2016 "stanford housewrite"
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FINALS 2

TOSSUPS

1. A man in this story complains about "driving through Eternity in a timeless taxi," whose sinister driver went faster the more the man knocked. The protagonist of this story wonders what to do when one has "swallowed a bright piece of that late afternoon sun and it burned in your bosom," before comparing herself to a "rare, rare fiddle." That woman has a daughter named Little B, who is looked after by Nurse and Nanny. Another character in this story claims that Bilks' new poem, *Table d'Hôte*, is "so deeply true" with its description of "dreadfully eternal" tomato soup. The protagonist of this story speaks with (*) Eddie Warren and stares at her garden's pear tree when thinking about an attractive woman she has invited to her dinner party. At the end of this story, the protagonist spies on Harry flirting with Pearl Fulton as he walks her to a cab. For 10 points, name this story in which Bertha Young's realization of her husband's infidelity ruins the title emotion, written by Katherine Mansfield.
ANSWER: "**Bliss**"

2. Nobles in this country were divided into the greater *mtavari* and lesser *aznauri* under a feudal system called *patronqmoba*. One ruler of a kingdom based in this country built his capital where a falcon and pheasant fell into a hot spring, as described in Juansher's quasi-historical biography of Vakhtang the Wolf Head. Another ruler of that kingdom based in this country allegedly went blind during a hunt and did not regain his sight until he prayed to God, after which he converted to Christianity under the direction of St. (*) Nino. The Qajars sacked this country's capital after winning the Battle of Krtsanisi against two rulers from this country, Solomon II of Imereti and Heraclius II of Kartli-Kakheti. This country reached its greatest territorial extent under Queen Tamar, the great-granddaughter of David the Builder and a member of the Bagrationi family. For 10 points, name this country that contained the kingdoms of Iberia and Colchis, as well as recent breakaway states Abkhazia and South Ossetia.
ANSWER: **Georgia**

3. All of the lines in an Act I aria from this opera end in words that rhyme with "ack," like "click clack" and "crick crack." A film version of this opera added more dance numbers to accommodate the talents of its female lead, Moira Shearer. After a beautiful girl walks into a tavern, the male lead gets distracted from telling the story of an ugly dwarf from the court of Eisenach. The 1951 film adaptation of this opera by (*) Powell and Pressburger made a female character a ballerina rather than a soprano performing in *Don Giovanni*. Act III of this opera opens with characters singing a 6/8 duet with the opening line "Belle nuit, o nuit d'amour." This opera, which contains a song about Kleinzach the Dwarf, ends with Nicklausse revealing himself to be a Muse. Traditionally, a single soprano sings the parts of Giuletta, Antonia, and Olympia. For 10 points, name this opera that contains a famous "Barcarolle," a work by Jacques Offenbach about the German author of *Der Sandmann*.
ANSWER: The *Tales of **Hoffmann*** [or Les *contes d'**Hoffmann***]

4. This character is attacked by creatures who climb trees and defecate on him. In the last chapter of the novel he appears in, this character lets his wife dine with him but stuffs his nose with lavender and tobacco leaves to mask her scent. A king tells this man that "the Bulk of your Natives" are "the most pernicious race of little odious vermin that nature ever suffered to crawl upon the surface of the earth." This character's writings are organized by his distant cousin Richard Sympson. After returning (*) home, this man avoids people and spends his time talking to horses in a stable. A Portuguese ship captained by Pedro de Mendez rescues this man after he is kicked out of a nation that enslaves a humanoid race. Earlier in the novel he appears in, this character wakes up on a beach to the discovery that he has been tied down by tiny people. For 10 points, name this character who encounters the Houyhnhnms and the Lilliputians in a Jonathan Swift novel about his *Travels*.
ANSWER: **Lemuel** **Gulliver** [accept either name]

5. **A proponent of this framework developed the differential association theory of deviance and defined the notion of white-collar crime. This framework outlines a method by which people frame social situations known as the "definition of the situation." A thinker associated with this framework divided the types of objects people encounter into physical, social, and abstract types. That man, Herbert Blumer, coined the name for this framework. Charles (*)** Cooley's notion of primary and secondary groups influenced the development of this framework. A different proponent of this framework used the example of a dog-fight to illustrate his concept of a "conversation of gestures." That thinker also defined the socialized aspect of a person and the active aspect of a person as the "me" and "I" respectively. That man's lectures were compiled in the book *Mind, Self, and Society*. For 10 points, name this sociological framework pioneered by George Herbert Mead.
    ANSWER: **symbolic interactionism**

