

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)  
MSc(SS) DEGREE EXAMINATION MAY 2024  
(First Semester)

Branch – SOFTWARE SYSTEMS (five year integrated)

**PROBLEM SOLVING AND 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	The _____ logic is used to produce loops when one or more instructions are to be executed several times depending on some expressions. a) Sequence logic    b) Selection logic c) Iterative logic    d) Incremental logic	K1	CO1
	2	++ is _____ operator a) Binary                      b)Unary c) Relational                d)Logical	K2	CO1
2	3	Which among the following is a unconditional control structure? a) do-while                b) if-else c) goto                      d) for	K1	CO5
	4	Each case statement in switch () is separated by_____. a) Break                      b)Continue c) Exit()                      d)Goto	K2	CO5
3	5	The operator used to get value at address stored in a pointer variable is a) *                              b) & c) &&                            d)	K1	CO2
	6	Arguments received by a function in C language are called _____ arguments. a) Define arguments    b) Actual arguments c) Formal arguments    d) Ideal arguments	K2	CO2
4	7	A _____ is a variable that may hold objects of different types and sizes with the compiler keeping track of size and alignment requirements. a) Pointer                      b)Function c) Structure                    d)Union	K1	CO3
	8	The structure member operator _____ connects the structure name and member name. a) *                              b)-> c) .                                d) +	K2	CO3
5	9	The fscanf () statements reads data from_____. a) File                            b) Keyboard c) Printer                        d) Plotter	K1	CO4
	10	The _____ preprocessor directive is used include system-defined and user-defined header files. a) #include                    b)#define c) #undef                        d) #ifdef	K2	CO4

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.	Draw flow chart and write pseudocode to generate Fibonacci sequence up to 100.	K2	CO1
	(OR)			
	11.b.	Demonstrate the input and output functions.		
2	12.a.	Demonstrate the go to statement.	K2	CO5
	(OR)			
	12.b.	Explain the recursion with example.		
3	13.a.	Elaborate arrays as function arguments.	K6	CO2
	(OR)			
	13.b.	Discuss about pointers to multidimensional arrays.		
4	14.a.	Explain about self-referential structures.	K2	CO3
	(OR)			
	14.b.	Demonstrate bitfields.		
5	15.a.	Identify the operations on files.	K3	CO4
	(OR)			
	15.b.	Make use of #define preprocessor directive.		

**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 the program development cycle.	K6	CO1
2	17	Construct a C program to passing arguments to functions.	K4	CO5
3	18	Explain about passing arguments to functions by address.	K4	CO2
4	19	Analyze the structure and functions.	K4	CO3
5	20	Discuss the various read and write functions for sequential access.	K6	CO4