1. How does AI benefit society beyond automation?
   * **A.** By reducing unemployment rates
   * **B.** By enabling advancements in various fields
   * **C.** By eliminating the need for human intervention
   * **D.** None of the above  
     **Answer:** B
2. Which of the following is an example of narrow AI?
   * **A.** A self-driving car
   * **B.** A virtual assistant like Siri or Alexa
   * **C.** A system capable of performing any intellectual task
   * **D.** None of the above  
     **Answer:** B
3. What is the primary use-case of computer vision in industry?
   * **A.** Predictive analytics
   * **B.** Supply chain optimization
   * **C.** Image processing and analysis
   * **D.** None of the above  
     **Answer:** C
4. Which career role focuses on designing algorithms for machine learning models?
   * **A.** Data scientist
   * **B.** Machine learning engineer
   * **C.** AI researcher
   * **D.** None of the above  
     **Answer:** B
5. What distinguishes deep learning from other types of machine learning?
   * **A.** It requires labeled data for training
   * **B.** It uses neural networks with multiple layers
   * **C.** It does not involve training on data
   * **D.** None of the above  
     **Answer:** B
6. Why are data regulations and standards necessary in today's digital landscape?
   * **A.** To limit access to data
   * **B.** To protect individuals' privacy and data security
   * **C.** To increase data monetization opportunities
   * **D.** None of the above  
     **Answer:** B
7. Which of the following is a commonly used global data regulation policy?
   * **A.** COPPA
   * **B.** GDPR
   * **C.** HIPAA
   * **D.** None of the above  
     **Answer:** B
8. Who is responsible for enforcing data regulations and standards within organizations?
   * **A.** Data subjects
   * **B.** Data protection authorities
   * **C.** Data processors
   * **D.** All of the above  
     **Answer:** D
9. What is a recommended best practice for enforcing data regulations?
   * **A.** Limiting transparency in data handling practices
   * **B.** Conducting irregular audits and assessments
   * **C.** Providing employee training on data protection practices
   * **D.** None of the above  
     **Answer:** C
10. How do data regulations contribute to building trust between organizations and consumers?
    * **A.** By allowing organizations to freely share personal data
    * **B.** By ensuring transparency and accountability in data handling practices
    * **C.** By imposing heavy fines on organizations
    * **D.** None of the above  
      **Answer:** B
11. What distinguishes microservices from traditional monolithic architectures?
    * **A.** Microservices are less scalable
    * **B.** Microservices are tightly coupled
    * **C.** Microservices are modular and independently deployable
    * **D.** None of the above  
      **Answer:** C
12. Which infrastructure component is responsible for connecting servers to storage devices?
    * **A.** Networking hardware
    * **B.** Storage devices
    * **C.** Virtualization technologies
    * **D.** None of the above  
      **Answer:** A
13. What is the primary limitation of using server authentication tools?
    * **A.** Lack of scalability
    * **B.** Vulnerability to cyber attacks
    * **C.** Complexity of implementation
    * **D.** None of the above  
      **Answer:** B
14. Which tool is commonly used for continuous integration in software development?
    * **A.** Configuration management tools
    * **B.** Development automation tools
    * **C.** Test automation tools
    * **D.** None of the above  
      **Answer:** D
15. What is the purpose of using frameworks in software development?
    * **A.** To provide a structure for application development
    * **B.** To manage data assets
    * **C.** To automate server authentication
    * **D.** None of the above  
      **Answer:** A
16. Which CI/CD strategy involves integrating code changes directly into the main branch?
    * **A.** Feature branching
    * **B.** GitFlow
    * **C.** Trunk-based development
    * **D.** None of the above  
      **Answer:** C
17. What is a key best practice for optimizing CI/CD pipelines?
    * **A.** Manual testing
    * **B.** Version control
    * **C.** Infrequent deployments
    * **D.** None of the above  
      **Answer:** B
18. How do CI/CD pipelines differ for mobile applications compared to web applications?
    * **A.** Mobile applications require fewer automated tests
    * **B.** Web applications have shorter deployment lead times
    * **C.** Mobile applications may involve additional steps like app store submission
    * **D.** None of the above  
      **Answer:** C
19. Which performance metric measures the average time taken from code commit to deployment?
    * **A.** Deployment frequency
    * **B.** Lead time for changes
    * **C.** Mean time to recover
    * **D.** None of the above  
      **Answer:** B
20. Why is it important to involve various stakeholders in managing production systems?
    * **A.** To increase deployment failure rate
    * **B.** To ensure alignment with business goals
    * **C.** To decrease deployment frequency
    * **D.** None of the above  
      **Answer:** B
21. Why is version control important in build and test automation?
    * **A.** It facilitates collaboration and code tracking
    * **B.** It speeds up the build process
    * **C.** It eliminates the need for testing
    * **D.** None of the above  
      **Answer:** A
22. What is the purpose of staging environments in software development?
    * **A.** To deploy production-ready code
    * **B.** To test code changes in an environment similar to production
    * **C.** To store backup copies of code
    * **D.** None of the above  
      **Answer:** B
23. Which tool is commonly used for test automation of web applications?
    * **A.** Git
    * **B.** Jenkins
    * **C.** Selenium
    * **D.** None of the above  
      **Answer:** C
24. How is source code quality assessed?
    * **A.** By measuring lines of code
    * **B.** By evaluating readability, maintainability, and adherence to coding standards
    * **C.** By counting the number of bugs
    * **D.** None of the above  
      **Answer:** B
25. What is the main objective of a CI/CD pipeline?
    * **A.** To slow down the development process
    * **B.** To automate the deployment of code changes
    * **C.** To increase manual intervention
    * **D.** None of the above  
      **Answer:** B