

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

**BSc DEGREE EXAMINATION MAY 2025
(Second Semester)**

Branch – MATHEMATICS WITH COMPUTER APPLICATIONS

PROGRAMMING IN C

Maximum: 75 Marks

Time: Three Hours

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	What is the size of (char) in a 32-bit C compiler? a) 1 bit b) 2 bits c) 1 Byte d) 2 Bytes	K1	CO1
	2	What is #include <stdio.h>? a) Preprocessor directive b) Inclusion directive c) File inclusion directive d) Constant declaration	K2	CO1
2	3	What is the default return-type of getchar()? a) char b) int c) char * d) reading character doesn't require a return-type	K1	CO2
	4	Which of the following is an invalid if-else statement? a. if (if (a == 1)){} b. if (a){} c. if ((char) a){} d. if (func1 (a)){} c. if ((char) a){}	K2	CO2
3	5	Is initialisation mandatory for local static variables? a) Yes b) No c) Depends on the compiler d) Depends on the standard	K1	CO3
	6	Which keyword is used to give back the value a) static b) void c) return d) const	K2	CO3
4	7	If the two strings are identical, then strcmp() function returns a) 1 b) 0 c) -1 d) -2	K1	CO4
	8	If p is a pointer to an integer and c is a pointer to a character then sizeof(p) will be a) same as that of sizeof(c) b) greater than that of sizeof(c) c) less than that of sizeof(c) d) None of the above	K2	CO4
5	9	What is the function of the mode 'w+'? a) create text file for writing, discard previous contents if any b) create text file for update, discard previous contents if any c) create text file for writing, do not discard previous contents if any d) create text file for update, do not discard previous contents if any	K1	CO5
	10	Which function will return the current file position for stream? a) fgetpos() b) fseek() c) ftell() d) fsetpos()	K2	CO5

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.	Discuss constants and symbolic constant with example.	K2	CO1
	(OR)			
	11.b.	Write a program to calculate students marksheet using basic operators.		
2	12.a.	Explain the characteristics of printf() and scanf() statement with an example.	K2	CO2
	(OR)			
	12.b.	Illustrate the working procedure of FOR loop with suitable example		
3	13.a.	Discuss any 2 storage classes with suitable example.	K2	CO3
	(OR)			
	13.b.	Examine working procedure of recursive function.		
4	14.a.	Explain structures with example	K2	CO4
	(OR)			
	14.b.	Interpret the procedure to pass the pointer to function.		
5	15.a.	Determine the characteristics of binary files and its advantage.	K2	CO5
	(OR)			
	15.b.	Illustrate enumerations with example.		

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	Discuss conditional and relational operators with an example.	K1	CO1
2	17	Explain while and do-while loops with an example.	K2	CO2
3	18	Classify various types of arrays with an example.	K2	CO3
4	19	Construct a program for Count vowels in a String Using Pointers.	K3	CO4
5	20	Develop a program to count number of characters available in the file.	K3	CO5

Z-Z-Z

END