Quiz Graded: What is AI? Applications and Examples of AI

1. Which of the following is NOT a good way to define AI?   **0 / 1 point**

   ○ AI is the application of computing to solve problems in an intelligent way using algorithms.

   ○ AI is the use of algorithms that enable computers to find patterns without humans having to hard code them manually

   ○ AI is all about machines replacing human intelligence.

   ◉ AI is Augmented Intelligence and is not intended to replace human intelligence rather extend human capabilities

   > **! Incorrect**
   >
   > AI is all about using algorithms on structured or unstructured data, in order to find patterns that we may not have even known exist, without us having to hard code these patterns into computers, to solve problems in an intelligent way. AI is not about replacing human intelligence, rather augmenting it and accomplishing tasks that neither humans nor machines could do on their own.

2. Which of the following is an attribute of Strong or Generalized AI?   **1 / 1 point**

   ○ Cannot teach itself new strategies

   ◉ Perform independent tasks

   ○ Operate with human-level consciousness

   ○ Can perform specific tasks, but cannot learn new ones

   > **✓ Correct**
   >
   > Strong or Generalized AI can perform independent tasks and teach itself new strategies to solve new problems.

3. AI is the fusion of many fields of study. Which of these fields, along with Computer Science, plays a role in the application of AI?   **1 / 1 point**

   ○ Mathematics

   ◉ All responses are correct

   ○ Statistics

   ○ Philosophy

   > **✓ Correct**
   >
   > AI is the fusion of all of these fields of study, and more. While Philosophy provides guidance on intelligence and ethical considerations in the application of AI, Mathematics and Statistics help determine viable learning models and measure performance.

4. Which of these is **NOT** a current application of AI?

○ Self-Driving vehicles utilizing Computer Vision to navigate around objects

○ Classifying rock samples to identify best places to drill for oil

○ Collaborative Robots helping humans lift heavy containers

◉ Making precise patient diagnosis and prescribing independent treatment

✓ **Correct**
In Healthcare, while AI is being used to support doctors arrive at more accurate preliminary diagnoses, it is not yet being used to replace one-on-one interactions between doctors and patients.

5. Natural Language AI algorithms that learn by example are the reason we can talk to machines and they can talk back to us.

◉ True

○ False

✓ **Correct**
The Natural Language Processing and Natural Language Generation capabilities of AI make it possible for machines and humans to interact with each other using natural language. Examples of this include Watson, Alexa, Siri, Cortana, and Google Assistant.

6. Advances in the field of Computer Vision make which of the following possible?

○ Real-time transcription

◉ On-demand online tutors

○ Detecting cancerous moles in skin images

○ Detecting fraudulent transactions

! **Incorrect**
On-demand online tutors are made possible by chatbots powered by Natural Language Processing capabilities.

7. Which of these is currently NOT an application of Collaborative Robots or Cobots?

◉ Personal use in the home such as doing the laundry and cooking for example

○ Robots assisting or replacing humans in jobs that may be dull, dangerous, ineffective or inefficient when done by humans

○ Robots helping humans lift heavy containers

○ Robots helping move items on shelves for stocking purposes

✓ **Correct**
Collaborative robots being used in homes to support us in our personal tasks such doing laundry independently is certainly a future possibility but not yet a reality.

8. Which of the following aspects involved in converting the stethoscope into a digital device to support patient diagnoses involves the use of AI?

`0 / 1 point`

○ Graphing heart beat data on the mobile device allowing a physician to spot trends

○ Inserting a digitizer into the stethoscope tube to convert the analog sound of the heart beat into a digital signal

○ Sending digital signals to a mobile device with a machine learning app via bluetooth

○ An app on the mobile device that applies learnings from previous diagnosis data to assist the physicians in their current diagnoses

> **! Incorrect**
> Simply plotting the data to enable the physician to spot trends is not an application of AI.

9. Which of the following are applications of Artificial Intelligence in action?

`1 / 1 point`

A. IBM Watson utilizing its information retrieval capabilities to provide technical information to oil and gas company workers.

B. Watson analyzing Grammy nominated song lyrics over a 60-year period and categorizing them based on their emotions.

C. Assisting patients with neurological damage by detecting patterns in massive movement related datasets and using robots to trigger specific movements in the human body to create new neural pathways in the brain.

D. Law enforcement authorities using facial recognition algorithms to identify suspects in multiple streams of video footage

○ All of the options are correct

○ Only option A is correct

○ None of the options are correct

○ Only options A, B, and C are correct

> **✓ Correct**
> Correct