6. **A woman who married into this family commissioned a ballad accusing the Queen of "dark Deeds at night," insinuating that the Queen was a lesbian. That member of this family called herself "Mrs. Freeman" while using the petname "Mrs. Morley" to refer to her Queen. Another member of this family was the mistress of James II while serving as lady-in-waiting to his wife, Anne Hyde. The first-mentioned member of this family was replaced by Abigail Masham in power, while her husband was an ally of Lord Godolphin and asked Sir John Vanbrugh to (*)** design a massive palace in Woodstock that he been rewarded for a recent victory. That man from this family had earlier won the Battle of Sedgemoor against the Duke of Monmouth and was married to Sarah Jennings, the favorite of Queen Anne. He also forced Bavaria out of the War of the Spanish Succession at the Battle of Blenheim. For 10 points, name this family of the Duke of Marlborough and his famous descendant, Winston.
    ANSWER: **Churchill** [accept **Marlborough** early; accept Spencer-**Churchill**; do not accept "Spencer"]

7. **Some of these objects evolve too slowly to ever become bright enough for observation, which Alvio Renzini dubbed their "lazy" variety. Majaess et al. made a precise calculation of the distance to one of these objects named PHR 1315-1655 by showing that it is part of the open cluster Andrews-Lindsay 1. Microstructures in these objects include supersonic jets with point or major-axis symmetry, respectively called BRETs and (*)** FLIERs. These objects exhibit a strong emission line at 500.7 nanometers due to a forbidden transition of doubly ionized oxygen. For a Sun-like star, the evolutionary stage named for these objects has a duration on the order of tens of thousands of years and occurs in between the asymptotic giant branch and white dwarf stages. For 10 points, name this type of nebula that consists of the ionized outer layers of a red giant and has a misleading name.
    ANSWER: **planetary nebula**e [or **PN**e; prompt on "(emission) nebulae"; do not accept "protoplanetary nebulae"]

8. **One book about this practice is divided into a section "for Yahoos" and a section "for Yellowbellies." Another book about this practice calls it "a living fossil, an archaic modality of spirituality that has survived nowhere else" and argues that its objective is "enstasis," which enables "anticipatory death" followed by "initiatory rebirth." That book about this practice is subtitled *Immortality and Freedom* and is by Mircea Eliade. *Samkhya* is the atheist counterpart to the school of *astika* philosophy named for this practice, which affirms the existence of the (*)** personal deity Isvara and is based on the sutras of Patanjali. The three classical forms of this practice are the "path of knowledge," "path of devotion," and "path of action." The "eight limbs" of this practice include *pranayama* and *asana*, the latter of which is central to its *hatha* variety and is exemplified by the Sun Salutation. For 10 points, name this Hindu practice that has been adapted into a form of exercise.
    ANSWER: **yoga**

9. **In one of this author's plays, a prostitute named Myra dies during a German air raid as she lights a cigarette on a bridge. Earlier in that play, she accepts a marriage proposal from a naïve Canadian soldier named Roy. This author of *Waterloo Bridge* also wrote a work in which Pittaluga hires an American named Don to put on winter sports activities for his guests. In that play, the male lead falls in love with a woman he believes to be a Russian countess from a previous romantic encounter and is the leader of a group of (*)** blonde dancers. That play by this author ends with Harry and Irene deciding to stay in a Swiss hotel that gets bombed. The female lead of another play by this author is obsessed with Francois Villon and dreams of moving to France, which prompts Duke Mantee to murder Alan Squier. In that play, the Chisholm family becomes trapped at the Black Mesa BBQ. For 10 points, name this American playwright of *Idiot's Delight* and *The Petrified Forest*.
    ANSWER: Robert Emmet **Sherwood**

