

## Tossups

1. George Bataille theorized that this artwork is about the loss of narrative, which is effective since its source of power is a "feeling of suppression [that] prevails." Yasumasa Morimura quoted the pose of this painting in his photograph Portraits (Twins). An anonymous review calls this painting's subject a "grotesque in Indian rubber," while another review, which appeared in Le Monde Illustre, expresses disgust at the subject's "greenish, bloodshot eyes." This painting was first exhibited in "Room M" immediately below its artist's other painting, Jesus Mocked by the Soldiers. Its title figure wears an orchid on her head, a gold bracelet with a black tassel, and has a black ribbon tied around her neck. In this painting, a black cat on the right leaves its muddy footprints on a bed, and a black servant holding flowers stands behind a nude Victorine Meurent, who suggestively gazes at the viewer. For 10 points, name this scandalous painting depicting a prostitute by Edouard Manet.

## ANSWER: Olympia

2. Upon taking control, a governor of this territory had to deal with the Mina Uprising in the New Roads community, which led to the enactment of a slave code. A rebellion in this territory was quashed when Alexandre O'Reilly was sent with a fleet of 24 ships, and gained the nickname "Bloody O'Reilly" after executing the rebels at summary trials. After that insurrection, this territory was governed by a ten-member city council called the "Illustrious Cabildo," though the original building dubbed the Cabildo was destroyed in a Great Fire heroically put out by its governor Estevan Miro. It was acquired by the Treaty of Fontainebleau and held for 38 years until it was secretly returned by the Third Treaty of San Ildefonso. A governor of this territory conspired with James Wilkinson for commercial purposes after he wrote a letter to Madrid. For 10 points, name this Spanish territory in the New World that was centered at New Orleans.
ANSWER: Louisiana [or New Orleans until it is read; prompt on "New Spain"]
3. The Bukusu tribe of Kenya have a creator god Wele Khakaba who put a giant one of these creatures in the sky to create thunder and lightning. In the Analects, Confucius hears the sound of musical instruments and singing, and asks his disciple Tzu-yu why he would "use an ox cleaver" to kill one of these. Pope Gregory the Great claimed that this creature was the "most suitable emblem of Christianity." A chameleon, a snail shell filled with dirt, and one of these animals was carried by the Yoruban god Olodumare when he descended to earth on a chain. In Matthew, Jesus addresses "Jerusalem, Jerusalem" and admonishes its people for refusing him when he wanted to gather its children together like this animal. The kapparot ritual in Judaism involves swinging one of these animals over one's head before Yom Kippur. The Supreme Court case Cburch of Lukumi Babalu Aye v. City of Hialeah involved a local ordinance forbidding sacrifice of, for 10 points, what kosher fowl often killed by Santeria adherents?
ANSWER: chickens [or rooster; or cockerel; or chicks; or hens; prompt on "birds" or "fowl"]
4. The brand name Vysis is used by a series of devices employed in this technique, which come in "dual-fusion" and "break-apart" variants. A common application of this technique is to detect the fusion of BCR and ABL. The techniques SKY and CGH are alternatives to a "multiplex" version of this technique which typically uses 24 different colors. It's not PCR, but telomere length can be determined using either a quantitative version of this technique or a version which combines this technique with flow cytometry. A stain such as DAPI can be used to label metaphase chromosomes attached to a glass slide in this technique. For 10 points, name this technique in which chromogenic or fluorescent probes are used to detect individual genetic sequences within chromosomes.
ANSWER: in situ hybridization [or ISH; or fluorescent in situ hybridization; or chromogenic in situ hybridization; or FISH; or CISH; prompt on "flow cytometry" until it is read]
5. This man included a refrain about being "Welcomed gladly, and spurned by everyone" in a poem which opens with a description of himself "dying of thirst beside the fountain." Shortly before his death, this man published a joking quatrain proclaiming "my neck will learn the weight of my ass." A poem by this man describes men "rinsed and laundered by the rain, And by the sunlight dried and blackened too," who "to and fro sway at the wind's fantasy." Jean Buridan's apocryphal death by drowning in the Seine is referenced in one of this man's poems, which mentions the burning of Joan of Arc before exhorting "Nay, never ask this week, fair lord, Where they are gone, nor yet this year." Dante Gabriel Rossetti translated that poem, which features the refrain "But where are the snows of yesteryear?" For 10 points, name this French ne'er-do-well who wrote The Testament, which includes "The Ballad of Dead Ladies."
