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### Tossups

1. This character and a female companion compose a poem, read by a third character, in which each stanza ends with the line “The trend is toward the bourgeois-smug”. He has a dream in which a sandwich-eating girl with a triangular face orders him to jump off a diving board; that girl, Lucy Rennwand, is a witness at the trial of his gang, the Dusters. This character serves as an artist’s model along with Lankes’ girlfriend Ulla. A flashback relates how his grandmother hid his grandfather, (\*) Joe Koljaiczek (coal-YAI-check), under her four skirts. This man’s mother has an affair with Jan Bronski, and he falls in love with Sister Dorothea but has a son Kurt with his father’s second wife, Maria Truczinski (truck-ZINN-skee). This character can shatter glass with his voice and decides to stop growing at the age of three.. For 10 points, name this protagonist of Gunter Grass’s *The Tin Drum*.

ANSWER: Oskar Matzerath [prompt on “Matzerath”; accept Oskar Matzerath]

2. Hallgrímur Pétursson (hull-GRIME-your peterson) names the largest one of these buildings in Iceland. Edgar Fonseca (fon-SAY-kuh) designed one of these buildings that uses four 210 foot tall windows, and can be found in Rio de Janeiro. Jay Hall Carpenter sculpted a limestone head of Darth Vader for one of these buildings in Washington, D.C. One of these buildings in Christchurch was severely damaged by an earthquake in 2011, which led Shigeru Ban to replace it with one made partly out of (\*) cardboard. Sixteen concrete columns give one of these buildings designed by Oscar Niemeyer (NEE-my-ur) a hyperboloid shape in Brasilia (bruH-SEAL-ee-uh). From 1880-1890, the tallest building in the world was one of these structures in Cologne. Henry Adams contrasted the island of Mont. St. Michel (me-SHELL) with one of these buildings in Chartres (chart), whose exterior uses flying buttresses. For 10 points, name this type of building exemplified by St. Peter’s Basilica and one in Notre Dame.

ANSWER: Cathedrals [or churches]

3. One episode of civil unrest in this nation was triggered by pictures of an adopted girl named Maria Hertogh bowing before the Virgin Mary. During an invasion of this nation, its large-caliber coastal guns were not equipped with high-explosive shells needed against infantry; during that invasion of this nation, a massacre occurred at the Alexandria Hospital and it was surrendered by Sir Arthur Percival. It was originally founded as a trading post after a treaty was signed between the Sultan of Johor (jo-HORE) and (\*) Stamford Raffles. One leader of this nation equalized private sector and civil service salaries to cut down on corruption and broke down crying on television after his nation was expelled from Malaysia. For 10 points, name this island nation ruled for three decades by Lee Kwan Yew.

ANSWER: Republic of Singapore

4. While fantasizing about being one of these creatures, a poem’s speaker imagines jumping “peninsulas to get away from you”. This creature is asked if “storms harass or foes perplex” it in another poem, where it is compared to Pharaoh in the Red Sea. Later, this animal is told, “Go, take your seat in Charon’s boat” because the narrator will tell its family “you died afloat.” In another poem, a maid sings to these animals to “stay at home” because (\*) “Mistress Mary is dead and gone!” Emily Dickinson commented that “revery alone will do” “to make a prairie” if these animals “are few” and imagined being one “upon a raft of air.” One of these animals flies up to a glass of wine and is invited to die of drunkenness in a poem by Philip Freneau, while John Whittier wrote a poem about “Telling” these insects. For 10 points, name these insects whose “secret life” is the subject of a Sue Monk Kidd novel.

ANSWER: bees [also accept honeybees]

5. Manuel Tolsa created a gigantic equestrian statue of this ruler, which is currently the second largest bronze statue in the world. After his daughter Maria Luisa died of smallpox, he sponsored an expedition to inoculate the Americas led by his court physician Francisco Javier de Balmis (HA-vee-err-day-bal-MEE). A conspiracy against this man was led by his son, which led to that son being called the “Felon King”. This man’s prime minister fled alongside him after the Mutiny of Aranjuez (UH-ran-wes), and was known as the (\*) “Prince of the Peace”. That prime minister to this ruler, who negotiated the Peace of Basel to end the War of the Pyrenees after the execution of Louis the Sixteenth, was Manuel de Godoy (go-DOY). This man and his son were kicked out in the Abdications of Bayonne (bay-OWN), after which Joseph Bonaparte (BONE-uh-part) was appointed to replace them. For 10 points, name this King of Spain from 1788 to 1808, who employed the court painter Francisco Goya.

