

1. **This composer was a close friend and admirer of the composer of the *Night Wind* piano sonata, which was dedicated to him, and helped that composer publish his book *The Muse and the Fashion*. The *Allegro ma non tanto* first movement of one of his concertos includes two versions of the cadenza, the original being called the *ossia*. Recent recordings of that concerto typically ignore the (*) cuts which this composer authorized to be made. This friend of Nikolai Medtner wrote a set of 24 variations, of which the 18th is based on an inversion of the theme. His large hands probably allowed him to easily play the bell-like opening piano chords of his second piano concerto. For 10 points, name this composer of four piano concertos as well as *Rhapsody on a Theme of Paganini*.**
ANSWER: Sergei (Vasilievich) Rachmaninoff

2. **This man was taken to Prague after his brother was beheaded for the murder of Ulrich II. This ruler's army became one of the earliest to use arquebuses, with one for every four men. This man was shot in the back by three arrows during the Battle of Baia and had to abandon his invasion of Moldavia. Although he was not Italian, this ruler encouraged Renaissance influence and invited Italian scholars to his massive (*) royal library. This man became king after the mysterious death of Ladislaus the Posthumous. This ruler once allied with Vlad the Impaler, but later had him imprisoned after Mehmed II's invasion of Wallachia. This ruler's Black Army besieged Frederick III's capital, Vienna, in 1485. For 10 points, name this son of John Hunyadi, a Hungarian king with a raven-like nickname.**
ANSWER: Matthias Corvinus [or: Matthias I, Matyas I Hunyadi; prompt on: partial answers]

3. **Nabokov's *Invitation of a Beheading* opens with a misquotation of this author. After this author wrote a letter to Tarak Nath Das giving him advice on how to achieve Indian independence from Britain, Gandhi wrote to him asking for advice, starting a lengthy correspondence. A novella by this author begins with its protagonist eavesdropping on a conversation about marriage and love on a train. That work includes an (*) epilogue advocating sexual abstinence, while another of his works includes an epilogue critiquing the Great Man theory of history, particularly with regards to Napoleon, who appears in that novel's description of the Battle of Borodino. Characters in his longest novel include the soldier Anatole Kuragin, the philosophical Prince Andrei Bolkonsky, and Pierre Bezukhov. For 10 points, name this author of *The Kreutzer Sonata* and *War and Peace*.**
ANSWER: Leo (Nikolaevich) Tolstoy

4. **In a laboratory technique based on this assumption, a switching valve is used to suddenly introduce radiolabelled reactants to a reaction chamber under isothermal and isobaric conditions, which is then followed by measurement of the radioactivity of the products. This simplification is central to isotopic transient kinetic analysis. Briggs and Haldane derived a model of enzyme kinetics based on the (*) free-ligand assumption and this simplification, which only applies after the induction time. The Michaelis-Menten equation uses this approximation because it assumes a constant concentration of the enzyme-substrate complex. For 10 points, name this assumption which states that the rates of intermediate reactions are equal in multi-step reactions, which greatly simplifies rate laws.**
ANSWER: steady-state approximation [or: stationary-state approximation, Bodenstein approximation]

5. This man wrote three Aramaic hymns which each correspond to one of the three Sabbath meals. His actual teachings are only reflected in the writings of his chief disciple Hayyim Vital. This man developed his philosophy in the Galilean town of Safed, where he moved to learn from Moses Cordovero. He taught that the purpose of human existence was *tiqqun*, a process of mending the divine realm to its prior state. The mending process is necessary because the infinite *Ein Sof* contracted itself to create space, before concentrating a divine light into a series of vessels which shattered under the strain. This 16th century mystic drew on intensive reading of the (*) *Zohar*. For 10 points, name this Jewish mystic whose account of the creation inspired his dominant namesake variant of Kabbalah.

ANSWER: Isaac ben Solomon Luria

6. This state's legislature met to ratify the Declaration of Independence at Indian King Tavern. The series of scouting missions and skirmishes in this state in early 1777 were dubbed the forage war. The harsh conditions in the 1779 to 1780 winter encampment here nearly sparked a mutiny in the Continental Army. It was governed throughout the revolution by William Livingston. A series of American victories in this state occurred on the Ten Crucial Days. The general Hugh Mercer died at the battle which drove the British out of this state. (*) Mary Hays' work loading cannons inspired the legend of Molly Pitcher at this state's Battle of Monmouth. It was also the site of a December 26, 1776 battle where a large group of Hessian soldiers were surprised and captured. For 10 points, name this state, the site of the battles of Trenton and Princeton.

