**Full 30-Question Test Set**

**🖥️ 1. Programming Skills**

**Q1:** What will be the output of the following Python code?

python

CopyEdit

print(2 \*\* 3 \*\* 2)

* A) 512
* B) 64
* C) 9
* D) Error

**Q2:** Which sorting algorithm has the best time complexity for nearly sorted data?

* A) Bubble Sort
* B) Merge Sort
* C) Insertion Sort
* D) Quick Sort

**🌐 2. Networking**

**Q3:** What is the default port for HTTPS?

* A) 443
* B) 80
* C) 21
* D) 25

**Q4:** Which network device works at Layer 3 of the OSI model?

* A) Switch
* B) Router
* C) Hub
* D) Repeater

**🔐 3. Cybersecurity**

**Q5:** Which attack involves tricking a user into clicking a malicious link?

* A) SQL Injection
* B) Phishing
* C) Denial of Service (DoS)
* D) Man-in-the-Middle

**Q6:** A company's database is breached because the admin used "admin123" as the password. Which attack caused this?

* A) SQL Injection
* B) Brute Force Attack
* C) Cross-Site Scripting (XSS)
* D) Ransomware

**🧠 4. Artificial Intelligence & Machine Learning**

**Q7:** What type of learning does a neural network use when trained with labeled data?

* A) Supervised Learning
* B) Unsupervised Learning
* C) Reinforcement Learning
* D) Self-Supervised Learning

**Q8:** Which algorithm is best for image classification?

* A) K-Nearest Neighbors (KNN)
* B) Decision Trees
* C) Support Vector Machine (SVM)
* D) Convolutional Neural Network (CNN)

**📊 5. Data Science & Analytics**

**Q9:** What does PCA (Principal Component Analysis) do?

* A) Increases dimensionality
* B) Predicts future values
* C) Clusters data
* D) Reduces dimensionality

**Q10:** Which visualization is best for comparing categorical data?

* A) Line Chart
* B) Bar Chart
* C) Pie Chart
* D) Histogram

**📝 6. Business Analysis**

**Q11:** What does a SWOT analysis assess?

* A) Software quality
* B) Project timeline
* C) Strengths, Weaknesses, Opportunities, and Threats
* D) Business revenue

**Q12:** What is the purpose of a KPI (Key Performance Indicator)?

* A) Track business performance
* B) Measure employee satisfaction
* C) Analyze website traffic
* D) Monitor system security

**💾 7. Database Management**

**Q13:** What type of database is best for handling structured data?

* A) NoSQL
* B) Graph Database
* C) Relational Database
* D) Blockchain

**Q14:** What does ACID in database transactions stand for?

* A) Accuracy, Complexity, Integrity, Durability
* B) Atomicity, Consistency, Isolation, Durability
* C) Association, Classification, Integration, Distribution
* D) Automation, Configuration, Information, Data

**📱 8. Mobile & Web Development**

**Q15:** What does HTML stand for?

* A) Hyper Transfer Markup Language
* B) High-Level Text Markup Language
* C) HyperText Markup Language
* D) HyperText Management Language

**Q16:** What is the role of CSS in web development?

* A) Control page layout and styles
* B) Manage backend server requests
* C) Write application logic
* D) Secure database connections

**⚙️ 9. DevOps & Cloud Computing**

**Q17:** Which cloud model offers the highest level of user control?

* A) SaaS
* B) PaaS
* C) IaaS
* D) Serverless

**Q18:** What is the purpose of CI/CD in DevOps?

* A) Continuous Integration & Continuous Deployment
* B) Customer Integration & Code Debugging
* C) Cloud Infrastructure & Configuration Development
* D) Computer Interfacing & Connectivity Design

**📢 10. Communication & Soft Skills**

**Q19:** What is the most effective way to handle workplace conflict?

* A) Avoiding the issue completely
* B) Addressing it openly and professionally
* C) Blaming the other person
* D) Ignoring it and moving on

**Q20:** Active listening involves:

* A) Interrupting to provide a quick response
* B) Nodding and summarizing key points
* C) Looking at your phone while the other person talks
* D) Thinking about your response while the other person speaks

**🏆 11. Leadership & Team Management**

**Q21:** What is the best approach for motivating a team?

* A) Offering constructive feedback and support
* B) Setting unrealistic deadlines to push performance
* C) Avoiding all criticism, even if necessary
* D) Taking credit for their work

