

1. Interdisciplinary

This is the last name of the Clinton advisor who helped Monica Lewinsky find a job after she left the White House and the last name of the only officer to face trial over the Abu Ghraib scandal. It also is the name of the man who improved Gaussian Elimination, which puts matrices in row echelon form. It is also the name of the river that flows through the Sea of Galilee and the name of the country which used to control the West Bank. Give this name also held by the shooting guard who led the Chicago Bulls to six NBA Championships.

ANSWER: Jordan

2. Pyramidal Math (30 Seconds)

This is the value of the definite integral from x equals 1 to x equals infinity of dx over x squared. It also completes the square for the expression that starts off four x squared plus four x . It equals the sum of the infinite geometric series one-half plus one-fourth plus one-eighth, etcetera. Find this positive number equal to its own factorial, its own square root, and its own reciprocal.

ANSWER: 1

3. World Literature

This novel begins with a man leaving home with a letter of introduction and a yellow horse. The letter is stolen and he falls in love with Lady de Winter as he makes his way to Paris. He is challenged to several duels which are broken up by Cardinal Richelieu's guards but ends up becoming close friends with his challengers. Name this novel about d'Artagnan and the title characters Athos, Porthos, and Aramis.

ANSWER: (The) Three Musketeers (or (Les) Trois Mousquetaires)

4. Current Events

He was originally appointed to the Senate when Bob Bartlett passed away, serving alongside Mike Gravel. The busiest airport in his state is now named after him, and a few years ago he claimed that if a vote did not go his way he would be taken out of the Senate on a stretcher. His home in Girdwood became a center of attention when it became known that it was renovated by Veco Corporation. He recently lost reelection to Mark Begich after being convicted of corruption. Name this Senator who once said, "The internet is not something you just dump something on. It's not a truck. It's a series of tubes."

ANSWER: (Ted) Stevens

5. Biology

This test was first performed by Hans Berger, who used his son as a subject and did not report any results until 1929, five years into his research. Its pattern of connection is called a montage, and interpreting one requires the doctor to ignore artifacts. The test typically lasts close to a half hour, including three minutes of overbreathing followed by photic stimulation, which can exacerbate epilepsy. Name this test that involves placing electrodes on the patient's scalp.

ANSWER: EEG (or Electroencephalogram, do not accept ECG or EKG)

6. Music

In the melodic versions, you raise the sixth and seventh tones by a semitone, and in the harmonic versions, you raise only the seventh tone by a semitone. The messiest ones generally are considered to be A Sharp and A Flat, since they do not use any natural notes. The half steps are between both the second and third tones and the fifth and sixth tones. The easiest one to play is A, since all of the notes are natural. Name these scales that are often contrasted with major scales.

ANSWER: Minor (Scales or Key Signatures) (accept Aeolian, prompt Scales or Key Signatures)

7. United States History

Years before he helped James Meredith, he had his undergraduate transcripts sent from Alcorn State to Mississippi Law School, causing the Jackson Daily News to run the headline, "Negro Applies To Enter Ole Miss." The Law School responded by passing a rule that all applicants had to receive letters of recommendation from five alumni. He eventually joined the NAACP. On June 12, 1963, he pulled into his driveway and was shot while getting out of his car by Byron De La Beckwith. Name this man whose murder inspired the movie Ghosts of Mississippi.

ANSWER: (Medgar) Evers

8. Physics (10 Seconds)

Instead of using fluids, modern ones usually use a thin disk made of an alloy of beryllium and copper. This disk is attached to mechanical levers that make it easy to see and measure small contractions. The first ones were built in the 17th Century and used water or mercury. They were made by filling a large tube and inverting it in a larger container. Measurements were made by observing how high the column of liquid was. Name these devices used for measuring air pressure.

ANSWER: Barometer(s) (or Barograph(s))

9. Vocabulary

This term refers to something that looks like a series of punctuation marks, and it can refer to the omission of a word or phrase. The omission can be done to avoid repetition or to shorten a quotation. Give this term that is often represented grammatically by three periods.

ANSWER: Ellipsis (do not accept Ellipse)

10. Religion/Mythology

It is one of five niyama—the other ones describe seasons, seeds, norms, and the mind. This niyama is associated with intentional actions and is associated with the actions of everybody except for those who are enlightened, who are not impacted by cause and effect. This concept exists in Jainist, Sikh, Buddhist, and Hindu belief systems. Give this term that refers to the idea that people are responsible for their own outcomes and future lives.

ANSWER: Karma

11. Pop Culture

The 1988 film version starred Sonny Bono, Jerry Stiller, Ricki Lake, and Divine. The writer and director of that film makes a brief appearance as a flasher at the beginning of the 2007 version during the song “Good Morning, Baltimore”. The plot centers around the Corny Collins Show, which once a month has a Negro Day until it is integrated by Tracy Turnblad. In the 2007 film, Tracy is played by Nikki Blonsky and her mother is played in drag by John Travolta. Name this work associated with John Waters.