ANSWER: New Jersey

7. Aryabhata's *kuttaka* method for performing this operation literally means pulverizer. For a congruence class a modulo m , all x in a have the same value for this operation as a . Any r in a reduced residue system modulo an integer n has a value of one for this operation. According to Bézout's identity, for integers m and n , this operation yields the smallest positive number of the form $am + bn$, a and b being integers. The Chinese remainder theorem can be used to show that when this operation returns one for integers m and n , then (*) $\phi(mn) = \phi(m)\phi(n)$. The Euler totient function of an integer n returns the number of integers less than n for which this operation returns one. An elementary way to perform this operation by hand is the Euclidean algorithm. For 10 points, name this operation that, for two integers, gives the largest integer that divides both integers.

ANSWER: GCD [or: greatest common divisor, HCF, highest common factor]

8. A song with this name compares thunder pounds to a million elephants and silverback orangutans. That song with this name ends with a choir chanting Power music, electric revival. A rapper with this name proclaims Just give me six strings and a half stack in his guest role on Jessie J's Price Tag. That rapper included the line I kick it like Adidas, flowin' sticky like adhesive in a song in which (*) Rivers Cuomo sings I've got the magic in me. The line Don't pull the thang out, unless you plan to bang appears in an OutKast song with this name. For 10 points, give this three-letter stage name adopted by a rapper who accompanied Hayley Williams on a song that begins Can we pretend that airplanes in the night sky are like shooting stars?

ANSWER: B.O.B. [during the first two sentences, accept: Bombs Over Baghdad ; after the first two sentences, anti-prompt on: Bombs Over Baghdad]

9. **A character mentally rewrites one of these works to include himself as a bellboy who takes care of a woman who is dying of illness in a hotel. In a fictional one of these works set during the Nazi occupation of France, a woman is shot by resistance forces after falling in love with a German officer. Another fictional one of these works is about a man whose first wife was turned into a (*) zombie by a witch doctor.** In a novel featuring several fictional examples of these works, the first one to be mentioned is based on one called *Cat People*. One of these works called *The Great Waltz* is the subject of an essay by Toto Casals in *Betrayed by Rita Hayworth*. For 10 points, name these works whose plots are recounted by Molina to Valentin in Manuel Puig's *Kiss of the Spider Woman*.
ANSWER: movies [or: movies from *Kiss of the Spider Woman*, movies from *Betrayed by Rita Hayworth*, obvious equivalents]

10. **This thinker compared the effects of the Treaty of Versailles to the curse of Atreus in a lecture calling Versailles and the development of cybernetics the two historic events of the 20th century. One of his books includes metalogues with titles like Why Do Frenchmen? and Why a Swan? He described complementary and symmetric forms of a process by which social divisions are created. This man organized a project whose research found that communication problems in (*) schizophrenia were often due to double binds, and coined the term schismogenesis. He did anthropological fieldwork in Bali with his wife, and earlier in New Guinea, which led to the book *Naven*.** For 10 points, name this author of *Steps to an Ecology of Mind* and husband of Margaret Mead.
ANSWER: Gregory Bateson

11. **This poet wrote that arms with hands grasping seek to clutch at the prows in a poem in which the title vessels contend in a sea which the land partly encloses. This poet was inspired by watching the America's Cup to write The Yachts. He wrote that All women are not Helen, I know that, but have Helen in their hearts in a poem which also includes the line I was cheered when I came first to know that there were flowers also in hell. Another of his poems opens (*) by the road to the contagious hospital under the surge of the blue.** Kenneth Koch parodied this man with a poem beginning I chopped down the house that you had been saving to live in next summer. I am sorry, but it was morning, and I had nothing to do. For 10 points, name this modernist American poet of *Spring and All* and *Asphodel That Greeny Flower*, who also wrote the lines so much depends upon a red wheelbarrow.
ANSWER: William Carlos Williams