ANSWER: François Villon
6. This idea was used by Per Krusell and Anthony Smith to critique Thomas Piketty's "second law of capitalism." John Campbell and Gregory Mankiw estimated that about fifty percent of consumers display the behavior predicted by idea. Robert Hall showed that for quadratic utility, if one assumes that this statement is true, then consumption must follow a random walk. This statement was first proposed to explain Simon Kuznets' data showing no change in the savings rate since 1899 even as the savings rates across earnings percentiles differed. This idea is usually paired with Franco Modigliani's life-cycle hypothesis, and it was developed as a critique of John Maynard Keynes' concept of a consumption function. For 10 points, name this hypothesis which states that individuals smooth their consumption so that it is a constant fraction of lifetime earnings, which was proposed by Milton Friedman.
ANSWER: life-cycle / permanent income hypothesis
7. An author from this country wrote a story whose title character says the words "friend, water, friend, my friend" with his last breath; the narrator of that story attempts to teach a chimpanzee to speak. The three narratives of a novel from this country include one centering on a woman in a Mexico City hospital who is visited by Beatriz and Pozzi and one about a governmentsanctioned prostitute from the "polar age" named W218. "Yzur" is one of the stories from Strange Forces, a collection by an author from this country. Another author from this country wrote both the aforementioned Pubis Angelical and a novel in which Nélida recounts her love for the late Juan Carlos Etchepare. A novel by that man includes a school essay about The Great Waltz called "The Movie I Liked Best", written by Toto Casals. For 10 points, name this home country of Leopoldo Lugones and the author of Heartbreak Tango and Betrayed by Rita Hayworth, Manuel Puig.
ANSWER: Argentina [or the Argentine Republic; or República Argentina]
8. At the request of his master, this man tried to kidnap the beauty Giulia Gonzaga - after he failed, he sacked the town of Sperlonga, and Giulia had a knight executed for seeing her naked. The force of this non-monarch allegedly gave up on a siege after the obese laundress Catherine Segurane mooned them. This man ordered that church bells not be rung because they disturbed his sleep while wintering his troops in Toulon, and he was assisted by a man called "the Great Jew," Sinan Reis. He met with Antonio Rincon to negotiate an alliance between his monarch and Francis I, but his force was defeated at the Battle of Preveza by an allied fleet assembled by Pope Paul III in 1538. Both this man and his elder brother Oruc Reis shared the same nickname, and together they captured the province of Algiers for Suleiman the Magnificent. For 10 points, name this Barbary pirate turned Ottoman admiral, who took an Italian nickname previously held by a Holy Roman Emperor.
ANSWER: Hayreddin Barbarossa [accept either underlined portion; or Khayr ad-Din; or Barbarossa Pasha]
9. In algebraic homology, the five lemma only holds when both rows have this property. The Mayer-Vietoris theorem may be used to construct a sequence of this type on the homology groups of two subsets of a space. A set of three objects and two maps between them has this property if and only if the first map is surjective and the second is injective. For a chain complex, the homology group may be thought of as the deviation from this property, which holds if the kernel of each map is equal to the image of the previous one. This type of differential form is expressible as the exterior derivative of another, a property which implies that it is also closed. A differential is called perfect or this term when the integral depends only on the endpoints, or when it is path dependent. For 10 points each, give this term which refers to solutions of differential equations that are not approximate.
ANSWER: exact [or word forms]
10. In 2009, Salvatore Di Vittorio completed the A minor violin concerto by this composer. One of this man's compositions shares its name with a cycle of guitar variations by Mauro Giuliani and "freely transcribes" several pieces from its namesake's Sins of Old Age. A suite by this composer that begins with an adaptation of "Il Conte Orlando" ends with a section that alternates between a passo mezzo and a mascherada. Strings play an undulating theme in a movement by this composer in which the crescendo of the orchestra illustrates the opening of a half-shell. Pieces attributed to Marin Mersenne and Vincenzo Galilei appear in a set of suites by this man inspired by Renaissance lute music. This composer of Rossiniana and the Botticelli Triptych used a recorded nightingale at the end of a nocturne depicting the Janiculum in a work that opens with a representation of children playing at the Villa Borghese. For 10 points, name this composer of Ancient Airs and Dances and The Pines of Rome. ANSWER: Ottorino Respighi
11. The 1959 case of Beacon Theatresv. Westover held that claims of this nature must be decided only after a jury has resolved all other claims presented in an action. A book about the principles of this area of law by Lord Kames cites the maxim that it "acts in personam" and not "in rem." When a creditor has the right to have his lien satisfied from a particular piece of property without having possession of that property, his lien is referred to by this adjective. The doctrine of laches and the doctrine of unclean hands are these types of defenses, which deny relief to a plaintiff that has acted in bad faith. In contract law, these remedies include rescission, reformation, and specific performance. This area of law is said to "regard as done that which ought to be done," and it affords relief such as an injunction rather than a judgment for money damages. For 10 points, name this power held by certain courts to avoid the strict confines of the law, in order to achieve a fair result.
