1. Interdisciplinary
(Note to moderator: Foyatier is pronounced Foy-YAH-tee-ay.) He is the subject of the third and final ballet by Aram Khachaturian and a sculpture by Denis Foyatier at the Louvre. There have been several historical novels about him, most notably one by Howard Fast that was turned into a 1960 movie starring Kirk Douglas and Laurence Olivier. In real life, he led a group that ended up being crucified by the thousands after being defeated by Pompey in 71 BCE. Name this leader in the Third Servile War.

ANSWER: Spartacus

2. Pyramidal Math (30 Seconds)
This number is equal to the integral of x to the seventh power from x equals negative four to x equals four. It also equals the sum of the solutions to the equation x cubed minus two x plus one equals zero, as well as the determinant of a matrix with two proportional rows. It also equals the dot product of perpendicular vectors. Give this number equal to the additive identity for real numbers.

ANSWER: 0

3. World Literature
His most famous collection appeared as four books—there is also a fifth book whose authorship is questioned that is about the arrival of the main characters at the Temple of the Holy Bottle. He began his career as a priest but later became a successful doctor. His first two books were published under the anagram pseudonym Alcofribas Nasier and were popular, beginning with a Prologue addressing the collection to drinkers. Name this 16th Century Frenchman who wrote Gargantua and Pantagruel.

ANSWER: (Francois) Rabelais

4. Current Events
Its President exchanged a historic handshake earlier this month and received a picture of a horse at a meeting that was protested by approximately one hundred thousand of its citizens. The meeting led to an increase in direct flights and shipping as well as cooperation in food inspection. The protesters, many of whom belong to the Democratic Progressive Party, thought the meetings decreased this land’s sovereignty. The Democratic Progressive Party is part of the Pan-Green Coalition, which is opposed to the Kuomintang. Name this island that has a very complex relationship with China.

ANSWER: Taiwan (accept Republic of China, do not accept China or People’s Republic of China)
5. Biology
(Note to moderator: The C in Cnidarians is silent, and fungi is pronounced FUN-jigh.)
This method of asexual reproduction is sometimes used by Cnidarians such as hydra or by Porifera, but it is more common in fungi and plants. It can lead to the creation of colonies if the new individuals do not leave the parent. Name this process that involves new individuals protruding from the parent.

ANSWER: Bud(ding) (accept Burgeoning)

6. Music
One of the duets in this opera is Amore o grillo, which means Love or Fancy. Some of the most famous lyrics translate as, “Ah, love me a little, oh, just a very little, As you would love a baby, ’Tis all that I ask for.” One of the characters, Sharpless, tries unsuccessfully to talk Pinkerton out of signing a wedding contract that is valid for nine hundred ninety-nine years but can be annulled at the end of each month. Three years later, Lieutenant Pinkerton finds out that Sharpless was right. Name this Puccini opera set in Nagasaki.

ANSWER: Madame Butterfly (or Madama Butterfly)

7. United States History
Before this battle began, Major General Van Dorn split his forces into two divisions and tried to position them behind Union forces. Major General Curtis learned of the maneuver and was able to position his troops to keep the Confederate forces divided. Fought in March, 1862, it was a victory for the outnumbered Union Army of the Southwest. Even though it was not fought in Missouri, a major outcome was to keep Missouri safely in Union hands. Name this battle, part of which was fought in Bentonville, Arkansas.

ANSWER: (Battle of) Pea Ridge (or Elkhorn Tavern)

8. Physics (10 Seconds)
This is a vector quantity that can have the same units as energy. It is equal to the rate of work divided by angular velocity, and it also equals the derivative of angular momentum with respect to time. It often is calculated using the formulas the moment of inertia times angular acceleration or the cross product of the radius and force vectors. Name this spinning force represented by the Greek letter tau.

ANSWER: (Net) Torque (prompt Moment)
9. Vocabulary
In linguistics, this term refers to the process in which one sound is modified so that it relates easily to another sound in the same word that is nearby. Biologically, it can refer to the absorption of nutrients. More often, it refers to a process undergone by immigrants or minorities. Give this term beginning with the letter A that is used when a group takes on the customs of a larger group.

ANSWER: Assimilation (accept different word forms)

10. Religion/Mythology
Most of these contain a mihrab, which is a semicircular niche built into one of the walls where a person can stand. Just to the right of the mihrab is a minbar, which is a small platform. The outsides of these buildings have tall spires, which was the traditional place to call out the adhan signaling to people that it is time to enter the building. These spires are called minarets. Name these buildings dedicated to Islamic worship.

ANSWER: Mosque(s) (or Masjid)

11. Pop Culture
Their latest album, which is very different from their other ones, contains songs such as Here Come The Geese, My Big Sister, and Seven Eight Nine. Their early songs are about a former girlfriend they claim not to have really known anyway, a famous woman they say should not be blamed for breaking up The Beatles, and the things they would buy if they had a lot of money. Name this group from Canada whose songs include Alternative Girlfriend, One Week, and Easy.

