Q6

Due May 3 at 6:30am | **Points** 100 | **Questions** 9 | **Available** until May 3 at 6:30am | **Time Limit** None

Instructions

Instructions:

1. You have 30 minutes to attempt the quiz
2. Once you start the quiz, you cannot go back and re-attempt it
3. You will not find answers online, so please make sure you are ready for the quiz
4. For Multiple Answer Questions, ALL the answers must be correct to score any point
5. Make sure you understand the *italics* in the notes.

This quiz was locked May 3 at 6:30am.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	8 minutes	90 out of 100

Score for this quiz: **90** out of 100
Submitted May 2 at 11:57pm
This attempt took 8 minutes.

Question 1 — 10 / 10 pts

Image Normalization and Image Equalization are same things

- ○ True
- Correct! ◉ False

Question 2 — 5 / 10 pts

Image normalization helps

- Correct! ☑ the model to handle different variations of images
- Correct Answer ☐ train the network to handle image covariate shift

Question 3 — 20 / 20 pts

Batch Normalization

- Correct! ☑ solves internal covariate shift
- Correct! ☑ reduces need to get highly tuned hyper-parameters
- Correct! ☑ helps train deeper networks
- Correct! ☑ helps train network faster

Question 4 — 10 / 10 pts

A layer has 32 channels. It will

- Correct! ◉ have 32 means and 32 variance
- ○ have 1 mean and 1 variance

Question 5 — 5 / 5 pts

Bias:

- Correct! ◉ gets subtracted out when BN is used
- ○ gets trained better with BN is used

Question 6 — 15 / 20 pts

If BN is used, what all are true?

- Correct! ☑ Larger training rate can be used
- Correct! ☑ kernel values would be smaller
- Correct! ☑ gradient flow will not diminish a lot in backprop
- Correct Answer ☐ per epoch would be slightly slower

Question 7 — 10 / 10 pts

If we use regularization (L1/L2):

- Correct! ☑ we can solve over-fitting
- Correct! ☑ kernel values are going to be close to zero or small
- ☐ it is guaranteed to get higher validation accuracy
- ☐ it is guaranteed to get higher training accuracy

Question 8 — 10 / 10 pts

If we create our data set in such a way that our images are automatically normalized then would we need BN?

- Correct! ☑ Yes, BN has more to do with features than pixel intensities, and image normalization does not guarantee that all features would have normalized values
- ☐ No, BN would not be required as normalized images would have normalized features

Question 9 — 5 / 5 pts

Later we'd see that we can add as well as concatenate the channels.

Which one is true?

- ☐ BN should be done after adding or concatenating the channels
- ☐ BN should be done before adding or concatenating the channels
- Correct! ☑ Doesn't matter!

Quiz Score: **90** out of 100