1. Interdisciplinary
This is the last name of the 20th Century American artist who painted the Migration Series and the plaintiff in the 2003 Supreme Court Case that overruled Bowers vs. Hardwick. It also is the surname of the author of a book about a woman named Constance who has an affair and another book titled *The White Peacock*. Another man with this last name wrote *Revolt in the Desert*, an abridged version of his autobiography *Seven Pillars of Wisdom*. Give this last name also shared by the founder of the University of Kansas, which is in a town named after him.

ANSWER: Lawrence

2. Pyramidal Math (10 Seconds)
In spherical coordinates with phi as the azimuthal angle, you can get this shape from the function rho equals five divided by the quantity sine phi times cosine theta. In cylindrical coordinates, you can write the same shape as r equals five divided by cosine theta. When two of them intersect, they form a dihedral angle. Geometrically, this shape can be defined as the three-dimensional locus of all points equidistant from two fixed points. Name this flat shape.

ANSWER: Plane (prompt x=5 or x-5=0)

3. World Literature
His first novel was written in verse and was about a young poet. His only other novel, written in prose thirty-one years later and much better known, was about a man married to Tonya Gromeko who falls in love with a woman married to Pasha. Much of the poetry he wrote was related to the 1905 Russian Revolution, though his famous novel was set in the 1917 Russian Revolution. In 1958, he turned down the Nobel Prize for Literature. Name this author of Doctor Zhivago.

ANSWER: (Boris) Pasternak

4. Current Events
Its current Managing Director, Dominique Strauss-Kahn, is a Socialist and former Communist. He recently stated, “Exceptional times call for an exceptional response,” when introducing its short-term liquidity facility. Its recent increased activity has included deals with Hungary, Ukraine, and Iceland. Along with part of the World Bank, it was created in the mid 1940s at the Mount Washington Hotel in Bretton Woods, New Hampshire. Name this organization that often offers financial aid to various countries.

ANSWER: IMF (or International Monetary Fund)
5. Biology
Give the common name for the type of dinosaur first discovered by Gideon Mantell. One of the best finds was in Bernissart, Belgium. They were about thirty feet long, sixteen feet tall, and weighed five tons. Capable of running on two legs or walking on four, they had a conical thumb spike on each hand. Identify this dinosaur whose name is based on the similarity of its teeth to a particular type of lizard.

ANSWER: Iguanodon (accept Iguanodontia or Iguanadontoidea)

6. Music
(Note to moderator: No singing, please.) This musical begins with a line spoken by Riff in defense of his old friend. Riff eventually dies, and his position is assumed by Action. The first song in this musical contains the verse, “You're never alone, You're never disconnected! You're home with your own: When company's expected, You're well protected!” The final song contains the line, “Hold my hand and we're halfway there,” which is sung by Maria, the sister of Bernardo. Bernardo is the head of The Sharks, a Puerto Rican gang. Name this work with lyrics by Stephen Sondheim that was composed by Leonard Bernstein.

ANSWER: West Side Story

7. United States History
The scope of this law was limited recently when Fouad Dagher lost his Supreme Court cases in 2006. One of its earliest uses was to justify the arrest of Eugene Debs. This act has been criticized by several judges, who point out that its terms such as conspiracy, restraint, and commerce are not defined. However, it played an important role in the Supreme Court case involving the Northern Securities Company. The first law of its kind, it has been followed by the Tunney, Expediting, and Clayton Acts. Name this 1890 Antitrust Act.

ANSWER: (The) Sherman (Antitrust Act)

8. Physics (30 Seconds)
For this problem, assume the force of gravity is 9.8 Newtons per kilogram, ignore air resistance, and include units. How high in the air will an object get at its peak if it starts out at ground level with an upward speed of 9.8 meters per second?

ANSWER: 4.9 Meters
9. Vocabulary
This term can refer to a spice made from the wax around nutmeg. It can also refer to a staff that is carried to symbolize a position, and in the Middle Ages it was used to describe a spiked club that could destroy armor. In 1966, the word was trademarked and used to describe a product used in riot control. Give this term now used for sprays that are used to disable attackers.

ANSWER: Mace (do not accept Pepper Spray)

10. Religion/Mythology
(Note to moderator: Dido is pronounced DIGH-dough, Caduceus is pronounced ka-DOO-shus, and Priam is pronounced PRIGH-am.) When Dido was dying, this goddess was sent to take a piece of her hair and free her soul. She often carried a pitcher of water from the River Styx and, like Hermes, she carried a caduceus and delivered messages. One of her messages was for Priam to go to his ships. Name this goddess who was the personification of rainbows.