ANSWER: Charles IV of Spain

6. In Samarium and Europium, which have non-degenerate ground states and small separation between energy levels, a type of this phenomenon named for Van Vleck dominates. In a free-electron gas, spin flipping causes a version of this phenomenon named for Pauli. One of the few substances showing a pure form of this phenomenon would be a gas of monatomic hydrogen atoms. At room temperature, the fact that gadolinium (gah-do-LIN-ee-um) complexes have this property make them useful (\*) MRI contrast agents. Materials showing this property have  $M$  over  $H$  equal to a constant over temperature minus theta according to the Curie-Weiss Law. The susceptibility of materials exhibiting it is positive, meaning that their induced fields are in the same direction as applied ones. For 10 points, name this phenomenon in which objects are attracted by applied magnetic fields.

ANSWER: paramagnetism [accept superparamagnetism; prompt on “magnetism”]

7. The algebraic connectivity of a graph can be found by calculating the second largest of these for the graph Laplacian (luh-PLASS-ee-un). One algorithm for finding these things in big Oh of  $n$ -squared involves iteratively factoring an input into an orthogonal and triangular component. A condition for all of them to have negative real parts is given by Lyapunov's (lee-AH-puh-noffs) first theorem. Each of these things lies within one Gershgorin (gersh-GORE-in) disc. By definition, their algebraic multiplicity must be greater than their (\*) geometric multiplicity, and their sum is equal to the trace. The collection of these things for a finite-dimensional operator is that operator's spectrum. They are always real for Hermitian (her-MISH-un) operators. These values are the roots of the characteristic polynomial. For 10 points, name these values for a square matrix, which are the constant multiple that appears when multiplying that matrix with an eigenvector.

ANSWER: eigenvalue

8. The last part of this deity's name can either be written as a sitting woman or an egg, and this deity is sometimes depicted as holding a sycamore tree or a lotus. Though it's not Demeter, this goddess tried to make a prince immortal by placing him in a fire, but was thwarted by the child's mother. This goddess was the protector of the patron of the south named Imsety (im-SET-ee). A symbol of this god was called her (\*) “Buckle” or “Blood,” and it is a knot-shaped symbol called the *tyet* (tee-ET). This goddess created the first scorpion in an attempt to discover Ra's secret name, and used this to force him to give up power in favor of her husband, the “foremost of the Westerners” who was murdered by his brother Set. For 10 points, name this Egyptian goddess, the wife of Osiris and the mother of Horus.

ANSWER: Isis [or Iset]

9. One nutso offshoot of this religion, whose name means "Great Source," venerates L. L. Zamenhof (ZA-men-hoff), the creator of Esperanto, as a god. "Love of Nature" and "Tradition of the Family" are two of the Four Affirmations of this religion, whose rituals include a ceremony often used to pacify the vengeful spirits of "water children." Holy days in this religion include November 15th, during which parents take their children aged (\*) 3, 5, and 7 to a shrine to pray for good fortune. Statues which resemble dogs and lions guard over shrines in this religion, which feature tiny buildings called *sessha* and sacred inner buildings called *honden* (HAWN-den). A sacred site in this religion is rebuilt every twenty years and can be found at *Ise* (EE-say). Oomoto is a sect of this religion that features shrines called *jinja* (JIN-juh) where *kami* (KAH-mee) are venerated. For 10 points, name this animistic religion of Japan.

ANSWER: Shintoism

10. The Proliferan Spy 189 had this nickname. This was the second word in the name of a pathogen developed by Dif Scaur and a group of Chiss scientists that was sabotaged by Vergere (ver-jeer); that pathogen with this adjective in its name targeted the Yuuzhan Vong (YOU-zahn-vong). The cruiser *Independence* hosted a group of pilots with this name, whose members include Hamo Blastwell and Keyan Farlander. At the beginning of the Clone Wars, clone trooper captains had helmet (\*) markings of this color. A squadron designated by this color was commanded by Garven Dreis and lost all but two of its members during the Battle of Yavin; its fifth member managed to destroy the Death Star after being saved by Han Solo. For 10 points, name this color of Darth Vader's lightsaber.