12. **In a film by this director, a father's final advice to his son is to be merciful, because without mercy, man is like a beast. In that film by this director, a scene in which a brother and a sister gather straw to build shelter for a dying woman recalls an earlier scene in which they built a shelter with their mother. Those siblings are captured and sold to the title character as slaves. In another film by this director, two couples take a (*) fog-bound trip across a lake, where they are warned by a dying man about pirate attacks. That film by this director, in which Tobei is obsessed with becoming a samurai, ends with a potter being visited by the ghost of his wife, who had been stabbed by one of Oda Nobunaga's soldiers.** For 10 points, name this director of *Sansho the Bailiff* and *Ugetsu*.
ANSWER: Kenji Mizoguchi

13. These symbols are used to denote a version of the Poynting vector equal to half the real part of the cross product of the E-field and conjugate of the H-field. In many statements of the virial theorem, the total kinetic energy is denoted with these symbols and a T because they represent the ensemble average of a variable. These symbols and vertical bars are used in a notation that allows one to work with states without specifying a (*) basis. They're also used to symbolize a time average and, in quantum mechanics, the expectation value. They're also used to denote the operation that is a generalization of the dot product. For 10 points, name these punctuation marks that symbolize the inner product, are used in Dirac's bra-ket notation, and are not parentheses, square brackets, or curly braces.

ANSWER: angle brackets [or: chevrons, broken brackets, brackets, greater than and less than signs, answers made with hands; prompt on: brackets]

14. This organization was embarrassed by the revelation that it planted underwater mines on Italian ships for Jewish refugees, the aptly-named Operation Embarrass; it also suffered when one of its employees drowned in the Crabb Affair. Two operatives for this organization were captured in Cafe Backus as fall-men for an assassination attempt on Hitler during the Venlo Incident. An ostensible member of this organization later wrote the autobiography *My Secret War*, and secretly joined Donald (*) Maclean and Guy Burgess to betray his country. The head of this organization's anti-Soviet section was Kim Philby, a Soviet agent in the Cambridge Spy Ring. For 10 points, name this British intelligence agency.

ANSWER: MI6

15. According to Plato and Pausanias, this was the only region of Greece that practiced human sacrifice, specifically at a temple of Zeus in the mountains. This region uniquely worshiped Demeter's daughter Despoina, whose mysteries were at Lycosura. This region's name derives from a son of Zeus and Callisto hidden here when Hera made Callisto a bear. A king of this region murdered his son Nyctimus and became the first (*) werewolf. In the *Metamorphoses*, Zeus decides to flood the world because this region's king, Lycaon, serves him human flesh. Its most famous resident made a set of pipes out of the transformed nymph Syrinx. For 10 points, name this mountainous region of the Peloponnese home to Pan, a creepily violent place usually depicted as a pastoral utopia.

ANSWER: Arcadia

16. A bull, a rabbit, an elk, and a cat are sitting at this figure's feet in an engraving in which another figure has a mouse sitting at his feet. In one painting, this figure appears below a depiction of a niche containing a relief of a man about to club another man. This woman appears in the top left corner of Fra Angelico's *Annunciation of Cortona*. She also appears in the painting *Spring*, from (*) Nicolas Poussin's *Four Seasons* series. This woman is directly to the right of a group of music-making angels, one of whom is playing the organ, in the Ghent Altarpiece. This woman cries as a red-clad angel hovers over her brandishing a sword in a fresco by Masaccio. For 10 points, name this woman who is depicted in the *Expulsion from the Garden of Eden*.

ANSWER: Eve

17. This author wrote the screenplay for Derek Jarman's film *Wittgenstein*. This man's criticism of the New Atheists includes a lecture subtitled *Is Belief in Richard Dawkins Necessary for Salvation?* and a book which collectively refers to Christopher Hitchens and Richard Dawkins as *Ditchkins*. Martin Amis's comments about Islamism started a feud with this man, who insulted Kingsley Amis in the preface to a new edition of his book (*) *Ideology*. His magnum opus is dedicated to Charles Swann and his teacher Raymond Williams, and begins by discussing *The Rise of English*. That 1983 book is a survey of literary theory from the Romantics to postmodernism. For 10 points, name this British Marxist literary critic who wrote *Literary Theory: An Introduction*.

