

Chapter 1

1. Which of these schools was not among the early leaders in AI research?

- A. Dartmouth University
- B. Harvard University
- C. Massachusetts Institute of Technology
- D. Stanford University
- E. None of the above

Ans: B

2. The conference that launched the AI revolution in 1956 was held at

- A. Dartmouth
- B. Harvard
- C. New York
- D. Stanford
- E. None of the above

Ans: A

3. What is the term used for describing the judgmental or commonsense part of the problem solving?

- A. Heuristic
- B. Critical
- C. Value-based
- D. Analytical
- E. None of the above

Ans: A

4. Which of the following is considered to be a pivotal event in the history of AI.

- A. 1949, Donald O, The organization of Behavior.
- B. 1950, Computing Machinery and Intelligence.
- C. 1956, Dartmouth University Conference Organized by John McCarthy.
- D. 1961, Computer and Computer Sense.
- E. None of the above

Ans: C

5. The first AI programming language was called:

- A. BASIC
- B. FORTRAN
- C. IPL

- D. LISP
- E. None of the above

Ans: D

6. What is Artificial intelligence?

- A. Putting your intelligence into Computer
- B. Programming with your own intelligence
- C. Making a Machine intelligent
- D. Putting more memory into Computer

Ans: C

7. Who is the father of AI?

- A. Alain Colmerauer
- B. John McCarthy
- C. Nicklaus Wirth
- D. Seymour Papert

Ans: B

8. The characteristics of the computer system capable of thinking, reasoning and learning is known is

- A. machine intelligence
- B. human intelligence
- C. artificial intelligence
- D. virtual intelligence

Ans: C

9. In _____ the goal is for the software to use what it has learned in one area to solve problems in other areas.

- A. Machine Learning
- B. Deep Learning
- C. Neural Networks
- D. None of these

Ans: B

10. Computer programs that mimic the way the human brain processes information is called as

- A. Machine Learning
- B. Deep Learning
- C. Neural Networks
- D. None of these

Ans: C

11. _____ do not guarantee optimal/any solutions

- A. Heuristic
- B. Critical
- C. Value based
- D. Analytical

Ans: A

12. Human to Machine is _____ and Machine to Machine is _____.

- A. Process, Process
- B. Process, Program
- C. Program, Hardware
- D. Program, Program

Ans: C

13. ELIZA created by _____

- A. John McCarthy
- B. Steve Russell
- C. Alain Colmerauer
- D. Joseph Weizenbaum

Ans: D

14. Apple Siri is a good example of _____ AI.

- A. Narrow AI
- B. General AI
- C. Neural AI
- D. None of the above

Ans: A

15. Ability to think, puzzle, make judgments, plan, learn, communication by its own is known as _____ AI.

- A. Narrow AI
- B. General AI
- C. Super AI
- D. None of the above

Ans: C

16. Which AI system does not store memories or past experiences for future actions.

- A. Reactive machine
- B. Limited memory
- C. Theory of mind
- D. None of the above

Ans: A

17. Classifying email as spam, labeling webpages based on their content, voice recognition are examples of _____.

- A. Supervised learning
- B. Unsupervised learning
- C. Machine learning
- D. Deep learning

Ans: A

18. K-means, self-organizing maps, hierarchical clustering are the examples of _____.

- A. Supervised learning
- B. Unsupervised learning
- C. Machine learning
- D. Deep learning

Ans: B

19. Machine learning invented by _____.

- A. John McCarthy
- B. Nicklaus Wirth
- C. Joseph Weizenbaum
- D. Arthur Samuel

Ans: D

20. Strong AI is _____

- A. The embodiment of human intellectual capabilities within a computer.
- B. A set of computer programs that produce output that would be considered to reflect intelligence if it were generated by humans.
- C. The study of mental faculties through the use of mental models implemented on a computer
- D. All of the above
- E. None of the above

Ans: A

Chapter 2

1. IIOT stands for

- A. Information Internet of Things
- B. Industrial Internet of Things
- C. Innovative Internet of Things
- D. None of the above

Ans:B

2. Name of the IoT device which is first recognized?

- A. Smart Watch
- B. ATM
- C. Radio
- D. Video Game

Ans: B

3. _____ is a collection of wired Ethernet standards for the link layer.

