

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?
- A. 4
 - B. 8
 - C. 16
 - D. 64
- Q2. Consider an integer array, `arr[]`; the *i*th element can be accessed by writing
- A. `(arr+i)`
 - B. `*(i+arr)`
 - C. `arr[i]`
 - D. All of these
- Q3. It is possible to omit the mention of the _____ of the array at the time of initialization.
- A. Name
 - B. Datatype
 - C. Size
 - D. None of these
- Q4. We can add a new data element to an already existing array, this is called _____.
- A. Inserting
 - B. Deleting
 - C. Searching
 - D. Sorting
- Q5. Removing a data element from an already existing array, this is called _____.
- A. Inserting
 - B. Deleting
 - C. Searching
 - D. Sorting
- Q6. _____ means finding an element in an array, whether the element is present or not.
- A. Inserting
 - B. Deleting
 - C. Searching
 - D. Sorting
- Q7. The _____ search is best for unsorted array.

- A. Binary
- B. Linear
- C. Both (A) & (B)
- D. None of these

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

- A. Inserting
- B. Deleting
- C. Searching
- D. Sorting

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

- E. printf()
- F. puts()
- G. Both (A) & (B)
- H. None of these

Q10. The subscripts of the string start with the index _____ .

- A. 0
- B. 1
- C. 10
- D. None of these

Q11. Termination of a string is indicated by _____ .

- A. \0
- B. \1
- C. Either (A) or (B)
- D. None of these

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

- A. the size of the strings
- B. ASCII value
- C. the length of the strings
- D. None of these

Q13. To access union member variable, we generally use _____.

- A. Dot operator
- B. Comma operator
- C. Address operator
- D. None of these

Q14. _____ cannot be a structure member.

- A. array
- B. function
- C. another structure
- D. None of these

Q15. _____ are types of data allowed inside a structure.

- A. union

- B. int, float, char, double
- C. pointers, same structure type members
- D. all of these

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

- A. starting address of structure variable
- B. ending address of structure variable
- C. copy of structure variable
- D. reference of structure variable

Q17. A do-while loop 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 _____.

- A. fgetc() and fputc()
- B. fgets() and fputs()
- C. fprintf() and fscanf()
- D. None of these

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

- A. fgetc() and fputc()
- B. fgets() and fputs()
- C. fprintf() and fscanf()
- D. None of these

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

- A. fgetc() and fputc()
- B. fgets() and fputs()
- C. fprintf() and fscanf()
- D. 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.