ANSWER: Terence Francis Terry Eagleton

18. **The Gilchrist Letter outlined a plan to overthrow this man. This leader's country was sanctioned by the IOC for denying Taiwan and Israel entry into the 1962 Asian Games. Growing tensions with the United States prompted this man to declare "Go to hell with your aid." A speech by this man describes a year of living dangerously. This man, whose country engaged with a northern neighbor during the (*) Konfrontasi, was almost overthrown by the 30th of September Movement. This man, who held a meeting of newly independent states at Bandung, was a proponent of guided democracy and was assisted by Vice President Mohammad Hatta. For 10 points, name this supporter of the Non-Aligned Movement and the first President of Indonesia.**

ANSWER: Sukarno

19. **A man named Joseph Clifford Reel crashed a Jeep in his attempt to accomplish this action to spray paint a "Don't Tread on Me" snake on his target. In September 2014, this action was done by a man donning a Pikachu hat. The increased frequency of these actions caused Julia Pierson to resign. Videos of Dominic Adesanya's attempt at this action show him (*) kicking a dog. A man who succeeded in doing this action, Omar Gonzalez, was found with a knife and multiple weapons and ammunition in his nearby car. Most people who perform this action are arrested on the North Lawn after jumping a fence. For 10 points, identify this action that causes headaches for the Secret Service, in which people try to unlawfully break into the presidential residence.**

ANSWER: intruding into the White House [or: jumping the White House fence, obvious equivalents]

20. **The adenosine receptor reversine reverses this process in muscle cells. This process can be reversed by using Yamanaka's cocktail. Drosophila photoreceptor R8 cells induce this process in R7 cells via the release of sevenless ligand. MicroRNA-134 promotes this process by interfering with the translation of NANOG. SALL4, OCT4, and SOX2 are transcription factors that prevent this process from occurring. In human development, this process first occurs after (*) cleavage. Meristematic cells undergo this process, as do multipotent, pluripotent, and totipotent cells. For 10 points, name this process by which cells specialize into other cells or tissues.**

ANSWER: cellular differentiation

1. A Sofia Coppola movie is based on this author's biography of Marie Antoinette. For 10 points each:

[10] Name this author, who won the James Tait Black Memorial Prize for her biography of Mary, Queen of Scots. She also wrote a series of novels about the detective Jemima Shore.

ANSWER: Lady Antonia (Margaret Caroline) **Fraser** [or: Antonia Margaret Caroline **Pakenham**; *accept, but do not otherwise reveal*: Antonia **Pinter**]

[10] Antonia Fraser was married to this author of pause-filled plays like *Betrayal* and *The Birthday Party*.

ANSWER: Harold **Pinter**

[10] Pinter's plays are often referred to as this kind of comedy, a play on the term "comedy of manners." Irving Wardle coined this term, which he took from the subtitle of David Campton's play *The Lunatic View*.

ANSWER: comedy of **menace**

2. By Schützenberger's theorem, a rational language has this property if and only if its syntactic monoid is finite and aperiodic. For 10 points each:

[10] Identify this property of certain regular languages that are definable with first order logic because they can be described by a regular expression constructed only from their alphabet, the empty set, and boolean operators.

ANSWER: **star-free** [or: they **don't use** the Kleene **star**, obvious equivalents]

[10] This computer scientist showed that the monadic second-order theory of the infinite binary tree is decidable. The landscape of automata theory was changed forever upon the publication of the paper "Finite Automata and Their Decision Problem," by this dude and Dana Scott.

ANSWER: Michael O. **Rabin** [or: Michael Oser **Rabin**]

[10] The Rabin-Karp string searching algorithm uses this type of function that maps strings of any length to a value of fixed length. The MD5 example of these functions is commonly used as a sort of digital fingerprint for a file.

ANSWER: **hash** functions

3. This painter is said to have died laughing because the old woman who commissioned a painting of Aphrodite insisted on posing for it. For 10 points each:

[10] Name this ancient Greek painter from Heraclea who lost a contest to Parrhasius, according to Pliny. In that contest, this man painted grapes so realistic that birds pecked at them.

ANSWER: **Zeuxis**

[10] Zeuxis lost the contest because Parrhasius painted one of these things so realistic it tricked Zeuxis. A red one of these things takes up most of the top right of *Parson Weems Fable* by Grant Wood.