10. **The best-known climbing route up a peak in this mountain range was discovered when its namesake, Glenn Exum, impulsively jumped over a chasm. A peak in this range appears to have an abnormally flat summit due to a basalt intrusion called the Black Dike. Tourists in this mountain range can take the tram up Rendezvous Mountain or visit a nearby historical homestead site, "Mormon Row." A peak in this range is named after the painter Thomas (*)** Moran. This mountain range, whose three highest peaks are collectively known as the Cathedral Group, provides the backdrop to the "most photographed barn in America." The John D. Rockefeller, Jr. Parkway travels parallel to this mountain range, whose highest point is colloquially referred to as "the Grand." For 10 points, name this mountain range located north of Jackson Hole and south of Yellowstone in Wyoming.
ANSWER: **Teton** range

11. **This feature contains the highest, superior, and inferior nuchal lines. One bone in this feature contains a pyramid-shaped "petrous part" that is among the densest in the body. To measure the length of this feature, one sets its most anterior point to be a depression called the glabella. One bone in this structure features a ridge called the crista galli and may contain a small amount of vestigial magnetite. Soft regions of this structure that disappear after early development are known as (*)** fontanelles. The foramen magnum is a large hole in this structure, whose synarthrotic fibrous joints are known as "sutures." This feature includes the ethmoid, temporal, parietal, and occipital bones, and inside its namesake "vault" lies features like the dura mater, the corpus callosum, and the hippocampus. For 10 points, name this domed part of the human skull that encases the brain.
ANSWER: human neuro**cranium** [prompt on "skull" until mentioned; antiprompt on "occipital" bone; antiprompt on "calvaria" or "skullcap" until "petrous"]

12. **While watching giant waves that he compares to "mountains," the protagonist of this work wonders if he is dreaming, and then asks "Is all our life nothing but an empty dream, heaven's jest?" This work ends with the discovery of the protagonist's "cold corpse" on a house floating in a river. This poem, which opens with the description of a man standing "on a shore washed by desolate waves," reaches its climax after the protagonist says, "All right, then, wonder-worker, just you wait!" The protagonist of this work survives a sudden (*)** flood by climbing onto a marble lion in the city square where he had been sleeping. In this narrative poem, the protagonist becomes a homeless madman because his beloved, Parasha, died in a flood of the Neva River. This work ends with Yevgeni cursing an object that suddenly awakens and chases him around St. Petersburg. For 10 points, name this Alexander Pushkin poem in which an equestrian statue of Peter the Great comes to life.
ANSWER: "The **Bronze Horseman**: A Petersburg Tale" [or "**Mednyi Vsadnik**"]

13. **The author of this essay lauds Benjamin Constant for examining the central conflict better than anyone else. One section of this essay uses the examples of a man who flees from his enemy and a man who decides to sever his own wounded leg to illustrate the idea of escaping pain through ascetic denial. Another section theorizes that Kant's severe individuality and notion of rational self-direction may lead to a state of despotism comparable to the temple of (*)** Sarastro. The author of this essay ultimately champions the goals of pluralism over the ideals of those who seek what the author terms "self-mastery," a concept that is identified with one of the title concepts. The first section claims that one sense of the title concept is concerned with when we may interfere with an individual's freedom, while another sense is concerned with the source that governs that freedom. For 10 points, name this essay by Isaiah Berlin that defines "positive" and "negative" types of the title phenomenon.
ANSWER: *Two Concepts of Liberty*

14. **One type of these phenomena is subject to Onsager-Feynman quantization and is the product of a phase discontinuity between the "zero" and "pi" regions of a long Josephson junction. In another type of these phenomena, the B-field is proportional to a zeroth-order Bessel function of the quotient of radial distance and London penetration depth. The Lamb-Oseen model describes dissipative effects in these phenomena, which can produce oscillations with frequency proportional to the (*)** Strouhal number. Type II superconductors exhibit a magnetic variety of these phenomena named for Abrikosov. For 10 points, Helmholtz's theorems apply to fluid flows in the vicinity of what phenomena, which can form a von Kármán street and are characterized by a namesake quantity equal to the curl of the velocity field?
ANSWER: **vortices** [or a **vortex**; accept "fluxons" before "Lamb-Oseen model," but do not accept or prompt thereafter]

