CS691 Quiz 8 Name _____

1. Given an input image of 25x25x3, that is, a color image of size 25x25, what size filter is needed to get a first hidden layer of size 19x19? Assume no padding, and stride=1. (2 points)

2. Given the following input, what is the result of the operations below?

1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
1	1	1	1	1

   (a) 3x3 Max Pooling (2 points)

   (b) 5x5 Max Pooling (2 points)

   (c) Application of the following filter: (2 points)

1	1	1
1	1	1
1	1	1

3. Explain how dropout is applied during training and testing. (2 points)

CS491 Quiz 8 Name _____

1. The input to my CNN is 10x10, and a single 5x5 filter is applied. The output of this operation is 10x10. How is this possible? (2 points)

2. Given the following input, what is the result of the operations below?

1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
1	1	1	1	1

   (a) 3x3 Max Pooling (2 points)

   (b) 5x5 Max Pooling (2 points)

   (c) Application of the following filter: (2 points)

1	1	1
1	1	1
1	1	1

3. How is the step size in a deep network different from the learning rate? (2 points)