

1. AI Inventions



Δi Task (Page 10)

Do it yourself.



Δi Reboot (Page 11)

Do it yourself.

Δi Quiz

1. b 2. b 3. b 4. c

Exercise

- A.** 1. False 2. True 3. False
- B.** 1. LOVOT 2. love 3. educational 4. 360
- C.** 1. LOVOT is a companion robot.
2. Companion robots are used as buddies or friends for the elderly or kids to remove the feeling of loneliness.
3. Embodied Moxie gives personalised learning experience
4. a. LOVOT
b. Meeting Owl
c. Embodied Moxie
d. Kuri Mobile

2. Human Versus Artificial Intelligence

Δi Quiz

1. c 2. b 3. d



Exercise

A. 1. True 2. True 3. True 4. True

B. 1.

S.No.	Human Intelligence	Artificial Intelligence
1.	Created by nature	Created by human intelligence
2.	Processes information slower	Process information with high speed

2. Two capabilities of human brain are as follows:

- Learn from different experiences
- Understand complex concepts

3. How AI Works in Different Applications



AI Task (Page 23)

Do it yourself.



AI Reboot (Page 25)

1. Siri 2. Alexa

AI Quiz

1. b 2. d 3. a 4. d

Exercise

A. 1. True 2. True 3. False 4. True 5. False

B. 1. Voice 2. Google Assistant 3. Speech recognition
4. Face recognition

C. 1. Optical Character Recognition (OCR) is used to convert an image of text or physical document into editable form.
2. Two areas where AI-powered OCR is being used are as follows:
• Document are scanned using OCR.
• Robots use OCR to scan barcodes in the warehouses and find stock.
3. Speech recognition or speech-to-text and vice versa is the ability of a machine or program to identify words spoken aloud and convert them into readable text.



4. Two benefits of AI-powered speech recognition systems are as follows:
- They can capture speech much faster than we type.
 - They save time and effort as the user needs to spend less time in typing.
5. a. Cortana
b. Google Assistant
c. Siri
d. Alexa

Test Sheet 1

(Based on Units 1 to 3)

- A.** 1. b 2. b 3. d 4. b
- B.** 1. love 2. Speech recognition 3. Face recognition
- C.** 1. True 2. True 3. False
- D.** 1. Companion robots are used as buddies or friends for the elderly or kids to remove the feeling of loneliness.
2. Two capabilities of human brain are as follows:
 - Learn from different experiences
 - Understand complex concepts
3. Two areas where AI-powered OCR is being used are as follows:
 - Document are scanned using OCR.
 - Robots use OCR to scan barcodes in the warehouses and find stock.

4. Latest Robots



Δi Task (Page 42)

Do it yourself.

Δi Quiz

1. c
2. c
3. (This question was printed incorrectly in the book, please correct it in your textbook)
(**Quest...** Which of the following can be operated from a whiteboard using dry-erase markers?)
a. Aeolus
b. Paro



- c. Root
- d. Zenbo

Ans. c

- 4. a
- 5. d

Exercise

- A.**
- 1. False
 - 2. (This question was printed incorrectly in the book, please correct it in your textbook)

Quest...Z-Machines has 22 arms.

Ans. True

- 3. True
 - 4. False
- B.**
- 1. Aeolus
 - 2. aerospace
 - 3. humanoids
 - 4. space
 - 5. Paro
- C.**
- 1
 - a. Sophia
 - b. Leka
 - c. Aeolus
 - d. RoboThespain
 - 2. A robot is a type of automated machine that can execute specific tasks with little or no human intervention and with speed and precision.
 - 3. Military Robots: These robots are used in Military and emergency operations. They are deployed in places or situation which are too dangerous for humans.
 - 4.
 - a. Z-Machines
 - b. Leka



Δi In Life (Page 46)

Yes, Robear and Zenbo



5. Fields Where Robots Are Used



Δi Task (Page 48)

Do it yourself.



Δi Reboot (Page 51)

Da Vinci is a complete surgical system which performs complex surgeries with great skills of heart, head, neck and other sensitive areas.



Δi Reboot (Page 53)

1. c 2. d 3. b 4. a

Δi Quiz

1. a 2. d 3. a 4. a 5. b

Exercise

- A.** 1. True 2. False 3. True 4. True 5. False
- B.** 1. Security 2. Nadine 3. Gravity 4. Material handling 5. Shipwreck
- C.** 1. b 2. a 3. e 4. c 5. d
- D.** 1. (This question was printed incorrectly in the book, please correct it in your textbook)

Quest... Name any two robots that are used in agriculture.

Ans. Merlin and Root AI

2. Robotic arms
3. Two uses of robots in healthcare are as follows:
- Surgical robots help doctors in performing surgery in healthcare field.
 - They are also used as prosthetic limbs.
4. NASA has made a number of robotic devices to support or substitute astronauts to perform high risk tasks. DARPA is a humanoid robot that can function like humans. Currently R1 and R2 are working as Robonaut. Robonaut 2 or R2 was the first humanoid robot sent to space as a part of STS-133 mission. RASSOR (pronounced as "Razor") is a lunar robot, Spidernaut is a robot constructed for maintenance and repair projects in space.



Test Sheet 2

(Based on Units 4 & 5)

- A.** 1. a 2. d 3. a
- B.** 1. space 2. Gravity 3. Material handling
- C.** 1. (This question was printed incorrectly in the book, please correct it in your textbook)
Quest...Z-Machines has 22 arms.
Ans. True
2. True
3. True
4. True
- D.** 1. Military Robots: These robots are used in Military and emergency operations. They are deployed in places or situation which are too dangerous for humans.
2. Robots are automatically operated machines that work in place of humans.
3. NASA has made a number of robotic devices to support or substitute astronauts to perform high risk tasks. DARPA is a humanoid robot that can function like humans. Currently R1 and R2 are working as Robonaut. Robonaut 2 or R2 was the first humanoid robot sent to space as a part of STS-133 mission. RASSOR (pronounced as "Razor") is a lunar robot, Spidernaut is a robot constructed for maintenance and repair projects in space.
4. Two uses of robots in healthcare are as follows:
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 - They are also used as prosthetic limbs.



Δi Ready (Page 61)

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