15. **This state granted a twenty-five year monopoly to a privately owned lottery company that funded the political machine of Charles Howard. In this state, opponents of Marshall Twitchell murdered his family and possibly as many as twenty witnesses in the Coushatta Massacre. In December 2015, a city council in this state voted to remove a monument to the occupation of government buildings by supporters of John McEnery, who did not recognize the victory of William Pitt Kellogg in the disputed 1872 gubernatorial election. In a case that arose in this state, the Supreme Court ruled that the (*)** Enforcement Act of 1870 did not allow the federal government to prosecute this state's White League in the wake of the Colfax Massacre. In this state, the Committee of Citizens orchestrated the arrest of an octoroon man holding a first-class train ticket to challenge the Separate Car Act. For 10 points, name this origin state of *Plessy v. Ferguson*, where Benjamin Butler oversaw the occupation of New Orleans.
ANSWER: **Louisiana**

16. **In an E-flat major song by this composer, the flutes play quarter note trills that represent two "dreaming" larks "soaring upward." At several points during another of this composer's works, the timpani has a rhythm that alternates between an eighth-note offbeat and two triplet-note offbeats, imitating a heartbeat. The final Moderato section of that work features theme that, in its first iteration, starts on F, goes up to B-flat, C, D, then up an octave to D, then C. Decades later, this composer quoted that theme towards the end a song inspired by a (*)** Joseph von Eichendorff poem. That song, "At Sunset," and settings of three Hesse poems are among this composer's final works and were published posthumously. This composer's friend Alexander Ritter wrote a poem to accompany one of his tone poems about the death of an artist. For ten points, name this composer of *Four Last Songs* and *Death and Transfiguration*, as well as *Also Sprach Zarathustra.*
ANSWER: **R**ichard Georg **Strauss** [prompt on "Strauss"]

17. **The formation of one of one of these compounds is the initial mechanism of the Ugi reaction, after which it is reacted with an isocyanide and a carboxylic acid. The aza modification of the Diels-Alder reaction reacts this functional group with a diene to get a tetrahydropyridine. This functional group is the intermediate in reductive amination, in which it is usually reduced using sodium cyanoborohydride. Alkenes can be reacted with** (*) hydrazoic acid to synthesize these compounds in one reaction, and they can also be created by reacting aldehydes or ketones with ammonia. These compounds share a tautomer relation with enamines, and these compounds are synthesized via the Schmidt reaction. When one of this functional group is connected to an aryl or alkyl bond, it is known as a Schiff base. These compounds can be hydrolyzed to form an amine and a carbonyl. For 10 points, name this functional group which contains a carbon double bonded to a nitrogen.
ANSWER: **imine** [prompt on "Schiff base" before mention]

18. **Lucian's *Dialogues of the Gods* includes a discussion between Zeus and Hera on what to do about this man. In a poem by Pindar, this man repeats, "Repay your benefactor frequently with gentle favors in return." Statius stated that this man's commonly-accepted father is trapped in a rock and forced to look upon a large feast for eternity, as punishment for burning down the temple to Apollo at Delphi. Homer states that this figure's son was actually the son of Zeus, who slept with his wife in the form of a stallion. This son of Phlegyas was refused purification after he committed the first (*)** kinslaying, but Zeus took pity on him and welcomed him to Olympus. After refusing to pay the bride price for his wife Dia, this man held a feast at Larissa where he pushed his father-in-law, Deioneus, onto a bed of coals. To stop this man from raping Hera, Zeus created the cloud Nephele as a decoy, leading to the birth of the centaurs. For 10 points, name this father of Pirithous who spins on a fiery wheel in Hades.
ANSWER: **Ixion**

19. **A 1946 painting set in one of these places features strings of garlands along the top of a pink and purple wall. That work shows the spectre of a black-suited politician whose face is hidden by the shadow of his umbrella, standing in front of a cruciform object. In addition to that one by Francis Bacon, works set in these locations include one in which a pikeman wearing a feathered hat rummages in his purse at the left, watching four workers in white aprons hard at work. An inverted landscape whose foreground is dominated by one of these places shows the Holy Family giving alms on the way to Egypt. Pretzels, crossed herrings, and the primary products of these stores fill the title "stall" in that painting by Peter (*)** Aertsen. Two depictions of these locations, one located in Oxford's Christ Church and the other at the Kimbell Art Museum, were created by Annibale Carracci. For 10 points, name these places whose workers are often shown cutting up cow carcasses to sell to customers.
ANSWER: **butcher shop**s [or **butcher stall**s; accept equivalents, like **meat stall**s]