ANSWER: red [accept Red Squadron or Alpha Red]

11. One section of this speech refers to Marvell's Horatian Ode by quoting “He nothing common did or mean, Upon that memorable scene” before outlining “solid, practical grounds” for “inflexible resolve.” This speech declares that “freedom will be restored to all” because the listeners will “not one jot or tittle” recede their demands. The end of this speech warns of the possibility of a Dark Age made “perhaps more protracted, by the lights of perverted science” and that “upon this battle depends the survival of Christian civilization”. This speech declared that “what General (\*) Weygand (vay-GAHN) had called the Battle of France was over” and that if the British Empire lasts for a thousand years, “men will still say” that the present was the title superlative time period. For 10 points, name this Winston Churchill speech which declared that the Battle of Britain was about to begin.

ANSWER: “this was their finest hour” [accept “Churchill's speech before the Battle of Britain” before mention, prompt on anything mentioning Churchill and World War II]

12. This piece depicts a wedding in its opening prelude, which is interrupted on two occasions by two different folk dances played by an unaccompanied solo viola. One of its movements begins by going down the notes “B, G-sharp, F-sharp, E,” and then back up. It’s not *The Nutcracker*, but two piccolos imitate the *ney* flute in this piece’s C major “Arabian Dance.” This piece includes an A minor mazurka (**muh-ZUR-cah**) for strings and triangle titled (\*) “Anitra’s Dance.” In a movement from this piece, bassoons and pizzicato (**pit-si-KAH-toh**) low strings introduce a B minor melody which is played again and again, gradually growing louder and faster, until it is played by the entire orchestra. An E major flute solo depicting the sunrise begins this piece’s “Morning Mood” movement. For 10 points, name this set of incidental music by Edvard Grieg (**greeg**), which includes “In the Hall of the Mountain King.”

ANSWER: incidental music to Peer Gynt [or Peer Gynt Suite No. 1; or Peer Gynt Suite No. 2]

13. At this woman's house, Prickett Ellis boasts to Miss O'Keefe that the Brunners gave him a clock and instantly complains that he "loves his own kind." In this character's first appearance, her husband kisses Rachel Vinrace during a storm after the couple forces their way aboard the *Euphrosyne* (**you-FRAW-sin-ee**) in Lisbon. Early in another novel, this woman reminisces about a man who said "I prefer men to cauliflowers" as she goes to buy flowers, but is interrupted by the (\*) backfiring of a car. This woman has a rivalry with her daughter's teacher, Miss Kilman, and dislikes Hugh Whitbread. As a girl, she kissed Sally Seton, and later, she rejects Peter Walsh's proposal and marries Richard. She first appeared in *The Voyage Out*, and she is the title character of a novel in which she hears of Septimus Smith's suicide as she throws a party. For 10 points, name this Virginia Woolf heroine.

ANSWER: Mrs. Clarissa Dalloway [accept either underlined portion]

14. One painting of this event shows a small figure in blue transporting a large blue fin on a yellow boat. Another painting of this event shows a clock falling out of the sky in the upper right corner, while a man in a black hat crouches against a ladder beneath. A painting of this event shows a green figure holding a candle and blowing a curved horn while a blue-faced woman runs past a goat while holding an infant. An overturned chair next to four booklets is depicted to the right of this scene in one work, above which a man in a black robe (\*) covers his eyes. That painting originally bore the phrase “ich bin Jude” and shows the Lithuanian flag on the upper right; the central figure in that version of this scene wears a white cloth with a black stripe while a synagogue burns on the right. For 10 points, name this event depicted in “Yellow” and “White” versions by Marc Chagall.

