(i) Printed Pages: 2 Roll No. Sub. Code: 0 (ii) Questions : 9 Exam. Code: 0 Bachelor of Computer Applications 1st Semester (2122)PROBLEM SOLVING THROUGH C Paper : BCA-16-104 Time Allowed: Three Hours [Maximum Marks: 65 Note :- Candidate is required to attempt FIVE questions in all, including Question No. 9 which is compulsory and attempt remaining FOUR questions by selecting ONE question from each Section. SECTION-A Compare merits and limitations of data flow diagram, decision 1. table, pseudo code and flow charts as tools of programming

- process.
- Discuss various operators available in C language along with hierarchy of operations. What is the role of identifiers and keywords in developing C programs? 13

SECTION-B

- 3. Explain various loop control structures available in C language along with illustrative examples of your own choice. 13
- 4. Explain the calling and definition of function in C language. Compare various methods of parameter passing to the function with example.

13.

SECTION—C

5.	How is a two dimensional array initialized? Write a C program		
	to c	ompute multiplication of two matrices of order 4×4.	13
6.	Write a note on following:		
	Array of pointers		
	Dynamic memory allocation functions.		13
		SECTION—D	
7.	How are string variables declared and initialized in C language?		
	Explain the working of following:		
	strlen(), strcat(), strcmp(), strcpy().		
8.	Differentiate between structures and unions by taking sample code		
	of your own choice. Write a C program illustrating basic I/O		
	ope	ration on C files.	1-3
		(Compulsory Question)	
9.	(a)	Distinguish between testing and debugging.	3
	(b)	Define the role of goto statement.	2
	(c)	What is the relevance of switch statement?	2
	(d)	Give an example of arrays of characters.	2
	(e)	Write about array of pointers.	2
	(f)	What are nested structures?	2