20. **To solve a social debate over prohibition, this country assigned each citizen a booklet to be stamped whenever they purchased alcohol, a setup known as the Bratt System. A failed general strike in this country in 1909 led to the formation of the syndicalist SAC by former members of the LO trade union. Legal majority at the age of 25 was granted to all women in this country after the publication of the novel *Hertha* by a writer known as this country's Jane Austen, Fredrika Bremer. This country saw many reforms under its first prime minister, Louis Gerhard (*)** De Geer. It modernized during the reign of a king who gave up the throne of its western neighbor in 1905. This country, which was ruled by Oscar II, had originally gained control of that neighbor by the Treaty of Kiel in 1814, after which that neighbor elected this country's Charles XIII as its own king. For 10 points, name this Scandinavian country where Jean Bernadotte established its current royal house, whose rulers reside in Stockholm.

ANSWER: Kingdom of **Sweden** [accept Kingdom of **Sweden**-Norway after "Louis Gerhard"]

BONUSES

1. Name the following diagrams important in inorganic chemistry, for 10 points each:
[10] These diagrams plot the relative energies of their namesake constructs, which can be generated using the LCAO approximation introduced by Lennard-Jones. These diagrams can be used to predict whether homonuclear diatomic complexes are paramagnetic or diamagnetic.
ANSWER: **molecular orbital** diagrams
[10] These diagrams often named for a British chemist can be used to describe how changes in geometry are related to changes in molecular orbital energies. They can, for example, explain why BH_3 is planar, while NH_3 is pyramidal.
ANSWER: **Walsh** diagrams [accept **correlation** diagrams; accept **angular coordinate** diagrams]
[10] These diagrams plot the energies electronic states available to a transition metal complex versus its d-orbital splitting. They can be used for both high- and low-spin complexes, unlike Orgel diagrams, which are only valid for high-spin complexes.
ANSWER: **Tanabe-Sugano** diagrams [accept **T-S** diagrams]

2. This composer taught at the Royal College of Music along with Charles Villiers Stanford and was a major contributor to George Grove's *Dictionary of Music and Musicians*. For 10 points each:
[10] Name this composer who set William Blake's "Jerusalem" to music and composed the coronation anthem "I was glad."
ANSWER: Hubert **Parry**
[10] This other composer was an alumnus of the Royal College of Music who wrote a "masque for dancing" based on the Book of Job and *Fantasia on a Theme by Thomas Tallis*.
ANSWER: Ralph **Vaughan Williams**
[10] This Vaughan Williams symphony ends with a Passacaglia that borrows music from the "House Beautiful" scene he had intended for his then-incomplete opera *Pilgrim's Progress*.
ANSWER: Symphony No. **5**

3. This text's main sources include similar works by Jean de Mailly and Bartholomew of Trent. For 10 points each:
[10] Name this hagiographical collection by Jacobus de Voragine that was hugely popular during the Middle Ages.
ANSWER: *Golden Legend*
[10] According to the *Golden Legend*, a knight healed this saint's gout using a poultice of wheat flour, plantain juice, and cow's milk. The men carrying this saint's coffin followed a milkmaid to the site that became Durham Cathedral.
ANSWER: Saint **Cuthbert**
[10] The *Golden Legend* claims that Pope Sylvester I sealed the mouth of one of these creatures that had been living in a pit and poisoning the Roman people with its breath. St. George is often depicted slaying one of these creatures.
ANSWER: **dragon**s

4. The speaker of this poem claims "death is no different whined at than withstood." For 10 points each:
[10] Name this poem completed three years after the poet's collection *High Windows*. It begins with the line "I work all day, and get half-drunk at night," and ends with the image of postmen going "like doctors from house to house."
ANSWER: "**Aubade**"
[10] "Aubade" was written by this British poet. The statement "They fuck you up, your mum and dad" opens his poem "This Be The Verse."
ANSWER: Philip **Larkin**
[10] In a Larkin poem dedicated to this man, the speaker declares "My Crescent City is where [this person's] speech alone is understood." This person's music is compared to "New Orleans reflected on the water," and falls on the speaker "as they say love should, like an enormous yes."
ANSWER: Sidney **Bechet** [accept For Sidney **Bechet**]

