

1. This state's refusal to let a woman practice law led to a Fourteenth Amendment ruling against Myra Bradwell. Police interrogations in this state were at issue in the *Escobedo* ruling, later expanded by *Miranda v. Arizona*. Philip Armour's industrial base in this state was broken up by federal Sherman Antitrust Act suits. This state's laws regarding storage charges for the use of grain elevators were upheld in 1887, though its laws restricting (*) railroads within its borders, lobbied for by Grangers, were struck down in the *Wabash* and *Munn* cases, inspiring the Interstate Commerce Commission. For 10 points, name this state where Jane Addams' agitation helped break up the meatpacking industry of Chicago.

ANSWER: Illinois

<Jackson>

2. A bridge in Cody, Wyoming may have inspired this man's painting of a mule-led covered wagon train, *Going West*. On the way back from a Japanese exhibition, this man's *Mural on Indian Red Ground* was confiscated by Iranian customs in 2012. He depicted "a stampede [of] every animal in the American West" in his work *Mural*. In 1973, a painting by this student of Thomas Hart Benton was (*) controversially purchased for \$1.3 million by the National Gallery of Australia. A line from *The Tempest* inspired his work *Full Fathom Five*, while his painting *Number 1, 1950* is subtitled *Lavender Mist*. For 10 points, name this American abstract expressionist whose style of action painting led to his nickname, "Jack the Dripper".

ANSWER: Jackson Pollock [or Paul Jackson Pollock]

<Karas>

3. Studying blackbirds, Gordon Orians proposed that territory quality created a threshold between two systems of this behavior. Emlen and Oring hypothesized that one system of this behavior occurred most frequently at highly clumped resources and total asynchronous temporal availability. The hotshot and hotspot hypotheses explain why individuals congregate at leks in the leadup to this (*) behavior. RA Fisher proposed "runaway selection" of traits that led to this behavior. The Hardy-Weinberg principle assumes that this behavior is random. Pair bonding is exhibited in species using the monogamous system of this behavior. For 10 points, name this behavior which is required for sexual reproduction.

ANSWER: mating [or word forms; prompt on sexual reproduction; prompt on polygyny or polygamy or monogamy]

<Silverman>

4. By replacing generalized velocities with the conjugate form of this quantity, one can reformulate Lagrangian mechanics as Hamiltonian mechanics. In fluid dynamics, the Cauchy equation is equivalent to the conservation of this quantity. Its operator in quantum mechanics is equal to $i\hbar$ times the partial derivative with respect to position. The conservation of this quantity proceeds from translational symmetry according to Noether's theorem. According to the de (*) Broglie relation, wavelength is equal to Planck's constant over this quantity. This quantity is conserved by inelastic collisions. The change in this quantity is defined as the impulse. For 10 points, name this quantity conventionally equal to mass times velocity.

ANSWER: linear momentum [do not accept "angular momentum"]

<Karas>

5. On this peninsula, oral epic poetry is sung by guslars, who play a single-stringed instrument called a gusle in its Denarides region. One namesake war on this peninsula was preceded by the Goudi coup, after which the new Venizelos government supported unifying this peninsula under the Megali idea. Just before his death, Otto von Bismarck predicted trouble from "some (*) damned fool thing" in this region. The Treaty of Bucharest resolved two namesake wars fought on this peninsula in 1912 and 1913, which the Ottoman Empire lost. In the buildup to World War I, this peninsula was known as the "Powder Keg of Europe." For 10 points, name this Eastern European peninsula that contains Greece and Bosnia.

ANSWER: Balkan Peninsula [or Balkans]

<Hart>

6. David Schneider argued for redefining this concept in symbolic rather than biological terms in a book on the "American" kind of this concept. Compadrazgo is an example of the fictive kind of this concept. Six patterns of this concept were described by Lewis Henry Morgan, including the "generational" Hawaiian system and the "bifurcate merging" Iroquois type. The cognatic form of tracking this concept is divided into bilateral or ambilineal types. Claude (*) Levi-Strauss argued for an "alliance theory" of this kind of relationship, which is often classified as affinal or consanguineal, in a book entitled *The Elementary Structures of* [this concept]. For 10 points, give this anthropological term encompassing the study of familial relationships.

