**ETI Question Bank PTT1**

**Chapter 1**

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

1. Dartmouth University
2. Harvard University
3. Massachusetts Institute of Technology
4. Stanford University
5. None of the above

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

1. Dartmouth
2. Harvard
3. New York
4. Stanford
5. None of the above

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

A. Heuristic

1. Critical
2. Value-based
3. Analytical
4. None of the above

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

1. 1949, Donald O, The organization of Behavior.
2. 1950, Computing Machinery and Intelligence.
3. 1956, Dartmouth University Conference Organized by John McCarthy.
4. 1961, Computer and Computer Sense.
5. None of the above

**5. The first AI programming language was called:**

1. BASIC
2. FORTRAN
3. IPL
4. LISP
5. None of the above

**6. What is Artificial intelligence?**

1. Putting your intelligence into Computer
2. Programming with your own intelligence
3. Making a Machine intelligent
4. Putting more memory into Computer

**7. Who is the father of AI?**

1. Alain Colmerauer
2. John McCarthy
3. Nicklaus Wirth
4. Seymour Papert

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

1. machine intelligence
2. human intelligence
3. artificial intelligence
4. virtual intelligence

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

1. Machine Learning
2. Deep Learning
3. Neural Networks
4. None of these

**10. Computer programs that mimic the way the human brain processes**

**information is called as**

1. Machine Learning
2. Deep Learning
3. Neural Networks
4. None of these

**11. \_\_\_\_\_\_ do not guarantee optimal/any solutions**

1. Heuristic
2. Critical
3. Value based
4. Analytical

**12. Human to Machine is \_\_\_\_\_ and Machine to Machine is \_\_\_\_\_\_.**

1. Process, Process
2. Process, Program
3. Program, Hardware
4. Program, Program

**13. ELIZA created by \_\_\_\_\_**

1. John McCarthy
2. Steve Russell
3. Alain Colmerauer
4. Joseph Weizenbaum

**14.Apple Siri is a good example of \_\_\_\_\_\_ AI.**

A. Narrow AI

1. General AI
2. Neural AI
3. None of the above

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

1. Narrow AI
2. General AI
3. Super AI
4. None of the above

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

1. Reactive machine
2. Limited memory
3. Theory of mind
4. None of the above

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

1. Supervised learning
2. Unsupervised learning
3. Machine learning
4. Deep learning

**18. K-means, self-organizing maps, hierarchical clustering are the examples of \_\_\_\_\_.**

1. Supervised learning
2. Unsupervised learning
3. Machine learning
4. Deep learning

**19. Machine learning invented by \_\_\_\_\_.**

A. John McCarthy

B. Nicklaus Wirth

1. Joseph Weizenbaum
2. Arthur Samuel

**20. Strong AI is\_\_\_\_\_\_\_\_\_\_**

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

**Chapter 2**

**1. IIOT stands for**

1. Information Internet of Things
2. Industrial Internet of Things
3. Innovative Internet of Things
4. None of the above

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

1. Smart Watch
2. ATM
3. Radio
4. Video Game

**3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a collection of wired Ethernet standards for the link layer.**

A. IEEE 802.3

1. IEEE 802.11
2. IEEE 802.16
3. IEEE 802.15.4

**4. \_\_\_\_\_\_ includes GSM and CDMA.**

1. 2G
2. 3G
3. 4G
4. None of the above

**5. 6LOWPAN stands for**

1. 6 LOW Personal Area Network
2. IPv6 LOW Personal Area Network
3. IPv6 over Low power wireless personal area network
4. None of the above

**6. \_\_\_\_\_\_\_\_\_\_\_\_ protocol uses Universal Resource Identifiers (URIs) to identify HTTP resources.**

1. HTTP
2. COAP
3. WebSocket
4. MQTT

**7. MQTT stands for \_\_\_\_\_\_\_\_\_\_\_\_\_**

1. MQ Telemetry Things
2. MQ Transport Telemetry
3. MQ Transport Things
4. MQ Telemetry Transport

**8. CoAP is specialized in \_\_\_\_\_\_\_\_\_\_\_**

1. Internet applications
2. Device applications
3. Wireless applications
4. Wired applications

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

1. Request-Response
2. Publish-Subscriber
3. Push-Pull
4. Exclusive Pair

**10. REST is acronym for\_\_\_\_\_\_\_\_**

1. Representational State Transfer
2. Represent State Transfer
3. Representational State Transmit
4. Representational Store Transfer