5. To alleviate the famine caused by this wartime measure, the targeted nation encouraged its citizens to eat a disgusting synthetic bread called *kriegsbrot*. For 10 points each:
[10] Name this wartime measure enforced by the Northern and Dover patrols that exacerbated the spanish flu outbreak in a certain country. It continued for eight months after an armistice agreement.
ANSWER: **blockade** of Imperial **Germany** during WWI
[10] During the blockade, Germany made things harder for itself by defunding its agricultural sector to support the armaments industry, in accordance with this general's namesake programme. He appointed Adolf Hitler as Chancellor while serving as Weimar Germany's last president, and he names an ill-fated zeppelin.
ANSWER: Paul von **Hindenburg**
[10] The winter of 1917, the worst period of starvation during the blockade, was commonly given this name in Germany. This name refers to the foodstuff Germans were forced to eat after almost every other crop failed.
ANSWER: **Turnip** Winter

6. In one of this man's novels, George Tryon ends his engagement with Rena Walden after he discovers she is half-black. For 10 points each:
[10] Name this NAACP activist and author of the novels *The House Behind the Cedars* and *The Marrow of Tradition*.
ANSWER: Charles Waddell **Chesnutt**
[10] Charles Chesnutt wrote a biography of this 19th century abolitionist, who wrote about his escape from slavery in an 1845 autobiography. He also published the *North Star* newspaper.
ANSWER: Frederick **Douglass**
[10] This Charles Chesnutt short story ends with the light-skinned Ryder revealing to the Blue Veins Society that Liza Jane, the title character, was his wife when they were slaves.
ANSWER: "The **Wife of His Youth**"

7. A missionary named John Smith became an abolitionist martyr for his actions during the Demarara Rebellion of Guyanese slaves who harvested this crop. For 10 points each:
[10] Name this plant that was grown in the Caribbean and then shipped to rum refineries in New England as part of the "triangular trade" of the 17th and 18th century.
ANSWER: **sugar** cane [do not accept "molasses," which is not a plant]
[10] Peregrine Hopson led an expedition that captured this sugar-producing island from France in 1759, but Great Britain decided to return it to France in exchange for keeping control of Canada at the end of the Seven Years' War.
ANSWER: **Guadeloupe**
[10] In 1868, this sugarcane plantation owner freed his slaves and declared Cuba's independence from Spain in the Cry of Yara, thus beginning the Ten Years' War.
ANSWER: Carlos Manuel de **Cespedes** del Castillo

8. This operation makes the Schrödinger equation take the form of the heat equation. For 10 points each:
[10] Name this operation that relates path integrals in quantum mechanics to partition functions in statistical mechanics by converting between imaginary time and inverse temperature.
ANSWER: **Wick rotation**
[10] Wick rotation may also be used to transform problems in Minkowski space into problems in Euclidean space, thus making it useful in the study of this theory that explains phenomena like time dilation and Lorentz contraction.
ANSWER: **special relativity**
[10] This is the name given to the path that a pointlike object takes as it travels through Minkowski space.
ANSWER: **world line**

9. After a man informs his wife that their stillborn child was a boy, this story ends with the central couple weeping "for the things they now knew." For 10 points each:
    [10] Name this short story in which Shukumar and Shoba are forced to talk to each other because of a power outage.
    ANSWER: "A **Temporary Matter**"
    [10] "A Temporary Matter" appears in this author's short story collection *Interpreter of Maladies*.
    ANSWER: Jhumpa **Lahiri** [or Nilanjana Sudeshna **Lahiri**]
    [10] In "This Blessed Home," a short story from *Interpreter of Maladies*, Sanjeev and his assimilated wife Twinkle argue after Twinkle discovers a bunch of these objects in their attic and tries to display them during their housewarming party.
    ANSWER: **statue**s of **Jesus** Christ [or **bust**s of Jesus **Christ**; also a **statue** of the Virgin **Mary**, because they find one of those too; prompt on vague answers like "Christian paraphernalia"]

10. Afanasiy Nikitin, a merchant from this city during the reign of Prince Boris, wrote *A Journey Beyond the Three Seas* about his trip to India in the 15th century. For 10 points each:
    [10] Name this city, founded by Novgorodian traders, which later became a principality that rivaled neighbor Moscow in wealth and power until it was seized and annexed by Ivan III.
    ANSWER: **Tver**
    [10] Ivan III also conquered the Republic of Novgorod, whose government was based around this popular assembly. Its meetings could be called by ringing a bell, and it had the power to elect *posadniks*.
    ANSWER: *veche*
    [10] Ivan's wife, Zoe, was a member of this family, the last to rule the Byzantine Empire. Her uncle Constantine XI died fighting the Ottomans at the Fall of Constantinople in 1453.
    ANSWER: **Paleologus** dynasty [accept **Palaiologos** dynasty or **Paleologue** dynasty]