ANSWER: equity [or equitable remedies]
12. A novel set in this country includes a woman who frequently denounces "highbrows" and orders her servants to burn the smelly leopard-skin rug gifted to her by the protagonist, who has a blue birthmark on his cheek. In a story set in this country, the narrator sees a prisoner step around a puddle and hears him mutter "Ram! Ram! Ram!" while standing on the gallows. In this country, a crowd yells "with hideous laughter" after a character is tripped during a soccer game. A novel set in this country follows John Flory, who tries to get a non-white person admitted to the European Club. "A Hanging" is set in this country, as is an essay which notes that "When the white man turns tyrant it is his own freedom that he destroys" and describes how the narrator finds an animal that had killed its mahout calmly eating in a paddy field. For 10 points, name this setting of "Shooting an Elephant", a country whose "Days" are the subject of a George Orwell novel.
ANSWER: Burma [or Myanmar]
13. This concept is said to be immanent and mythical, but not transcendental in Thomas Flanagan's treatment of it. In The Banquet, Dante uses this concept to explain why a man at Falterona found a collection of silver. This concept is held to be the "arbiter of one half our actions" according to an author who suggested that virtu, or man's force, can oppose, but not ultimately conquer this concept. In another work, songs titled "Nero's Infamy" and "Glory May Not Last" precede discussions in which the title figure analogizes this idea to an inconstant game. Niccolo Machiavelli suggested that it needs to be "beaten and coerced" like a woman in the twenty-fifth chapter of The Prince. The rise and fall of man is likened to a personification of this concept spinning and turning a wheel in The Consolation of Philosophy. For 10 points, name this medieval concept of things that are beyond one's control, which takes its name from a Roman goddess.
ANSWER: fortuna [or fortune; do not accept or prompt on "luck"]
14. This condition in its original form was shown to be impossible for systems with dimension greater than two in papers by Plancherel and Rosenthal. Birkhoff showed that this property is equivalent to a system having no invariant proper subspaces, the condition of metric transitivity. This condition is the weakest in a chain of systems with the Bernoulli property, K property, and mixing, all of which imply this condition. A computer simulation showed that this condition was not present in a 1D lattice of anharmonic oscillators, a result which surprised Fermi, Pasta, and Ulam. This condition does not exist on the "invariant KAM tori," and it is a requirement for the equipartition theorem to hold. A statement of this condition is that the time average of an observable is equal to its ensemble average. For 10 points, name this property of some types of dynamical systems which means that every microstate is equally likely.
ANSWER: ergodicity [or word forms, such as the ergodic hypothesis]
15. A panel at this ancient city shows its ruler transferring power to his son Chan Bahlum by handing him a scepter. That ruler inherited the throne of this city from his mother, known by scholars as Lady Beastie, which endangered his rule. This city, which fought several wars with the nearby site of Toniná to the south, contains a skeleton covered in cinnabar powder at its recently-discovered Tomb of the Red Queen. The French explorer Jean-Frédéric Waldeck resided for a time at this city, where a leafy corn plant mural is located at its "foliated cross" complex. This site is home to the Temple of the Count, the Temple of Inscriptions, and the Temple of the Cross, all of which were built a ruler who's shown in a mural entering the jaws of the underworld monster. That ruler was Pacal the Great. For 10 points, name this most significant archeological site in the state of Chiapas, which was a smaller Mayan city than either Tikal or Copán.
