

**PSG COLLEGE OF ARTS & SCIENCE**  
(AUTONOMOUS)

**BSc DEGREE EXAMINATION DECEMBER 2025**  
(Third Semester)

Branch - ELECTRONICS

**C 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	Which of the following is a valid C keyword? a) main    b) include    c) while    d) printf	K1	1
	2	What is the default return type of a C function if not specified? a) void    b) int    c) float    d) char	K2	1
2	3	The operator == in C is used for: a) Assignment    b) Equality comparison c) Logical AND    d) Address referencing	K1	2
	4	Which of the following is the correct syntax of a switch statement in C? a) switch(expression) { case1: ... } b) switch(expression) { case value1: ... } c) switch { case expression: ... } d) switch(expression): { case1: ... }	K2	2
3	5	Which loop is guaranteed to execute at least once? a) for loop    b) while loop c) do...while loop    d) nested loop	K1	3
	6	In C, the first element of an array has index: a) -1    b) 0    c) 1    d) Depends on compiler	K2	3
4	7	Which of the following correctly declares a pointer in C? a) int p;    b) int p;    c) pointer int p;    d) int p;	K1	4
	8	Which of the following is an advantage of using functions in C? a) Avoids repetition of code b) Increases program size c) Reduces modularity d) Slows execution speed	K2	4
5	9	Which function is used to write data to a file in C? a) fread()    b) fwrite()    c) fprintf()    d) scanf()	K1	5
	10	A structure in C is: a) A data type storing heterogeneous data b) A data type storing homogeneous data c) Same as array d) A pointer variable	K2	5

Cont ...

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks  $(5 \times 7 = 35)$ 

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain the structure of a C program with an example.  (OR)	2	1
	11.b.	Discuss the various data types in C with their ranges and sizes.		
	12.a.	Describe type conversion in C with suitable examples.  (OR)		
2	12.b.	Explain the difference between if...else if ladder and switch statement with examples.	2	2
	13.a.	Write a C program to print the sum of elements in a one-dimensional array.  (OR)		
	13.b.	Write a C program to find the largest element in a two-dimensional array.		
3	14.a.	Analyze the advantages and limitations of using pointers in C.  (OR)	3	3
	14.b.	Differentiate between functions with return value and without return value using examples.		
	15.a.	Write a C program to store and display details of 3 students using structures.  (OR)		
5	15.b.	Write a C program to copy contents of one file into another.	3	5

**SECTION - C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks  $(3 \times 10 = 30)$ 

Module No.	Question No.	Question	K Level	CO
1	16	Explain the advantages of C language over other programming languages with suitable examples.	2	1
2	17	With a neat flowchart, explain the evaluation process of arithmetic expressions in C.	2	2
3	18	Write a C program to generate the multiplication table of a given number using a for loop.	3	3
4	19	Explain function declaration, definition, and call in C with examples.	4	4
5	20	Discuss file handling functions in C. Explain the use of fopen(), fclose(), fread(), and fwrite() with syntax.	3	5