11. This text argues that "authority in sacred matters belongs wholly to sovereign power" and argues that the purpose of Scripture is to instill obedience in its readers. For 10 points each:
    [10] Name this text that argues that the Torah should be understood as a political constitution for ancient Israel that is now invalid because ancient Israel no longer exists.
    ANSWER: *Tractatus Theologico-Politicus*
    [10] This Jewish Dutch philosopher authored the *Tractatus Theologico-Politicus*, in addition to claiming that God is nature in *Ethics*.
    ANSWER: Baruch **Spinoza**
    [10] In *Ethics*, Spinoza espouses this principle, which states that each thing strives to preserve its being. This principle is likened to the idea of inertia since this term technically refers to an object in motion.
    ANSWER: **conatus** principle

12. This painter's *Still Life No. 35* shows a six-pack of Royal Crown Cola on a table next to two lemons, a loaf of white bread, and a pack of cigarettes, all in front of a travel advertisement featuring an airplane. For 10 points each:
    [10] Name this Pop artist whose sculpture *Dropped Bra* is a crumpled tangle of aluminum sheets shaped to look like a bra dropped on the ground. He is best-known for his *Great American Nude* series.
    ANSWER: Tom **Wesselmann**
    [10] *Great American Nude, No. 31* shows this painting hanging on a red-and-white striped wall. This painting peeks out from behind a windowed wall in *No. 35*, and was given a mustache by Duchamp in *L.H.O.O.Q.*
    ANSWER: *Mona Lisa* [or *La Gioconda*]
    [10] In *Still Life, No. 20*, Wesselmann placed a red cabinet door painted with a white star next to a work by this man. This artist of *Gray Tree* broke from his main movement because another artist had used diagonal lines.
    ANSWER: Piet **Mondrian** [or Pieter Cornelis **Mondrian**]

13. The exchange of CO_2 for O_2 in the blood occurs between the pulmonary capillaries and these structures in the lungs. For 10 points each:
[10] Name these air sacs, important for respiratory gas exchange, which expand and contract based on air pressure and become inflamed in pneumonia.
ANSWER: **alveoli**
[10] Synthesized by Type II alveolar epithelial cells, this phospholipid monolayer reduces effective surface tension and prevents smaller alveoli from collapsing.
ANSWER: lung **surfactant**
[10] The oxygen uptake of normal lungs is usually limited by this process, unless in certain situations, such as at extremely high altitudes or with heavy exercise, when uptake may become diffusion limited.
ANSWER: **perfusion**

14. The exploits of a member of this family were publicized in a largely fictionalized Stuart Lake biography. For 10 points each:
[10] Name this family that fought a blood feud with the Clantons for control of Cochise County. One of its members, Morgan, was assassinated while playing pool.
ANSWER: **Earp** family
[10] The Earp brothers were joined by Doc Holliday during a famous 1881 gunfight usually named for this Tombstone, Arizona landmark, even though it actually took place in an adjacent lot.
ANSWER: **O.K. Corral**
[10] Those who died during the O.K. Corral gunfight were buried in a Tombstone cemetery with this two-word name. This was a popular nickname for cemeteries throughout the Wild West during the late 19th century.
ANSWER: **Boot Hill** Cemetery [so named because the gunfighters "died with their boots on"]

15. This goddess hid her face in shame while committing incest with her brother to create humanity. For 10 points each:
[10] Name this goddess who used five colored stones and the legs of a turtle to repair the pillars holding up the sky.
ANSWER: **Nüwa** [or **Nü Gua**]
[10] This deity smashed his head into one of the celestial pillars after losing a battle against his father Zhu Rong.
ANSWER: **Gong Gong**
[10] In addition to repairing the sky, Nüwa slew the black dragon Xiangyou, who was responsible for one of these events. Yu the Great spent thirteen years digging canals in order to mitigate the effects of another of these events.
ANSWER: Great **Flood**