ANSWER: kinship [prompt on things like "being related" or "family relationships"]

<Kothari>

7. While performing this action, the Erinyes hum creepily before they find the scent of blood in *The Eumenides*. Psyche performs this action immediately after Zephyrus brings her to a meadow. A god of this domain often depicted with inverted torches marries the Grace Pasithea after doing Hera a favor. Odysseus' sailors cooked the (*) cattle of the sun while Odysseus was engaged in this activity. Selene falls in love with a shepherd who appears especially beautiful while doing this. The twin brother of Thanatos governs this activity, which Endymion performs eternally. For 10 points, name this restful activity controlled by Hypnos.

ANSWER: sleeping [on the first clue, accept waking up]

<Jose>

8. In one of this author's play, a rally causes a prostitute to complain that protests are hurting her business. In the same act of that play, Rosie Redmond is picked up at a bar by Fluther Good after Captain Brennan carries in the title object. That play by this author ends with Jack being called for by his wife (*) Nora Clithroe, who is then shot when thought to be a sniper. In another of his plays, Johnny loses his arm, betrays Tancred, and is killed by the IRA. In that play, Joxer Daly is the drinking buddy of the strutting second title character, former seaman Captain Jack Doyle. For 10 points, identify this Irish playwright of *The Plough and the Stars* and *Juno and the Paycock*.

ANSWER: Sean O'Casey [or Seán Ó Cathasaigh]

<Schindler>

9. A leader of this country is shown proclaiming its independence in the painting *Independence or Death*. A composer from this country created a musical portrait of pianist Arthur Rubinstein entitled *Rudepoema*. Roberto Burle Marx helped design a city in this country which contains the Plaza of the Three Powers and the Monumental Axis. A style of music from this country was popularized in the U.S. by the 1964 album (*) *Getz/Gilberto*, which included the tracks "Corcovado" and "The Girl from Ipanema". Its airplane-shaped capital city was designed by Lucio Costa and Oscar Niemeyer, while native pianist Antonio Carlos Jobim (zho-BEEM) pioneered its bossa nova music. For 10 points, name this South American country, the home of the samba.

ANSWER: Federative Republic of Brazil [or Republica Federativa do Brasil]

<Carson>

10. One play written in this language ends with Marie being fired and the bureaucrat Gross demoted to office spy after struggling to translate a document written in the "anti-humanistic" language Ptydepe. In another play written in this language, chess terms like "check!" are used to criticize an event held by the Liquidation Office by Hugo (*) Pludek. Human drudgery is ended by a company that employs Harry Domin in a play written in this language, which was used to write *The Memorandum* and *The Garden Party*. A play written in this language ends with Alquist observing that Primus and Helena have found love after the death of humanity, and coined the term "robot". For 10 points, name this language used by authors Karel Capek and Vaclav Havel.

ANSWER: Czech [or čestina]

<Bentley>

11. An infinite number of these objects comprise the Baum-Sweet sequence. A rudimentary form of error checking involves utilizing a parity one of these objects. Although it doesn't involve cin and cout, in languages with C syntax, operations named for these objects can be performed by using two less than or greater than signs, which are left and right shifts. The most significant one is often used to store (*) signedness, and they can be toggled using a namesake mask. One of these objects can be used to store a boolean value. In most systems, a collection of eight of them is known as a byte. For 10 points, name these most basic units of data in a computer, which can be 0 or 1.

ANSWER: bits [prompt on numbers]

<Bentley>

12. This event supported the same cause as a crowd at the Qissa Khwani bazaar which was massacred a month later. The leader of this event timed it to coincide with the beginning of "National Week", a previous action against the Black Acts. This action was immediately preceded by its leader complaining about the snatching of flags in a letter written to Lord Irwin. This effort occurred two months after the (*) Purna Swaraj declaration. Its white-clad participants ended at Dandi, where its leader picked up a clot of mud and declared that he was shaking the foundations of the British Empire. For 10 points, name this two mile-long procession in protest of taxes on a byproduct of boiled seawater, led in 1930 by Gandhi.

ANSWER: Gandhi's Salt March to Dandi [or Salt satyagraha]

<Mukherjee>

13. After the siege of Drogheda (DRAH-huh-duh), Arthur Aston was killed by being beaten with one of these objects believed to contain gold coins. One of these objects made of cork replaced another object buried with full military honors after its loss at Veracruz. Manley Pointer steals one of these objects from Mrs. Hopewell's daughter (*) Hulga in Flannery O'Connor's short story "Good Country People." Peter Stuyvesant owned one of these objects studded with silver nails. A contemporary user of a pair of these objects claims that he had not put them on before shooting through a locked bathroom door and killing girlfriend Reeve Steenkamp. For 10 points, name these objects that help Oscar Pistorius run. ANSWER: prosthetic legs [or wooden legs until "bathroom door" is read; or artificial legs, etc.; prompt on legs; prompt on answers such as artificial limbs that do not specify legs]