ANSWER: the Crucifixion of Jesus

15. A transcendent form of this phenomenon is directed towards other human beings in an anthropological theory of it by Juan Perez Lopez. It’s not color vision, but Solomon has developed a theory of it in which it arises by pairs of opposing emotions, called opponent-processes. A personality characterized by an unwavering amount of this is measured in a 12-point scale developed by Duckworth. This thing and hygiene factors are two components of job satisfaction in one theory. It’s not learning, but Spence and Hull suggested that it arises in an attempt to reduce (\*) drives. Clayton Alderfer’s E-R-G theory and Frederick Herzberg’s two-factor theory are reworkings of another model which claims that this quality is caused by the human desire to fulfill a hierarchy of needs. People with “grit” tend to maintain it in the face of adversity. For 10 points, name this term for an impetus for behavior.

ANSWER: motivation [or drive until mention; or “grit” until mention; accept addiction due to that one clue]

[NOTE TO MODERATOR, DO NOT READ OUT LOUD: “ligand” is pronounced “LIG-uhnd” or “LIE-gand”]

16. A theory of and named for *these things* has a variational type that allows the position of the dividing surface to fluctuate. Among ligand replacement reactions, ligand-dissociative mechanisms are notable for having two of these, whereas ligand-associative mechanisms have only one. A coefficient describing the position of this thing is multiplied by the enthalpy of reaction in a principle which observes a proportionality between (\*) activation energies and enthalpies of reaction among reactions of the same family. This configuration is often marked by a double dagger on potential energy diagrams, and it more closely represents the species in a reaction that is more similar to itself in free energy, according to Hammond’s postulate. For 10 points, name this configuration of a chemical reaction, defined as local maxima along a reaction coordinate.

ANSWER: transition state

17. The narrator of a story by this author panics after waking up and finding one of his slippers missing; earlier, that character sees a raincoat on a sofa shortly before receiving a call telling him that his brother-in-law has been hit by a train. A character created by this man is criticized for his vanity so much that he is relieved to awaken one morning and find that his nose hangs five inches beyond his chin. A hallucination-plagued man narrates this author’s story (\*) “Cogwheels.” This non-Gogol author of “The Nose” wrote a story in which the body of a woman who sold snake meat as fish has its hair stolen by an old woman, who in turn is robbed by a servant. The setting of that story, a

gate, was combined with the plot of a story by this man presenting four different viewpoints of a murder to create a Kurosawa film. For 10 points, name this Japanese short story master who wrote “Rashomon” and “In a Grove.”  
ANSWER: Ryunosuke Akutagawa [accept names in either order]

18. This thinker believed that Descartes's formulation of the ontological argument was invalid since it did not have a premise that a perfect being is possible. This thinker claimed that any extrinsic difference between two substances, such as a difference in spatio-temporal location, must be due to some additional intrinsic difference. This man invoked Duns Scotus' (SKOH-tuss) term “haecceity” (hack-SEE-uh-tee) to argue that something is only a substance if it has a complete individual concept in *Discourse on (\*) Metaphysics*. This formulator of the Principle of the Identity of Indiscernibles took on the persona of Theophilus (thee-AWE-fill-us) in his chapter-by-chapter refutation of Locke entitled *New Essays of Human Understanding*. This philosopher asserted that the Principle of Sufficient Reason means that this is the “best of all possible worlds.” For 10 points, name this author of *Theodicy* who co-discovered calculus.  
ANSWER: Gottfried Wilhelm Leibniz

[NOTE TO MODERATOR: agalsidase is pronounced ay-GAL-suh-dase]

19. In humans, Vitamin D upregulates hCAP18 (h-CAP-eighteen), a peptide found in this organelle of macrophages and PMNs. An X-linked disease caused by deficiency of iduronate-2-sulfatase (id-UH-roan-ate-two-SULF-uh-tace) is linked to defects in this organelle. In another disease of this organelle, G-b-3 accumulates in tissues. That deficient enzyme which functions in this organelle is compensated for using agalsidase alfa or agalsidase beta, and is encoded by the (\*) G-L-A gene. Other related diseases of this organelle are treated by targeting a pathway involving acid hydrolase precursor proteins marked with mannose-6-phosphate. Niemann-Pick and Tay-Sachs are two of this organelle's namesake “storage diseases.” For 10 points, name these digestive organelles which break down cellular wastes.  
ANSWER: lysosome

