

1. Introduction to AI & Everyday Examples



- A. 1. d) 2. a) 3. b) 4. b) 5. b)
- B. 1. Interpersonal 2. Howard Gardner 3. Label
4. Human Intelligence 5. Industrial
- C. 1. T 2. F 3. T 4. F 5. T
- D. 1. Automats 2. Claude Shannon 3. Face Recognition
4. Feedback 5. AI
- E. 1. Intelligence means the ability to think and understand things clearly. It helps us learn from our past experiences and use that learning in new situations.
2. Bodily-kinesthetic intelligence refers to the ability to use one's body skillfully to express ideas, feelings and to solve problems.
3. Reinforcement learning is a type of machine learning in which a model learns by trying different actions and learning from the results. It interacts with its environment, receives rewards for correct actions and penalties for mistakes and improves its performance over time.
4. Smart home devices: AI makes homes smarter by controlling devices like lights, thermostats and security cameras.
- Healthcare: AI helps doctors diagnose diseases and suggest treatments by analysing medical images like X-rays and MRIs to detect issues such as cancer or fractures.
5. Machine Learning is a part of Artificial Intelligence that allows computers to learn from data without being directly programmed. It studies patterns and relationships in the data to understand how things work.

2. Basic Data Concepts



- A. 1. a) 2. d) 3. b) 4. d) 5. c)
- B. 1. Data 2. Fitness trackers 3. researchers
4. microphones 5. Tables
- C. 1. T 2. T 3. F 4. F 5. F
- D. 1. Numerical Data 2. Video Data 3. Surveys and Questionnaires
4. Y-axis 5. Pie Chart
- E. 1. Numerical data, Text data, Image data, Sound data and Video data.
2. Data representation is the method of showing information in a clear visual form using tables, charts, symbols and shapes.
3. Organising data means arranging and sorting information in a way that makes it easier to understand and use.
4. Bar chart: Displays data using horizontal bars for comparison.
Column chart: Displays data using vertical bars for comparison.
5. Discrete data consists of distinct, whole numbers that cannot be broken down further. For example, the number of books on a shelf. Continuous data can take any value within a range and can be measured with great precision. For example, the temperature of a room.

3. Simple Pattern Recognition and Decision Making



- A. 1. a) 2. b) 3. d) 4. b) 5. a)
- B. 1. F 2. T 3. T 4. T 5. F
- C. 1. Pattern 2. Organising 3. Filtering 4. Conclusion 5. Sorting
- D. 1. Symmetry 2. Charts 3. Time series 4. Machine Learning
5. Decision making
- E. 1. Recognising repeated actions or events means noticing things that happen over and over again in a certain way. For example, you might notice that every time it rains, your shoes get wet or that you feel more energetic after a good night's sleep.



2. Observations mean looking at data to find patterns, trends or key details without making guesses. A conclusion is what you figure out or decide after looking at your observations.
3. Statistical analysis involves using statistics to identify relationships and similarities within large datasets and machine learning algorithms are trained on data to detect patterns and similarities.
4. Routines: We follow patterns each morning, such as waking up, brushing our teeth, getting dressed and having breakfast.
5. The methods involved in making clear observations from data are as follows:
 - Identify key findings: Look for the most important numbers, trends or relationships in the data.
 - Look for repeating patterns: Check if there are any repeated themes or groupings.
 - Note irregularities: Pay attention to anything that stands out as unusual or unexpected in your data.

4. Ethics and Digital Responsibility



- | | | | | |
|------------------|-----------------|------------|-------------|---------------|
| A. 1. c) | 2. b) | 3. d) | 4. a) | 5. b) |
| B. 1. Plagiarism | 2. Password | 3. Privacy | 4. Legal | 5. Technology |
| C. 1. F | 2. T | 3. T | 4. F | 5. T |
| D. 1. Ethics | 2. Paraphrasing | 3. Ethical | 4. Spamming | |
5. Software piracy
- E. 1. Phishing is a common online scam designed to trick people into revealing personal information. It often appears legitimate or trustworthy at first, but its main aim is to steal sensitive details, such as passwords, bank account information or private messages.
2. The significant issue caused by the software piracy is that the developers who create the software are not receiving the payment they deserve for their hard work.
3. Intellectual Property Rights (IPR) are the exclusive rights granted by the government to the creators or owners of these intellectual creations. We can protect our creations by obtaining copyrights, ensuring that our work is legally recognised and protected.
4. The two steps to prevent spamming are as follows:
 - Use spam filters to block unwanted emails.
 - Avoid sharing your email address on unfamiliar websites.
5. The three steps to protect digital footprints are as follows:
 - Be mindful of what you share online.
 - Regularly review the privacy settings of your social media accounts.
 - Think before posting personal information that could stay online forever.

