

i	SA	ISA	PSV	NSV	$S_{SA[i]}$
0	0	0	0	0	
1	21	7	0	2	\$
2	20	12	0	3	A\$
3	17	9	0	4	AABA\$
4	10	14	0	7	AABABDC...
5	18	21	4	6	ABA\$
6	11	19	4	7	ABABDCA...
7	1	18	0	22	ABABDCC...
8	13	17	7	9	ABDCAAB...
9	3	16	7	12	ABDCCCC...
10	19	4	9	11	BA\$
11	12	6	9	12	BABDCAA...
12	2	11	7	22	BABDCCC...
13	14	8	12	14	BDCAABA...
14	4	13	12	22	BDCCCCA...
15	16	20	14	16	CAABA\$
16	9	15	14	17	CAABABD...
17	8	3	14	18	CCAABAB...
18	7	5	14	19	CCCAABA...
19	6	10	14	21	CCCCAAB...
20	15	2	19	21	DCAABA\$
21	5	1	14	22	DCCCCAA...
22	0	0	0	0	

Algorithm 2: LZ_Factor

```

1  $\ell_{psv} \leftarrow |lcp(S_{psv}, S_k)|$ 
2  $\ell_{nsv} \leftarrow |lcp(S_{nsv}, S_k)|$ 
3 if  $\ell_{psv} > \ell_{nsv}$  then
4    $\lfloor (p, \ell) \leftarrow (psv, \ell_{psv})$ 
5 else
6    $\lfloor (p, \ell) \leftarrow (nsv, \ell_{nsv})$ 
7 if  $\ell = 0$  then
8    $\lfloor p \leftarrow S[k]$ 
9 print: factor  $(p, \ell)$ 
return:  $k + \max\{\ell, 1\}$ 

```

Algorithm 5: Computation of the LZ-factorization in $O(n)$ time

```

1  $k \leftarrow 1$ 
2 while  $k \leq n$  do
3    $psv \leftarrow SA[PSV_{lex}[ISA[k]]]$ 
4    $nsv \leftarrow SA[NSV_{lex}[ISA[k]]]$ 
5    $\lfloor k \leftarrow LZ\_Factor(k, psv, nsv)$ 

```
