



Sambal

Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment - II October 2024

I Semester

Class: I UG
Major: Computer Science

Time : 2 hours
Max. Marks : 60

23BCSC01 Programming Methodology

Course Outcomes:

1. Obtain knowledge to design algorithms and draw flowcharts to solve a problem.
2. Develop problem solving skills coupled with top-down design principles.
3. Acquire knowledge to implement different Operations on arrays.
4. Trained skill to solve problems through programming for simple applications.
5. Understand the use of Arrays, functions, pointers, structures and unions.

Part A

6 x 1 = 6

Choose the Correct Answer

- | | | | | | |
|--|---|----------------------|-------------------|-------------------------|-------|
| 1. How many integer values can the array N[5][5] store? | a. 10 | b. 25 | c. 16 | d. 24 | CO3K2 |
| 2. Which operator is used to access the members of a structure in C? | a. Dot(.) | b. arrow(->) | c.comma(,) | d. scope resolution(::) | CO3K1 |
| 3. Which of the following functions is used to compare two strings in C? | a. strcmp() | b. stricmp() | c. strcmpare() | d. strcasecmp() | CO4K1 |
| 4. Which of the following is true about unions? | a. Members of a union share the same memory location. | | | | CO4K1 |
| | b. Members of a union have different memory locations. | | | | |
| | c. Unions cannot contain members of different data types. | | | | |
| | d. Unions are used to create objects with different data types but the same name. | | | | |
| 5. In C, which function is used to close a file? | a. close() | b. fclose() | c. file_close() | d. endfile() | CO5K1 |
| 6. Linear Search is also called _____ | a. Random search | b. Sequential search | c. Perfect search | d. Direct Search | CO5K2 |

3 x 6 = 18

Part B

Answer ALL Questions

Each answer should not exceed 400 words or two pages

- | | |
|---|-------|
| 7.a. What is String in C? Explain any 3 standard String library function with an example. | CO3K1 |
| (or) | |
| 7.b. Explain pointer to structure in detail. | CO3K2 |
| 8.a. Differentiate between Structure and Union in C with example. | CO4K2 |
| (or) | |
| 8.b. Explain how to declare and initialize an array of strings in C. | CO4K2 |
| 9.a. Explain in detail about Binary search algorithm with an example. | CO5K2 |
| (or) | |
| 9.b. Write a C program to merge content of two files into a third file. | CO5K3 |

3 x 12 = 36

Part C

Answer ALL questions

Each answer should not exceed 800 words or four pages

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|--|--------|
| 10.a. Define a multidimensional array, including its declaration and initialization Provide an example code. | CO3K3 |
| (or) | |
| 10.b. Explain pointers in detail, and how do you declare and initialize a pointer in C? What are the advantages and disadvantages of using pointers. | CO3K3 |
| 11.a. Define Structure in C. How to access structure members? Provide an example. | CO4K1 |
| (or) | |
| 11.b. Develop a C program that utilizes multiple standard String library functions. | CO4K3 |
| 12.a. Explain in detail about the various Searching Algorithms with an example. | CO5K3 |
| (or) | |
| 12.b. What is files and different modes of files in C? Explain each mode briefly with an example. | CO5K2. |

Staff in-charge: Dr.R.Vijayabhanu

Ms N. Ruvaneshwari

Campus-I- 65

Campus-II- 65