Jurusan Teknik Informatika

Universitas Kristen Petra

UAS SEMESTER GENAP 2019/2020

Mata Kuliah	**: Teori Bahasa dan Otomata**
Hari/Tanggal	**: Selasa/ 23 Juni 2020**
Waktu	**: 13.30 – 15.10 WIB (100 menit)**
Sifat	**: Terbuka**

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1. Given a language L={$a^n b^{2m} c^m (de)^{2n+1}$|n, m>0.
   a. Construct CFG for L. **(20 points)**
   b. Write Parse tree for "aabbbbbbcccdedededede" **(10 points)**

2. Given a grammar of arithmetical expression E as follows:
   $E \rightarrow E + E \mid E * E \mid E - E \mid E / E \mid w \mid x \mid y \mid z$
   Write all correct parse trees based on the hierarchical operation for the following string: x + w * y / z – y + z **(20 points)**

3. Write a PDA that accepts the set of strings from (0+1)* that satisfy L={$a^n b^m c^{2m} d^n$ |n,m>0}. **(50 points)**

Stay Healthy and GOD BLESS YOU