

## 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)