

1. Twelve captive soldiers were thrown onto this hero's funeral pyre, and his ashes were then deposited into an urn made by Hephaestus. This hero went into exile after murdering Clitonymus over a dice match. Pythagoras claimed to be reincarnated from this man's assailant, Euphorbus, who wounded this hero after Apollo appeared behind him to knock off his helmet. At (*) games held in this man's honor, Diomedes defeated Antilochus in a chariot race, and Odysseus beat Ajax the Lesser on foot. When his friend refused, this hero led the Myrmidons into battle wearing that friend's armor. For 10 points, name this friend of Achilles slain by Hector in the *Iliad*.

ANSWER: Patroclus

<Bollinger>

2. Roy Lichtenstein studied advertising catalogs to create a 1969 to 1972 series named for these objects. A "false" one of these objects titles a Rene Magritte painting of an eyeball whose iris has been replaced with a cloudy sky. In another painting, an inscription stating that "[the artist] was here" is written above one of these objects, which also hangs under a chandelier with one lit candle. The artist's pinky ring can be seen in the bottom of a (*) self-portrait named for a type of these objects by Parmigianino. One of these objects is held up by Cupid in a Velazquez nude, revealing the face of the Rokeby Venus. For 10 points, name these objects, one of which allows the viewer to see the artist in the *Arnolfini Wedding*.

ANSWER: mirrors [accept more specific answers, like "convex mirrors"]

<Bentley>

3. Particles in these materials have quasimomenta proportional to their wavevectors, which exist in the reciprocal space used to describe their structure. The Hall-Petch relationship describes how to strengthen these materials by altering their grain boundaries. Symmetries of these materials are described by space groups, while Burgers vectors describe the magnitude and direction of dislocations in them. Miller indices denote planes in the Bravais (*) lattices that describe translational symmetries in these substances. Their fundamental unit is called the unit cell, and may be body- or face-centered cubic. For 10 points, name these solids which are made up of ordered arrangements of atoms.

ANSWER: crystals [or crystal lattices; prompt on periodic media; prompt on lattices until it is read]

<Eltinge>

4. Cyril initially accuses Samantha of stealing one of these objects from his dad in a 2011 Cannes sensation by the Dardenne Brothers. In a recent Haiffa al-Mansour film directed in Saudi Arabia, Wadjda attempts to purchase a green one of these objects after winning a school prize for devotion to studying and reciting the Koran. In another film, Maria pawns her bedsheets to retrieve one of these items from a pawn shop. Part of a song about a (*) two-person one of these objects is sung by Hal as he's disconnected in *2001: A Space Odyssey*. Bruno helps his father Antonio search Rome for one of these objects in a 1948 Neorealist film. For 10 points, name these vehicles, one of which is stolen by thieves in a Vittorio De Sica film.

ANSWER: bicycles [or bikes; or biciclette]

<Bentley>

5. The *Rogeriana* one of these items, produced by Muhammaed al-Idrisi, is often held to be the first Muslim type of these things. Angelino Dulcert produced types of these objects known as portolan ones. Marinus of Tyre produced a type of these items with straight rhumb lines. John Snow determined that a water supply was contaminated when he (*) plotted a London outbreak of cholera on one of these diagrams. Another maker of these items, Martin Waldseemuller, was the first person to use the word "America" when he made the *Universalis Cosmographia*. Other makers of these items include Gerard Mercator. For 10 points, name this kind of visual representation produced by a cartographer, which might include a drawn compass for orientation.

ANSWER: maps [accept more specific types of maps, such as world maps]

<Jose>

6. Sir Anthony Weldon claimed that this man was very learned but foolish in great affairs, dubbing him the "wisest fool in Christendom." This man's advisors failed to find his son a Habsburg wife via the Spanish Match. This ruler's tract *The True Law of Free Monarchies* expands upon a practical guide for his son Henry called *Basilikon Doron*. In an early post, he was convinced to start the North (*) Berwick witch trials after storms affected his return trip from Denmark with a new wife. This opponent of tobacco smoking and friend of the 1st Duke of Buckingham took the Scottish throne at 13 months old. Robert Catesby and Guy Fawkes targeted him in the Gunpowder Plot. For 10 points, name this first Stuart monarch of England, who succeeded Elizabeth I.

ANSWER: James I of England [or James VI of Scotland; prompt on "James"]

<Hart>

7. Reconstruction after this war was led by a group of civil servants called the "Kindergarten" of a commissioner involved in it. Twelve years after this conflict, some of its losers started the Maritz rebellion. Lord Roberts was replaced during this conflict by a man who used barbed wire grids to depopulate civilian centers. Emily Hobhouse and the Fawcett Commission condemned the first use of (*) concentration camps during this conflict, during which Lord Kitchener used scorched-earth tactics. This war began after a meeting of Alfred Milner and Paul Kruger broke down; it included Black Week and the siege of Mafeking. For 10 points, name this war ended with the treaty of Vereeniging, fought between the British and Afrikaner settlers in what is now South Africa.