- A. IEEE 802.3
- B. IEEE 802.11
- C. IEEE 802.16
- D. IEEE 802.15.4

Ans: - A

4. _____ includes GSM and CDMA.

- A. 2G
- B. 3G
- C. 4G
- D. None of the above

Ans: A

5. 6LOWPAN stands for

- A. 6 LOW Personal Area Network
- B. IPv6 LOW Personal Area Network
- C. IPv6 over Low power wireless personal area network
- D. None of the above

Ans:C

6. _____ protocol uses Universal Resource Identifiers (URIs) to identify HTTP resources.

- A. HTTP
- B. COAP

C. WebSocket

D. MQTT

Ans: A

7. MQTT stands for _____

A. MQ Telemetry Things

B. MQ Transport Telemetry

C. MQ Transport Things

D. MQ Telemetry Transport

Ans: D

8. CoAP is specialized in _____

A. Internet applications

B. Device applications

C. Wireless applications

D. Wired applications

Ans: A

9. _____ is a bi-directional, fully duplex communication model that uses a persistent connection between client and server.

A. Request-Response

B. Publish-Subscriber

C. Push-Pull

D. Exclusive Pair

Ans:D

10. REST is acronym for _____

A. Representational State Transfer

B. Represent State Transfer

C. Representational State Transmit

D. Representational Store Transfer

Ans: A

11. _____ is one of the most popular wireless technologies used by WSNs.

A. Zigbee

B. AllSean

C. Tyrell

D. Z-Wave

Ans:A

12. Devices that transforms electrical signals into physical movements

- A. Sensors
- B. Actuators
- C. Switches
- D. Display

Ans: B

13. Stepper motors are _____

- A. AC motors
- B. DC motors
- C. Electromagnets
- D. None of the above

Ans: B

14. DC motors convert electrical into _____ energy.

- A. Mechanical
- B. Wind
- C. Electric
- D. None

Ans: A

15. Which of the following is NOT a feature of 5G technology?

- A) Faster speeds compared to 4G
- B) Lower latency than previous generations
- C) Operation on lower radio frequencies
- D) Increased capacity for connecting more devices simultaneously

Ans: C

16. Which advanced technologies are employed by 5G to enhance data transmission?

- A) GPS and Bluetooth
- B) NFC and RFID
- C) Massive MIMO and beamforming
- D) SONAR and LiDAR

Ans: C

17. Which aspect of NGN architecture enables seamless integration with the internet and facilitates end-to-end communication across different networks?

- A) Packet Switching
- B) Multi-Service Support
- C) IP-Based Communication
- D) Quality of Service (QoS)

Ans: C

18. Which wireless technology primarily utilizes unlicensed spectrum?

- A) 4G LTE
- B) 5G
- C) Wi-Fi
- D) 3G

Answer: C) Wi-Fi

19. Which of the following statements about Next-Generation Network (NGN) Core is true?

- A) NGN Core primarily uses circuit-switched architecture.
- B) NGN Core supports only traditional voice calls.
- C) NGN Core is not adaptable to changing user demands.
- D) NGN Core is built on a packet-switched architecture.

Ans: D

20. Which MPLS feature enables network operators to optimize resources and improve performance by controlling the flow of traffic through the network?

