

Answers

①.

Sample input:-

Enter an integer : 8

Sample output:-

8

8 is an even number

②.

Sample input:-

Enter the positive number : 7

Sample output:-

7

Sum = 8

③.

Sample input:-

Enter the value of n : 6

Sample output:-

6

Sum of even numbers from 2 to 16 is : 10

④.

Sample input :-

345678

Sample output:-

876543

⑤.

Sample input :-

n = 16

Sample output:-

16 is not a Palindrome

Sample input:

⑥ enter a number : 6

sample output:- ✓

6 is an Armstrong number.

⑦ sample input:-

enter a number : 5 ✓

sample output:-

Factorial of 5 is 120

⑧ Sample input:-

enter a number : 3 ✓

sample output

Factorial of 3 is 6

⑨ Sample input :- 6

sample output:-

0,1,2,3,4,5 ✓

⑩ Sample input :- 8

sample output:- 0,0,1,1,2,3,5,8,13

⑪ sample input:- enter the numbers:- 1,2,3,4,5
sample output:-

Enter 4 element & 3,3,4,5

Search 2 element : 3,4

present

12

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Day 2

⑬ Sum of element in array

Sample input:-

Enter the number of elements : 5

4 8 9 5 2

Sample output:-

Sum of elements : 28

⑭ merge two arrays

Sample input:-

{1, 3, 5, 7}, {2, 4, 6, 8}

Sample output:-

1, 2, 3, 4, 5, 6, 7, 8

⑮ Sample input:-

Sample output:-

Array after insertion : 1 2 3 4 5 6

Array after deletion : 1 2 4 5 6

⑯ reverse a string

Sample input:-

5 2 4

Sample output:-

3 2 1 4 2 5

⑦ Palindrome (On not)

Sample Input: ~~WOW~~

Sample Output:

~~The string is a palindrome~~

⑧ search_string

Sample Input :- kalyan ~~of~~

enter the character to search for : a
character 'a' found at position(s) : 1 4

⑨ count_vowels

Sample Input:- poornakalyan ~~of~~

Sample Output :

Number of vowels in the string : 5

⑩ matrix mul

Sample Input:- enter the no. of rows & column in matrix A:

enter the no. of rows & column in matrix B:

Sample output:-

enter elements of matrix A:-

1
2
3
4

matrix B:-

5
6
7
8

Matrix A :-

$$\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix} \quad \text{Matrix B :-} \quad \begin{pmatrix} 5 & 6 \\ 7 & 8 \end{pmatrix}$$

Resultant matrix

$$\begin{pmatrix} 19 & 22 \\ 43 & 50 \end{pmatrix} \quad \text{after multiplication}$$

Day 3

① Write a C program to implement single linked list.

Use with the following operation.

case(i) Insert an element in the list

case(ii) Delete the element from the list

② Write a C program to implement stack data structure push an element from stack, POP, display the stack

③ a data structures by following

- (i) queue
- (ii) Deque
- (iii) Display

④ To convert infix expression into postfix expression using stack

⑤ To evaluate the given expression using stack.

Day 4

⑥ Write a C program to implement binary tree traversal

⑦ AVL tree with all rotations.

⑧ Hashing using linear probing technique

⑨ bubble sort

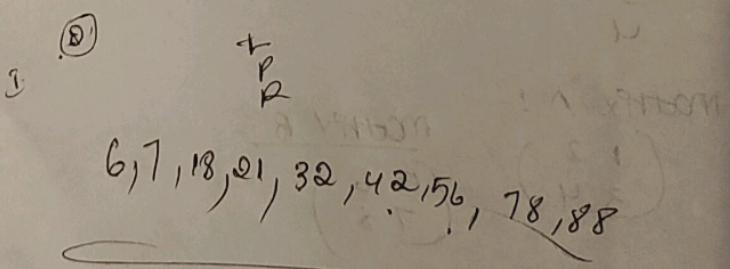
⑩ selection sort

⑪ insertion sort

⑫ quick sort

⑬ ~~radix sort~~

⑭ merge



Answers:

(21) Single Linked List :-

sample input : insert end (& head, 3)

insert beginning (& head, 1);

insert end (& head, 5);

insert middle (head \rightarrow next, 0);

insert middle (head \rightarrow next \rightarrow next, 4);

delete node :- (3, 1)

Sample Output :

Original List: 1 \rightarrow 3 \rightarrow 2 \rightarrow 4 \rightarrow 5 \rightarrow null

after deletion:-

2 \rightarrow 4 \rightarrow 5 \rightarrow null.

(22) Push - Pop: sample input:- push (& stack 10);

& sample output:- " (" & stack 20);

After pushing:- " (" & stack 30);

stack : 10 20 30

Poped elements : 30, 20

After popping :

stack : 10

(23) queue, deque, display

sample input :- push front (& ds, 3)

" (" (& ds, 2)

push rear (" & ds, 4)

" (" (& ds, 5)

display (& ds)

sample output:

elements in the ds : 2 3 4 5

poped element from front : 2

" " " " : 3

elements in the ds : 4, 5