ANSWER: a **curtain**

[10] Zeuxis couldn't find a woman beautiful enough to model for this mythological character, so he used the best features of five models. She is often depicted on the ramparts of Troy.

ANSWER: **Helen** of Troy

4. Note to moderator: In the third part of this bonus, you should make sure to indicate the presence of quotation marks around the first instance of *P*.

Many forms of this type of logic make use of an operation called a t-norm. For 10 points each:

[10] Name this type of many-valued logic which, as its name indicates, recognizes degrees of truthfulness, rather than simply true and false.

ANSWER: **fuzzy** logic

[10] Jan Lukasiewicz introduced a three-valued logic to deal with the problem of future contingents, which was first discussed by Aristotle. Aristotle gave the example of a sentence about one of these events taking place tomorrow.

ANSWER: a **sea-battle** [or: obvious equivalents]

[10] The Lukasiewicz logic was generalized to an infinity-valued logic with the help of this Polish philosopher. His semantic theory of truth makes use of Convention T, which requires that *P* is true if and only if *P*.

ANSWER: Alfred **Tarski** [or: Alfred **Teitelbaum**]

5. Answer the following about the amazing adventures of Alexander von Humboldt, for 10 points each.

[10] Humboldt and his buddy Aimé Bonpland discovered that the flooded Rupununi savanna may have inspired stories of Lake Parime, the site of this legendary city of gold that eluded many explorers, including Walter Raleigh.

ANSWER: **El Dorado** [or: **Maná**]

[10] In Cuba, Humboldt and Bonpland met a plant collector with this last name who worked for the Romanovs. Another man with this last name explored much of British Columbia, which is why British Columbia's chief river is named for him.

ANSWER: **Fraser** [or: John **Fraser**, Simon **Fraser**]

[10] Humboldt climbed to an altitude of over 19,000 feet, a record at the time, on this volcano whose summit marks the point on Earth's surface farthest from the Earth's center.

ANSWER: **Chimborazo**

6. The danger of these phenomena comes from their super-duper large increase in amplitude as the depth of water gets shallower, a general process called wave shoaling. For 10 points each:

[10] Identify these waves that have such a long wavelength that they're shallow water waves even in the deep ocean.

ANSWER: **tsunamis** [or: **harbor waves**; prompt on: **tidal waves**]

[10] The way waves break depends mostly on the slope of a beach and a wave's steepness. You're probably most familiar with this type of breaking wave, in which the crest of a wave moves much faster than the trough, creating a spectacular open curl. It's in a different regime than spilling and surging breakers.

ANSWER: **plunging** breaker

[10] The region where waves break is known by this name. Beyond this region, waves continue onto a beach at reduced height as swash.

ANSWER: **surf** zone

7. A somewhat popular textbook about these systems was authored by Michael Worboys and Matt Duckham. For 10 points each:

[10] Name this type of computer-based system used to display, capture, manipulate, model, and analyze spatial location data.

ANSWER: **GIS** [or: **geographic information** systems]

[10] This software package offered by ESRI is one of the most popular GIS programs. Its three levels of functionality used to be named View, Editor, and Info.

ANSWER: **ArcGIS**

[10] Though it wasn't known as GIS at the time, John Snow's map of the outbreak of this disease, which allowed him to track it to an infected water pump, is considered by some to be an early application of the ideas behind GIS.

ANSWER: **cholera**

8. According to one poem, hope is the thing with feathers that perches in this thing. For 10 points each:

[10] Name this thing which selects her own Society in another poem.

ANSWER: the **soul**

[10] The Soul selects her own Society is by this American poet of Because I Could Not Stop for Death.

ANSWER: Emily **Dickinson**

[10] In the second stanza of The Soul selects her own Society, the soul is said to be unmoved at chariots pausing at her gate and unmoved by one of these people kneeling upon her mat.

ANSWER: **emperor**

9. This country's capital is home to Iceland Square, honoring the fact that Iceland was the first country to recognize its independence. For 10 points each:

[10] Name this country, whose capital was the northern end of a massive human chain in 1989. A quarter of its population gathered at a Pop Music Festival in Tartu, kicking off the Singing Revolution.

ANSWER: **Estonia** [or: **Eesti**]

[10] The Singing Revolution was one of many that contributed to this event, which finally happened on December 26, 1991. In its aftermath, the Commonwealth of Independent States was formed and Boris Yeltsin took power.