20. Adrian Woll's invasion of this country led to a nighttime attempt to remove some documents that was interrupted by a cannon shot fired by Angelina Eberly. This site of the Archive War saw a rebellion led by Vincente Cordova (CORE-doh-vuh) who tried to ally with a local chief called The Bowl before being defeated by Edward Burleson's volunteers. After a week of drinking, a leading candidate for the presidency of this nation, James Collinsworth, drowned during its (\*) 1838 election which was won by a man who introduced the “redback” currency, Mirabeau Lamar (MERE-uh-bow luh-MAR). The Council House Fight resulted in a great invasion of this nation by the Comanche. For 10 points, identify this country recognized in negotiations at Velasco with Santa Anna after the Battle of San Jacinto (huh-SIN-toh) and an earlier battle at the Alamo.  
ANSWER: Republic of Texas

## Bonuses

1. In a poem describing God, he wrote that God “is indescribable” even to Jesus. For 10 points each:

[10] Name this author of “Thalia” whose views were criticized by Athanasius (ath-uh-NAY-shus) in *On the Councils of Ariminum and Seleucia* (uh-RIM-in-um and si-LOO-shuh)

ANSWER: Arius

[10] At this council, convened by Constantine the Great, Arius (AIR-ee-us) was rebuked for considering the Son subordinate to the Father. It later created a namesake Creed.

ANSWER: First Council of Nicaea (nye-SEE-uh)[prompt on partial answer]

[10] The decree of the First Council of Nicaea (nye-SEE-uh) was translated from Greek into Latin by this abbot, who also translated a history of the discovery of the head of John the Baptist.

ANSWER: Dionysius Exiguus [or Dionysius the Humble or Dennis the Dwarf]

2. Unlike Democritus, this man believed that atoms do not necessarily move in straight lines, which allowed him to justify free will. For 10 points each:

[10] Name this Greek author of “Essay on Fate” and “Essay on Touch” who posited the Principle of Multiple Explanations. This man's school claimed that pleasure was the greatest good.

ANSWER: Epicurus

[10] Epicurus and his followers sought to achieve the states of aponia (a-POHN-ee-uh) and this state, meaning freedom from disturbance. This state arising from suspension of belief was also sought by the Pyrrhonists (PEER-oh-nists).

ANSWER: ataraxia (at-uh-RACK-see-uh)

[10] Epicurus created this school at his own house. According to Seneca, an inscription on its gate read “Stranger, here you will do well to tarry.”

ANSWER: the Garden

3. The invasion of this nation was commanded by Nikolaus von Falkenhorst (FALL-ken-horst), and during its occupation several of its residents sabotaged a heavy water plant here. For 10 points each:

[10] Name this European nation that was ruled by Josef Terboven after it was taken over by Nazi Germany.

ANSWER: Norway

[10] This Norwegian Prime Minister and notable traitor kept his office during the occupation. Before he occupied office, he tried to unite philosophy and science into an all-encompassing idea called Universism.

ANSWER: Vidkun Abraham Lauritz Jonssøn Quisling

[10] Quisling had previously worked with this man organizing relief for the 1921 Russian famine. This man won a Nobel Peace Prize partly for developing a type of passport for stateless refugees.

ANSWER: Fridtjof Nansen

4. Answer some questions about the thermodynamics of heat engines, for 10 points each:

[10] The molar work done by an isothermal process is the product of the gas constant R, the natural log of final pressure to initial pressure, and this quantity. It's a measure of the average kinetic energy of the molecules in a gas.

ANSWER: temperature

[10] This property of a heat pump is defined as the heat supplied by the pump divided by the work required to be input to the system. It typically varies between 2 and 5.

ANSWER: coefficient of performance [or cop]

[10] The non-ideal liquid equation of state relates change in volume as dependent on the change in the isothermal variety of this quantity with respect to pressure. This quantity is the inverse of the bulk modulus.

ANSWER: isothermal compressibility

5. Answer the following about the author of *Zuleika Dobson*, Max Beerbohm, for 10 points each:

[10] Beerbohm's best-known short story is titled for this character, who makes a deal with the devil to find out what posterity will think of him. He finds only one obscure article in a library, describing him only as a character in a short story.

ANSWER: Enoch Soames [accept either underlined portion]

[10] Beerbohm's half-brother Herbert Beerbohm Tree introduced him to this author at a rehearsal of the latter's play *A Woman of No Importance*. His other plays include *The Importance of Being Earnest* and *Lady Windermere's Fan*.