<Mehigan>

14. In one work, this thinker imagined a nation called Kazanistan that is decent but not liberal. This man argued that utilitarians should appeal to a practice-based notion of rules in his "Two Concepts of Rules." This man claimed that people can agree on political ideas and also accept different normative doctrines, an idea he termed "overlapping consensus." Besides developing his "liberty principle," this man argued that inequalities are only justified if they benefit those (*) worst off, which he called the "difference principle." He developed the idea of the original position, in which decisions about society are made from behind a "veil of ignorance." For 10 points, name this philosopher who described "justice as fairness" in *A Theory of Justice*. ANSWER: John Bordley Rawls

<Kothari>

15. In this country's celebration of Epiphany, worshipers venerate *tabots*, replicas of the Ark of the Covenant, before re-enacting Jesus' baptism. The first *muezzin*, Bilal, came from this site of the Timkat Festival. This country's Church of Our Lady of Zion purports to contain the original Ark of the Covenant. Frumentius converted this country's king (*) Ezana, who, according to the *Kebra Nagast*, was descended from Solomon and the Queen of Sheba. Christian missionaries converted this country's Axumite Kingdom. For 10 points, name this country once ruled by the Rastafarian Messiah Haile Selassie. ANSWER: Ethiopia [or Abyssinia; do not accept "Axum"]

<Bollinger>

16. This man sent orders to put troops in southern Italy from a meeting at Laibach, which reaffirmed agreements made at Troppau a year prior. With the pope, the czar, and Guizot (ghee-ZOH), Karl Marx listed this man as part of a "holy alliance" against the specter of Communism. A decade after securing a marriage for princess Maria Louise, he ordered the *Burschenschaften* student groups disbanded in response to the (*) assassination of playwright August von Kotzebue via the Carlsbad decrees. This man led a festive meeting which established a 38-state German Confederation, where Britain's Viscount Castlereagh helped form the Quadruple Alliance. For 10 points, name this conservative minister who stabilized post-Napoleonic Europe by chairing the Congress of Vienna. ANSWER: Prince Klemens Wenzel von Metternich

<Jackson>

17. In chromophores, electrons in lone pairs are symbolized by this letter, and are forbidden to transition to pi star states. A quantity symbolized by this letter equals molarity times the number of acidic protons in a strong acid. This letter designates doped semiconductors with more electrons than holes. The difference between the reciprocal-squares of two values symbolized by this letter gives the energy of an electronic transition in the (*) Rydberg formula. This letter is often used before the names of straight-chain alkanes. The principal quantum number is symbolized by this letter. For 10 points, name this letter which designates number of moles in the ideal gas law, and is the atomic symbol of the gas making up most of our atmosphere.

ANSWER: n

<Silverman>

18. A poem by this author describes a worm as "colonel of carrion" and notes that "the gorilla wrestles with the superman", before asking questions like "how can I face such slaughter and be cool?" The protagonist is accompanied by Souris and Tigre and pursued across Africa by Corporal Lestrade in this man's play about Makak. He used a loose terza rima style for his most famous work, in which Major Plunkett mourns the death of his wife Maud, the (*) blind poet Seven Seas and the bar owner Ma Kilman heal the wounded Philoctete, and Helen becomes the object of a rivalry between the fishermen Hector and Achille. For 10 points, name this author of "A Far Cry from Africa", *Dream on Monkey Mountain*, and *Omeros*, who hails from St. Lucia.

ANSWER: Derek Alton Walcott

<Carson>

19. The 2010 Tony Award for Best Play went to an author from this country who depicted Ken helping Mark Rothko paint the Four Seasons murals in *Red*. One author from this country collected such plays as *Sure Thing* and *Words, Words, Words* in his series *All in the Timing*, which also contains his *Variations on the Death of Trotsky*. This is the home country of John (*) Logan and David Ives. In one play by an author from this country, Don, Teach, and Bobby plan to steal a coin with a buffalo on it, and in another play, that author described the attempts of Ricky Roma and Shelley "The Machine" Levene to acquire real estate leads. For 10 points, name this home country of the author of *Glengarry Glen Ross*, David Mamet.

