

# CS 571

## Quiz 4

**Nov 9**  
**15 points**

**Closed book**  
**Closed notes**

**Important Reminder:** As per the course Academic Honesty Statement, cheating of any kind will minimally result in receiving an F letter grade for the entire course.

**Please ensure that you have filled-in BOTH your name and B-number in the bubbles on the provided grid-sheet.**

For each of the following questions, select a **single** alternative on the grid-sheet.

There are 7 questions with 2-points per question; there is 1-point for submitting the quiz.

1. What will be the result of evaluating the following Haskell expression?

```
length [[1, 2], [3, 4], [5]]
```

- (a) An error will occur.
- (b) 2.
- (c) 3.
- (d) 4.
- (e) 5.

2. What will be the result of evaluating the following Haskell expression?

```
length [(x, y) | x <- [1..10], y <- "abcde"]
```

- (a) An error will occur.
- (b) 10.
- (c) 15.
- (d) 20.
- (e) 50.

3. What will be the result of evaluating the following Haskell expression?

```
foldl (-) 1 [1, 2, 3]
```

- (a) An error will occur.
- (b) 1.
- (c) -1
- (d) 5.
- (e) -5.

4. What will be the value of evaluating the following Haskell expression?

```
foldr (-) 1 [1, 2, 3]
```

- (a) An error will occur.
- (b) 1.
- (c) -1
- (d) 5.
- (e) -5.

5. Which of the following is not a legal Haskell expression?

- (a) `[1, 2, 3]`.
- (b) `['a', 'b'] ++ "c"`.
- (c) `[1, 2, [1]]`.
- (d) `[['a', 'b'], "cd"]`.
- (e) `[[1], [2]]`.

6. What will be the result of evaluating the following Haskell expression?

```
foldr (++) "x" ["abc", "de", "f"]
```

- (a) An error will occur.
- (b) `"abcdef"`.
- (c) `"fedcba"`.
- (d) `"xabcdef"`.
- (e) `"abcdefx"`.

7. Given sets  $A = \{1, 2, 3, 4\}$  and  $B = \{a, b, c, d\}$ , which of the following is **not** a function from  $A$  to  $B$ .

- (a)  $\{\}$ .
- (b)  $\{(1, a), (2, a), (3, a), (4, a)\}$ .
- (c)  $\{(1, a), (2, b), (3, c), (4, d)\}$ .
- (d)  $\{(1, b), (2, b), (1, d), (4, d)\}$ .
- (e)  $\{(1, a)\}$ .