

## EXERCISE - 1

### I. Multiple Choice Questions:

1. Artificial Intelligence means
  - a. Programming with your Intelligence
  - b. Making a machine intelligent
  - c. Playing a game with machine
  - d. Putting your intelligence in a computer

**Ans. b. Making a machine intelligent**

2. What is the primary method for communication between humans?
  - a. Reading
  - b. Writing
  - c. Speaking
  - d. All of the above

**Ans. c. Speaking**

3. This is a system of programs and data structures that approximates the operation of the human brain.
  - a. Intelligent network
  - b. Neural network
  - c. Genetic programming
  - d. Decision Support System

**Ans. b. Neural network**

4. This is the tendency for people to think of inanimate objects as having human-like characteristics
  - a. Personalization
  - b. Aliasing
  - c. Self-replication
  - d. Anthropomorphism

**Ans. d. Anthropomorphism**

5. Artificial Intelligence was first coined in 1956 by cognitive scientist named:
  - a. Dr. Lofti Zadeh
  - b. John McCarthy
  - c. Alain Colmerauer
  - d. Seymour Papert

**Ans. b. John McCarthy**

6. The AI domain that is capable of communication between people and machine is
  - a. Robotics
  - b. Decision Support
  - c. Computer vision
  - d. Natural Language Processing

**Ans. d. Natural Language Processing**

7. This is an AI software/program that simulates a conversation with a human being:
  - a. Chatbot
  - b. Voice recognition
  - c. Speech Application
  - d. Data for AI

**Ans. a. Chatbot**

8. The full form of NLP is
  - a. Neuro language programming
  - b. Natural Language Programming
  - c. Natural Language Processing
  - d. Natural Language Presentation

**Ans. c. Natural Language Processing**

9. Which generation of computers is associated with Artificial Intelligence:
  - a. Fifth
  - b. Fourth
  - c. Third
  - d. Second

**Ans. a. Fifth**

10. What is the study of how the language sounds?

- a. Speechology
- b. Trilogy
- c. Biology
- d. Phonology

**Ans. d. Phonology**

**II. Match the following:**

**Ans.**

- |                                    |                                |
|------------------------------------|--------------------------------|
| 1. Chatbots                        | c. Siri, Alexa                 |
| 2. Applications of AI              | e. Self-driving cars, chatbots |
| 3. Mystery animal                  | b. NLP                         |
| 4. Programming language used in AI | a. Python, Lisp                |
| 5. Emoji Scavenger Hunt            | d. Computer Vision             |

**III. Fill in the blanks:**

- a) Artificial Intelligence covers a broad range of applications.
- b) Computer vision is the technology of machines that can see.
- c) Checkers is a game based on Data for AI.
- d) Robots have made a huge impact using technology where they can learn to perform actions like humans.
- e) Assistive Robots and drones have been used in search and rescue, bomb squads and agriculture.
- f) AI systems are capable to think based on logic-based and pattern matching algorithms.

**Q. 3. What is Artificial Intelligence? Give a few examples of AI used in your daily life.**

**Ans.** Artificial Intelligence is the creation of machines to impersonate human capabilities such as teaching a machine to be able to distinguish objects in an image and to listen, deduce and evaluate sounds.

A few examples of AI used in our daily life are as follows:

- ✓ GOOGLE MAPS also use Artificial Intelligence.
- ✓ Ridesharing apps like UBER, OLA also use Artificial Intelligence.
- ✓ Commercial flights use an Artificial Intelligent Autopilot.
- ✓ Online shopping options are due to Artificial Intelligence eg. If you type Philips Iron, it will show you other products of Philips, Iron of other brands as well as other home appliances due to Artificial Intelligence.
- ✓ Artificial Intelligence based Alarm and Camera: When you are focusing a person through camera of your mobile phone, the camera recognises the face of a person as you can see a square around the face, this is due to Artificial Intelligence.

**Q. 4. Write a definition for the following:**

- Ans.** a. NLP: It is the technology to aid computers to understand the human's natural language such as English.  
b. Computer Vision: It is the Science and Technology of machines that see. It is concerned with the theory and technology for building Artificial Systems that obtain information from images.  
c. Data for AI: Collecting data and analyzing it is known as Data for AI.

**Q. 5. Name the three domains of Artificial Intelligence.**

**Ans.** The three domains of artificial intelligence are:

- Data for AI
- Natural language processing
- Computer vision

**Q. 6. Name any other game where the computer predicts your next move using your previous moves.**

**Ans.** CHESS Computer Game.

**Q. 7. Name any two chatbots where the machine interacts with you using your language.**

**Ans.** SIRI(by APPLE), ALEXA(by AMAZON).

**Q. 8. Write any four examples/applications of Artificial Intelligence with their description.**

**Ans.** Four applications of AI are:

- Smart Homes: Smart homes can improve comfort at home, reduce energy consumption, enable automation of household chores and can adapt behaviors according to the preferences of residents.
- Gamification: Games like rock paper scissor, mystery animal, emoji scavenger hunt uses Artificial Intelligence.
- Chatbots: It is an artificial intelligence software that can simulate a conversation with users in natural language processing like Alexa and Siri.
- Navigation: Artificial intelligence is used to interpret hundreds of thousands of data points that they receive with user inputs to suggest real time traffic data like google maps.