ANSWER: United States of America [accept either underlined portion; accept USA]

<Mehigan>

20. One of this composer's symphonies extracts the "panic" and "military matters" music from one of his operas. His self-described "opus one" is a piano piece which shifts through various keys, alternating between the Lydian and namesake modes. A commission from the Great Woods Festival resulted in a fanfare by this man which opens with a pulsing (*) woodblock ostinato that is soon joined by four trumpets. Another of his works is a "memory space" featuring a children's chorus and recorded readings of victims' names. This composer of *Phrygian Gates* and *Short Ride in a Fast Machine* also created the 9/11 memorial *On The Transmigration of Souls*. For 10 points, name this American minimalist composer of *Doctor Atomic*.

ANSWER: John Coolidge Adams [do not accept "John Luther Adams" or "John Quincy Adams"]

<Rosenberg>

21. Before quarks were proposed, this scientist proposed partons to analyze high-energy hadron collisions. Using a formalism fully developed by this person, the quantum mechanical amplitude can be found by integrating over all the possible paths with a weighting factor given by the classical action, the so-called path integral formulation. Squiggly and straight lines can be used to show the annihilation of an electron and positron to form a photon on his namesake (*) diagrams. This physicist's undergraduate lectures at CalTech were packaged into his namesake *Lectures on Physics*. For 10 points, name this bongo drum enthusiast who shared a Nobel with Julian Schwinger for his work in quantum electrodynamics and demonstrated the effects of cold on an O-ring after the Challenger disaster.

ANSWER: Richard Phillips Feynman

<Karas>

22. Cassius Dionysius made a Greek translation of a Punic book on this subject by Mago. Pietro de Crescenzi's later book about this thing was based on a 12-book treatise by Columella. Arthur Young studied this subject while traveling in France, arguing that the *metayage* system and the nobility made France worse than Britain at it. In the 20th century, Norman Borlaug made drastic improvements to this process. The *Tableau économique* argued that all wealth came from surpluses in (*) this activity, a view held by François Quesnay and the physiocrats. This activity was improved in Britain by an invention of Jethro Tull, and medieval practitioners of it used the three-field system. For 10 points, name this activity aided by the seed drill and the plow.

ANSWER: farming [or agriculture; or growing wheat; or growing rice; prompt on "land"; prompt on "food production" or similar]

<Bailey>

23. A play by this man ends with a man kept on suicide watch having a stroke on the lap of the nurse. This man described Laura's attempts to give the life of an artist to her daughter Bertha, which necessitates driving her husband, The Captain, insane. In a play by this man, Jakob Hummel describes the Colonel and the Mummy in the closet to (*) Arkenholz. One character created by this man broke off her engagement because her fiancé refused to jump over a whip. In a play by this man, the cook Christine gives an abortifacient to a dog, and the footman Jean decapitates a pet bird before giving the title character a razor with which she kills herself. For 10 points, name this Swedish playwright of *The Ghost Sonata* and *Miss Julie*. ?

ANSWER: August Strindberg [or Johan August Strindberg]

<Mehigan>

24. The protagonist of a series of this author's novels befriends Prettiman on his voyage to Australia, and falls in love with Marion Chumley, who is traveling aboard the *Alcyone*. That series of novels centers on Edmund Talbot, and includes *Fire Down Below* and *Close Quarters*. This author's *To the Ends of the Earth* trilogy begins with (*) *Rites of Passage*, but he's more famous for a novel in which Robert is almost killed while pretending to be a boar. In that book, a fighter pilot's body is mistaken for the Beast, and rival groups of boys fight over Piggy's glasses and a conch. For 10 points, name this British author of *Lord of the Flies*.

ANSWER: William Gerald Golding

<Schindler>

1. The album *Solo Flight* collects many of the performances by one pioneering player of this instrument, while another player of this instrument collaborated with Jaco Pastorius on his first album, *Bright Size Life*. For 10 points each:

[10] Name this instrument played by jazz musicians Charlie Christian and Pat Metheny, as well as by a man who recorded "Nuages" with the Quintette du Hot Club de France.

ANSWER: jazz **guitar**

[10] "Nuages" was composed by this jazz guitarist, who cofounded the aforementioned quintet with Stephane Grappelli. This pioneer of "gypsy jazz" lost the use of two fingers on his left hand in a fire.

ANSWER: Django **Reinhardt** [or Jean **Reinhardt**]

[10] Unlike Reinhardt, the injury to a finger ended the guitar-playing career of Mac "Dr. John" Rebennack, who as a piano player later collaborated with this blues guitarist. He wrote "Layla" for his band Derek and the Dominoes and recorded Robert Johnson's "Crossroads" while with Cream.