ANSWER: Barenaked Ladies (accept BNL)

12. Geometry/Trigonometry (30 Seconds)
Find the measure of Angle BAC. Point A is at the center of a circle, and points B and C are on the circle. If lines BD and CD are both tangent to the circle, and Angle BDC has a measure of fifty degrees, what is the measure of Angle BAC?

ANSWER: 130 (degrees)

13. Nonfiction
It is acceptable to give the common title of this book rather than the full title. Its first part uses pin-making to illustrate the division of labor. Its last section looks at the relationship between war and debt and concludes that surpluses should not be used to prepare for war and that countries should not defend provinces that do not contribute financially. Name this work, whose full title begins with the words ‘An Inquiry into the Nature and Causes of’, published in 1776 by Scottish economist Adam Smith.

14. British Literature
This work was addressed to the poet’s father, who had been an English teacher, and first published in 1951. It contains five three-line stanzas and then a four-line stanza that includes the words, “Curse, bless me now with your fierce tears, I pray.” It describes the reactions of wise men, good men, wild men, and grave men, and it contains several repetitions of the line, “Rage, rage against the dying of the light.” Name this work by Dylan Thomas.

ANSWER: “Do Not Go Gentle Into That Good Night” (must be exact, do not accept Gently for Gentle)

15. Geography/Earth Science/Astronomy
It is popularly considered the alpha star in the constellation that also includes Muliphen and Murzim. In 1862, it was discovered to be a binary star, and one of the stars is now known to be a white dwarf that is ten thousand times dimmer than the other one. In some cultures, its appearance marked the beginning of Summer. Name this star with a visual magnitude of negative one point four three, making it the brightest star in the night sky.

ANSWER: Sirius (accept Dog Star) (prompt Alpha Canus Major(is), but do not accept Canus Major)

16. Algebra (30 Seconds)
Find the remainder when 2x cubed minus 8x squared minus 9x plus three is divided by the quantity x minus 5.

ANSWER: 8

17. Art/Architecture
One of his works is titled The Ghost of Vermeer of Delft Which Can Be Used As a Table, and another is titled Dream Caused by the Flight of a Bee around a Pomegranate a Second Before Awakening. He also created some strange objects, such as when he connected a plaster lobster to a telephone and when he made a sofa in the shape of Mae West’s lips. Name this 20th Century Spanish surrealist whose most famous work is Persistence of Memory.

ANSWER: (Salvador) Dali
18. Chemistry  
(Note to moderator: pH should be pronounced as separate letters.) This substance does not contain tartaric acid, but it is often combined with it or other acids such as lemon juice or vinegar. It can be added to water to stabilize pH levels, which is helpful for detergents. When heated, it releases carbon dioxide, which is helpful in cooking and in putting out fires. It is also good at absorbing smells. Name this chemical also known as Sodium Bicarbonate.

ANSWER: Baking Soda (accept Saleratus) (accept Sodium Bicarbonate or Sodium Hydrogen Carbonate before Sodium is mentioned) (do not accept Baking Powder)

19. United States Literature  
This book’s second paragraph begins, “Now, women forget all those things they don’t want to remember, and remember everything they don’t want to forget.” Its protagonist marries Logan Killicks and then Joe Starks, who she nicknames Jody, before finding true love with her third husband. Her name is Janie Mae Crawford, and that third husband is Tea Cake. Name this novel set in Eatonville, Florida, and written by Zora Neale Hurston.

ANSWER: Their Eyes Were Watching God

20. World History  
A legendary hero of this modern-day nation is Abd al-Qadir, who signed the Treaty of Tafna in 1837. It gained independence in 1962, and its first leader was Ahmed Ben Bella. Its seventh President was assassinated in 1992, probably by an Islamist, and it suffered from lots of violence caused by Islamist rebels for much of the 1990s. Name this large North African nation that used to be a colony of France.

ANSWER: Algeria

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.

(Note to moderator: Tigranes is pronounced ti-GRA-nees, and Apameia is pronounced a-pa-may-EE-uh.) This empire began after the ancient Battle of Gaza. Its importance faded over time, and it was eventually ended by Tigranes the Great and Pompey. One of its great successes was at the Battle of Panium, but only ten years later it gave up much of its land in the Treaty of Apameia, which followed the Battle of Magnesia. For much of its history, its capital was in Antioch. Name this empire formed soon after the death of Alexander that controlled what is now Iran, Iraq, Jordan, and Syria.

ANSWER: Seleucid
This city is the home of Kleinhans Music Hall, the Albright-Knox Art Gallery, and Prudential Guaranty Building. Its suburbs now contain Tim Russert Highway. It grew rapidly during the 19th Century thanks to the Erie Canal. Name this city in the state of New York near Niagara Falls.

ANSWER: Buffalo, New York

This country borders Albania, Bulgaria, Macedonia, and Turkey. Name this country whose capital is Athens.

ANSWER: Greece