ANSWER: Palenque [or Baak]
16. A photographer from this country captured a blurry hand in the photo Typist, and sought to capture the occult in his artworks by employing an "algebra of movement." A critic from here sought to teach authors about "The Pleasure of Being Booed." An artist from this country argued that "ancient life was all silence" in his letter The Art of Noises, and he created a series of musical instruments for his "noise concerts." A fashion designer from this country created a series of "anti-neutral" suits and created an artwork in which he sought to "murder the moonlight." A poet from here called museums the "absurd abattoirs of painters" where "sculptors ferociously slaughter each other" and declared that "war is the world's only hygiene." A sculptor from here conveyed the dynamism of speed with his sculpture Unique Forms of Continuity in Space. For 10 points, name this home country of the Futurist movement.
ANSWER: Italy [the artists are Anton Bragaglia, Luigi Rossolo, F.T. Marinetti, Giacomo Balla, and Umberto Boccioni]
17. This man is described as frequently using the word "Bird", including asking his friends "How's your bird?" This man asks another person if he is "expecting a storm" after asking where that guy, the writer of the screenplay for The Oscar, gets his boots. This man then declares that no one be allowed into the room without a coat and tie after the other man leaves. After watching a documentary about himself, he receives a telegram from a man named Jilly stating "WE RULE THE WORLD". This man is referred to as an "uomini respetati" or "man of respect", and is also frequently referred to as "Il Padrone". He recalls arguing with Eddie Fisher's fans outside of a recording studio and fails to procure front row seats at a boxing match for Joey Bishop and his wife. A scene in which his voice cracks after he sings a song named for his daughter appears in an Esquire profile for which he refused to be interviewed. For 10 points, name this man, the subject of a Gay Talese article in which he "Has A Cold".
ANSWER: Frank Sinatra [or Francis Albert Sinatra]
18. This character claims that a boy leaning on a headless spear is "fated to hold a place nearest the light".After meeting King Anius, this man misinterprets a prophecy from Apollo based on his memory of Teucer having sailed from Crete. In another appearance, this man determines that both war and peace are heralded by the appearance of four white horses. Nisus helps Euryalus win a foot race and an arrow shot by Acestes bursts into flames at this man's funeral games, which take place after his death in Drepanum. The appearance of a shooting star and the sudden unearthly fire surrounding another character's head finally convince this character to accompany his son. This man bragged about his two-week lovemaking session with a disguised goddess until Zeus crippled him with a lightning bolt, which is why he is forced to escape Troy on his son's shoulders. For 10 points, name this grandfather of Ascanius, whose affair with Venus resulted in the birth of his son Aeneas.
ANSWER: Anchises
19. Many of these systems were divested from utility companies by the Wheeler-Rayburn Act. The African-American schoolteacher Elizabeth Jennings Graham was defended by Chester Arthur in a case which desegregated these systems in Manhattan. An attempt by William McAdoo to expand one of these systems led to a battle with C.C. Howell in Knoxville, Tennessee, which forced McAdoo out of Tennessee. Edwin J. Quinby and Bradford Snell alleged that Alfred Sloan created a special unit to work on destroying these systems, in what they called the "Great American" scandal. These systems were operated by "traction magnates," who included Charles Tyson Yerkes on the North side of Chicago. Many of these systems were dismantled by a consortium owned by General Motors, Standard Oil, and Firestone. For 10 points, name this form of public transportation superseded by buses and exemplified by the cable-cars of San Francisco.
ANSWER: streetcars [or trolleys; or trams; or tramways; or tramcars; or electric railways; or grip cars]
20. A computation by Sear and Warren showed that this structure has a negative contribution to tension on protein and salt solution interface. The maximum capacitance occurs when carbon electrode pore size equals the ion size in capacitors which rely on this structure. The charge density at these structures is proportional to the hyperbolic sine of e z times the potential times beta in the Grahame equation. The diffuse section of this structure usually begins at the outer Helmholtz plane. The lack of this structure at a protein's isoelectric point is the reason that proteins at that point coagulate so easily. These structures exist in equilibrium of attractive van der Waals forces and repulsive electric force in the DLVO theory of colloids and the potential at their slipping planes is the zeta potential. For 10 points, Gouy-Chapman theory describes what electrical structure in which a surface charge attracts a second level of oppositely charged ions?