ANSWER: Oscar Wilde [or Oscar Fingal O'Flahertie Wills Wilde]

[10] Beerbohm's article "A Defence of Cosmetics" appeared in the first edition of this scandalous periodical associated with the Aesthetics. It was illustrated by Aubrey Beardsley and named for the color of its cover.

ANSWER: *The* Yellow Book

6. Loam is often called the ideal type of this material. For 10 points each:

[10] Name this substance characterized by a namesake texture triangle which includes sand, silt, and clay. Edaphology and pedology are the study of this substance, which is divided into layers called horizons.

ANSWER: soil [prompt on "dirt"]

[10] This layer, which is also known as subsoil, accumulates iron, clay, aluminum, and organic compounds through illuviation.

ANSWER: B horizon

[10] The R horizon is this deepest layer consisting of the parent material and includes massive slabs of hard rock.

ANSWER: bedrock

7. Susan Birkenhead wrote the lyrics to a musical depicting this man's "Last Jam." For 10 points each:

[10] Name this jazz pianist, who composed the *Black Bottom Stomp* and died from injuries he sustained in a stabbing outside a nightclub where played with the *Red Hot Peppers*.

ANSWER: Jelly Roll Morton [or Ferdinand Joseph LaMothe]

[10] In an interview with this musicologist, Jelly Roll Morton claimed to have invented jazz. With his father John, he recorded many songs and interviews for the Archive of Folk Culture.

ANSWER: Alan Lomax

[10] Jelly Roll Morton performed in this southern city for the majority of his early career. This city's Creole speakers incorporated blues elements into its zydeco music.

ANSWER: New Orleans

8. The speaker of this work asks "Did I not love him, had I no mercy?" and begs God to understand her. For 10 points each:

[10] Name this series of poems inspired by the suicide of Romelio Ureta (roh-MEAL-ee-oh OO-ray-tuh), in which the speaker buries her lover and then digs a path next to him, where they will "talk for an eternity."

ANSWER: Sonnets of Death [or Sonetos de la Muerte]

[10] *Sonnets of Death* was written by this female Chilean poet, who took the surname of her pen name from the Occitan-language poet who won the 1904 Nobel.

ANSWER: Gabriela **Mistral** (mis-TRAHL) [or either underlined portion of Lucila **Godoy Alcayaga**]

[10] This poem by Mistral consists of a list of instructions including “You shall love beauty” and “You shall bring forth your work...out of the blood of your heart.”

ANSWER: “**Decalogue of the Artist**” [or “**Decálogo del Artista**”]

9. Stephanie Blake-Rawlings assumed the mayorship of this city in 2010 after its previous mayor, Sheila Dixon, was convicted of embezzlement for stealing gift cards intended for needy families. For 10 points each:

[10] Identify this American city where Blake-Rawlings was criticized for saying “we also gave room to those who want to destroy” during protests in April 2015 after the death of Freddie Gray while in police custody.

ANSWER: **Baltimore**

[10] This Republican governor of Maryland declared a state of emergency in Baltimore. In June 2015, he announced that he had been diagnosed with non-Hodgkins Lymphoma and is undergoing chemotherapy.

ANSWER: Larry **Hogan**

[10] One of this company’s stores in West Baltimore was looted and set on fire by rioters. It operates the prescription drug subsidiary Caremark and announced in September 2014 it would stop selling tobacco products.

ANSWER: **CVS** Pharmacy

10. Answer the following questions about second-wave feminism, for 10 points each:

[10] This 1949 work, divided into two volumes entitled “Facts and Myths” and “Lived Experience,” is often considered the starting point of second-wave feminism. One of its sections posits women as “the Privileged Other.”

ANSWER: *The **Second Sex*** [or ***Le Deuxième Sexe***]

[10] This French existentialist author and lover of Sartre (**SART**) claimed that “One is not born, but rather becomes, a woman” in *The Second Sex*. Her other works include *The Ethics of Ambiguity* and *The Coming of Age*.

ANSWER: Simone **de Beauvoir**

[10] This scholar has listed *The Second Sex* as a primary influence on her own work *Sexual Personae*. She has criticized second- and third-wave feminism for demonizing men, and calls herself an “anti-feminist feminist.”

