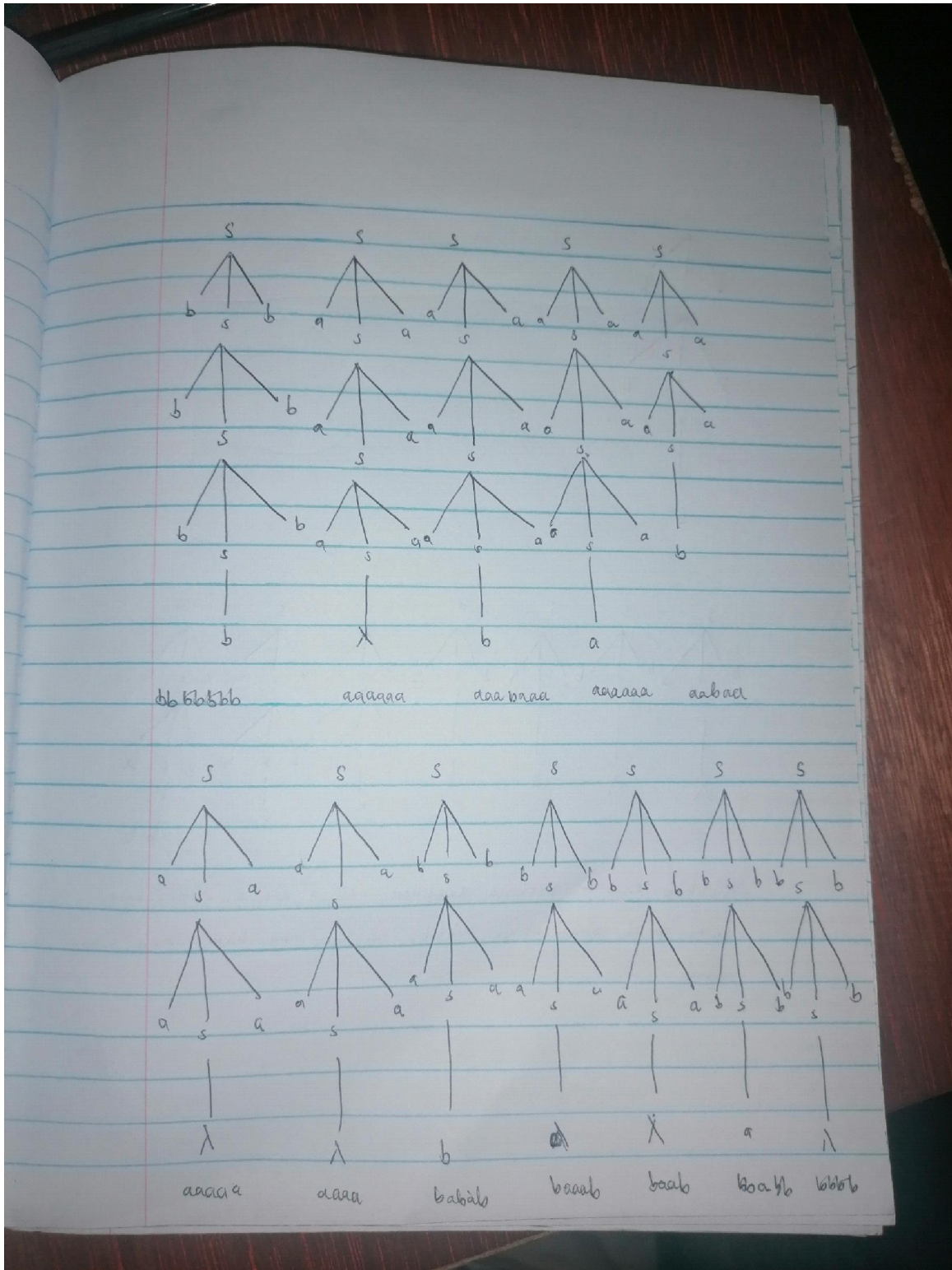
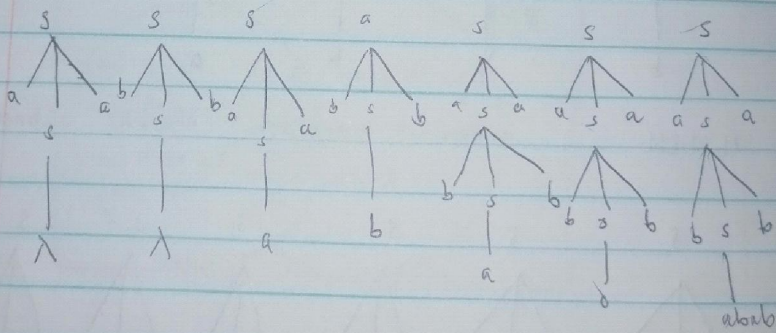
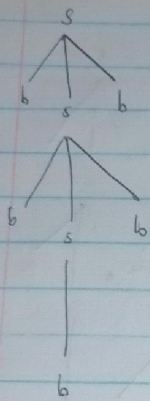


NAME: ODE VICTOR

MATRIC NO: 17/SCI01/059



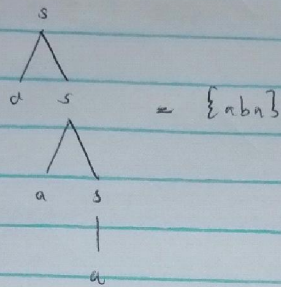


bbbbbb, aaa, aabaa, aaaaaa, abaa, aaaa, bbbb,
 baab, baab, bbab, bbb, bbbb, aa, bb, na, bb, abab, abba,
 abab

26 I

$$V = \{s\} \quad S = \{s\}$$

$$T = \{a\} \quad P = \{s \rightarrow as \mid bs \mid a\}$$



$$S \rightarrow as^0 \mid bs^1 \mid as^2 \mid a$$

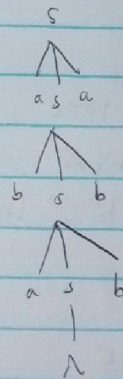
$$V = \{s\}$$

$$T = \{a\}$$

$$S = \{s\}$$

$$P = S \rightarrow as^0 \mid bs^1 \mid as^2 \mid a$$

$$= \{ \epsilon, ab, aabb, \dots \}$$



III

$$S \rightarrow \cancel{b}Ab \mid aB\cancel{b} \mid asb$$

$$A \rightarrow a\Lambda a$$

$$B \rightarrow b\Lambda b$$

$$V \rightarrow \{S, A, B\}$$

$$T \rightarrow \{a, b\}$$

} P

27.

$$S \rightarrow aAb$$

$$A \rightarrow aA \mid bA \mid \lambda$$

$$A = aA \cup bA \cup \lambda$$

$$(a+b)^*$$

$$S = AAb$$

$$= a(a+b)^* b$$

III

$$S \rightarrow asb \mid lab$$

$$= aab^2$$

$$= a^n b^n \mid n \geq 1$$

III

$$S \rightarrow asc \mid aAc$$

$$A \rightarrow aAb \mid ab$$

$$a^m b^n c^n \mid m, n \geq 1$$

IV

$$S \rightarrow AB$$

$$B \rightarrow bB \mid b$$

$$A \Rightarrow aA \mid a$$

$$= a^m b^n \mid m, n \in \mathbb{Z}$$

28

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

$$S \rightarrow AB$$

$$A \rightarrow aA|a$$

$$B \rightarrow bB|b.$$