

Chapter-9

Artificial Intelligence

Section A: Fill in the Blanks

Natural Language Processing (NLP), John McCarthy, IBM's Deep Blue, Limited, Turing

1. The term "Artificial Intelligence" was coined by _____ in 1955.
2. _____ is an example of a reactive machine in AI.
3. Self-driving cars are an example of _____ memory AI systems.
4. The _____ test was proposed by Alan Turing to determine if a machine can exhibit intelligent behavior.
5. _____ is a subfield of AI that focuses on enabling machines to understand and interpret human language.

Section B: Match the Following

Type of AI

1. Reactive Machines
2. Limited Memory
3. Theory of Mind
4. Self-aware AI

Description

- A. AI systems that can understand human emotions and interact socially.
- B. AI systems that can only react to current scenarios without past memory.
- C. AI systems that can store past experiences for a short period.
- D. Hypothetical AI that can have its own emotions and desires.

Section D: True or False

1. AI systems can only perform tasks they are explicitly programmed to do.
(True/False)
2. Deep Learning is a subfield of Machine Learning. (True/False)

3. Self-aware AI systems already exist and are widely used. (True/False)
4. AI can be used to detect fraudulent transactions in banking. (True/False)
5. The first industrial robot, Unimate, was introduced in 1961. (True/False)

Multiple Choice Questions

1. Who is known as the father of AI?
 - a) Alan Turing
 - b) John McCarthy
 - c) Marvin Minsky
 - d) Arthur Samuel
2. Which of the following is an example of a reactive machine?
 - a) Self-driving car
 - b) IBM's Deep Blue
 - c) Chatbot
 - d) Facial recognition system
3. What is the main goal of AI?
 - a) To replace human intelligence
 - b) To augment human abilities
 - c) To create machines that can feel emotions
 - d) To eliminate the need for human labor
4. Which of the following is a subfield of AI that focuses on understanding human language?

- a) Computer Vision
- b) Natural Language Processing
- c) Machine Learning
- d) Deep Learning

5. What is the primary characteristic of Limited Memory AI systems?

- a) They can store past experiences for a short period.
- b) They can understand human emotions.
- c) They can perform any intellectual task like a human.
- d) They can have their own beliefs and desires.

True or False

- 1.** AI systems can learn from historical data. (True/False)
- 2.** The Turing Test was proposed in 1950. (True/False)
- 3.** AI is only used in the field of gaming. (True/False)
- 4.** Deep Learning is inspired by the way the human brain filters information.
(True/False)
- 5.** AI ethics refers to the moral principles guiding the development and use of AI.
(True/False)