**Q22:** Which leadership style encourages employee input?

* A) Autocratic
* B) Democratic
* C) Laissez-faire
* D) Transactional

**⚖️ 12. Logical Reasoning & Problem Solving**

**Q23:** What comes next in the pattern? **2, 6, 12, 20, ?**

* A) 28
* B) 30
* C) 32
* D) 36

**Q24:** If **A = 1, B = 2, ... Z = 26**, what is the sum of the letters in "CAT"?

* A) 20
* B) 24
* C) 28
* D) 30

**📈 13. Financial & Market Analysis**

**Q25:** What is the formula for Return on Investment (ROI)?

* A) Revenue / Expenses
* B) (Net Profit / Investment) × 100
* C) Total Assets - Liabilities
* D) Sales × Profit Margin

**Q26:** Which factor is most important in stock market analysis?

* A) Company logo
* B) Earnings reports and market trends
* C) CEO’s popularity
* D) Number of employees

**🧩 14. Creativity & Innovation**

**Q27:** Which technique helps generate creative ideas?

* A) Brainstorming
* B) Micromanaging
* C) Ignoring feedback
* D) Avoiding risks

**Q28:** Innovation is best described as:

* A) Doing the same thing repeatedly
* B) Creating something new or improving existing solutions
* C) Avoiding change
* D) Following industry norms

**💡 15. Critical Thinking**

**Q29:** A car travels 60 km in 1.5 hours. What is its average speed?

* A) 30 km/h
* B) 40 km/h
* C) 50 km/h
* D) 60 km/h

**Q30:** If a shirt costs $20 after a 20% discount, what was the original price?

* A) $22
* B) $24
* C) $25
* D) $30

**📊 Full Answer Scoring Table**

| **Q#** | **Correct Answer** | **Option A** | **Option B** | **Option C** | **Option D** |
| --- | --- | --- | --- | --- | --- |
| **Q1** | A) 512 | **4** | 1 | 0 | 0 |
| **Q2** | C) Insertion Sort | 1 | 2 | **4** | 2 |
| **Q3** | A) 443 | **3** | 1 | 0 | 0 |
| **Q4** | B) Router | 2 | **4** | 1 | 0 |
| **Q5** | B) Phishing | 1 | **3** | 1 | 2 |
| **Q6** | B) Brute Force Attack | 1 | **4** | 1 | 2 |
| **Q7** | A) Supervised Learning | **3** | 1 | 0 | 2 |
| **Q8** | D) CNN | 1 | 2 | 2 | **4** |
| **Q9** | D) Reduces dimensionality | 1 | 2 | 2 | **3** |
| **Q10** | B) Bar Chart | 1 | **4** | 2 | 1 |
| **Q11** | C) SWOT analysis | 1 | 1 | **3** | 2 |
| **Q12** | A) Track business performance | **4** | 2 | 1 | 0 |
| **Q13** | C) Relational Database | 1 | 2 | **3** | 1 |
| **Q14** | B) Atomicity, Consistency, Isolation, Durability | 1 | **4** | 1 | 0 |
| **Q15** | C) HyperText Markup Language | 1 | 2 | **3** | 1 |
| **Q16** | A) Control page layout and styles | **4** | 2 | 1 | 1 |
| **Q17** | C) IaaS | 1 | 2 | **4** | 2 |
| **Q18** | A) Continuous Integration & Deployment | **3** | 1 | 1 | 0 |
| **Q19** | B) Address it openly and professionally | 1 | **4** | 0 | 1 |
| **Q20** | B) Nodding and summarizing key points | 1 | **3** | 0 | 1 |
| **Q21** | A) Offering constructive feedback | **4** | 1 | 1 | 0 |
| **Q22** | B) Democratic | 1 | **4** | 2 | 2 |
| **Q23** | B) 30 | 2 | **4** | 1 | 1 |
| **Q24** | C) 28 | 1 | 2 | **4** | 2 |
| **Q25** | B) (Net Profit / Investment) × 100 | 1 | **4** | 1 | 2 |
| **Q26** | B) Earnings reports and market trends | 1 | **4** | 1 | 1 |
| **Q27** | A) Brainstorming | **3** | 1 | 0 | 0 |
| **Q28** | B) Creating something new or improving solutions | 1 | **4** | 0 | 2 |
| **Q29** | B) 40 km/h | 1 | **4** | 2 | 1 |
| **Q30** | C) $25 | 1 | 2 | **4** | 2 |

**How This Scoring Works**

* ✅ **Correct answers get 3 or 4 points** (highlighted in bold).
* ❌ **Incorrect answers get 1 or 2 points**, depending on relevance (to prevent zero scores).
* 🏆 **Each skill category has a score** based on question groups.