

TECHNICAL QUIZ

Organized by:

SONIC

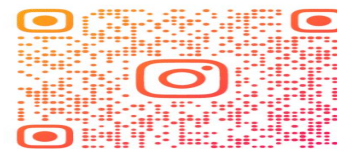
Technical Club RECM



24 May 2024



Seminal Hall



@SONICTECHCLUB_RECM

Round 2: Final Round

- This round will be oral.
- 5 Questions will be asked to each team.
- Marking:
 - +10 for right answer.
 - 4 for wrong answer.
 - 0 marks for no answer.
- 45 seconds will be allotted for each new question in this round.

All The Best!

Question

1. Which one of the following groups contains graphical file extensions?

A. JPG, CPX, GCM

B. GIF, TCE, WMF

C. TCP, JPG, BMP

D. JPG, GIF, BMP

Answer and Explanation

Answer: D. JPG, GIF, BMP

Explanation: JPG, GIF, and BMP are all common graphical file formats used for images. The other options include non-graphical file extensions.

Question

2. What was the primary material used in the construction of the Eiffel Tower?

A. Concrete

B. Steel

C. Iron

D. Brick

Answer and Explanation

Answer: C. Iron

Explanation: The Eiffel Tower was constructed using iron. It was chosen for its strength and cost-effectiveness.

Question

3. Which of the following is not a programming paradigm?

- A. Functional
- B. Sequential
- C. Object-oriented
- D. Procedural

Answer and Explanation

Answer: B. Sequential

Explanation: Sequential is not considered a distinct programming paradigm. The other options are well-known paradigms.

Question

4. What is the term for the minimum amount of energy required to remove an electron from the surface of a material, often measured in electron volts (eV)?

- A. Ionization energy
- B. Binding energy
- C. Threshold energy
- D. Work function

Answer and Explanation

Answer: D. Work function

Explanation: The work function is the minimum energy needed to remove an electron from a material's surface.

Question

5. What is the purpose of an API (Application Programming Interface)?
- A. To manage databases
 - B. To create user interfaces
 - C. To allow different software systems to communicate with each other
 - D. To design web pages

Answer and Explanation

Answer: C. To allow different software systems to communicate with each other

Explanation: APIs enable different software systems to communicate and interact with each other.

Question

6. Which of the following is not an input device?

A. Scanner

B. Camera

C. Digitizer

D. Plotter

Answer and Explanation

Answer: D. Plotter

Explanation: A plotter is an output device used for printing vector graphics, whereas scanners, cameras, and digitizers are input devices.

Question

7. What is the main purpose of the virtual memory in an operating system?

- A. To increase the RAM size
- B. To speed up the CPU
- C. To provide more memory to applications than physically available
- D. To store frequently accessed files

Answer and Explanation

Answer: C. To provide more memory to applications than physically available

Explanation: Virtual memory allows an operating system to use disk space to extend the available memory.

Question

8. Which scientist is credited with the discovery of radioactivity?

- A. Niels Bohr
- B. Isaac Newton
- C. Marie Curie
- D. Albert Einstein

Answer and Explanation

Answer: C. Marie Curie

Explanation: Marie Curie is renowned for her research on radioactivity and won two Nobel Prizes for her work.

Question

9. Which process is used to separate components of a liquid mixture based on the differences in their boiling points?

- A. Filtration
- B. Crystallization
- C. Distillation
- D. Evaporation

Answer and Explanation

Answer: C. Distillation

Explanation: Distillation separates liquid mixtures by heating them to turn the component with the lower boiling point into vapor, which is then condensed back into liquid form.

Question

10. Who is considered the father of electrical engineering for his work on electromagnetism?

- A. Thomas Edison
- B. Nikola Tesla
- C. Michael Faraday
- D. James Clerk Maxwell

Answer and Explanation

Answer: C. Michael Faraday

Explanation: Michael Faraday is credited with foundational discoveries in electromagnetism and electrochemistry.

Question

11. Who is known as the 'Father of Modern Mechanical Engineering'?

- A. James Watt
- B. George Stephenson
- C. Nikola Tesla
- D. Isaac Newton

Answer and Explanation

Answer: A. James Watt

Explanation: James Watt is renowned for his improvements to the steam engine, which played a critical role in the Industrial Revolution.