ANSWER: Eric Patrick **Clapton**

<Carson>

2. Until 2002, the Al Faisaliyah Center was the tallest building in this city. For 10 points each:

[10] Name this city, which is home to the historic Masmak fort and is the most populous city in Saudi Arabia.

ANSWER: **Riyadh**

[10] This building has been the tallest in Riyadh since it opened in 2002. At nearly one thousand feet high, this building features an upside-down parabolic hole in its upper half.

ANSWER: **Kingdom Centre** [do not accept "Kingdom Tower"]

[10] The under-construction Kingdom Tower in this Saudi city was originally planned to be one mile tall. Located on the Red Sea, this city's airport features the Hajj Terminal, an enormous facility that helps this city's role as the primary port of entry for Muslim pilgrims.

ANSWER: **Jeddah**

<Karas>

3. The differential form of this law states that the divergence of E is equal to ρ over permittivity of free space. For 10 points each:

[10] Name this law, one of the four Maxwell equations, which relates the flux through a surface to the charge enclosed by said surface.

ANSWER: **Gauss's** law

[10] Gauss's law can be used to show that the electric field inside a conducting sphere takes on this value because it contains no enclosed charge. In Gauss's law for magnetism, the divergence of the magnetic field equals this value.

ANSWER: **zero**

[10] Gauss's law can be used to show that the potential of this configuration of charges is equal to twice the charge density times Coulomb's constant times the natural log of a ratio of distances from the configuration. Its electric field is thus proportional to one over distance.

ANSWER: **infinite line** of charge [or obvious equivalents, such as an **infinite** number of charges in a **linear** configuration]

<Mukherjee>

4. Historical revisionists who refuse to accept the legitimacy of this council include the sedevacantists, who believe that the Holy See was vacant at the time it was convoked. For 10 points each:

[10] Name this council that affirmed human rights in its declaration *Dignitatis Humanae*, and paved the way for the usage of vernacular language in Masses.

ANSWER: **Second Vatican** Council [or **Vatican II**; or Concilium Oecumenicum **Vaticanum Secundum**]

[10] This future Pope, the first to resign from the Papacy in nearly six hundred years, served as a theological consultant at Vatican II.

ANSWER: **Benedict XVI** [or Joseph Aloisius **Ratzinger**; prompt on partial answers]

[10] At the Second Vatican Council, Pope Paul VI promulgated *Nostra Aetate*, meaning "In our age," to address this long-held belief that stems from Matthew 27:24-25.

ANSWER: the belief that **Jews killed Jesus** [accept anything along those lines]

<Gupta>

5. Identify the following about Sarah Emma Evelyn Edmonds, for 10 points each.

[10] Edmonds dressed as a man to fight in this war, as did a person who called herself Albert Cashier. Clara Barton helped the wounded at this conflict's Siege of Petersburg.

ANSWER: American **Civil** War [or the **War Between the States**]

[10] Edmonds served in the Houston branch of this Union veterans' organization. Founded in Decatur, its members reliably voted for Republican candidates.

ANSWER: **Grand Army of the Republic** [or **G.A.R.**]

[10] Edmonds fought at the Battle of Blackburn's Ford, part of a Civil War campaign of this name. Stonewall Jackson's troops defeated Union Major General John Pope at this site.

ANSWER: **Manassas** campaign [or Battle of **Manassas** Junction; or Battle of **Bull Run**; or First Battle of **Bull Run**; or Second Battle of **Bull Run**; or First **Manassas**; or Second **Manassas**]

<Bentley>

6. This artist painted himself next to his very tall cousin in the background of a work whose foreground depicts three men and two women seated at a table. For 10 points each:

[10] Identify this diminutive French artist and postermaker, a Montmartre fixture who invented the Earthquake cocktail and painted *At the Moulin Rouge*.

ANSWER: Henri de **Toulouse-Lautrec** [or Henri Marie Raymond de **Toulouse-Lautrec**-Monfa]

[10] Perhaps the most jarring element of *At the Moulin Rouge* is the woman whose face, colored with white and this other color, is cut off by the right hand side of the canvas. A stripe of this color runs down the middle of Amélie Matisse's face in a 1905 painting.

ANSWER: **green** [or **verte**; accept *The Green Stripe* or *La Raie Verte*]

[10] Many of Toulouse-Lautrec's paintings and posters depicted two famous Moulin Rouge dancers. The first, who appears in the back of *At the Moulin Rouge*, was famed for dancing the can-can, and was replaced by the second, who was nicknamed "La Mélinite". Name either.

