1. Interdisciplinary
This is the number of Chinese dynasties that quickly succeeded one another during the 10th Century CE. It is the highest number on the Saffir-Simpson Hurricane Scale and the number of Platonic solids. It also is an alternative nickname for The Mighty Handful, which was a famous group of Russian composers. The number appears in the titles of the most famous novels by both Irene Hunt and Kurt Vonnegut, and it numbers the pillars of Islam and the books of the Torah. Give this number, equal to the number of nations that have permanent veto status in the UN Security Council and the number of starters on a basketball team.

ANSWER: Five

2. Pyramidal Math (30 Seconds)
This is the triangular number between fifteen and twenty-eight and the number in the Fibonacci sequence between thirteen and thirty-four. It also is equal to the number of different sums that are possible when you roll four standard dice. It is the solution to the equations $x^2 - 42x + 441 = 0$ and the equation $\log x = \log 3 + \log 7$. Find this number equal to the eleventh term in the sequence that begins one, three, five, seven, etcetera.

ANSWER: 21

3. World Literature
It consists of one hundred cantos and includes historic characters such as Justinian and Charles Martel. One part of it takes place on the opposite side of the Earth from Jerusalem and involves seven terraces corresponding to the seven deadly sins. The work opens when the author is thirty-five years old in the year 1300. Name this epic poem including Paradiso, Purgatorio, and Inferno by Dante.

ANSWER: (The) Divine Comedy (accept answers including the word Commedia, prompt Comedy)

4. Current Events
This nation would have coronated a new king last year, but astrologers determined it was a bad year for new developments, so the coronation took place a few weeks ago. The new king, Jigme Khesar Namgyel Wangchuck, carries a title that means King of the Land of the Thunder Dragon. The country’s first parliamentary elections took place in March and were won by parties in favor of the monarchy. Those elections were preceded by a mock election so citizens could practice voting and by a bombing that was blamed on people from Nepal. Name this nation that, like Nepal, is located between India and Tibet.

ANSWER: Bhutan
5. Biology
One end of this bone has the greater and lesser tubercles, while the other end has the Olecranon fossa. Associated with the brachialis muscle and the ulnar nerve, it connects the ulna to the scapula. It is next to the biceps muscle in the arm. Name this large bone located in the upper arm.

ANSWER: Humerus (prompt (Upper) Arm Bone)

6. Music
One of the characters in this musical is Beauregard Jackson Pickett Burnside, who dies when he falls off a big mountain. One of the recurring songs is My Best Girl, which is sung between the title character and her nephew. A song about the title character claims that she coaxes the blues right out of the horn and states, “You may be from Manhattan, But Georgia never had a sweeter peach.” Name this musical about a wealthy woman whose life is interrupted temporarily by the arrival of her nephew and by the Great Depression.

ANSWER: Mame

7. United States History
In his book Listen America, he wrote, “I believe that Americans want to see this country come back to basics, back to values, back to biblical morality, back to sensibility, and back to patriotism.” He started a church and university in Lynchburg, Virginia in addition to a political group, the Moral Majority, that supported Ronald Reagan. After 9/11, he blamed pagans, abortionists, feminists, and homosexuals for the attack. Name this preacher who died last year.

ANSWER: (Jerry) Falwell

8. Physics (10 Seconds)
(Note to moderator: Goethe is pronounced GER-tuh.) One of this physicist’s critics was Goethe, who developed an alternative theory of colors one hundred years later. One of his contemporary critics was Robert Hooke, who had his own theories of the spectrum and wanted credit for theories of gravitation. Much of his best work was done at his home in Lincolnshire, but he was a professor at Cambridge for many years. The unit named after him equals a kilogram meter per second squared. Name this physicist whose three laws form the basis of classical physics.

ANSWER: (Sir Isaac) Newton
9. Vocabulary
In Sanskrit, this term means heavy, though it has come to refer to people who are to be honored. It is associated with several Eastern religions, including the founders of Sikhism. In Hindi, it refers to teachers. Give this four-letter term that refers to experts and spiritual mentors.

ANSWER: Guru(s)

10. Religion/Mythology
He took a job feeding pigs and was jealous of what the pigs were eating, so he decided to ask his father for a job, saying, “Father, I have sinned against heaven and against you.” His father responded by holding a great celebration which included eating the fattened calf. Who is this unnamed character from the Book of Luke who made his older brother jealous in a famous parable?

ANSWER: (Parable of the) Prodigal Son (accept Lost Son)

11. Pop Culture
She led the Pledge of Allegiance on the last day of the Democratic National Convention and appeared in the September season finale of *The Secret Life of the American Teenager*. She is associated with the soundtrack to *August Rush*, and she is able to perform an Amanar, which is also known as a Yurchenko Two-And-A-Half. She is currently a high school junior in West Des Moines. Name this gold medalist on the balance beam who finished behind Nastia Liukin in the Gymnastics All-Around at this year’s Olympics.

