

1. Smart Machines and AI



CODE



DECODE



- A.** 1. c 2. b 3. a 4. d 5. b
- B.** 1. Revolutionising 2. Control 3. Designed
4. Information 5. Wearable
- C.** 1. T 2. F 3. F 4. T 5. T
- D.** 1. Brain 2. social media apps 3. Creativity
4. Iterating 5. Google Maps
- E.** 1. A smart vacuum cleaner can learn the layout of your home and choose the best way to clean each room.
2. Humans are skilled at making decisions that require understanding of nuance, context and social factors, something that is often challenging for machines.
3. Predicting after training and testing, the machine is ready to make predictions on new, unseen data.
4. They can handle a wide range of inquiries, from basic product questions to complex troubleshooting, reducing the need for human intervention and improving service efficiency.
5. Some of the main benefits of AI are:
- **Improved Safety:** In areas like transport and healthcare, AI can help prevent accidents and make decisions that save lives.
 - **Personalisation:** AI learns what you like and suggests things just for you, like music or movies.
 - **Cost Savings:** By automating tasks, AI helps businesses save money on things like labour and resources.

THINK & APPLY

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2. Exploring Data in Our World



- A.** 1. c 2. a 3. b 4. b 5. d
- B.** 1. Tables 2. Raw facts 3. People
4. Opinions 5. Rectangular
- C.** 1. T 2. F 3. T 4. F 5. T
- D.** 1. Information 2. Textual 3. Binary
4. Line 5. Categories
- E.** 1. Data is a collection of raw and unorganised facts such as numbers, words, pictures, or measurements.

2. Information is organised data that makes sense and is useful.

3.

S. No.	Data	Information
Meaning	Data is raw facts like numbers or words. It has no meaning alone.	Information is data that is arranged and makes sense.
Purpose	Data does not tell us much.	Information helps us understand things.

4. Text data includes words, letters, or characters that describe qualities, categories, or attributes. It is used to describe names, places, or things. It is used for things that are not measured numerically, such as names or descriptions.

5. Uses of questionnaires:
- To collect information
 - To gather opinions and feedback
 - To conduct surveys and research
 - To help in decision-making processes
 - To collect relevant and easy-to-analyse data

THINK & APPLY

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3. Decomposition



- A.** 1. c 2. a 3. b 4. a 5. d
- B.** 1. Decomposition 2. Understanding 3. Step by step
4. Mistakes 5. Accuracy
- C.** 1. T 2. F 3. T 4. F 5. T
- D.** 1. Implementation 2. Decomposition 3. Reviewing result
4. Sequencing 5. Problem solving
- E.** 1. Decomposition is the process of breaking down a large problem or task into smaller, simpler and manageable parts.
2. Cleaning The Room
Steps:
- Pick up toys and books.
 - Put all items in their correct places.
 - Arrange the bed neatly.
 - Dust the table or shelf.
 - Throw any waste into the bin.
3. Sequencing means putting steps in the correct order to complete a task properly. Sequencing is important because:
- It prevents mistakes and confusion.
 - It makes our work systematic and clear.
4. Steps for problem solving in a group are:
- Understanding the problem
 - Sharing ideas
 - Discussion
 - Selecting the best solution
 - Implementation
 - Reviewing the result
5. Decomposition offers several advantages some of them are as follows:
- **Makes big tasks easy:** Large and difficult tasks can feel confusing at first. When we break them into smaller steps, each step becomes simple and easy to do.
 - **Useful in teamwork:** When a big task is divided into smaller parts, different people can work on different parts at the same time.



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4. Fair Use of AI



- A.** 1. d 2. b 3. a 4. c 5. a
- B.** 1. Daily 2. Unfair 3. Harmful
4. Harm 5. Improve
- C.** 1. F 2. F 3. T 4. F 5. T
- D.** 1. Permission 2. Human 3. Copyright
4. Feelings 5. False information
- E.** 1. Fair use allows people to share ideas, use materials for learning and build on the work of others without breaking any laws.
2. You should give credit to the creator, ask for permission if needed, and use only what's necessary for your work.
3. The ways to avoid the misuse of AI in everyday applications are:
- Use AI for good purposes, like learning, creating, or solving problems.
 - Do not use AI to create harmful content.
 - Be mindful of what AI can do and how it can be misused.
4. Be honest, respect privacy, use AI to improve lives, and avoid causing harm or creating unfair outcomes.
5. It is important to give credit to the original creator because:
- It shows respect for the creator.
 - It helps others find the original work.
 - It encourages fair and honest use of ideas.
 - It helps build trust when sharing content.
 - It inspires creators to keep making new things.

THINK & APPLY

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