ANSWER: La **Goulue** [accept Louise **Weber**; prompt on "the glutton"] or Jane **Avril**

<Bentley>

7. The work of Lodovico Castelvetro and other neoclassicists was instrumental in leading to the widespread adoption of these principles in the modern era. For 10 points each:

[10] Name these dramatic ideas, the first of which comes from Aristotle's *Poetics* and advises eschewing subplots. Later-added ones advocate the use of a single space and no more than 24 hours' time.

ANSWER: the classical unities [or Aristotelian unities; or three unities]

[10] Cardinal Richelieu led the Académie Française's attack on this Pierre Corneille play, which did not respect the classical unities. Its title character takes a break from fighting Moors to duel Don Sanche for the hand of Chimène.

ANSWER: *Le Cid* [or *The Cid*; do not accept "El Cid"]

[10] This man's failure to respect the unities in his play *Hernani* led to a riot at the play's premiere. This Frenchman is better-known for such novels as *Les Misérables*.

ANSWER: Victor Marie Hugo

<Carson>

8. DELLA proteins regulate the transcription of enzymes that synthesize these compounds. For 10 points each:

[10] Name this class of diterpenoid plant hormones which, like auxins, induce stem elongation. They also stimulate seed germination and cause uncharacteristically rapid growth of rice seedlings.

ANSWER: gibberellins

[10] Gibberellins also stimulate the secretion of this enzyme, which hydrolyzes starch. This enzyme is present in saliva and breaks down carbohydrates into simple monosaccharides.

ANSWER: alpha-amylase

[10] Synthesis of gibberellins requires the mevalonate pathway, which uses this metabolite as its starting material. This thioester is formed from the beta-oxidation of fatty acids, and also from the decarboxylation of pyruvate.

ANSWER: acetyl coenzyme A [or acetyl CoA]

<Silverman>

9. This first Plantagenet king ordered that abuses of power by local sheriffs be curbed in the 1170 Inquest of Sheriffs. For 10 points each:

[10] Name this English king, who also controlled a broader "Angevin empire" across what's now France. He had the Archbishop of Canterbury, Thomas Becket, assassinated.

ANSWER: Henry II [or Henry of Anjou or Henry FitzEmpress or Henry Curtmantle or Henry Plantagenet]

[10] Henry II issued the namesake "Constitutions" of this town to allow trials of clergy in secular courts. It also names a "Code" passed during Charles II's reign to strengthen the Anglican church.

ANSWER: Clarendon

[10] Henry II raised money through this form of payment, by which knights could exempt themselves from military service. King John's raising of rates on this payment was curbed by the Magna Carta.

ANSWER: scutage

<Bentley>

10. At the end of this story, Armand Aubigny burns a letter that reveals he is part black. For 10 points each:
?

[10] Name this short story about a Cajun child discovered at a gateway by the Valmonde family.

ANSWER: "**Desiree's Baby**"

[10] In this novel by the author of "Desiree's Baby," Edna Pontellier commits suicide by walking into the Gulf of Mexico after carrying on an affair with Robert Lebrun. ?

ANSWER: *The **Awakening***

[10] This American author of "The Story of an Hour" wrote "Desiree's Baby" and *The Awakening*.

ANSWER: Kate **Chopin** [or Katherine **O'Flaherty**]

<Mehigan>

11. This conductor made the first complete recording of Wagner's *Ring* Cycle with Decca. For 10 points each:

[10] Name this Hungarian-born conductor who was music director of the Chicago Symphony Orchestra during the 1970s and 80s.

ANSWER: Sir Georg **Solti** [SHOL-tee]

[10] For most of the 1960s, Solti was the music director of the Royal Opera House at Covent Garden in this city, also home to the Royal Philharmonic Orchestra.

ANSWER: **London**, England

[10] Solti was a rival of Herbert von Karajan, who spent 35 years directing this European city's Philharmonic Orchestra. Leonard Bernstein conducted a 1989 performance of Beethoven's Ninth in this city which replaced the word "Freude", or "joy", with "Freiheit", or "freedom".

ANSWER: **Berlin**, Germany

<Rosenberg>

12. Unlike liposomes, these structures only have a monolayer. For 10 points each:

[10] Name these spherical aggregations of surfactants in solution, which form above a critical concentration and temperature.

ANSWER: **micelles**

[10] Surfactants, in general, reduce this quantity for a solution by interfering with intermolecular adhesive forces at the liquid-air interface. This quantity, measured in force per length, is the reason that bugs can walk on water.

