goto c) continue d) begin	K1	CO2

4	Express the valid statement to find the length of the given string.
	a) n=strlen(s1); b) n=strlength(s1);
	c) n=stringlen(s1); d) n=stringlength(s1);
		K2	CO2

5	What is the return value if the function contains return type as void? a) 0 b) -1 c) 1 d) 2	K1	CO3
6	Give the name of the data type that contains dissimilar data type. a) Array b) Structure c) Enum d) Pointer	K2	CO3
7	Label the concept if the multiple functions defined in same name with different types and number of arguments. a) Polymorphism b) Multifunction c) Polyfunction d) Functionoverride	K1	CO4
8	Predict which type of member variables can be accessed directly by the object. a) Protected b) Public c) Private d) Default	K2	CO4
9	Which member function has the same name as that of the class they belongs to? a) Virtual b) Abstract c) Friend d) Constructor	K1	CO5
10	Explain, In what type of inheritance, a class is derived from a single base class. a) Multiple b) Multilevel c) Single d) Hybrid	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer **ALL** questions

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

Question No.	Question	K Level	CO
11.a.	Summarize the concept of C tokens and Identifiers.	K2	CO1
	(OR)		
11.b.	Discuss about data types in C with an example.		
12.a.	Explain the following loops. (i) for (ii) while c) do-while	K3	CO2
	(OR)		
12.b.	What is pointer? Express the concept of pointers in C.		
13.a.	Define Function. Explain recursive function in C.	K3	CO3
	(OR)		
13.b.	Explore the steps for file operations.		
14.a.	Identify about the structure of a C++ program.	K4	CO4
	(OR)		
14.b.	Illustrate about function overloading in C++.		
15.a.	Examine the concept of overloading unary and binary operators.	K4	CO5
	(OR)		
15.b.	Define inheritance. Illustrate multiple and hierarchical inheritance in C++.		

SECTION -C (30 Marks)

Answer **ANY THREE** questions

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

Question No.	Question	K Level	CO
16	Illustrate the structure of a C program with an example.	K4	CO1
17	Explain the following statements. (i) if (ii) if-else c) Nested if-else	K4	CO2
18	Examine the concept of structure and union in C.	K4	CO3
19	Illustrate the concept of class and object in C++ with an example.	K4	CO4
20	Distinguish between constructor and destructor in C++.	K4	CO5

Z-Z-Z END