ANSWER: electrical double layer [or diffuse layer; or answers that mention the words "interfacial," "Helmholtz," "Stern," or "Gouy-Chapman," as long as the words double layer or diffuse layer are given]

Tiebreaker
21. During a lengthy, opium-induced slumber, the protagonist of this novel dreams of visiting Mount Parnassus on a flying chair. A character in this novel has to walk to town behind a flatulent horse after being unable to come up with a rhyme for "month." Three brothers in this novel are revealed to be descendants of a missionary who was allowed to sleep with all of a village's women before being burnt alive for spitting on a muskrat idol. The pirates Captain Skurry and Captain Sly appear in this novel, which also describes an aphrodisiac made from the "Sacred Eggplant." After being thrown overboard the Poseidon with his valet, the protagonist of this novel saves an African slave he calls Dirkpecker. At the end of this novel, the protagonist consummates his marriage with the syphilitic prostitute Joan Toast, and his tutor Henry Burlingame III leaves to live among the Indians. The main character is commissioned to write an epic Marylandiad, but pens the title satire instead. For 10 points, name this novel about Ebenezer Cooke by John Barth.
ANSWER: The Sot-Weed Factor

## Bonuses

1. One of the main assumptions in constructing the Robertson-Walker metric is that the universe has this property and homogeneity. For 10 points each:
[10] Name this term which describes space whose properties are independent of direction.
ANSWER: isotropic [accept word forms; do not accept "anisotropic" or its word forms]
[10] Density fluctuations at this time cause inhomogeneities and anisotropies in the CMB. Events beyond this point are completely opaque, and it occurred slightly after recombination and coincides with photon decoupling.
ANSWER: time of last scattering [or surface of last scattering]
[10] In the 1970's Harrison and Zel'dovich argued that the clumpiness of the universe should be scale invariant, so this parameter should be one. Models in which this number isn't zero are said to have tilt.
ANSWER: spectral index [prompt on "the exponent in the power spectrum" or obvious equivalents]
2. Abdulla begins selling this substance after a plane crashes in the village and kills his donkey. For 10 points each:
[10] Name this millet drink consumed by the denizens of the village of Ilmorog. At the beginning of the novel in which it appears, three owners of a factory where it is produced are burned to death, prompting an investigation by Inspector Godfrey.
ANSWER: theng'eta
[10] Theng'eta appears in Petals of Blood, a novel by this Kenyan author of Wizard of the Crow. He urged fellow African writers not to use English in his essay collection Decolonizing the Mind.
ANSWER: Ngugi wa Thiong'o [or James Ngugi]
[10] Petals of Blood takes its title from "The Swamp", a poem by this author of the collection Sea Grapes. He mused on "the leprosy of empire" and mentioned the "disjecta membra" of the title place in his poem "Ruins of a Great House".
ANSWER: Derek Walcott [or Derek Alton Walcott]
3. On his deathbed, this character bitterly imagines "a freak" created by the drunken gods in "a contest to show off the greatness of harm that they could do". For 10 points each:
[10] Name this mythical character, a wildman created by Ninhursag who assists his best friend Gilgamesh in defeating Humbaba.

## ANSWER: Enkidu

[10] After Enkidu's death, Gilgamesh sets out to find Utnapishtim to learn the secrets of immortality. On his way, he encounters men with the bodies of these animals on the mountains of Mashu guarding the gates of the god Shamash.
ANSWER: scorpions [or scorpion men; or girtablulu]
[10] After visiting Shamash's valley, Gilgamesh wanders to the seaside, where he encounters this alewife, who helps him relax and directs him to the boatman Urshanabi.
ANSWER: Siduri
4. This man's marginal control of his country during the protectorate of Konstantin von Neurath was lost after the appointment of Reinhard Heydrich. For 10 points each:
[10] Name this president of Czechoslovakia, who succeeded Edvard Benes in that post, and ruled during the Nazi occupation. ANSWER: Emil Hácha
[10] Hácha initially came to power after Edvard Benes resigned due to this agreement. This pact granted the ethnically-German Sudetenland to Nazi Germany.
ANSWER: Munich Pact [or "agreement" or "dictate" in place of "pact"]
[10] Late in the war, rebels attempted to end the German occupation in the Prague uprising, which centered on a battle for one of these buildings. Operation Himmler was a false flag operation which seized one of these buildings in Gleiwitz prior to the invasion of Poland.
ANSWER: radio stations
5. This activity is said to "take place within its own boundaries of time and space" in Johannes Huizinga's Homo Ludens. For 10 points each:
[10] Name this human activity, which provides children with a "framework of rules" to enter a state of "flow" according to the book Celebration. The study of this activity is called ludology.