ANSWER: **surface tension** [do not accept or prompt on "surface energy"]

[10] This surfactant and detergent derived from a twelve-carbon fatty acid is useful both for lysing cells and for disrupting protein structure. This compound gives proteins a uniform negative charge and is often used with PAGE.

ANSWER: **SDS** [or **sodium dodecyl sulfate**]

<Silverman>

13. Benjamin Cooley leads a fascist paramilitary organization called the Diggers' Club in an effort to gain control of this nation in a 1923 novel. For 10 points each:

[10] Name this Southern Hemisphere country, where the pro-Aboriginal Jindyworobak literary movement was inspired in part by that aforementioned novel, D.H. Lawrence's *Kangaroo*.

ANSWER: Commonwealth of **Australia**

[10] The Aboriginal artist Alf Dubbo appears in this Australian author's novel *Riders in the Chariot*. Laura Trevelyan meets an explorer who plans a doomed trip across the outback in his novel *Voss*.

ANSWER: Patrick Victor Martindale **White**

[10] Another Australian novel involving a long journey to the outback is this 1988 work by Peter Carey, which centers on a bet regarding the transportation of a glass church from Sydney to Bellingen.

ANSWER: **Oscar and Lucinda**

<Carson>

14. Answer the following about creation myths in Egypt, for 10 points each.

[10] In the Heliopolitan creation myth, this god creates himself sitting on a giant mound, then spits out Shu and Tefnut.

ANSWER: **Atum** [or **Atem**; do not accept or prompt on "Aten"]

[10] In a myth from Hermopolis, this wise ibis god lays the cosmic egg out of which Ra hatches.

ANSWER: **Thoth**

[10] This city's Shabaka Stone recounts how a craftsman god, the husband of Sekhmet, created the world out of his thoughts.

ANSWER: **Memphis**

<Bollinger>

15. This woman became addicted to pain medication following a back injury in the mid-60s. For 10 points each:

[10] Identify this first lady and namesake of a center for recovery from chemical dependencies.

ANSWER: Elizabeth "Betty" **Ford** [or Elizabeth Anne **Bloomer**]

[10] Betty Ford underwent surgery relating to this disease while in the White House. The Susan G. Komen non-profit funds research to cure this disease.

ANSWER: **breast cancer** [prompt on **cancer**]

[10] Betty Ford studied under this woman at Bennington College in Vermont, and, as first lady, helped secure a Presidential Medal of Freedom for her. Her *Episodes* uses the music of Anton von Webern, and she worked with Louis Horst on *Frontier*.

ANSWER: Martha **Graham**

<Bentley>

16. Identify the following things about the 1989 novel *The Remains of the Day*, for 10 points each.

[10] It was written by this Japanese-British author of *Never Let Me Go* and *The Unconsoled*.

ANSWER: Kazuo **Ishiguro** [accept names in either order]

[10] It is narrated by this incredibly devoted butler, who reminisces about his former employer Lord Darlington and his inability to form a relationship with the housekeeper Miss Kenton.

ANSWER: Mr. **Stevens**

[10] Stevens spends the prologue obsessing over his inability to engage in this specific behavior with his American employer Mr. Farraday. He listens to *Twice a Week or More* in an attempt to develop the casual wit necessary for it, and claims that in it "lies the key to human warmth".

ANSWER: **bantering**

<Carson>

17. This philosopher claims that there is no reason to suppose that physical facts are logically or causally dependent on mental facts in his paper "A Defense of Common Sense." For 10 points each:

[10] Name this British philosopher who advanced the open-question argument in *Principia Ethica* and asserted "Here is one hand" in his "Proof of an External World."

ANSWER: George Edward **Moore**

[10] In *Principia Ethica*, Moore introduced this term to criticize reductive attempts to derive moral qualities, like goodness, in terms of properties like "pleasing" or "desirable".

ANSWER: **naturalistic fallacy** [prompt on "is/ought", I guess]

[10] The naturalistic fallacy is related to this philosopher's claim that one cannot derive statements about what ought to be from statements about what is the case, found in *A Treatise of Human Nature*. This empiricist also wrote *An Enquiry Concerning Human Understanding*.

ANSWER: David **Hume**

<Kothari>

18. This country has gone through at least eight attempted coups since independence, in part because the Muslim Hausa and Fulani in its north compete for influence with the black Christian Igbo and Yoruba in its south. For 10 points each:

[10] Name this former British colony, an African nation which exports fossil fuels from Lagos.