Question

12. What is the responsibility of the logical unit in the CPU of a computer?

- A. To produce result
- B. To compare numbers
- C. To control flow of information
- D. To do math's works

Answer and Explanation

Answer: B. To compare numbers

Explanation: The logical unit within a CPU performs comparison and logical operations on data.

Question

13. Who is credited for creating the World Wide Web?

- A. Vint Cerf
- B. Tim Berners-Lee
- C. Larry Page
- D. Bill Gates

Answer and Explanation

Answer: B. Tim Berners-Lee

Explanation: Tim Berners-Lee invented the World Wide Web in 1989 while working at CERN.

Question

14. Who was the first human to journey into outer space?

- A. Buzz Aldrin
- B. Neil Armstrong
- C. Yuri Gagarin
- D. Valentina Tereshkova

Answer and Explanation

Answer: C. Yuri Gagarin

Explanation: Yuri Gagarin, a Soviet astronaut, was the first human to journey into outer space on April 12, 1961.

Question

15. Which of the following is an example of a distributed computing system?

- A. Standalone desktop application
- B. Single-threaded program
- C. Centralized database
- D. Blockchain

Answer and Explanation

Answer: D. Blockchain

Explanation: Blockchain is a distributed computing system where data is distributed across multiple nodes for decentralization and security.

Question

16. What was the name of the first computer virus, and in what year was it discovered?

A. ILOVEYOU, 2000

B. Melissa, 1999

C. Brain, 1986

D. Creeper, 1971

Answer and Explanation

Answer: D. Creeper, 1971

Explanation: The Creeper virus, created in 1971, is recognized as the first computer virus.

Question

17. What is the clock speed of computer measured in?

- A. Nanoseconds
- B. Kilo-seconds
- C. Gigahertz
- D. Megabytes

Answer and Explanation

Answer: C. Gigahertz

Explanation: The clock speed of a computer's CPU is typically measured in gigahertz (GHz), representing billions of cycles per second.

Question

18. Which year did Google launch its search engine?

A. 1996

B. 1998

C. 2000

D. 2002

Answer and Explanation

Answer: B. 1998

Explanation: Google launched its search engine in 1998.

Question

19. Which of the following is not a component of an operating system?

- A. Shell
- B. Kernel
- C. File system
- D. Compiler

Answer and Explanation

Answer: D. Compiler

Explanation: A compiler is a software tool that translates source code into executable code, not a core component of an operating system like the shell, kernel, or file system.

Question

20. Which of the following is not a type of computer code?

- A. EDIC
- B. ASCII
- C. BCD
- D. EBCDIC

Answer and Explanation

Answer: A. EDIC

Explanation: ASCII, BCD, and EBCDIC are types of computer codes for character representation, whereas EDIC is not a recognized code type.

Question

21. What is the significance of the Voltaic Pile, invented by Alessandro Volta?

- A. First electric light
- B. First electric motor
- C. First chemical battery
- D. First radio transmitter

Answer and Explanation

Answer: C. First chemical battery

Explanation: The Voltaic Pile, invented by Alessandro Volta in 1800, was the first chemical battery capable of providing continuous electrical current.

Question

22. What is the primary use of an oscilloscope?

- A. Measuring voltage
- B. Observing varying signal voltages
- C. Generating electrical power
- D. Amplifying signals

Answer and Explanation

Answer: B. Observing varying signal voltages

Explanation: Oscilloscopes are used to observe the varying signal voltages in electronic circuits.

Question

23. According to Einstein's theory of general relativity, what is the phenomenon that occurs when massive objects cause a curvature in spacetime?

- A. Black hole formation
- B. Time dilation
- C. Gravitational lensing
- D. Wormhole creation

Answer and Explanation

Answer: C. Gravitational lensing

Explanation: Gravitational lensing is the bending of light around massive objects due to the curvature of spacetime, as predicted by general relativity.

Question

24. Which encryption algorithm is commonly used for securing internet communications, such as HTTPS?

- A. DES
- B. AES
- C. MD5
- D. RSA

Answer and Explanation

Answer: D. RSA

Explanation: RSA is a widely used encryption algorithm for securing internet communications, including HTTPS.

Question

25. What year was the first email sent, and who sent it?

- A. 1985, Tim Berners-Lee
- B. 1971, Ray Tomlinson
- C. 1990, Bill Gates
- D. 1978, Steve Jobs

Answer and Explanation

Answer: B. 1971, Ray Tomlinson

Explanation: Ray Tomlinson sent the first email in 1971, using the @ symbol to separate the user's name from the machine name.