ANSWER: play [or playing games]
[10] This play theorist wrote Celebration. He is also known for positing the "liminal stage" and writing The Forest of Symbols and The Ritual Process.
ANSWER: Victor Turner
[10] In his book Man, Play, and Games, this thinker proposed agon, mimicry, alea, and ilinx, or competition, imitation, chance, and "vertigo" as the four types of play. This man wrote a study of the symbolism of camouflage in nature entitled The Mask of Medusa.
ANSWER: Roger Caillois
6. Many of the world's largest Bengal tigers live in this region, where a December 2014 oil spill of the tanker Southern Star VII has caused peril to Irrawaddy dolphins. For 10 points each:
[10] Name this massive tidal mangrove forest located on the border between India and Bangladesh.
ANSWER: the Sundarbans
[10] The Sundarbans are formed by the Delta of the Ganges, Meghna, and this river, which rises in Tibet and flows through Bangladesh as the Jamuna before it joins the Ganges distributary called the Padma, where it empties into the Bay of Bengal.
ANSWER: Brahmaputra River
[10] This Italian adventure author wrote about the Sundarbans in novels like The Mystery of the Black Jungle, and is known for his series on The Black Corsair and Tigers of Malaysia. He's also sometimes called the grandfather of the Spaghetti Western.
ANSWER: Emilio Salgari
7. Molecules which have this property can form racemic mixtures, and this property is lacked by meso compounds. For 10 points each:
[10] Name this property of molecules which are not superimposable upon their mirror images.
ANSWER: chirality
[10] This quantity is equal to zero percent for a racemic mixture. It equals the difference in the percentage compositions of the plus and minus enantiomers, and it is equal to optical purity.
ANSWER: enantiomeric excess [or ee]
[10] The enantiomeric excess of a mixture can be calculated by observing the optical rotation of the mixture and dividing by this quantity, denoted by an alpha within square brackets.
ANSWER: specific rotation [do NOT accept or prompt on "optical rotation" or "rotation"]
8. This man published a satirical work on the death of Pope Leo X's elephant Hanno that kicked off his literary career. For 10 points each:
[10] Name this Italian author, who wrote a series of Lust Sonnets to accompany the erotic art book I Modi.
ANSWER: Pietro Aretino
[10] Aretino also wrote a parody of this work, which first introduced the term sprezzatura. This etiquette manual was written by Baldassare Castiglione.
ANSWER: The Book of the Courtier [or Il Cortegiano]
[10] Aretino uses his influence to spring sonnet inventor Henry Howard, Earl of Surrey and the protagonist Jack Wilton from prison in this 1594 novel by Thomas Nashe.
ANSWER: The Unfortunate Traveller; or, the Life of Jack Wilton
9. This group was formed by painter Ben Morea and poet Dan Georgakas, growing out of the Dada art group called the Black Mask. For 10 points each:
[10] Identify this New York City anarchist group, whose name comes from a line in an Amiri Baraka poem. They cut down the fences at Woodstock, organized free concerts at Filmore East, and invaded the Pentagon in 1967 as an anti-war protest.
ANSWER: Up Against the Wall Motherfuckers! [accept obvious euphemistic equivalents from squeamish teams, such as Mother F-ers]
[10] The more moderate New York hipster Abbie Hoffman wrote this work in 1970, which refers to America as the "Pig Empire" and is divided into the sections "Survive!", "Fight!", and "Liberate!" Izak Haber claimed that much of it was plagiarized.
ANSWER: Steal This Book
[10] This other member of the Chicago Eight was tried separately for the anti-Vietnam protests, but he remains best known for founding the Black Panthers together with Huey Newton.
ANSWER: Bobby Seale
10. Mickey Borda drove this man's namesake Dance Theater on their "station wagon tours". For 10 points each:
[10] Name this choreographer who died due to AIDS in 1989. His company, a Dance Theatre named for him, produced a ballet whose sections include "Take Me to the Water" and "More Members, Move" called Revelations.
ANSWER: Alvin Ailey
[10] Keith Jarrett composed the music for this other ballet choreographed by Ailey, whose second section "In Celebration" contrasts with its first section, which mostly features a woman in a red dress.
ANSWER: Memoria
[10] Alvin Ailey's ballet Night Creature uses the music of this jazz pianist, who composed "It Don't Mean a Thing (If It Ain't Got That Swing)."