ANSWER: Federal Republic of **Nigeria**

[10] This Igbo-led breakaway state in southeastern Nigeria lost a bloody civil war in the late 1960s, during which Doctors Without Borders was founded.

ANSWER: Republic of **Biafra**

[10] During the 20th century, this corporation nearly destroyed Nigeria's Ogoni ethnic group through environmental damage. Author Ken Saro-Wiwa was hanged after suing this company.

ANSWER: Royal Dutch/**Shell**

<Jackson>

19. Karl Wilhelm Feuerbach helped discover the nine-point circle, so name some things about it, for 10 points each.

[10] The nine-point circle contains the feet of the medians and these segments, as well as the midpoint between each vertex and the orthocenter. These segments pass through a vertex and intersect the opposite side of the vertex at a right angle, and one of them is the height in the one-half base times height formula for the area of a triangle.

ANSWER: **altitude**

[10] The center of the nine-point circle is at the midpoint of the segment connecting the orthocenter to this point. For a triangle, it's located at the intersection of any two of the three perpendicular bisectors.

ANSWER: **circumcenter** [or obvious equivalents, such as the **center** of a **circumscribed circle**]

[10] The nine-point circle also contains the midpoint between two of these points that have the minimal possible total distance to the vertices of a triangle.

ANSWER: **Fermat** points [or **Torricelli** points]

<Reinstein>

20. The French commander, Charles d'Albret, was killed at this battle, after which the French agreed to the treaty of Troyes. For 10 points each:

[10] Name this 1415 battle of the Hundred Years' War, in which wooden stakes planted by Henry V's English men ward off cavalry charges as he routed French forces on his way to Calais.

ANSWER: Battle of **Agincourt**

[10] At Agincourt, Thomas Erpingham commanded British and Welsh warriors using these light, human-height weapons to great success. Repeat use of this weapon deformed the user's shoulder.

ANSWER: **longbows** [prompt on "bow" or "bow and arrow"]

[10] Before the battle of Agincourt, Henry's forces besieged this town at the mouth of the Seine. Although they won, English forces were severely weakened by dysentery during the siege.

ANSWER: **Harfleur**

<Nutter>

21. Mendel found that roundness in peas has this property. For 10 points each:

[10] Name this property, which is possessed by the allele which *is* expressed phenotypically in a heterozygote. The allele with this property is represented by a capital letter in a Punnett square.

ANSWER: **dominant** allele [or **dominance**; or word forms]

[10] If one parent is homozygous for a dominant allele and the other parent is heterozygous for a gene that follows perfect Mendelian inheritance, then what percent of the F1 generation would have the dominant phenotype?

ANSWER: **100%** [or **all** of them; or same-knowledge equivalents]

[10] In this type of mutation, a mutant phenotype makes a protein that disrupts the function of the wild-type protein, usually by forming an inactive dimer. They often result in cancer.

ANSWER: **dominant negative** mutation

<Silverman>

22. This novel ends with the assertion "I know myself, but that is all—" For 10 points each:

[10] Name this novel about Amory Blaine and his various romantic interests, including Isabelle Borge and Rosalind Connage.

ANSWER: ***This Side of Paradise***

[10] *This Side of Paradise* was the first novel by this author who wrote about psychoanalyst Dick Diver in *Tender is the Night*.

ANSWER: Francis Scott Key **Fitzgerald**

[10] In *This Side of Paradise*, Amory is a student at this university. Hemingway's *The Sun Also Rises* opens by describing Robert Cohn, who had been middleweight boxing champion of this school.

ANSWER: **Princeton** University

<Mehigan>

23. Answer these questions about factors in the decline of the Qing dynasty, the last imperial dynasty of China, for 10 points each.

[10] This two-word phrase describes agreements forced on Qing China and Japan by Western diplomats, which often set up special trade zones for Western nations and protected their diplomats from local trials.

ANSWER: **unequal treaties** [or **unequal treaty**]

[10] This strict, religious uprising, led by the deluded zealot Hong Xiuquan, killed an estimated 30 million people in the mid-nineteenth century.

ANSWER: **Taiping** Rebellion [or **Heavenly Kingdom** of Great Peace]

[10] The opium traded to China before the Opium Wars replaced this coinage metal, with which Britain had previously flooded the Chinese market. Miners at Potosí dug it up in the Spanish New World.

ANSWER: **silver** [or **Ag**]

<Jackson>