ANSWER: Second Boer War

<Mukherjee>

8. The preface to this novel proclaims that its moral is "the sins of fathers are visited on their children," and suggests that it was produced by a medieval canon of the church of St. Nicholas. In a derided scene from this novel, a statue reacts to the protagonist demanding a divorce by bleeding from its nose. In the climactic scene of this novel, the protagonist grabs a dagger to punish the lover of Theodore, but unwittingly kills his own daughter (*) Isabella instead. Early on in this novel, Isabella's sickly brother Conrad is crushed by a gigantic falling helmet. For 10 points, name this novel about the villainous lord Manfred, a work of Horace Walpole often considered the first Gothic novel.

ANSWER: *The Castle of Otranto, a Gothic Story*

<Gupta>

9. Although having nothing to do with signal processing, solving one version of this phenomenon relies on finding the Fourier transform of the rect function. A mathematical formalism of it takes the Green's function of Helmholtz's equation, then substituting into that formalism's namesake integral theorem; that formalism is Kirchoff's scalar theory of this process. Its knife-edge version is governed by a rule stating that every point of a front is the source of a spherical wave, called (*) Huygens principle. This phenomenon creates the Arago spot when occurring through a circular aperture, a setup described by the formula $1.22 \lambda / D$, which also gives the Rayleigh criterion for the limit of resolution imposed by this phenomenon. For 10 points, name this effect in which light bends around an object.

ANSWER: diffraction [prompt on "interference"]

<Mukherjee>

10. One character created by this author is called an "excremental mystic" due to her ability to divine the health of her classmates by inspecting their stool. The protagonist of another of his novels repeats that he's "not reconciled" with the people in his life, and eventually adopts the bell-hop Hugo. A writer seeks out the lover of the Soviet soldier Boris, Leni Pfeffer, in a novel by this author, who categorized society into (*) "buffaloes" and "lambs" in a novel that takes place on the 80th birthday of Heinrich, the first of three generations of architects who worked on St. Anthony's Abbey. For 10 points, name this author of *Group Portrait with Lady*, a post-war German novelist who created the Faehmel family in *Billiards at Half-Past Nine*.

ANSWER: Heinrich Theodor Böll

<Gupta>

11. An accretion disk and one of these entities can be used to extract energy from a spinning black hole in the Blandford-Znajek mechanism. The "ballerina skirt" model was used to describe the effects of another one of these entities, whose generating body's rotation influences the shape of the Parker spiral. A star with a particularly strong one of these entities explains bursts from soft gamma repeaters; those stars are a subtype of (*) neutron stars, whose revolution rate decreases over time due to these things. The solar wind is guided by one of these entities, whose reconnection causes solar flares. For 10 points, name these entities, the one of which generated by the earth's core is explained by the dynamo model and influences the direction of compass needles.

ANSWER: magnetic field

<Mukherjee>

12. The person performing this action is mandated to give three gifts to a *kohen* for nothing in return. The Sura al-Maida, or The Table, begins by specifying that the name of Allah must be invoked by the person carrying out this action. The *glatt* status must be maintained prior to this action, which is accomplished using the *halluf*. *Dhabiha* and (*) *shechita* denote the proper method of performing this action, which in Islam can be done by any Person of the Book. In Judaism, it is followed by the removal of the sciatic nerve, and in Islam, it is accomplished by the slicing of both carotids and jugulars. For 10 points, name this first ritual on the road to produce halal or kosher meat.

ANSWER: ritual slaughter [or killing an animal so it can be eaten; accept specific animals that are halal or kosher]

<Gupta>

13. One book by this man claims rights are derived from nature, not government, and refutes the existence of "hereditary wisdom" of nobility. That work caused this man to be tried in absentia for libel against the author of *Reflections on the Revolution in France*. This man argued that nothing but "blood and ashes" results from governments run by "crowned ruffians" in a work that outlines a replacement for the (*) Magna Carta. In that work this author of *The Age of Reason* asserted that no island can rule an entire continent and compares Britain to an evil mother for not allowing colonial independence. For 10 points, name this American political activist and writer who kickstarted the American Revolution with his pamphlet *Common Sense*.