**11. \_\_\_\_ is one of the most popular wireless technologies used by WSNs.**

1. Zigbee
2. AllSean
3. Tyrell
4. Z-Wave

**12. Devices that transforms electrical signals into physical movements**

1. Sensors
2. Actuators
3. Switches
4. Display

**13. Stepper motors are\_\_\_\_\_**

1. AC motors
2. DC motors
3. Electromagnets
4. None of the above

**14. DC motors convert electrical into \_\_\_ energy.**

1. Mechanical
2. Wind
3. Electric
4. None

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

1. Faster speeds compared to 4G
2. Lower latency than previous generations
3. Operation on lower radio frequencies
4. Increased capacity for connecting more devices simultaneously

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

A) GPS and Bluetooth

1. NFC and RFID
2. Massive MIMO and beamforming
3. SONAR and LiDAR

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

A) Packet Switching

1. Multi-Service Support
2. IP-Based Communication
3. Quality of Service (QoS)

**18. Which wireless technology primarily utilizes unlicensed spectrum?**

1. 4G LTE
2. 5G
3. Wi-Fi
4. 3G

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

1. NGN Core primarily uses circuit-switched architecture.
2. NGN Core supports only traditional voice calls.
3. NGN Core is not adaptable to changing user demands.
4. NGN Core is built on a packet-switched architecture.

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

1. Label Distribution Protocol (LDP)
2. Traffic Engineering
3. Virtual Private Networks (VPNs)
4. Quality of Service (QoS)

**Chapter 3**

**1. What is blockchain technology?**

1. A physical chain of interconnected computers
2. A digital database where information is stored in blocks linked together
3. A type of cryptocurrency
4. A decentralized network of banks and governments

**2. What makes a blockchain secure and immutable?**

1. Centralized control
2. Third-party involvement
3. Decentralization and immutability
4. Dynamic block structure

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

1. Only financial transactions
2. Only transactions involving government agencies

C) Transactions of money, bitcoins, contracts, property, etc.

D) Transactions involving physical goods only

**4. How are transactions verified on a blockchain?**

1. By a single central authority
2. By government agencies
3. By a network of computers
4. By third-party intermediaries

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

1. To centralize transaction verification
2. To eliminate the need for cryptographic processes
3. To decentralize transaction verification
4. To increase reliance on centralized authorities

**6. How is security maintained in blockchain?**

1. Through centralized authorities
2. By eliminating cryptographic processes
3. Through cryptographic processes performed by peer-to-peer users
4. By relying on third-party intermediaries

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

1. Data encryption
2. Data mining
3. Data verification
4. Data deletion

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

1. Centralized authorities
2. Blockchain miners
3. Third-party intermediaries
4. Peer-to-peer users

**9. When was the concept of blockchain first introduced?**

1. 1990s
2. 2000s
3. 2010s
4. 2020s

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

1. Satoshi Nakamoto
2. Vitalik Buterin
3. Hal Finney
4. Nick Szabo

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

1. Ethereum Whitepaper
2. Ripple Whitepaper
3. Bitcoin Whitepaper
4. Hyperledger Whitepaper

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

1. 2005
2. 2009
3. 2012
4. 2017

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

1. Decentralized currency
2. Secure data storage
3. Peer-to-peer networking
4. Digital identity management

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

1. Ethereum
2. Litecoin
3. Ripple
4. Dogecoin

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

1. Decentralized control
2. Distributed decision-making
3. Single point of control or authority
4. Shared responsibility among nodes

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

1. Centralized in one entity
2. Distributed among multiple entities
3. Controlled by a third-party intermediary
4. Determined by government regulations

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

1. Data is stored across multiple nodes with equal authority
2. Data is controlled by a single entity or authority
3. Data is encrypted and distributed across a network
4. Data is verified by consensus among network participants

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

1. Centralized system
2. Decentralized system
3. Hybrid system
4. None of the above

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

1. Application Layer
2. Execution Layer
3. Semantic Layer
4. Propagation Layer

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

1. Bitcoin mining
2. Ethereum-based decentralized finance (DeFi) applications
3. Smart contract execution
4. Consensus algorithm implementation