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|  | **United International University (UIU)** |
|  | *Dept. of Computer Science & Engineering (CSE*) |
|  | **CSE-2233, Theory of Computation** - Class Test-4 (F,G)  **Time :** 35 minutes ( SET-3) |



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| **1.** | Convert the following ***CFG*** to ***Chomsky Normal Form (CNF):***  𝑆 → 1A1 | 0S | A1  A → 1 | B | CA | ε  B → 1BS | 0S0B  C → x | y | **3** |
| **2.** | Construct a ***Push Down Automata (PDA)*** for the following languages:   1. L = { c2n % d3n | n ≥ 0 } where, ∑ = {c, d, %} 2. L = { 0m 1n 2k | m ≥ 0 and n, k ≥ 1, where m=k or n=m } | **3+4** |