Suffix Array Construction

Quiz, 6 questions

5/6 points (83%)

✓ Congratulations! You passed!

Next Item



1/1 points

1.

For the string S = AACGATAGCGGTAGA\$, what will be the contents of array order after SortCharacters?

- [15,14,0,1,12,6,4,2,8,13,3,7,9,10,11,5]
- [0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15]
- [15,0,1,4,6,12,14,2,8,3,7,9,10,13,5,11]

Correct

Correct! First goes '\$', then all 'A's in order, then all 'C's in order, then all 'G's in order, then all 'T's in order.

[0,1,4,6,12,14,2,8,3,7,9,10,13,5,11,15]



1/1 points

2.

For string S = AACGATAGCGGTAGA\$, what will be the contents of the array class after ComputeCharClasses?



[1,1,2,3,1,4,1,3,2,3,3,4,1,3,1,0]



Correct! Class 0 is for '\$', class 1 is for 'A', class 2 is for 'C', class 3 is for 'G', class 4 is for 'T'.

[0,0,1,2,0,3,0,2,1,2,2,3,0,2,0,4]

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[0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15]

5/6 points (83%)



1/1 points

3.

For string S = AACGATAGCGGTAGA\$, what will be the order of cyclic shifts of length 2 ordered by the second character in ascending order?

- \$A, AA, GA, TA, TA, GA, AC, GC, CG, AG, CG, GG, AG, AT, GT, A\$
- \$A, A\$, AA, AC, AG, AG, AT, CG, CG, GA, GA, GC, GG, GT, TA, TA
- \$A,AA,AC,AT,AG,AG,A\$,CG,CG,GA,GC,GG,GT,GA,TA,TA

Correct

Correct!



1 / 1 points

4.

For string S=AACGATAGCGGTAGA\$, what will be the order of cyclic shifts of length 2 after SortDoubled with L=1?



[15,14,0,1,6,12,4,2,8,3,13,7,9,10,5,11]

Correct

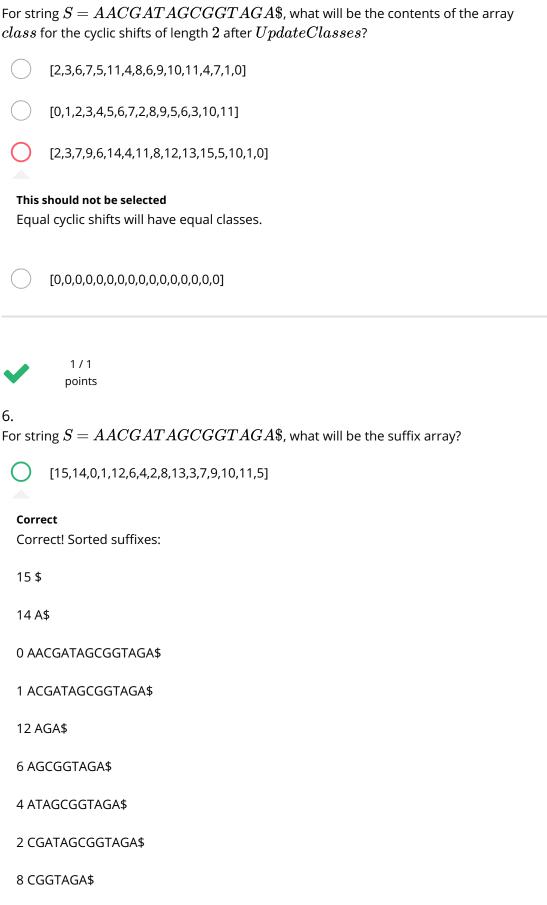
Correct! Recall that SortDoubled uses a stable sort by first halfs of the doubled cyclic shifts.

- [14,0,1,6,12,4,2,8,3,13,7,9,10,5,11,15]
- [15,14,0,1,12,6,4,2,8,13,3,7,9,10,11,5]

0/1



5/6 points (83%)



13 GA\$

3 GATAGCGGTAGA\$ Suffix Array Construction

Quiz, 6 questions 7 GCGGTAGA\$

5/6 points (83%)

9 GGTAGA\$

10 GTAGA\$

11 TAGA\$

5 TAGCGGTAGA\$

[0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15]

[15,0,1,4,6,12,14,2,8,3,7,9,10,13,5,11]

[1,1,2,3,1,4,1,3,2,3,3,4,1,3,1,0]