ANSWER: Camille **Paglia**

11. These artists published their ideas in the periodical *The Germ*. For 10 points each:

[10] Name this English group of artists who rejected the Mannerist style in vogue at the time in favor of a more spiritual, natural, and intense style. Its members included Dante Gabriel Rossetti and William Holman Hunt.

ANSWER: The **Pre-Raphaelite Brotherhood** [or the **Pre-Raphaelites**; or **PRB**]

[10] This co-founder of the Pre-Raphaelite Brotherhood depicted the titular character surrounded by dark brown water and holding a scattered bouquet of brightly-colored flowers in her hand in *Ophelia*.

ANSWER: John Everett **Millais**

[10] This author and social critic studied with Pre-Raphaelites and painted *La Belle Iseult* in imitation of them. This artist founded Kelmscott Press, which published an edition of Chaucer featuring lavish illustrations by Burne-Jones.

ANSWER: William **Morris**

12. For 10 points each, answer some questions about electrochemical cells.

[10] This equation is often used to calculate the reduction potential of a cell at any given point given its standard reduction potential, temperature, reaction quotient, and Faraday’s constant.

ANSWER: **Nernst** equation

[10] When the half-reactions of a redox reaction take place in different solutions, this structure, which often uses potassium nitrate as an electrolyte, is used to balance charges and prevent the reaction from reaching equilibrium.

ANSWER: **salt bridge**

[10] In the standard hydrogen electrode, the metal electrode is covered with a film of this specific form of a certain element. This substance is also used as a catalyst in proton exchange membrane fuel cells.

ANSWER: **platinum black** [also accept **Pt black**; prompt on “Adams’ catalyst”; prompt on “platinum”]

13. Each movement of this composer’s *Missa L’homme armé super voces musicales* (**MIS-uh lum ar-MAY su-PAYRE voh-KES mu-SEE-call-uh**) sets the cantus firmus one note higher than in the previous movement. For 10 points each:

[10] Name this composer whose *Missa pange lingua* (**MIS-uh PAN-jay LEEN-gwah**) incorporates the title hymn into all four voices, rather than just in the tenor.

ANSWER: **Josquin** des Prez [or **Josquin** des Prez]

[10] Josquin’s “Ave Maria ... virgo serena” is one of these sacred choral pieces that set multiple related texts over a cantus firmus in the tenor.

ANSWER: motet

[10] This Italian Renaissance composer wrote the *Pope Marcellus Mass*, whose streamlined polyphonic texture is said to have convinced the Council of Trent to not ban polyphony.

ANSWER: Giovanni Palestrina [or Giovanni Pierluigi da Palestrina]

14. This treatise was written in response to the authoritarian rule of Juan Manuel de Rosas. For 10 points each:

[10] Domingo Sarmiento wrote this text on the gaucho ideal and caudillos (cow-DEE-ohs), in part analyzing the life of a Federalist general from La Rioja (REE-oh-hah). It advocates a eurocentric view of civilization over barbarism.

ANSWER: Facundo: Civilization and Barbarism [or Facundo: Civilización y Barbarie]

[10] Rosas and Sarmiento both served as heads of state of this country, where civil war brewed in the mid-19th century among Federalists and Unitarians. Rosas ruled as Governor of Buenos Aires and Sarmiento as President.

ANSWER: Argentina

[10] Rosas died in exile in England, and after a decades-long movement to return him to Argentina, this Argentinian President from 1989 to 1999 succeeded in doing so, reburying him in La Recoleta Cemetery.

ANSWER: Carlos Saúl Menem

15. This god was asked by Di Jun to punish the misbehaving sun-birds. For 10 points each:

[10] Name this Chinese god of archery who shot nine out of ten sun-birds out of the sky, frightening the last into rising and setting on time.

ANSWER: Hou Yi [or Shenvi]

[10] Hou Yi's wife, Chang'e, alternately drank an elixir of immortality out of boredom or to thwart the thief Feng Meng; they caused her to become the deity of this location, where she is kept company by white rabbits.

ANSWER: the moon

[10] According to another myth, Feng Meng murdered Houyi using a club made of wood from one of these trees. In China, the fruits of these trees confer longevity and symbolize immortality.

