D3

7.

A phrase is a palindrome if, after converting all uppercase letters into lowercase letters and removing all non-alphanumeric characters, it reads the same forward and backward. Alphanumeric characters include letters and numbers.

Given a string s, return true *if it is a palindrome, or* false *otherwise*.

Input : madam

Output : true

Input : race a car

Output : false

(consider empty string to be true.)

8.

Given a string s containing just the characters '(', ')', '{', '}', '[' and ']', determine if the input string is valid.

An input string is valid if:

1. Open brackets must be closed by the same type of brackets.
2. Open brackets must be closed in the correct order.
3. Every close bracket has a corresponding open bracket of the same type.

Input: ([{ ]})

Output : false.

Input {}[]()

o/p: true;

9. Given a text **txt[0. . .n-1]** and a pattern **pat[0. . .m-1]**, write a function search(char pat[], char txt[]) that prints all occurrences of pat[] in txt[]. You may assume that **n > m**.

Txt[] = “IETE IS GREAT CLUB” pat[] = “GREAT”

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Reference:

<https://www.geeksforgeeks.org/rabin-karp-algorithm-for-pattern-searching/>