ANSWER: the **fall** of the **Soviet Union** [or: obvious equivalents; *in place of Soviet Union*, *accept: USSR, CCCP*]

[10] A group named after this city placed flowers at the base of Latvia's Freedom Monument. Albania was the only country to avoid signing an agreement named for this city, which also names a set of principles that expanded upon the Nuremberg Code for human experimentation.

ANSWER: **Helsinki**

10. Notational conventions used when representing the background in this method include marking each note of the *Urfur* line's descent with caretted numbers. For 10 points each:

[10] Name this method of musical analysis which posits that music is a hierarchical structure in which musical events are elaborated by others in a recursive fashion, beginning with the *Ursatz*.

ANSWER: **Schenkerian** analysis [or: **Schenkerian** theory]

[10] A common piece analyzed in introductions to Schenkerian analysis is the *Prelude in C major* from this Bach work. It includes preludes and fugues in all 24 major and minor keys.

ANSWER: *The Well-Tempered Clavier* [or: **WTC**, *Das Wohltemperierte Klavier*]

[10] A great rendition of the WTC is by Pierre Hantaï, who played harpsichord for the music of *Tous les Matins du Monde*, a film that followed the life of this viola da gamba composer, who studied under Monsieur de Sainte-Colombe and was patronized by Louis XIV.

ANSWER: Marin **Marais**

11. Answer the following about the contributions of physicist Maria Goeppert-Mayer, for 10 points each.

[10] Goeppert-Mayer proposed that a molecule could simultaneously absorb two of these particles, each with energy $h c / \lambda$, causing the molecule to be excited to a higher state than by a single one of them.

ANSWER: **photons**

[10] Goeppert-Mayer proposed this process, in which atomic mass stays the same and atomic number increases by two. If a form of this process existed, then at least one neutrino flavor would be a Majorana particle and have a nonzero rest mass.

ANSWER: **double beta decay** [or: neutrinoless **double beta decay**, **two beta two nu**, **two beta zero nu**, zero nu **two beta**; do not accept: beta decay]

[10] Goeppert-Mayer's work on magic numbers of nucleons led her to work on this model of the nucleus, with a key breakthrough coming when Enrico Fermi suggested she consider spin-orbit coupling.

ANSWER: nuclear **shell** model

12. A member of this race named Sreng cut off Nuada's hand at the Battle of Maighe Tuireadh, requiring Nuada to find a replacement silver hand. For 10 points each:

[10] Name these men of bags described in the *Book of Invasions*, an ethnic group that invades Ireland from Spain before being expelled by the Tuatha de Danaan.

ANSWER: the **Fir Bolg**

[10] At the Second Battle of Maighe Tuireadh, this member of the Tuatha de Danaan uses a slingstone to kill the Fomorian Balor. This Irish god of light is the father of Cuchulain.

ANSWER: **Lugh**

[10] After their defeat at Maighe Tuireadh, some members of the Fir Bolg flee to this province of Ireland. In another myth, its champion Ferdiad duels his foster-brother Cuchulain.

ANSWER: **Connacht**

13. Sun Yat-sen composed his Three Principles of the People after being inspired by this line, which has been incorporated into the Constitution of France. For 10 points each:

[10] Give this nine-word description of the kind of government that Abraham Lincoln said would not perish from the earth in the Gettysburg Address.

ANSWER: government **of the people, by the people, for the people**

[10] Martin Luther King declared that the arc of the moral universe is long, but it bends toward justice at the conclusion of the march from this Alabama city to Montgomery.

ANSWER: **Selma**

[10] Both of the above phrases were taken from the writings of this abolitionist who was a member of the Secret Six that aided John Brown.

ANSWER: Theodore **Parker**

14. The protagonist of this story drops his hat to trick his enemy into thinking he has been shot. For 10 points each:

[10] Name this short story by Liam O'Flaherty, whose title character discovers that he has shot his own brother.

ANSWER: The **Sniper**

[10] The Sniper takes place in this city, which is also the setting for James Joyce's stories *The Sisters* and *The Dead*.

ANSWER: **Dublin**

[10] In *The Dead*, Gabriel Conroy is devastated when his wife Gretta tells him that hearing the song *The Lass of Aughrim* reminds her of this character, who she was in love with in her youth.

