

# CSU33071 Test 2

In the following questions the test cases are listed on a couple of lines separated by space characters.  
The space characters are not part of the test cases, but each test case will have a newline character `\n` appended at the end, which will be matched by a `$` symbol in the regular expression.

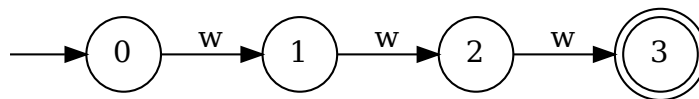
Note: zero is 0, uppercase letter is O, lowercase is o

## Q 2.1

How many of the following 6 strings (whitespace and `\n` indicate a new string and are not part of the test data)

www www www www www w ww

are accepted, in part or whole, by the Thompson's construction nondeterministic finite state automaton shown below



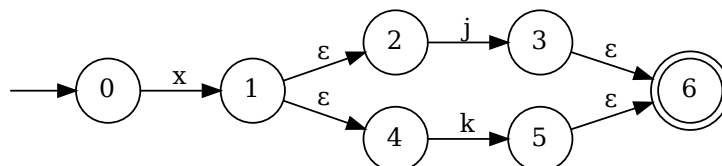
(A) 4 (B) 2 (C) 6 (D) 1 (E) 3 (F) OTHER

## Q 2.2

How many of the following 15 strings (whitespace and `\n` indicate a new string and are not part of the test data)

xjjjjj xxxjjjjj xxxxxxj jjkkkj jjjjkkk kkkjjkk kjxx xxxjjjjjjj  
xxxxkk kkjxxx jjjxx kkkkjxx xxxkkkkk xkxxx xxxkkkkkkk

are accepted, in part or whole, by the Thompson's construction nondeterministic finite state automaton shown below



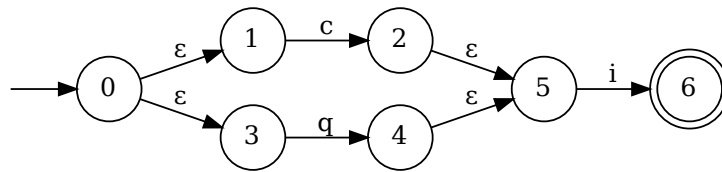
(A) 13 (B) 3 (C) 12 (D) 1 (E) 8 (F) OTHER

### Q 2.3

How many of the following 15 strings (whitespace and \n indicate a new string and are not part of the test data)

```
cccccii qqqqiiiqq cccccqqqq iiiiqiii cqqc ciicccc iiiiqqq
cccciiiiqq qqccccc iiiiqcccc qqqc qqiiiiicc ccccqqccc cccciiii
cciccc
```

are accepted, in part or whole, by the Thompson's construction nondeterministic finite state automaton shown below



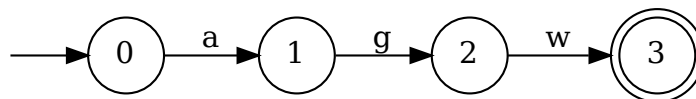
(A) 1 (B) 15 (C) 8 (D) 10 (E) 3 (F) OTHER

### Q 2.4

How many of the following 15 strings (whitespace and \n indicate a new string and are not part of the test data)

```
aaaaaaaaaa aaagwww waaa gggwggg aaaaawwwg wwwwwwg aaggggggg wwwwww
aaaaaaaaaa gggg waaaag aaaaaaaaaa agww wwwwwaa awwwaaaaa
```

are accepted, in part or whole, by the Thompson's construction nondeterministic finite state automaton shown below



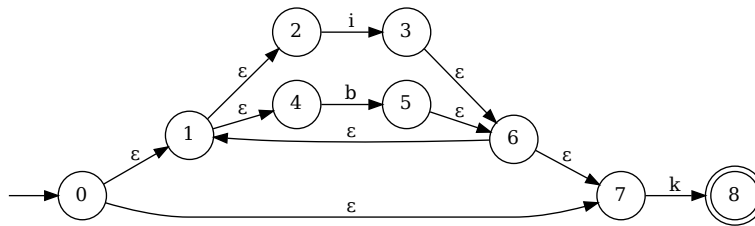
(A) 2 (B) 12 (C) 4 (D) 1 (E) 10 (F) OTHER

### Q 2.5

How many of the following 15 strings (whitespace and \n indicate a new string and are not part of the test data)

```
ibbbk iiiibbkkkk iibbk ibk ibbk ibkkk ibbbk iiibbkkkk ibbk
iiibkk iiibbbbkkkk iiiibbbkkk iibk iiiibk iiibbk
```

are accepted, in part or whole, by the Thompson's construction nondeterministic finite state automaton shown below



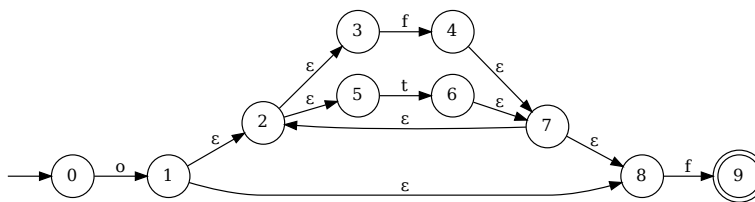
(A) 10 (B) 3 (C) 4 (D) 9 (E) 15 (F) OTHER

### Q 2.6

How many of the following 15 strings (whitespace and \n indicate a new string and are not part of the test data)

otffff tttt ootttttt ooftttt ootttttt ooottf fooott fffff ttoooooooo  
 ttffff ffooott ttooooo fffttttt ooooofff oooooooooo

are accepted, in part or whole, by the Thompson's construction nondeterministic finite state automaton shown below



(A) 4 (B) 9 (C) 3 (D) 7 (E) 12 (F) OTHER