22SSP101N/ 22SSP101

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc(SS) DEGREE EXAMINATION DECEMBER 2023
(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	An _____ is defined as a finite sequence of instructions defining a solution of the particular problem. a) Flow chart b) Algorithm c) Pseudocode d) None of the above	K1	CO1
	2	Identifiers are_____. a) user-defined names b) reserved keywords c) Tokens d) Data types	K2	CO1
2	3	Recursion is a process in which the function calls _____. a) Another function b) main() function c) Itself d) Sub program	K1	CO5
	4	Which of the following is a correct format for declaration of function? a) return-type function-name (argument type); b) return-type function-name (argument type){} c) return-type (argument type) function-name; d) none of the above	K2	CO5
3	5	Arguments passed to a function in C language is called _____ arguments. a) Define arguments b) Actual arguments c) Formal arguments d) Ideal arguments	K1	CO2
	6	An array index starts with _____. a) -1 b) 0 c) 1 d) 2	K2	CO2
4	7	A _____ is a collection of one or more variables, possibly by different types, grouped together under a single name for convenient handling. a) Pointer b)Function c) Structure d)Union	K1	CO3
	8	A _____ is a set of adjacent bits within a single implementation-defined storage unit. a) Flag b) Bitfield c) Pointer d) Union	K2	CO3
5	9	A file opened in w+ mode can be_____. a) Read/write b) Read only c) Write only d) Only close	K1	CO4
	10	The_____ preprocessor directive is used to define constant or micro substitution. a) #include b) #define c) ifdef d) ifndef	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 Flowchart and write Pseudo Code to find the largest of three numbers.	K3	CO1
		(OR)		
	11.b.	Identify the data types in C.		
2	12.a.	Demonstrate the 'switch' statement.	K2	CO5
		(OR)		
	12.b.	Explain the storage classes.		
3	13.a.	Demonstrate pointers and function arguments.	K2	CO2
		(OR)		
	13.b.	Illustrate multidimensional arrays.		
4	14.a.	Explain about pointers to structures.	K2	CO3
		(OR)		
	14.b.	Discuss the significance of Union with examples.		
5	15.a.	Write a C program to illustrate command-line arguments.	K3	CO4
		(OR)		
	15.b.	Make use of #include 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	Evaluate the operators and expressions.	K5	CO1
2	17	Compare the looping statements with suitable examples.	K4	CO5
3	18	Explain about dynamic memory allocation.	K4	CO2
4	19	Analyse how arrays of structures used in C with examples.	K6	CO3
5	20	Discuss the random-access files.	K6	CO4

Z-Z-Z

END