ANSWER: Iris

11. Pop Culture
(Note to moderator: Stephon is pronounced Stuh-FON.) Immediately after being drafted, he and Andrew Lang were traded from the Minnesota Timberwolves to the Milwaukee Bucks for Stephon Marbury. After several years in Milwaukee, he was in a trade that included Gary Payton, and he was traded again in 2007. In 1998, he played Jesus Shuttlesworth in the Spike Lee film He Got Game. He has been an All-Star for eight of the last nine years and probably played his best game in the clincher of the 2008 NBA Finals. Name this shooting guard who teamed up with Paul Pierce and Kevin Garnett on the Boston Celtics.

ANSWER: (Ray) Allen

12. Geometry/Trigonometry (30 Seconds)
Find the slope of a line if the slope is positive and the angle between the line and the x-axis is sixty degrees.

ANSWER: Root 3

13. Nonfiction
He criticized people who misuse economic theories in the book Peddling Prosperity, and he wrote a book labeling the 1990s as The Age of Diminished Expectations. His newspaper columns were collected into a book called The Great Unraveling, and he explored the 20th Century history of income inequality in The Conscience of a Liberal. Name this economics professor at Princeton University who writes a column for The New York Times and was recently awarded a Nobel Prize.

ANSWER: (Paul) Krugman (be lenient with pronunciation; it’s actually KROOG-man)
14. British Literature
The main character in this play is the daughter of a deceased famous doctor. She learned enough from him to be able to cure the King of France, and, though she is a commoner, she is in love with Count Bertram. Bertram agrees to marry her if she can get his ring and become pregnant with his child. Name this Shakespeare comedy whose title lets you know whether or not the woman was successful.

ANSWER: All’s Well That Ends Well

15. Geography/Earth Science/Astronomy
This is the type of volcano of Olympus Mons and Mauna Loa. Their eruptions are not explosive but do involve large amounts of lava. They can be a few miles wide and for the most part are built out of basalt that has hardened. Name this volcano type which is neither cinder cone nor composite.

ANSWER: Shield (Volcano)

16. Algebra (30 Seconds)
Express your answer in simple radical form. Divide the cube root of four by the sixth root of two.

ANSWER: (Square) Root (of) 2 (Prompt 2 to the one-half power)

17. Art/Architecture
Located on Bennelong Point, its construction lasted from 1958 to 1973. In 2004, a new room opened that was named after the architect, who had come back into favor after many arguments and overruns during original construction. Its forecourt is sometimes used as a performance venue, with spectators sitting on its steps, and its largest of several venues is a Concert Hall that seats over two thousand people. Name this Jorn Utzon project located in the capital of New South Wales, Australia.

ANSWER: (The) Sydney Opera House (prompt partial answers)

18. Chemistry
This molecular shape shows up in carbonyl fluoride, phosgene, and formaldehyde. It has the same steric number as the bent shape, but it has no lone pairs. A simple example of it contains boron and fluoride, in which boron has the oxidation number positive three. Give the two-word name for this shape that is sometimes composed of angles which each measure one hundred twenty degrees.

ANSWER: Trigonal Planar (prompt either half of answer)
19. United States Literature
While in New York, the protagonist in this novel rooms with an algebra teacher named Edwin Keggs and has an affair with May Wynn, whose real name turns out to be Mary Minotti. He then goes out to Hawaii and works with Tom Keefer under William De Vriess. This protagonist, Willie Keith, eventually rebels against Captain Queeg. Name this navy tale written by Herman Wouk.

ANSWER: (The) Caine Mutiny

20. World History
When he came to power, his nation was at war with three other nations. He quickly signed the Treaty of Knared and eventually agreed to the Treaty of Stolbovo and Truce of Altmark. He also began a new series of conflicts, beginning with a major victory at the Battle of Breitenfeld and ending with his death at the Battle of Lutzen in the middle of the Thirty Years War. Name this man nicknamed The Lion of the North who ruled from 1611 to 1632 over Sweden.

ANSWER: Gustav(us) Adolph(us) (the Great) (or Gustav II) (prompt partial answers)

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 scientists believe that this body of water was much larger for a short time around 5600 BCE. The rivers that empty into it include the Don, Bug, and Danube, and it is just South of the Sea of Azov. Its coast includes Yalta, which is on the Crimean Peninsula. Name this sea connected to the Sea of Marmara through the Bosporus Strait.

ANSWER: Black (Sea)

His first published novel was about a retired tailor named Joseph Schwartz who is assisted by Affret Shekt. His next book was a collection of stories tied together by Dr. Susan Calvin. He also wrote several works involving mathematician and psychohistorian Hari Seldon. Name this Soviet-born science fiction author who wrote Pebble in the Sky, The Caves of Steel, Foundation, and I, Robot.

ANSWER: (Isaac) Asimov

This country borders the Czech Republic, Germany, Hungary, Italy, Liechtenstein, Slovakia, Slovenia, and Switzerland. Name this country whose capital is Vienna.

ANSWER: Austria