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PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2023
(First Semester)
Common to Branches -- **INFORMATION TECHNOLOGY / COMPUTER TECHNOLOGY / COMPUTER SCIENCE WITH DATA ANALYTICS**

STRUCTURED PROGRAMMING USING C / PROGRAMMING IN C

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) Either a) or b)	K1	CO1
	2	Which of the following is not a valid C variable name? a) int number; b) float rate; c) int variable_count; d) int $main;	K2	CO1

2	3	What is the output of the following code?
		 #include <stdio.h>
		 int main() {
		         int a[] = {1, 2, 3, 4};
		         int sum = 0;
		         for(int i = 0; i < 4; i++) {
		             sum += a[i];
		         } printf("%d", sum);
		         return 0; }
		 a) 1 b) 4 c) 20 d) 10
			K1	CO2

	4	What is the output of the following code?
		 main()
		 { int i = 2;
		   { int i = 4, j = 5;
		     printf("%d %d", i, j);
		   } printf("%d %d", i, j);
		 }
		 a) 4525 b) 4545 c) 2545 d) 2525
			K2	CO2

3	5	Which escape character can be used to begin a new line in C? a) \a b) \b c) \m d) \n	K1	CO3
	6	myarr[5] is equivalent of ? a) &(myarr + 5) b)*(myarr + 5) c)(*myarr + 5) d) (myarr + 5)	K2	CO3
4	7	Which of the following is invalid? a) '' b) "" c) 'a' d) 'abc'	K1	CO4
	8	The size of a String variable is a) 1 byte b) 8 bytes c) 16 bytes d) None	K2	CO4
5	9	In C language, FILE is of which data type? a) int b) char * c) struct d) union	K1	CO5
	10	What is meant by 'a' in the following C operation? fp = fopen("Random.txt", "a"); a) Attach b) Append c) Apprehend d) Add	K2	CO5

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.	What are basic data types supported in the C Programming Language? List it with example.	K3	CO1
		(OR)		
	11.b.	Write C program to check whether the given number is odd or even.		
2	12.a.	Write a C program to print alphabet triangle.	K3	CO2
		(OR)		
	12.b.	Explain the function of getchar in C.		
3	13.a.	Explain recursion in C.	K5	CO3
		(OR)		
	13.b.	How to declare array? Explain with example.		
4	14.a.	How to create and print a string in C? Give an example.	K5	CO4
		(OR)		
	14.b.	How to pass a pointer to a function in C? Explain with an example.		
5	15.a.	Explain different modes in the fopen() function.	K6	CO5
		(OR)		
	15.b.	Illustrate Enumerated type declaration 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	Demonstrate C program to find greatest of n numbers.	K6	CO1
2	17	What are the four conditional statements in C? Explain with examples.	K4	CO2
3	18	Elaborate passing of parameters to a function in C	K5	CO3
4	19	Elaborate structure and union with syntax and example.	K5	CO4
5	20	Examine Command Line Arguments in C with sample program.	K4	CO5

Z-Z-Z   END