

## 1. Technology

Which 1970s technology may soon be replaced by radio frequency identification? The new technology will send messages saying when products have expired or when prescriptions have not been picked up and may eventually help people keep track of their home inventories. The old technology can still be found on a very large percentage of commodities in stores.

ANSWER: (Universal Product Code) Bar Code(s) (accept equivalents)

## 2. British Literature

Who wrote *The Corsair*, which sold ten thousand copies on its first day of publication in 1814? Very popular during his own lifetime, he often wrote poems with protagonists who went on many adventures. Identify the writer of *Lara*, *Child Harold's Pilgrimage*, and *Don Juan*.

ANSWER: (George Gordon 'Lord') Byron, (6<sup>th</sup> Baron)

## 3. Physics (30 Seconds)

Two children with masses of 30 kilograms and 40 kilograms are playing on a seesaw and want it to be evenly balanced. How far away from the pivot point should the larger child sit if the lighter child sits 12 feet away from the pivot point?

ANSWER: 9 Feet

## 4. Pop Culture

Some recent box scores add a column for batting averages, and others add even more columns. In order, however, what are the traditional four columns used for batters in baseball box scores?

ANSWER: AB R H RBI (or At Bats / Runs / Hits / Runs Batted In) (be generous, but the order must be correct)

## 5. Religion/Mythology

The first speech is about wandering in the wilderness, the second is about Israel's obligation to God, and the third is about what God will do for Israel. Together, these three speeches form a book, which if you are Christian is in the Old Testament and if you are Jewish is in the Torah. Name this book whose name translates as Second Law.

ANSWER: Deuteronomy

## 6. United States History

Who chaired the town committee formed after the Boston Massacre to demand the removal of British troops? He was later forced to flee British troops to Philadelphia, where he tried unsuccessfully to be appointed as the Commander-in-Chief of the Continental Army. He instead became President of the Continental Congress, which made him the first signer of the Declaration of Independence.

ANSWER: (John) Hancock

## 7. Algebra (30 Seconds)

Find the coefficient for the term containing  $x^7$  in the simplified binomial expansion of the quantity  $x+1$  end quantity raised to the eighth power.

ANSWER: 8

#### 8. Current Events

Which leader has a Bachelor's Degree in geology from CCNY and an MBA from George Washington University? He spent much of the nineteen nineties as Chairman of America's Promise: The Alliance for Youth, which encourages volunteerism. This followed his tenure as Four-Star General and Chairman of the Joint Chiefs of Staff. Name this member of President Bush's Cabinet.

ANSWER: (Colin) Powell

#### 9. World Literature

Which early twentieth century writer's first two novels were about a failed student and a failed writer? Several of his later protagonists were able to transcend their surroundings, including Harry Haller, who chooses to be called Steppenwolf, and Siddhartha.

ANSWER: (Hermann) Hesse

#### 10. Biology

Derived from the Greek word for home, what general term refers to the scientific study of the interrelationship between organisms and their environments? This seven-letter word begins with the letter E.

ANSWER: Ecology

#### 11. Language Arts

Which word means 'add' when it refers to food but means 'subtract' when it refers to wages? It can also refer to making something fancy. Name this seven-letter word beginning with the letter G.

ANSWER: Garnish

#### 12. Music

In addition to four greatest hits albums, which 1970s supergroup from Los Angeles produced the albums On The Border, The Long Run, One Of These Nights, Desperado, and Hotel California?

ANSWER: (The) Eagles

#### 13. Geometry/Trigonometry (30 Seconds)

Give your answer in degrees. A, B, and C are three points on a circle. If A is at the highest point on the circle, C is at the leftmost point on the circle, and B is not in the upper left quadrant of the circle, what is the measure of angle ABC?

ANSWER: 45 (Degrees)

#### 14. World History

Gaining control of his country in 1985, who often used two terms which translate into openness and restructuring? He oversaw a great reduction in power of his nation, which made him much more popular outside his country than inside. Name the last leader of the Soviet Union.

ANSWER: (Mikhail) Gorbachev

#### 15. Astronomy/Earth Science/Geography

Which mineralogist is well-known because of work he did in the early nineteenth century? He was controversial because he thought that physical characteristics were more important than chemical composition in classifying minerals, and he is best-known for classifying objects based on hardness.

ANSWER: (Friedrich) Mohs (do not accept Moh)

#### 16. United States Literature

Which playwright had a big hit on Broadway in 1959 before dying in 1965 at the age of 34? The hit, which was the first drama on Broadway written by an African American woman, was *A Raisin In The Sun*.

ANSWER: (Lorraine) Hansberry

#### 17. Chemistry (10 Seconds)

What type of oxidation-reduction reaction is used on gasoline or coal? These reactions involve oxygen and produce energy rapidly, often creating a flame.

ANSWER: Combustion

#### 18. Calculus/Math History (10 Seconds)

Which mathematician spent a lot of time raising the number 0.9999999 to higher powers? Doing so allowed him to make tables that would simplify arithmetic for many people. This sixteenth and seventeenth century Scottish mathematician developed logarithms.

ANSWER: (John) Napier

#### 19. Art/Architecture

What style of architecture often refers to two-story buildings with one-story wings? It uses horizontal lines and gently sloping roofs. Often referring to early twentieth century houses built in the Midwest, this style is associated with Frank Lloyd Wright.

ANSWER: (The) Prairie (Style or School)

#### 20. Nonfiction

In 1952, who wrote The Books In My Life, which described his favorite books? Many of this writer's books profile his wild life, which included extended stays in Paris and California after he grew up in Brooklyn. Identify the author of Tropic of Cancer and Tropic of Capricorn.

ANSWER: (Henry) Miller

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 (30 Seconds)

Evaluate the integral from  $x=0$  to  $x=3$  of  $x^2 dx$ .

ANSWER: 9

#### Tiebreaker #2

A biographer divided this composer's career into three periods. The first period ended in 1800 with his first symphony, the second period ended in 1814 and included Moonlight Sonata, and the third period ended

with his death in 1827. Name this composer, almost unanimously considered the greatest of his era, who completed nine symphonies.

ANSWER: (Ludwig van) Beethoven

Tiebreaker #3

Which state uses the postal abbreviation VT?

ANSWER: Vermont