**INTERNAL ASSIGNMENT 2**

**Course Code: OBC 102 Last Date of Submission: 10/01/2024**

**Course Title: Foundations of Computer Programming**

**Note:**

1. The assignment will have two parts, A and B. Part A is of 20 MCQ type questions.

2. Part B has 8 Descriptive Questions. Attempt any 5 out of it.

**Part A: Multiple-Choice Questions**

Q1. If an array is declared as int arr[4][4], how many elements can be stored in it?

1. 4
2. 8
3. 16
4. 64

Q2. Consider an integer array, arr[]; the ith element can be accessed by writing

1. (arr+i)
2. \*(i+arr)
3. arr[i]
4. All of these

Q3. It is possible to omit the mention of the \_\_\_\_\_\_ of the array at the time of initialization.

1. Name
2. Datatype
3. Size
4. None of these

Q4. We can add a new data element to an already existing array, this is called \_\_\_\_\_\_\_\_\_.

1. Inserting
2. Deleting
3. Searching
4. Sorting

Q5. Removing a data element from an already existing array, this is called \_\_\_\_\_\_\_\_\_.

1. Inserting
2. Deleting
3. Searching
4. Sorting

Q6. \_\_\_\_\_\_\_\_\_\_ means finding an element in an array, whether the element is present or not.

1. Inserting
2. Deleting
3. Searching
4. Sorting

Q7. The \_\_\_\_\_\_\_\_\_ search is best for unsorted array.

1. Binary
2. Linear
3. Both (A) & (B)
4. None of these

Q8. \_\_\_\_\_\_\_\_\_\_\_ is the process of arranging data in a specific order

1. Inserting
2. Deleting
3. Searching
4. Sorting

Q9. The function used to print a line of text on the output device is \_\_\_\_\_\_\_.

1. printf( )
2. puts( )
3. Both (A) & (B)
4. None of these

Q10. The subscripts of the string start with the index \_\_\_\_\_\_\_ .

1. 0
2. 1
3. 10
4. None of these

Q11. Termination of a string is indicated by \_\_\_\_\_\_\_\_ .

1. \0
2. \1
3. Either (A) or (B)
4. None of these

Q12. When two strings are compared, the comparison is based on \_\_\_\_\_\_\_\_ .

1. the size of the strings
2. ASCII value
3. the length of the strings
4. None of these

Q13. To access union member variable, we generally use \_\_\_\_\_\_\_\_\_.

1. Dot operator
2. Comma operator
3. Address operator
4. None of these

Q14. \_\_\_\_\_\_\_\_\_ cannot be a structure member.

1. array
2. function
3. another structure
4. None of these

Q15. \_\_\_\_\_\_\_\_\_ are types of data allowed inside a structure.

1. union
2. int, float, char, double
3. pointers, same structure type members
4. all of these

Q16. If you pass a structure variable to a function , we actually pass \_\_\_\_\_\_\_\_\_\_.

1. starting address of structure variable
2. ending address of structure variable
3. copy of structure variable
4. reference of structure variable

Q17. A do-whileloop is useful when we want that the statements within the loop must be executed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

a) Only once

b) At least once

c) More than once

a) None of the above

Q18. In C programming, character input/output functions are \_\_\_\_\_ and \_\_\_\_\_\_\_.

1. fgetc() and fputc()
2. fgets() and fputs()
3. fprintf() and fscanf()
4. None of these

Q19. In C programming, string input/output functions are \_\_\_\_\_ and \_\_\_\_\_\_\_.

1. fgetc() and fputc()
2. fgets() and fputs()
3. fprintf() and fscanf()
4. None of these

Q20. In C programming, formatted input/output functions are \_\_\_\_\_ and \_\_\_\_\_\_\_.

1. fgetc() and fputc()
2. fgets() and fputs()
3. fprintf() and fscanf()
4. None of these

**Part B: Subjective Questions**

Answer the following questions in brief:

Q1. Write a well-defined recursive algorithm to compute Fibonacci series.

Q2. Write a C program to store name, roll\_no, subject\_name, subject\_marks1, subject\_marks2.

Also, calculate total and average using structure with functions.

Q3. Differentiate between structure and union definition.

Q4. Write a C program to find the frequency of a character in a given string.

Q5. Write a C program to find the length of a given string without using string functions.

Q6. Write a program to perform matrix addition.

Q7. Write a program to perform matrix multiplication.