

Lesson 3.3 Assessment (Answer Key)

Student
Assessment
3.3



Section 1: True or False

Indicate whether each of the following statements is TRUE or FALSE.

1. The world only consists of physical objects. TRUE **FALSE**
2. Artificial General Intelligence (AGI) has already been realized.
TRUE **FALSE**
3. Intelligence is the ability to do something. **TRUE** FALSE

Section 1: Multiple Choice

Choose the correct answer for each of the following questions.

4. Choose one BEST answer for the following question: The statement that best describes the human soul is...
 - a. The soul does not actually exist.
 - b. The soul permanently dies when the body dies.
 - c. The soul is the locus of identity and continues into the next life.**
 - d. The soul and the brain are the same entity.
5. The following statements are true about consciousness, EXCEPT:
 - a. Consciousness is our experience of the world.
 - b. Our experience of color is a type of consciousness.
 - c. Our perception of sound is a type of consciousness.
 - d. Consciousness entirely depends on brainstem activities.**
6. What is the primary function of Artificial Intelligence (AI)?
 - a. To replicate human consciousness entirely.
 - b. To perform tasks like recognizing patterns and making decisions.**
 - c. To replace human functions with machine capabilities.
 - d. To create machines indistinguishable from humans.
7. Which type of AI aims to create machines indistinguishable from the human mind?
 - a. Weak AI
 - b. Machine Learning
 - c. Strong AI & Artificial Generalized Intelligence**
 - d. Deep Learning

8. What distinguishes consciousness from intelligence in the context of AI?
- a. Ability to replicate human emotions.
 - b. Ability to perform tasks similar to humans.
 - c. Experience versus the ability to do things.
 - d. Advanced machine learning capabilities.
9. According to the Chinese Room Experiment, what did it highlight about AI?
- a. AI can replicate human consciousness effectively.
 - b. AI comprehends language and semantics.
 - c. AI can imitate human behavior but lacks understanding.
 - d. AI can surpass human consciousness.

Section 2: Short Answers

Write a well-formulated response for each of the following.

10. Compare and contrast Weak AI and Strong AI, emphasizing their goals and capabilities. How do these definitions relate to the potential replacement of humans by AI? Explain using examples.

A: Weak AI is broadly defined as the capability of a machine to imitate intelligent human behavior. Machine learning focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving its accuracy. There is also deep learning that teaches computers to process data in a way that is inspired by the human brain. Deep learning models can recognize complex patterns in pictures, text, sounds, and other data to produce accurate insights and predictions. Essentially, it is a neural network with three or more layers. These neural networks attempt to simulate the behavior of the human brain—albeit far from matching its ability—allowing it to “learn” from large amounts of data.

Strong AI & Artificial Generalized Intelligence aims to create intelligent machines that are indistinguishable from the human mind. The AI machine would have to learn through input and experiences, constantly progressing and advancing its abilities over time. Like a robot that thinks and functions like a human. IF AI is capable of copying and learning human behavior, then human activities can be replaced by AI, like grocery shop workers or construction workers. It might even have the potential to replace professors and the like.

11. Discuss the implications of Generative AI for humanity. How does this form of AI challenge or align with the concept of consciousness and human experience? Provide examples to support your argument.

A: Generative AI models can take inputs such as text, image, audio, video, and code and generate new content into any of the modalities mentioned. For example, it can turn your texts into an image, turn an image into a song, or turn video into text. Large Language Model is a type of GenAI that is focused on generating text, for example, the most well-known LLM is ChatGPT, trained on vast amounts of text data. By mimicking human ability to generate content in various forms and work between those forms, the challenges human experiences on a physical level. But in terms of consciousness and human emotions and spiritual experiences, generative AI would not be able to capture such aspects of being human.

12. Explain the significance of the Turing Test and the Chinese Room Experiment in assessing AI's ability to replicate human consciousness. Elaborate on the limitations these experiments reveal about AI and its capacity for true understanding.

A: The Turing test is a test to determine if a computer program can think of responses that can fool a human into believing it, too, is human. In the Chinese Room Experiment, all the characters of the Chinese language were presented so the corresponding response is written using this "code" but real understanding is not attained. The question arises if the AI can actually talk. Can it come close to God? The reality is that it can not actually comprehend or get close to God, therefore, these tests are limited in the fact that they can only test in the physical dimensions and can not test actually experiences and spiritual states.