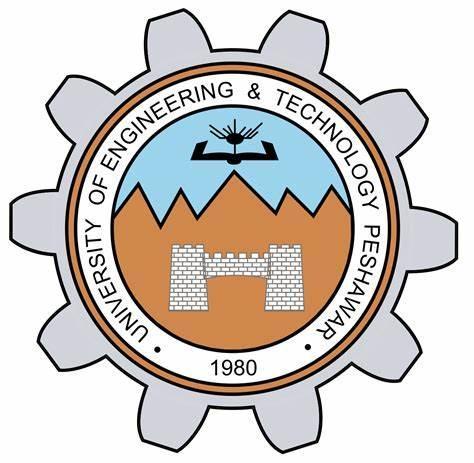
University of Engineering and Technology Peshawar



**Assignment No 1**

**Name:**

**Registration No:**

**Subject:** Theory of Automata

**Submitted to :** Sir Ehsan Khalil

**Date:** 19th OCT 2023

# Task 01:

Build an FA accepting the Language L of Strings, defined over Σ = {a, b},

beginning with and ending in the same letters.

## Solution

Here is the shortest form;

To accept the Language L of strings starting and ending with the same letter over Σ = {a, b}, you can use the regular expression (a+b)+ a(a + b)\* a + b(a + b)\* b as it defines valid patterns for this language.