ANSWER: peach trees

16. One woman in this novel has a dream in which her husband makes her march around a pool with other naked women as they do knee-bends. For 10 points each:

[10] Name this novel about Tomas and Tereza, who move to the countryside to escape Czech Communism.

ANSWER: *The Unbearable Lightness of Being* [or *Nesnesitelná lehkost bytí*]

[10] This other novel, divided into seven parts, includes the sections "Lost Letters" and "Litost." It includes the stories of Mirek, who destroys his letters to Zdena (zuh-DAY-nuh), and Tamina, who tries to get Bibi to retrieve her diaries.

ANSWER: *The Book of Laughter and Forgetting*

[10] This Czech author of *Immortality* and *The Joke* wrote *The Unbearable Lightness of Being* and *The Book of Laughter and Forgetting*.

ANSWER: Milan Kundera

17. This man was asked during a debate whether he would support the death penalty for a criminal who raped his wife Kitty, to which he responded in the negative. For 10 points each:

[10] Name this Greek-American governor of Massachusetts who ran on the Democratic ticket and lost the 1988 presidential election by a landslide.

ANSWER: Michael Dukakis

[10] Dukakis lost the election to this vice president under Ronald Reagan, whose son would later win the 2000 presidential election. He lost to Bill Clinton in 1992.

ANSWER: George Herbert Walker Bush [do not accept "George Walker Bush" or "George W Bush," accept "Bush 1" or "Bush 41" or anything else distinguishing him from his son]

[10] Perhaps the highlight of Dukakis' campaign came when this Texas Senator, Dukakis' running mate, told Republican Dan Quayle, "Senator, you're no Jack Kennedy" during the vice-presidential candidate debate.

ANSWER: Lloyd Bentsen

18. This molecule's efficiency limits the rate of the Calvin cycle during the day. For 10 points each:

[10] Name this enzyme that catalyzes the carboxylation of R-u-B-P in the Calvin cycle. It's the most abundant protein on earth.

ANSWER: RuBisCO [or ribulose-1,5-bisphosphate carboxylase/oxygenase]

[10] Since RuBisCO also generates useless products by reacting R-u-B-P with oxygen, this wasteful process, also known as C2 photosynthesis, attempts to create G-3-P but also generates ammonia and uses ATP.

ANSWER: photorespiration [or oxidative photosynthetic carbon cycle]

[10] In addition to 3-phospho-glycerate, photorespiration produces this photosynthesis inhibitor which is salvaged by the peroxisome and mitochondria  
ANSWER: 2-**p**hosphoglycolate [or 2-**PG**]

19. One god in this religion is named Bai-Ulgan, who lives in the sixteenth floor of the sky and accepts horse sacrifices. For 10 points each:

[10] Name this religion which venerates a sky god that opposes the evil death deity Erlik (**ur-LICK**). Children often recite a nursery rhyme to “Grandfather Moon” in this religion.

ANSWER: **Tengrism** [or **Tengrianism**]

[10] A few Tengrists live in this modern-day nation, whose more popular religions include Sunni Islam and the Alevi branch of Shia Islam. The Sema-ceremony-practicing Mevlevi Sufi order is native to this nation.

ANSWER: **Turkey**

[10] Like the Persians, the Alevis celebrate the holiday of Nowruz, which commemorates this event. In another nation, this event is celebrated in a festival called Tet.

ANSWER: **New Year** [accept **Lunar New Year** or **Solar New Year**]

20. One woman in this story comments that “all we do is look at things and try new drinks.” For 10 points each:

[10] Name this short story, in which Jig’s boyfriend urges her to fix their relationship by getting an abortion, which is only referred to as an “operation”..

ANSWER: “**Hills like White Elephants**”

[10] This author of “Hills like White Elephants” is also known for his Nick Adams stories and for novels like *The Sun Also Rises*. Wallace Stevens once punched this author in the face.

ANSWER: Ernest **Hemingway** [or Ernest Miller **Hemingway**]

[10] In Hemingway’s story “The Killers,” Max and Al wait in a restaurant to murder this Swede, who never shows. Later, this character responds apathetically when Nick Adams warns him about the assassins.

ANSWER: **Ole Andreson** [accept either underlined portion]