

## 1. Technology

Give the common name for the systems that work by proxy service, stateful inspection, or packet filtering. A few years ago, they were used primarily by big businesses, but they are now recommended for small businesses and home computers as well. Name these devices that filter what goes in and out of computer networks.

ANSWER: Firewall(s)

## 2. British Literature

Who moved to Africa in 1875 and set many of his novels there throughout the rest of his life? Those novels include She, King Solomon's Mines, and Allan Quatermain.

ANSWER: (Henry Rider) Haggard

## 3. Physics (30 Seconds)

Give your answer as a decimal or a simplified fraction. What resistance in ohms is necessary to make a 90 Watt light work using a nine volt battery?

ANSWER: (0).9 (or 9/10) (Ohms)

## 4. Pop Culture

The original show aired on ABC from 1969 to 1974, and there have been some terrible spin-offs and a lot of reruns since then. The first episode featured a wedding ruined by a dog chasing a cat, and in the last episode Greg's hair changed color after he bought tonic from Bobby. Name this show about a lovely lady bringing up three very lovely girls who married a man busy with three boys of his own.

ANSWER: (The) Brady Bunch (prompt on The Bradies)

## 5. Religion/Mythology

Who is the eighth avatar of Vishnu? Sometimes worshipped as a God, he killed Arishta, Keshin, and Mathura, all of whom were evil. A sixteenth century yoga movement believed that consciousness could be raised by repeating this avatar's name.

ANSWER: (Hare) Krishna (or Rama)

## 6. United States History

Born with the name Isabella, who changed her name in 1843 after receiving divine inspiration? During the Civil War, she lectured on the evils of slavery, and after the war she tried to get a federal grant of western lands for freedmen. Name this woman who was born a slave in New York.

ANSWER: (Sojourner) Truth

## 7. Algebra (10 Seconds)

(Note to moderator: Read 'xy' by saying the names of the two letters.) Which method is used to convert a general conic equation without an xy term into an equation appropriate for a specific conic section? This method can also be used to convert a quadratic function into vertex form or to solve a quadratic equation. Give the three-word phrase which involves halving and squaring the linear term.

ANSWER: Completing the Square (accept different forms of the words)

## 8. Current Events

He received a death sentence in 1959 and was imprisoned in 1964. But in 1979, he gained power, appointing himself President, Prime Minister, and head of the armed forces. Name this leader who spent most of the nineteen eighties at war with Iran and then attempted to annex Kuwait in 1990. The United States recently removed him from power in Iraq.

ANSWER: (Saddam) Hussein

## 9. World Literature

Which famous French writer had an illegitimate son whose works inspired a Verdi opera? The father was best-known for pseudohistorical novels that are still popular today. Name the author of The Count of Monte Cristo and The Three Musketeers.

ANSWER: (Alexandre) Dumas

## 10. Biology

What objects, about 200 angstroms in diameter, consist of protein and RNA? These tiny particles exist in all living cells; they use the information in RNA to create proteins.

ANSWER: Ribosome(s)

## 11. Language Arts

Which word, meaning to grope clumsily or frantically, is used as the name of a popular board game? It begins with the letter S.

ANSWER: Scrabble

## 12. Music

He spent his career teaching in a girls orphanage in Venice, and his works were for the most part ignored for 150 years after his death. Living in a time when only new works were performed, his large output included over 500 concertos, including some of the earliest ones written for woodwinds. Name this baroque composer of The Four Seasons.

ANSWER: (Antonin) Vivaldi

## 13. Geometry/Trigonometry (30 Seconds)

What is the height of a parallelogram if the bases are each 20 inches, the sides are each 8 inches, and two of the interior angles are each thirty degrees?

ANSWER: 4 inches

## 14. World History

Fought during a single afternoon in September, 490 BC, in which battle did Athens repel the first Persian invasion? Thanks to the leadership of Miltiades, the Greeks suffered fewer than two hundred casualties while the Persians suffered over six thousand. Though there is historical disagreement over the role Philippides played, his running gave new meaning to the name of the battle.

ANSWER: (Battle of) Marathon

## 15. Astronomy/Earth Science/Geography

When placed in an electric field, what type of crystal oscillates at a constant frequency? After feldspar, it is the most common mineral. Name this mineral consisting of silicon dioxide whose name begins with the letter Q.

ANSWER: Quartz (prompt on silica or silicon dioxide, do not accept quartzite)

#### 16. United States Literature

Which character has a birthmark or scar that runs the entire length of his body? He ignores the warnings of Gabriel against pursuing the animal that took his leg. This leader of the Pequod is described by the narrator Ishmael in Herman Melville's Moby-Dick.

ANSWER: (Captain) Ahab

#### 17. Chemistry (10 Seconds)

Who was notified of his scholarship to work with JJ Thomson while digging potatoes on his father's farm? He threw down his spade and proclaimed, "That's the last potato I'll dig." A more famous quote by him is, "It is about as incredible as if you had fired a 15-inch shell at a piece of tissue paper and it came back and hit you." He said this after shooting alpha particles at metal foils.

ANSWER: (Ernest) Rutherford

#### 18. Calculus/Math History (30 Seconds)

If  $y=10-x$ , find the maximum possible product  $x$  times  $y$ . Give the value of the product, not the value of  $x$  or  $y$ .

ANSWER: 25

#### 19. Art/Architecture

At the top of this picture there is an advertisement for cigars. In the middle are two men dressed in dark clothes, one of whom faces away, and a woman with red hair and a red dress. The man who is working is wearing white with a white hat. Name this 1942 picture of a bar painted by Edward Hopper.

ANSWER: Nighthawks

#### 20. Nonfiction

Name the book that went to the top of the bestseller list when it was released on June 9. One oft-quoted paragraph states, "My personal feelings and political beliefs were on a collision course. As his wife, I wanted to wring Bill's neck. But he was not only my husband, he was also my president, and I thought that, in spite of everything, Bill led America and the world in a way that I continued to support."

ANSWER: Living History

NOTE: These questions are for breaking ties. If you need to replace a question, use the corresponding question from the Replacement packet. In a tiebreaker, the first correct answer wins the match.

#### Tiebreaker #1

What name is given to the system of civil laws first enacted in 1804? Variations of it have been used in many countries and the state of Louisiana. The name comes from the emperor who first enforced them in France.

ANSWER: Napoleonic (Code) or (Code) Napoleon

Tiebreaker #2

The correct answer begins with the letter A. Examples include magnalium, pewter, steel, and bronze. What term refers to mixtures that include metal?

ANSWER: Alloy(s)

Tiebreaker #3

Which state uses the postal abbreviation AZ?

ANSWER: Arizona