

CodeAI Plus

Windows 10 with Office 2019

Also compatible with Office 2016



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|-------------------------|----------------------------|
| Artificial Intelligence | Multidisciplinary Approach |
| Animated Life Skills | Subject Integration |
| Coding | Art Integration |
| Computational Thinking | Skill Formation |
| Experiential Learning | Linked with SDGs |



Answer Key

A. Tick (✓) the correct answer.

1. (a) AI 2. (a) Headset 3. (a) Google assistant
4. (b) Meta and Universe 5. (b) Things

B. Write 'T' for True and 'F' for False statements.

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

C. Fill in the blanks.

1. Internet of Things (IoT) 2. Apple 3. avatars
4. AI 5. A virtual assistant

D. Differentiate between the following.

Virtual Reality	Augmented Reality
It immerses us in a virtual world through the use of a headset with a screen displaying a virtual environment.	It takes digital images and layers them on the real world around us through the use of a smartphone.

E. Answer in 1-2 sentences.

1. Google Assistant is an Artificial Intelligence-powered virtual assistant developed by Google that is primarily available on mobile and smart home devices.
2. Initially, Alexa was developed for Amazon Echo and the Amazon Echo Dot smart speaker device.
3. Metaverse is related to AR and VR by digital avatars.

F. Answer briefly.

1. The metaverse is a virtual world where people interact via their digital avatars and do almost anything- go shopping, attend meetings, play with their friends, and do much more. The metaverse can be accessed from devices like smartphone, computer or specific hardware devices like virtual reality headset, augmented reality glass, gaming console, etc.
2. Quantum computing is a technology that uses the properties of quantum physics to store data, perform computations and solve those problems which are too complex for regular computers. Quantum computers are now a multitude times faster than regular computers.
3. RPA is the use of software robots or bots to handle high-volume, repeatable tasks that previously required humans to perform.

G. Application-based Question.

She can use 3D printer.

Chapter – 4 [Emerging Technologies]

Worksheet - 1

Q1. Put your knowledge to the test by choosing the right option:

1. What is Artificial Intelligence (AI)?
 - a) A way of making animals intelligent ☐
 - b) A technology that uses quantum physics ☐
 - c) The simulation of human intelligence processed by machines ☐
 - d) A form of augmented reality ☐
2. Which virtual assistant is developed by Amazon?
 - a) Google Assistant ☐
 - b) Apple Siri ☐
 - c) Amazon Alexa ☐
 - d) Microsoft Cortana ☐
3. What does IoT stand for?
 - a) Internet of Thoughts ☐
 - b) Internet of Technology ☐
 - c) Internet of Things ☐
 - d) Internet of Trends ☐
4. What makes Quantum Computing faster than regular computers?
 - a) It uses larger bits ☐
 - b) It uses subatomic particles called qubits ☐
 - c) It relies on cloud computing ☐
 - d) It uses artificial intelligence algorithms ☐
5. Which technology immerses you in a virtual world through a headset?
 - a) Blockchain ☐
 - b) Quantum Computing ☐
 - c) Virtual Reality (VR) ☐
 - d) Robotic Process Automation (RPA) ☐

Q2. Fill in the blanks.

1. Virtual assistants use _____ to understand natural language.
2. _____ is a network of connected things that pass information to each other via the Internet.
3. Quantum computing harnesses the unique ability of subatomic particles to exist in more than one _____ at the same time.
4. Blockchain is a secure ledger database shared by all parties participating in a network of _____.
5. Metaverse is a combination of the words meta and universe, creating a universe that exists in the _____ space.

Q3. Write 'T' for true and 'F' for false statements:

1. Amazon Alexa is primarily available on Apple devices.
2. Augmented Reality (AR) layers digital images on the real world using a smartphone.
3. Robotic Process Automation (RPA) handles tasks that require human intuition.
4. 3D Printing creates objects by stacking material in thin layers until the object is complete.
5. The metaverse can only be accessed through specific hardware devices like virtual reality headsets.

Chapter – 4 [Emerging Technologies]

Worksheet - 2

Q1. Match the following:

- | | |
|----------------------|--|
| 1. AI | a. Elaborated version of VR and AR with digital Avatars |
| 2. Metaverse | b. network of connected things passing information from internet |
| 3. IoT | c. simulation of human intelligence in computers |
| 4. Quantum Computing | d. process of creating objects layer by layer based on computer file |
| 5. 3D Printing | e. Technology using quantum physics for data storage |

Q2. Define the following terms:

1. Quantum Computing -

.....

2. Metaverse:

.....

3. Blockchain:

.....

4. 3D Printing:

.....

Q3. Answer the following questions:

1. What is the primary function of a virtual assistant?

.....

2. How does augmented reality differ from virtual reality?

.....

3. Which companies are involved in the development of quantum computing?

.....

4. What is the key feature of Blockchain technology?

.....

Q3. Application-based questions:

Do it by yourself

4

Emerging Technologies

Worksheet – 01

Q1. Put your knowledge to the test by choosing the right option:

1. c 2. c 3. c 4. b 5. c

Q2. Fill in the blanks:

1. AI 2. IoT 3. state 4. computers 5. virtual

Q3. Write 'T' for true and 'F' for false statements:

1. F 2. T 3. F 4. T 5. F

Worksheet – 02

Q1. Match the following:

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

Q2. Define the following terms:

1. Quantum computing is a technology that uses the properties of quantum physics to store data, perform computations and solve those problems which are too complex for regular computers.

2. Metaverse is a combination of the words meta and universe. Meta means 'beyond', so metaverse is a universe that is beyond the universe as we know it. It exists in the virtual space but feels just as real. Metaverse is an elaborated version of these virtual reality and augmented reality platforms with personalized digital avatars.
3. The blockchain is a secure ledger database shared by all parties participating in a network of computers. It records and stores every transaction, without the need of a central certifying authority. Computer validates each transaction with sophisticated algorithms to create a ledger of all activities.
4. 3D Printing is like using a special magic machine to make toys or objects that you can hold and play with.

Q3. Answer the following question:

1. Virtual assistant is used to answer the queries and perform actions via a voice command or by text.
 2. Virtual Reality immerses us in a virtual world through the use of a headset with a screen displaying a virtual environment.
- Augmented Reality takes digital images and layers them on the real world around you through the use of a smartphone.
3. Honeywell, Microsoft, AWS, Google are involved in the development of quantum computing.
 4. The key feature of blockchain technology is to records and stores every transaction, without the need of a central certifying authority.