ANSWER: **Michael Furey** [accept either name]

15. She scored a goal at minute 117 to force a penalty shootout in the 2011 FIFA Women's World Cup Final. For 10 points each:

[10] Name this attacking midfielder who leads Japan in international caps and goals.

ANSWER: Homare **Sawa**

[10] Sawa's team lost the 2015 Women's World Cup when this American midfielder scored three goals in the first sixteen minutes of the final.

ANSWER: Carli Anne **Lloyd**

[10] Carli Lloyd plays for the Dash, a soccer team in this city which is also home to the teams that employ J. J. Watt and James Harden.

ANSWER: **Houston**, Texas

16. Livy writes that after this city was captured, Fabius Maximus appeared before the Carthaginian Senate, made a fold from his toga, and asked if they would have peace or war. For 10 points each:

[10] Name this city in Hispania which technically lay in Carthaginian territory, but had a treaty of friendship with Rome. The 219 B.C. capture of this city kicked off the Second Punic War.

ANSWER: **Saguntum**

[10] Saguntum was taken by this master Carthaginian general, who proceeded to march his army over the Alps.

ANSWER: **Hannibal** Barca

[10] Hannibal was able to cross the Pyrenees without Roman harassment because of his alliance with this Gallic tribe, which rebelled in Italy along with the Insubres. After the 193 B.C. Battle of Mutina, they fled northward and lend their name to a region of central Europe.

ANSWER: the **Boii** [the region of Europe is Bohemia]

17. Tormas, the large sculptures made from this material, are crafted for months only to be displayed for a one-day festival on the fifteenth day of the first lunar month. For 10 points each:

[10] Name this material which is mixed with colored powder and flour by Tibetan artists.

ANSWER: **butter**

[10] Another Tibetan artistic tradition involves using colored sand to make these round symbols which are ritually destroyed.

ANSWER: **mandala**

[10] Another Tibetan art form is this kind of decorative writing, which is done with a reed pen rather than the brush traditionally used in China or Japan.

ANSWER: **calligraphy**

18. This structure is observed in the C/EBP, Fos, and Jun proteins. For 10 points each:

[10] Name this DNA-binding structural motif in which two amphipathic alpha-helices are dimerized to form a coiled-coil. Proteins with this motif grip DNA like a clothespin.

ANSWER: **leucine zipper** motif [or: **ZIP**]

[10] This DNA-binding structural motif was the first to be identified as involved in a protein's ability to bind to the major groove of DNA. It consists of two alpha helices connected by a short chain of amino acids.

ANSWER: **helix-turn-helix** motif [or: **HTH** motif]

[10] The helix-turn-helix motif was discovered in the cro, cI, and lac repressors of the lambda phage, which infects this bacterium. This bacterium is one of the most widely used model organisms in biology.

ANSWER: **E. coli** [or: **Escherichia coli**]

19. This ritual includes a recital of the story of Adam and Eve and the making of a series of covenants. For 10 points each:

[10] Name this ordinance which also includes ritual washing and anointing and which is often first undertaken before a two-year mission trip.

ANSWER: **endowment**

[10] The endowment is one of the temple ordinances of this religion which was founded by Joseph Smith.

ANSWER: **Mormonism** [or: **Latter Day Saints** movement]

[10] The first endowment occurred in the Red Brick Store in this Illinois city, where Joseph Smith was mayor at the time of his death.

ANSWER: **Nauvoo**

20. In a much-debated passage in this scene, a priest calls the Catalan romance *Tirant lo Blanch* the best book in the world. For 10 points each:

[10] Name this event in which a group of people including a housekeeper and a barber try to destroy the source of a character's obsession with chivalry while he is asleep.

ANSWER: the **burning** of Don **Quixote's books** [or: anything indicating Quixote's books are getting destroyed]

[10] Naturally, one of the books which is spared is *La Galatea*, a pastoral novel by this author, who coincidentally also wrote *Don Quixote*.

ANSWER: Miguel de **Cervantes** Saavedra

[10] Quixote's library also includes this pastoral romance by Jorge de Montemayor and its continuation by Gil Polo. It is the main source for the plot of *The Two Gentlemen of Verona*.

ANSWER: *The Seven Books of the* **Diana** [or: *Los siete libros de la* **Diana**]