Lab Exam Question
Course Title: Structured Programming Language Laboratory
Course Code: CSE 1112
Time: 45 Minutes
Set A

Total Marks: 30

Task: Magical Sentence Identifier (30 Marks)

Write a modular C program to read a sentence and determine whether it contains any **magical word**.

A **magical word** is a word that contains the vowels (`a, e, i, o, u`) in strictly increasing order. The word:

- may contain any number of consonants.

- may contain fewer than 5 vowels.

- must not have vowels out of order (e.g., `aie` is invalid).

- must be checked in a case-insensitive way.

Use at least the following functions:

1. `void take_input(char str[])`: to take the sentence input.

2. `int extract_words(char sentence[], char words[][20])`: to split the sentence into words.

3. `int is_magical(char word[])`: to check whether a word is magical.

4. `void check_magical_sentence(char words[], int count)`: prints `"Magical sentence"` if at least one magical word is found.

Sample Input/Output

Sample Run

Input:
Enter a sentence: abacus is aeiou but not aiueo or aie
Output:
Magical sentence