16. This composer combined modern jazz instrumentation with his country's best-known musical style to create the *nuevo* form of that style. For 10 points each:
[10] Name this bandoneon player who studied with Nadia Boulanger before revolutionizing the tango. His best known piece is the "Libertango."
ANSWER: Astor **Piazzolla**
[10] Astor Piazzolla hailed from this South American country. The tango was invented by immigrants living in this country and Uruguay.
ANSWER: **Argentina**
[10] This other Piazzolla tango was originally composed for a film adaptation of Luigi Pirandello's *Enrico IV*. In the best-known version of this tango, the bandoneon and violin trade a mournful melody that is eventually played by the full ensemble.
ANSWER: "**Oblivion**"

17. It is hypothesized that there is a "critical period" during the first years of life when this activity can occur most rapidly. For 10 points each:
[10] Name this process that Noam Chomsky theorized was aided by a "universal grammar."
ANSWER: **language acquisition** [accept equivalents, like **learning** a **language**]
[10] To support his theory of a universal grammar, Chomsky developed this argument, which states that children couldn't possibly learn natural language grammar through mere exposure to language alone.
ANSWER: **poverty of the stimulus**
[10] This psychologist argued that learning a language requires interaction with a linguistically knowledgeable adult. In addition to pioneering that social interactionist theory, this psychologist developed the notion of "scaffolding" using Vygotsky's ideas.
ANSWER: Jerome **Bruner**

18. This man compared himself to "one long soundless scream" in a poem that declares "I am every old man executed here as I am every child murdered here." For 10 points each:
[10] Name this Soviet writer whose poem "Babi Yar" was set to music by Dmitri Shostakovich.
ANSWER: Yevgeny **Yevtushenko**
[10] Yevtushenko's "Babi Yar" is often perceived as an attack on the anti-semitism of this Soviet premier. He appears in *Animal Farm* as the pig Napoleon, whose banishment of Snowball mirrors this man's purge of Leon Trotsky.
ANSWER: Joseph **Stalin**
[10] A massacre similar to Babi Yar perpetrated by Reserve Police Battalion 101, whose soldiers were offered a choice whether or not to participate in the killing, is analyzed in this Christopher Browning book. Its title alludes to the soldier's claims that they were "just following orders."
ANSWER: *Ordinary Men*: Reserve Police Battalion and the Final Solution in Poland

19. This operation can be useful in visualizing the minimal solution to a system of linear equations. For 10 points each:
[10] Name this linear transformation that, in the case of a vector a onto a vector b, can be calculated as a-dot-b over b-dot-b, all times b.
ANSWER: **projection** [or orthogonal **projection** or vector **projection**]
[10] Projections are used in each step of this algorithm for orthonormalizing a set of linearly independent vectors in Rn. In this process, the projection of one vector onto another is subtracted from the first vector, giving a vector orthogonal to the latter.
ANSWER: **Gram-Schmidt** process [or **Gram-Schmidt** orthogonalization or **Gram-Schmidt** orthonormalization]
[10] The projection operation possesses this property, in which the operator applied multiple times gives the same result as the operator applied only once. Another example of an operation with this property is absolute value.
ANSWER: **idempotence** [accept word forms]

20. On February 26, 2016, more than 30 million people voted in parliamentary elections in this Islamic Republic, which follows the system of Vilayat-e Faqih. For 10 points each:
[10] Mohammad Yazdi, the current leader of this country's Assembly of Experts, which elects its Supreme Leader, is likely to lose his seat. Hassan Khomeini, the grandson of this country's first Supreme Leader, was disqualified from running for the Assembly.
ANSWER: Islamic Republic of **Iran**
[10] This is the name given to the protest movement surrounding Reformist candidates for the 2009 Iranian presidential elections. This movement was named for the theme color of Mir-Hossein Mousavi's campaign, which lost to Mahmoud Ahmadinejad in a count marred by widespread fraud.
ANSWER: **Green Movement**
[10] This author of books on Kant and Kripke, the current speaker of the Majlis, will likely retain his seat in the holy city of Qom. He left the Principlist faction to run as an independent, and received endorsements from President Rouhani, General Qasem Soleimani, and Green Movement supporter and former president Mohammad Khatami.
ANSWER: **Ali Larijani** [prompt on "Larijani" as his brother is the head of the judiciary]