ANSWER: (Shawn) Johnson

12. Geometry/Trigonometry (30 Seconds)
Find the cosine of six hundred ninety degrees.

ANSWER: (Positive) Root 3 Over 2 (or One-Half Root 3)

13. Nonfiction
In his first book, he wrote, “I’d spent 2 years at a Muslim school, 2 years at a Catholic school. In the Muslim school, the teacher wrote to tell mother I made faces during Koranic studies. In the Catholic school, when it came time to pray, I’d pretend to close my eyes, then peek around the room. Nothing happened.” His second book ends with a chapter on family that concludes, “As usual, my wife is right.” Those two books are subtitled *A Story of Race and Inheritance* and *Thoughts on Reclaiming the American Dream*. They are titled *Dreams From My Father* and *The Audacity of Hope*. Name this politician who just won a big election.

ANSWER: (Barack) Obama
14. British Literature
The second scene of this play begins with a man explaining his life story to his daughter. When she falls asleep, they are joined by a spirit, and they are later joined by a savage slave. The father was the Duke of Milan, but that title now belongs to his brother, who eventually swims over to them. Name this Shakespeare play featuring Ariel, Caliban, Miranda, and Prospero that begins with a shipwreck.

ANSWER: (The) Tempest

15. Geography/Earth Science/Astronomy
Its moons include Neso, Larissa, and Proteus, and its winds surpass two thousand kilometers per hour. It has two thick rings named Lassell and Galle as well as thin rings such as LeVerrier and Adams, with the rings being named after astronomers who helped discover this planet in 1846. Its orbit forms the inner boundary of the Kuiper Belt, and its largest moon is Triton. Name this planet that, after the demotion of Pluto, is now the outermost planet in our solar system.

ANSWER: Neptune

16. Algebra (30 Seconds)
Find both possible values of A if the graph of the equation y equals k plus A times the absolute value of the quantity x minus h contains the points (1,9), (2,5), and (3,1).

ANSWER: -4 & 4 (either order, accept answers such as plus or minus four)

17. Art/Architecture
His early work The She-Wolf shows some of the style that would make him famous. It was followed by The Sounds in the Grass, a series in which he tried to paint noise and which included Eyes in the Heat. Some of his most famous paintings were Autumn Rhythm, Blue Poles, and Lavender Mist, which were completed in the early 1950s before he died from driving drunk. He often worked on large canvases which were flat on the floor. Name this artist nicknamed Jack The Dripper.

ANSWER: (Jackson) Pollock

18. Chemistry
This quantity is calculated by multiplying absolute temperature times the ideal gas constant times molarity times the van’t Hoff factor. The van’t Hoff factor is related to the number of moles of solute in solution per moles of solute added. It tells you how difficult it is to prevent flow across a semi-permeable membrane separating two solutions. Give this two-word phrase often represented by the Greek letter pi.

ANSWER: Osmotic Pressure
19. United States Literature
He spent a lot of time in Europe, inspiring works such as Tales of the Alhambra, and wrote several biographies, including a fictionalized biography of Christopher Columbus. He wrote the story collections Bracebridge Hall, Tales of a Traveller, and The Sketch Book of Geoffrey Crayon. Name this New Yorker who in 1819 and 1820 published the stories The Spectre Bridegroom, Rip Van Winkle, and The Legend of Sleepy Hollow.

ANSWER: (Washington) Irving

20. World History
(Note to moderator: Chaeronea is pronounced ker-ə-NEE-ə, Hydaspes is hi-DAS-pees, and Thebes is Theebs.) He helped his father win the Battle of Chaeronea. His last major victory was over King Porus at Hydaspes River. In between, other than temples and the house of Pindar, he destroyed Thebes. He also founded a major city in Egypt which he named after himself. Name this leader who defeated Darius the Third, cut the Gordian Knot, and controlled much of the known world during the 4th Century BCE.

ANSWER: Alexander The Great (prompt Alexander, accept Alexander III or Alexander of Macedon(ia))

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.

Some research indicates that this substance helps the body turn cholesterol into bile acids and that it helps the body produce carnitine and norepinephrine. People who don’t get enough of it suffer from spotty skin and weak gums, symptoms that used to be common for sailors. These effects, known as scurvy, are rare today because it is widely known that people are supposed to eat fruit. Name this vitamin also known as Ascorbic Acid.

ANSWER: (Vitamin) C (accept Ascorbic Acid or Ascorbate before Ascorbic is mentioned)

In 1956, a Bolivian man threw a rock at it, and the minor damage still remains. It once was missing for over two years, and the Italian man who stole it got off easy because he was considered a patriot. Completed in the early 16th Century, infrared scans of this work show that the subject originally was wearing a bonnet and had her hands on her chair. Name this work by Leonardo da Vinci that is the most popular portrait in the world.

ANSWER: Mona Lisa (accept (La) Gioconda or Joconde)

This country borders Egypt, Jordan, Lebanon, and Syria. Name this country whose capital is Jerusalem.

ANSWER: Israel