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Completed on	Thursday, June 6, 2019, 8:38 AM
Time taken	10 mins 39 secs
Points	14.00/15.00
Grade	93.33 out of 100.00

Question **1**  
Correct

1.00 points out of 1.00

Based on Ch 1, it looks like Lantz will take a practical approach to the subject of Machine Learning.

Select one:

- ☒ True ✓  
☐ False

Yes, he says on the first page of Ch 1 that "You will learn the origins and practical applications of machine learning."  
The correct answer is 'True'.

Question **2**  
Correct

1.00 points out of 1.00

It's safe to say that the current high interest in ML is because of Big Data.

Select one:

- ☒ True ✓  
☐ False

Yes, Lantz says that on p 2.  
The correct answer is 'True'.

Question **3**  
Correct

1.00 points out of 1.00

The problem of machines learning to understand language, written or spoken, has turned out to be an ongoing struggle!

Select one:

- ☒ True ✓  
☐ False

If you don't think so, try making mistakes as you type your next text message, and see all the crazy things that pop up as suggestions for what you meant.  
The correct answer is 'True'.

Question **4**

Correct

1.00 points out of 1.00

It's very likely that useful ML systems will tend toward what form?

Select one:

- ☐ a. Taking over automatically when we can't do things.
- ☐ b. Competitors of humans, like Deep Blue or Watson.
- ☐ c. Solving most things on their own, so we don't need to do them.
- ☒ d. Collaborating with humans, like answering questions we ask. ✓ Right, like the Bloodhound with the Trainer, shown on p 4.

Your answer is correct.

The correct answer is: Collaborating with humans, like answering questions we ask.

Question **5**

Correct

1.00 points out of 1.00

Suppose you are charged with creating an ML system that decides what free samples to mail to customers in different areas. Your system decides that the people who live in a certain zip code probably belong to a certain cultural group, and therefore should receive a free sample of a product targeted to that group. What should you do, as the person building this system?

Select one:

- ☐ a. If the system learned this on its own, then we really aren't responsible for what it does.
- ☐ b. We should decide based on the number of people who might be hurt. If it's not too many, then we're good.
- ☒ c. It depends on what the group is. If people would be offended to receive the product, then you should exclude this recommendation from the system's actions. ✓ This is the most logical way to decide the ethics of the situation.
- ☐ d. You shouldn't weigh in on the ethics here -- ask your manager.

Your answer is correct.

The correct answer is: It depends on what the group is. If people would be offended to receive the product, then you should exclude this recommendation from the system's actions.

Question **6**

Incorrect

0.00 points out of 1.00

We could say a system was using ML even if it didn't improve it's performance on succeeding trials.

Select one:

- ☒ True ✗
- ☐ False

The correct answer is 'False'.

Question **7**

Correct

1.00 points out of 1.00

We need to abstract the data we are using, primarily to make what we're doing understandable to humans.

Select one:

- ☐ True
- ☒ False ✓

It's a maybe, for sure, and we may feel like the prime beneficiaries of such modeling. The ML system also needs abstraction, so it can categorize what it's doing, like lumping the data into categories for decision making.

The correct answer is 'False'.

Question **8**

Correct

1.00 points out of 1.00

It's important for the human running an ML system, and the ML system itself, to be as unbiased as possible.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question **9**

Correct

1.00 points out of 1.00

Why is Model training right in the middle of the steps needed to do ML?

Select one:

- ☐ a. Because, by that time, you have some idea what the model should look like.
- ☐ b. It's a first step in improving the results you can get with the algorithm.
- ☒ c. You can't train it until you've done the preceding steps. ✓ This is actually it, regardless of whether you are learning what to model as you go, or already knew what you wanted to learn. You have to finish collecting the data, and clean it up, before you can start training your ML algorithm to give results.

Your answer is correct.

The correct answer is: You can't train it until you've done the preceding steps.

Question **10**

Correct

1.00 points out of 1.00

Lantz doubts that there will ever be one best ML algorithm for everything.

Select one:

- ☒ True ✓
- ☐ False

He does. It's at the bottom of p 14 that he claims this.

The correct answer is 'True'.

Question **11**

Correct

1.00 points out of 1.00

Persons, objects, and transactions are typical "units of observation" that we might want an ML algorithm to learn about.

Select one:

- ☒ True ✓
- ☐ False

Right, they are often the smallest unit we can divide things into, in learning what's going on.

The correct answer is 'True'.

Question **12**

Correct

1.00 points out of 1.00

In Lantz's table on p 18, what is the unit of observation?

Select one:

- ☐ a. It's the mileage.
- ☒ b. It's just each row of data. ✓ This is truly what has been observed, as a low-level, individual event -- as the cars rolled off the lot with their new drivers.
- ☐ c. It's a combination of the year and model number.
- ☐ d. It's the price.

Your answer is correct.

The correct answer is: It's just each row of data.

Question **13**

Correct

1.00 points out of 1.00

In supervised learning, there will be a target for us to judge how well the ML system has learned what it was supposed to.

Select one:

- ☒ True ✓
- ☐ False

Right, and there will be more data, with any luck, that we can verify that with, after we have trained the system using a first set of data.

The correct answer is 'True'.

Question **14**

Correct

1.00 points out of 1.00

Numeric prediction tends to be more like statistics, using tools like linear regression to model the data.

Select one:

- ☒ True ✓
- ☐ False

That's so -- see p 20.

The correct answer is 'True'.

Question **15**

Correct

1.00 points out of 1.00

The R language is used primarily for ML.

Select one:

- ☐ True
- ☒ False ✓

Not really -- it has a huge usage in statistics, data visualization, and other big fields of endeavor. It's a good tool almost any time you need to deal with lots of data that can be structured, like into tables or arrays.

The correct answer is 'False'.

Question **16**

Complete

Not graded

We want to base online and remote face-to-face discussions on the topics of most value to you.

Please think carefully about all the material you read, then write a prompt for discussion you would like to hear - either:

a. Something that you aren't sure about, which you'd like to have explained in class, or

b. A topic you liked a lot, that you'd like to discuss in class.

I would love to learn more on deep reinforcement learning because I have seen a paper applying this knowledge to autonomous drive

Thanks!