ANSWER: Duke Ellington
11. Answer the following about Charles Leadbeater, for 10 points each.
[10] Leadbeater was president of the society named for this religious movement founded partly by Henry Steel Olcott and William Quan Judge. It's best remembered for its other co-founder Madame Helena Blavatsky.
ANSWER: theosophy [or word forms, such as theosophism and the Theosophical Society]
[10] Leadbeater reportedly taught this woman to become clairvoyant, and together they wrote the book Occult Chemistry. This member of the Fabian Society succeeded Leadbetter as president of the Theosophical Society, and was a founder of the All India Home Rule League.
ANSWER: Annie Besant
[10] As President, $\overline{\text { Leadbeater discovered this 14-year old South Indian boy whom he declared to be the vehicle for the "World }}$ Teacher" or Maitreya, and the "Order of the Star in the East" was formed around this boy. Besant became the guardian for this boy, who later split with Theosophist teachings.
ANSWER: Jiddu Krishnamurti
12. Portraits of Barbara, the Duchess of Cleveland, and Henrietta, the Countess of Rochester as Roman goddesses are two entries in his series of paintings depicting the so-called "Windsor Beauties." For 10 points each:
[10] Name this court painter to Charles II, who also made a celebrated portrait of Catherine of Braganza.
ANSWER: Peter Lely
[10] Peter Lely was succeeded as court painter by Sir Godfrey Kneller, who made portraits of the members of this group of Whig political and literary dissenters. Jacob Tonson commissioned the series depicting this group, including a portrait of John Vanbrugh.
ANSWER: Kit-Cat Club
[10] Peter Lely was preceded as court painter by this artist of Self-Portrait with a Sunflower. This court painter to Charles I painted a triple portrait of him.
ANSWER: Anthony Van Dyck
13. This disease can be treated with sapropterin dihydrochloride, which is sold under the brand name Kuvan. For 10 points each:
[10] Name this disease, whose sufferers can have a "musty" odor in their breath, skin, and urine and often have light-colored skin and hair due to limited production of the catecholamine melanin.
ANSWER: phenylketonuria [or PKU]
[10] While people with PKU have their diets limited by inability to consume aspartame, this autoimmune disease of the small intestine requires its sufferers to have a gluten-free diet.
ANSWER: celiac disease [accept "that disease I have" from Matt Bollinger]
[10] Patients with this disease must limit their consumption of the amino acids leucine, isoleucine, and valine due to a defect in the BCKD protein complex. Its name comes from the characteristic sweet odor in the patient's urine.
ANSWER: Maple syrup urine disease [or MSUD; or branched-chain ketoaciduria]
14. The protagonist of this novel produces an opera about the siege of Munster entitled The Fowler's Snare and first raises suspicion when the police visit his house after the death of his dog Fidelio. For 10 points each:
[10] Name this 2014 novel about the life of the composer Peter Els, who codes his music into the DNA of a pathogen and earns the nickname "Bioterrorist Bach" after he is pursued by the government.

## ANSWER: Orfeo

[10] Orfeo was written by this contemporary American author of Galatea 2.2, who described Mark Schluter's suffering from Capgras syndrome after a horrific car accident in the 2006 novel The Echo Maker.
ANSWER: Richard Powers
[10] In Galatea 2.2, Richard Powers collaborates with Philip Lentz to create one of these devices named Helen that is capable of passing an English exam. One of these devices called AM tortures people in Harlan Ellison's I Have No Mouth, and I Must Scream, while another called Multivac appears in several stories by Isaac Asimov.
ANSWER: supercomputer [prompt on "artificial intelligence" or "AI"]
15. According to legend, a curse limiting this dynasty to ten generations of rulers was placed on its founder after he refused to consume a bowl of curd, which had already been regurgitated by a god disguised as a hermit. For 10 points each:
[10] Name this dynasty which was founded when the ruler of the Gurkha kingdom annexed the lands of the Malla dynasty.
ANSWER: Shah Dynasty
[10] That ruler, Prithvi Narayan, unified this modern nation which was at least nominally ruled by the Shah Dynasty until 2008 from its capital at Kathmandu.
ANSWER: Nepal [or Federal Democratic Republic of Nepal]
[10] The United Left Front, a coalition of communist parties, formed the Peoples Movement which forced this ruler of the Shah Dynasty to become a constitutional monarch in 1990. He was killed with his family, including Queen Aishwarya, at a royal dinner massacre in 2001.
