CS 302
QUIZ 8

10 May 2023

ANSWER *(10 pts)*

L = {$0^n 1^m 0^k$; n,m,k *nonnegative integers and* **m > 0 , k > n ≥ 0 }**

CFG: **S → 0S0 | AB ; A → 1A | 1 ; B → 0B | 0**

PDA: $(q_0, e, Z_0) \to (q, SZ_0)$

$(q, 0, S) \to (q, 0S)$

$(q, 0, 0) \to (q, 00)$

$(q, 1, S) \to (q_1, S)$

$(q, 1, 0) \to (q_1, 0)$

$(q_1, 1, S) \to (q_1, S)$

$(q_1, 1, 0) \to (q_1, 0)$

$(q_1, 0, S) \to (f, S)$

$(q_1, 0, 0) \to (q_2, e)$

$(q_2, 0, 0) \to (q_2, e)$

$(q_2, 0, S) \to (f, S)$

$(f, 0, S) \to (f, S)$