- A) Label Distribution Protocol (LDP)
- B) Traffic Engineering
- C) Virtual Private Networks (VPNs)
- D) Quality of Service (QoS)

Ans: B

Chapter 3

1. What is blockchain technology?

- A) A physical chain of interconnected computers
- B) A digital database where information is stored in blocks linked together
- C) A type of cryptocurrency
- D) A decentralized network of banks and governments

Ans: B

2. What makes a blockchain secure and immutable?

- A) Centralized control
- B) Third-party involvement
- C) Decentralization and immutability
- D) Dynamic block structure

Ans: C

3. What type of transactions can be recorded on a blockchain?

- A) Only financial transactions
- B) Only transactions involving government agencies
- C) Transactions of money, bitcoins, contracts, property, etc.
- D) Transactions involving physical goods only

Ans: C

4. How are transactions verified on a blockchain?

- A) By a single central authority
- B) By government agencies
- C) By a network of computers
- D) By third-party intermediaries

Ans: C

5. What is the primary purpose of using blockchain technology?

- A) To centralize transaction verification
- B) To eliminate the need for cryptographic processes
- C) To decentralize transaction verification
- D) To increase reliance on centralized authorities

Ans: C

6. How is security maintained in blockchain?

- A) Through centralized authorities
- B) By eliminating cryptographic processes
- C) Through cryptographic processes performed by peer-to-peer users
- D) By relying on third-party intermediaries

Ans: C

7. What process ensures the security of transactions in blockchain?

- A) Data encryption
- B) Data mining
- C) Data verification
- D) Data deletion

Ans: B

8. In blockchain transactions, who verifies the validity of transactions?

- A) Centralized authorities
- B) Blockchain miners
- C) Third-party intermediaries
- D) Peer-to-peer users

Ans: D

9. When was the concept of blockchain first introduced?

- A) 1990s
- B) 2000s
- C) 2010s
- D) 2020s

Ans: A

10. Who is credited with the invention of blockchain technology?

- A) Satoshi Nakamoto
- B) Vitalik Buterin
- C) Hal Finney
- D) Nick Szabo

Ans: A

11. Which whitepaper introduced the concept of blockchain and Bitcoin?

- A) Ethereum Whitepaper
- B) Ripple Whitepaper
- C) Bitcoin Whitepaper
- D) Hyperledger Whitepaper

Ans: C

12. In what year was the Bitcoin network officially launched?

- A) 2005
- B) 2009
- C) 2012
- D) 2017

Ans: B

13. What was the original purpose of blockchain technology, as described in the Bitcoin Whitepaper?

- A) Decentralized currency
- B) Secure data storage
- C) Peer-to-peer networking
- D) Digital identity management

Ans: A

14. Which cryptocurrency was the first to implement a blockchain other than Bitcoin?

- A) Ethereum
- B) Litecoin
- C) Ripple
- D) Dogecoin

Ansr: B

15. What is a key characteristic of a centralized system?

- A) Decentralized control
- B) Distributed decision-making
- C) Single point of control or authority
- D) Shared responsibility among nodes

Ans: C

16. In a decentralized system, decision-making power is:

- A) Centralized in one entity
- B) Distributed among multiple entities
- C) Controlled by a third-party intermediary
- D) Determined by government regulations

Ans: B

17. Which of the following best describes a centralized database?

- A) Data is stored across multiple nodes with equal authority
- B) Data is controlled by a single entity or authority
- C) Data is encrypted and distributed across a network
- D) Data is verified by consensus among network participants

Ans: B

18. Which type of system is more resistant to censorship and tampering?

- A) Centralized system
- B) Decentralized system
- C) Hybrid system
- D) None of the above

Ans: B

19. Which layer of the blockchain architecture represents the user interface and applications built on top of the blockchain?

- A) Application Layer
- B) Execution Layer
- C) Semantic Layer
- D) Propagation Layer

Ans: A

20. What is an example of a real-life application that belongs to the Application Layer of the blockchain architecture?

- A) Bitcoin mining
- B) Ethereum-based decentralized finance (DeFi) applications
- C) Smart contract execution
- D) Consensus algorithm implementation

Ans: B