ANSWER: Hairspray

12. Geometry/Trigonometry (30 Seconds)

Find the value you get when you add the fraction one over the quantity one plus cotangent x to the fraction one over the quantity one plus tangent x .

ANSWER: 1

13. Nonfiction

This book contains the sentence, “And so on a January evening in 1991, my wife of fifteen months and I ate a quick dinner together and headed off to answer a classified ad in the *Palm Beach Post*.” Since it came out in 2005, there have been different versions, including a children’s book and a picture book. The subject loves to steal grilled cheese sandwiches, hates thunderstorms, and is a Labrador retriever. Name this book by John Grogan that has inspired a soon-to-be-released movie.

ANSWER: Marley & Me

14. British Literature

Two of her recurring characters are Thomas Beresford and Prudence Cowley, who are commonly referred to as Tommy and Tuppence, get married at the end of *The Secret Adversary*, and eventually age into retired grandparents. Another famous character is a resident of Saint Mary Mead who was featured in *The Moving Finger* and *Four Fifty from Paddington*. This author also wrote *Murder on the Orient Express*. Name this crime writer whose most famous play is *The Mousetrap*.

ANSWER: (Agatha) Christie

15. Geography/Earth Science/Astronomy

This atmospheric layer contains noctilucent clouds, which can only be seen under certain conditions just before sunrise or after sunset. It is where most meteors burn up, and it has not been studied as much as other layers because its air pressure is too low for airplanes and too high for satellites. Its temperatures are generally about one hundred eighty Kelvins, and it is about ninety kilometers above the surface of the Earth. Name this layer between the stratosphere and thermosphere.

ANSWER: Mesosphere

16. Algebra (30 Seconds)

Find the x-intercept for the graph of four times the quantity y minus two quantity squared equals x plus five.

ANSWER: 11 (accept (11,0))

17. Art/Architecture

It was formally known as La Cuesta Encantada, and it contains Casa del Mar, Casa del Monte, Casa del Sol, Casa Grande, an indoor Roman pool, and an outdoor Neptune pool. It used to have two runways where the current visitors center is now located. Designed by Julia Morgan to rival old European buildings, it was constantly revised by its wealthy and famous owner. In 1957, it was donated to the State of California. Name this complex which is associated with the wealthy newspaper magnate who had it built.

ANSWER: Hearst (Castle or Ranch) (prompt answers including San Simeon)

18. Chemistry

This material is extracted from lichens. It typically is added to filter paper or wood pulp that has been treated with solvents. Because lichens are made of two different living organisms, they can change based on whether they are in an environment that favors one organism or the other. This particular substance can differentiate well between, for example, bleach and lemon juice. Name this common indicator that is red for acids and blue for bases.

ANSWER: Litmus (Paper) (prompt Indicator)

19. United States Literature

This story states, “The voice of the sea is seductive, never ceasing, whispering, clamoring, murmuring, inviting the soul to wander in abysses of solitude.” Much of it takes place at Grand Isle. One of the characters, Robert Lebrun, almost has an affair with the protagonist, Edna Pontellier. Pontellier leaves her husband and eventually leaves New Orleans. Name this 1899 short novel written by Kate Chopin.

ANSWER: (The) Awakening

20. World History

His construction projects included the Median Wall and rebuilding the Temple of Marduk. When this leader captured Zedekiah and his family, he killed the sons and poked out Zedekiah’s eyes. The second king of the Chaldean Dynasty, he assumed power in 605 BCE. Name this king associated with the Hanging Gardens of Babylon.

ANSWER: Nebuchadnezzar (the Second) (accept Nebuchadrezzar)

Tiebreakers:

If you need to replace a question, take the corresponding question from the Replacement Packet rather than one of these questions. In case of a tie, use these questions in order until one is answered correctly.

(30 Seconds)

Find the y-intercept of a line that has a slope of one and goes through the point (8,10).

ANSWER: 2 (or (0,2))

(Note to moderator: No singing, please.) The title of this song is a question. At the beginning of this song’s video, you can see the band’s name written in cursive with a wire leading to a speaker. The second track and first released single from the album Get Born, its opening line is the word Go. It then contains the lyrics, “So 1, 2, 3, take my hand and come with me, because you look so fine, and I really wanna make you mine.” Name this popular song by Jet.

ANSWER: Are You Gonna Be My Girl? (accept Going To in place of Gonna)

This country borders Belgium, Germany, Italy, Luxembourg, and Switzerland. Name this country whose capital is Paris.

ANSWER: France