

No. :

Date :

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① Batas-batas aturan Produksi:

* Sisi kiri (α) harus berupa satu simbol non Terminal

* Sisi kanan (β) berupa:

- Satu simbol terminal diikuti oleh satu simbol non Terminal

- empty string

② Regular Grammar berada di Tipe 3:

②. $A \rightarrow da \rightarrow dea \rightarrow de$

. $A \rightarrow FF \rightarrow FFF \rightarrow FFgG \rightarrow Ffg$

$A \rightarrow FF \rightarrow FgG \rightarrow Fg$

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② \rightarrow ② $0,1,\dots,31$, ① $0,1,\dots,12$, ② $00,\dots,99$, ③

③

④ $L(m) = \{ a, ba, bba, bbba, \dots \}$

⑤ $L(m) = \{ aca, baca, bbaca, \dots \}$

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② Semua Input akan di tolak karena tidak terdapat final state, data akan berada dalam keadaan awal

③ tidak dapat menjalankan Prosesnya karena tidak terdapat stack awal

④ $M(Q, \Sigma, \delta, Q_0, F)$ dengan

$$Q = \{Q_0\} \quad Q_0 = Q_0 \quad S = \{Q_0, a\} \rightarrow Q_0$$

$$\Sigma = \{a, b\} \quad F = \{Q_0\} \quad S \{Q_0, b\} \rightarrow Q_0$$

$$L(M) = \{a^n b^m \mid m, n \geq 0\}$$

⑤ $M(Q, \Sigma, \delta, Q_0, F)$ dengan

$$Q = \{Q_0, a_1\} \quad a_0 = Q_0 \quad S = \{Q_0, b\} \rightarrow Q_0$$

$$\Sigma = \{a, b\} \quad F = \{a_1\} \quad S \{Q_0, a\} \rightarrow Q_0$$

$$L(M) = \{b^n a \mid n \geq 0\}$$

⑥ $M(Q, \Sigma, \delta, Q_0, F)$ dengan

$$Q = \{Q_0, Q_1\} \quad a_0 = Q_0 \quad S = \{Q_0, a\} \rightarrow Q_1$$

$$\Sigma = \{a, b\} \quad F = \{Q_1\} \quad S \{Q_1, a\} \rightarrow Q_1$$

$$L(M) = \{a^n b^n \mid n \geq 0\} \quad S \{a, b\} \rightarrow Q_0$$

⑦ $M(Q, \Sigma, \delta, Q_0, F)$ dengan

$$Q = \{Q_0, Q_1\} \quad a_0$$

$$\Sigma = \{a, b\}$$

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⑨ $M (Q, \Sigma, \delta, Q_0, F)$ dengan

$$Q = \{Q_0, Q_1\}$$

$$Q_0 = q_0$$

$$S = \{Q_0, a\} \rightarrow Q_1$$

$$\Sigma = \{a, b\}$$

$$F = \{Q_1\}$$

$$S(Q_1, a) \rightarrow Q_1$$

$$S(Q_1, b) \rightarrow Q_0$$

$$L(M) = \{a^n b^m \mid m, n \geq 0\}$$

⑩ $M (Q, \Sigma, \delta, Q_0, F)$ dengan

$$Q = \{Q_0, Q_1\}$$

$$Q_0 = q_0$$

$$S = \{Q_0, a\} \rightarrow Q_1$$

$$\Sigma = \{a, b\}$$

$$F = \{Q_1\}$$

$$S(Q_0, b) \rightarrow Q_1$$

$$L(M) = \{a, b\}$$

⑪ $M (Q, \Sigma, \delta, Q_0, F)$ dengan

$$Q = \{Q_0, Q_1, Q_2\}$$

$$Q_0 = q_0$$

$$S = \{Q_0, a\} \rightarrow Q_1$$

$$\Sigma = \{a, b\}$$

$$F = \{Q_1\}$$

$$S(Q_1, b) \rightarrow Q_0$$

$$L(M) = \{a^n (b^n)^m \mid n \geq 0\}$$

⑫ $M (Q, \Sigma, \delta, Q_0, F)$ dengan

$$Q = \{Q_0, Q_1, Q_2\}$$

$$Q_0 = q_0$$

$$S = \{Q_0, a\} \rightarrow Q_1$$

$$\Sigma = \{a, b\}$$

$$F = \{Q_2\}$$

$$S(Q_1, a) \rightarrow Q_2$$

$$L(M) = \{a^n ab\}$$

$$S(Q_1, b) \rightarrow Q_2$$