✔

1 / 1
point

1.
If you have 10,000,000 examples, how would you split the train/dev/test set?

○ 60% train . 20% dev . 20% test

◉ 98% train . 1% dev . 1% test

Correct

○ 33% train . 33% dev . 33% test

✔

1 / 1
point

2.
The dev and test set should:

◉ Come from the same distribution

Correct

○ Come from different distributions

○ Be identical to each other (same (x,y) pairs)

○ **Have the same number of examples**

✔

1 / 1
point

3.
If your Neural Network model seems to have high bias, what of the following would be promising things to try? (Check all that apply.)

☑ Increase the number of units in each hidden layer

Correct

☐ Add regularization

Un-selected is correct

☐ Get more training data

Un-selected is correct

☑ Make the Neural Network deeper

Correct

☐ Get more test data

Un-selected is correct

✔

1 / 1
point

4.
You are working on an automated check-out kiosk for a supermarket, and are building a classifier for apples, bananas and oranges. Suppose your classifier obtains a training set error of 0.5%, and a dev set error of 7%. Which of the following are promising things to try to improve your classifier? (Check all that apply.)

☑ Increase the regularization parameter lambda

Correct

☐ Decrease the regularization parameter lambda

Un-selected is correct

☑ Get more training data

Correct

☐ Use a bigger neural network

Un-selected is correct

✓

1 / 1 point

5.
What is weight decay?

○ A technique to avoid vanishing gradient by imposing a ceiling on the values of the weights.

○ The process of gradually decreasing the learning rate during training.

⦿ A regularization technique (such as L2 regularization) that results in gradient descent shrinking the weights on every iteration.

Correct

○ Gradual corruption of the weights in the neural network if it is trained on noisy data.

✓

1 / 1 point

6.
What happens when you increase the regularization hyperparameter lambda?

⦿ Weights are pushed toward becoming smaller (closer to 0)

Correct

○ Weights are pushed toward becoming bigger (further from 0)

○ Doubling lambda should roughly result in doubling the weights

○ Gradient descent taking bigger steps with each iteration (proportional to lambda)

✓

1 / 1 point

7.
With the inverted dropout technique, at test time:

⦿ You do not apply dropout (do not randomly eliminate units) and do not keep the 1/keep_prob factor in the calculations used in training

Correct

○ You do not apply dropout (do not randomly eliminate units), but keep the 1/keep_prob factor in the calculations used in training.

○ You apply dropout (randomly eliminating units) but keep the 1/keep_prob factor in the calculations used in

training.

○ You apply dropout (randomly eliminating units) and do not keep the 1/keep_prob factor in the calculations used in training

✔

1 / 1 point

8.
Increasing the parameter keep_prob from (say) 0.5 to 0.6 will likely cause the following: (Check the two that apply)

☐ Increasing the regularization effect

Un-selected is correct

☑ Reducing the regularization effect

Correct

☐ Causing the neural network to end up with a higher training set error

Un-selected is correct

☑ Causing the neural network to end up with a lower training set error

Correct

✔

1 / 1 point

9.
Which of these techniques are useful for reducing variance (reducing overfitting)? (Check all that apply.)

☐ Vanishing gradient

Un-selected is correct

☑ Data augmentation

Correct

☐ Xavier initialization

Un-selected is correct

☐ Gradient Checking

☐ Exploding gradient

☑ L2 regularization

☑ Dropout

✔

1 / 1
point

10.
Why do we normalize the inputs x?

◉ It makes the cost function faster to optimize

○ It makes it easier to visualize the data

○ It makes the parameter initialization faster

○ Normalization is another word for regularization--It helps to reduce variance