ANSWER: Birendra Bir Bikram Shah
16. This philosopher proposed a process oriented way of using language called "rheomode." For 10 points each:
[10] Name this philosopher, who distinguished between the undivided and underlying "implicate order" and the categories that scientists use to describe scientific concepts, "explicate order," in his book Wholeness and the Implicate Order.
ANSWER: David Bohm
[10] The fourth chapter of Wholeness and the Implicate Order discusses Bohm's ideas on hidden variable theories of this field. The Einstein-Podolsky-Rosen paradox concerned some strange behavior in this field.
ANSWER: quantum mechanics [or quantum physics; or obvious equivalents; prompt on "physics"]
[10] The quantum philosopher David Deutsch proposed a theory of multiverses in a book about the "fabric" of this thing. G.E. Moore considered the nature and this other property that belong to objects of perception.

ANSWER: reality [or The Fabric of Reality; or The Nature and Reality of Objects of Perception]
17. Matthew Arnold described this man's "track, across the fretful foam of vehement actions without scope or term, called history" in a sonnet written "On Hearing Him Mispraised." For 10 points each:
[10] Name this man whose death inspired Tennyson to write "not once or twice in our rough island-story the path of duty was the way to glory."
ANSWER: Duke of Wellington [or Arthur Wellesley]
[10] Wellington is a character in The Dynasts, a play by this author of The Mayor of Casterbridge.
ANSWER: Thomas Hardy
[10] This poet wrote about the spot where "Wellington beheld the slaughtered Chief, and for awhile gave way to manly grief" in The Poet's Pilgrimage to Waterloo. He wrote about another battlefield visit in "After Blenheim."
ANSWER: Robert Southey
18. Beethoven's violin concerto opens with a solo for this instrument, while Philip Glass wrote a 2000 "Concerto Fantasy" that involves two soloists playing this instrument. For 10 points each:
[10] Name this instrument played by virtuosos such as Saul Goodman. Johann Christian Fischer wrote an unusual symphony for eight obbligato ones, and several Leonard Bernstein pieces call for them to be played with maracas.
ANSWER: timpani [or kettledrums]
[10] This Hungarian composer required the lowest and highest drums of the timpani to play an F and E-flat while the two middle drums were pedaled consistently in his Concerto for Orchestra. He also wrote Mikrokosmos.
ANSWER: Béla Bartók [or Bela Victor Janos Bartok]
[10] Two sets of timpani placed on opposite sides of the orchestra play a duel in the final movement of this symphony by Carl Nielsen. Nielsen wrote that this symphony was supposed to depict the "elemental will to live."
ANSWER: Nielsen's Symphony No. 4 Op. 29, FS 76 [or the "Inextinguishable" Symphony; or Det Uudslukkelige]
19. This effect causes the resistance to be quantized in integer multiples of a unit equal to Planck's constant over the electron charge squared; that unit is the von Klitzing constant and it can be used for an extremely precise definition of the Ohm. For 10 points each:
[10] Name this effect in which the resistance of a two dimensional electron gas varies by a discrete amount.
ANSWER: integer quantum Hall effect [do NOT prompt on "Hall effect"; do NOT accept "fractional quantum Hall effect"]
[10] Along with the Josephson effect and the single electron transport effect, the quantum Hall effect is a member of the triangle of this discipline which uses non-classical effects to make extremely precise measurements on physical constants.
ANSWER: quantum metrology
[10] While the quantum Hall effect sets the ohm, this value may be defined by the Josephson effect. The SI unit for electric field is one of these units per meter.
ANSWER: volt [or anything about the voltage scale]
20. Answer the following about King Wladislaw II, also known as Jagiello. For 10 points each:
[10] Jagiello was a Grand Duke of one of these two countries, and became the king of the other by personal union. These two countries later formed a Commonwealth in 1569 by the Union of Lublin.
ANSWER: Poland and Lithuania
[10] The vague phrase "perpetuo applicare" was used in this 1385 "union" made prior to the marriage of Jagiello and Jadwiga.
This agreement resulted in Lithuania being Christianized and unified with Poland.
ANSWER: Union of Krewo [or Act of Kreva; or Union of Kreva]
[10] This 1411 treaty was entered into following Polish defeat of the Teutonic Knights at the Battle of Grunwald in 1410. It returned Dobrzyn Land ("DUB-zhin") to Polish control, though discontent over its terms led to the Hunger War.
ANSWER: (First) Peace of Thorn