ANSWER: Thomas Paine [or Tom Paine]

<Spencer>

14. One holder of this title had a secret wedding at Laeken Castle to Lilian Baelis, who thus became the Princess of Réthy. A 1950 general strike opposed restoring this office as part of the Royal Question. Adam Hochschild titled a history for one of these people's *Ghost*. This title's holder Albert I personally led troops during World War I. This office's first holder came to power after the opera *La Muette de Portici* inspired a revolution, and received assistance from (*) Louis-Philippe. The second holder of this title had the Force Publique cut off the hands of slow rubber harvesters in his brutal private colony, the Congo Free State. For 10 points, name this royal title held by Leopold II, which has ruled since 1830 over Wallonia and Flanders.

ANSWER: King of Belgium [or monarch of Belgium]

<Liu>

15. This man's latest novel, 2013's *In Late Style*, is the sixth in a series about his "alter-ego" Kogito Choko. One of this author's protagonists is forced to abandon dreams of traveling to Africa after receiving news that also prompts him to have an angry affair with his ex-girlfriend Himiko. In another of his novels, the narrator's brother organizes a youth group to rebel against a Korean grocery-store owner called the (*) Emperor; that novel begins with a description of the bizarre suicide of Mitsusaburo's friend. Many of his works, including the aforementioned novel about Bird, feature characters based on his brain-damaged son Hikari. For 10 points, name this Nobel-winning Japanese author of *A Personal Matter* and *The Silent Cry*.

ANSWER: Kenzaburo Oe [accept names in either order]

<Carson>

16. The second movement of Dvorak's *Serenade for Strings* is this type of piece. Emil Waldteufel's most popular composition is one of these pieces called "Les Patineurs". The Dutch violinist Andre Rieu founded an orchestra which specializes in performing these pieces. Schubert wrote sets of "sentimental" and "noble" examples of these pieces, which are likely derived from the German (*) Ländler. Jean Sibelius composed a "sad" or "triste" piece of this type, 19th century examples of which include one in which a brief flute cadenza is followed by the entrance of a zither, the "Tales from the Vienna Woods". For 10 points, name these Viennese dances in 3/4 time which include "On the Beautiful Blue Danube", which was composed by their "King", Johann Strauss, Jr.

ANSWER: waltzes [accept valse]

<Rosenberg>

17. This poem lists "patriarchs of the infant world" and "hoary seers of ages past" as inhabitants of a place whose "solemn decorations" include "the venerable woods," "rivers that move in majesty," and "hills rock-ribbed and ancient as the sun." This poem urges the reader to "go forth under the open sky, and list to Nature's teachings" when certain (*) thoughts "come like a blight." It was published by the *North American Review* when its author was only seventeen, though this poem was later expanded to include an exhortation to "go not, like the quarry slave at night" but to "approach thy grave like one who wraps the drapery of his couch about him" and lie "down to pleasant dreams." For 10 points, name this "meditation on death" by William Cullen Bryant.

ANSWER: "Thanatopsis"

<Mehigan>

18. Julie Bailey launched a campaign against the poor conditions of one of these places in Stafford, England. In 2013, *Time* magazine published a Steven Brill article attacking the practices of chargemasters at these institutions. Robert A. Petzel resigned following a scandal involving these types of places in Phoenix, Arizona. Although he claimed that he was "mad as hell" over allegations involving these places, Secretary Eric (*) Shinseki was grilled by Congress in May 2014 for the long wait times at a type of these places. In 2007, the *Washington Post* exposed the poor conditions of one of these places run by the Army that was named for Walter Reed. For 10 points, name these facilities operated by the Veterans Affairs administration.

ANSWER: medical hospitals [or Veterans Affairs hospitals; or VA hospitals]

<Bentley>

19. This man repudiated his previous tactical views in a memoir titled *In Retrospect*. While tasked with undoing the New Look policy, he gave poorly-received speeches outlining his "no cities" tactical approach. This man's government career was followed by a 13-year presidency of the World Bank, and preceded by his work with the "Whiz Kids" as he rose up the (*) Ford Motor Company. This subject of Errol Morris' documentary *The Fog of War* used statistics such as the "body count" to help personally choose bombing targets; like Kissinger, he emphasized "flexible response" over massive nuclear retaliation. For 10 points, name this commissioner of the Pentagon Papers, a man who amped up the Vietnam War as Secretary of Defense for John F. Kennedy.

ANSWER: Robert Strange McNamara [or Bob McNamara]

<Bentley>

20. In the Elsner reaction, this element forms a coordination complex with cyanides. Relativistic contraction of this metal's outermost s orbital allows it to dimerize, leading to the strongest form of metallophilicity. Among metals, this element has the highest electronegativity and electron affinity, and it has the uncharacteristic oxidation states of +1 and +3. A mixture of nitric and (*) hydrochloric acid dissolves both platinum and this element. A ring of zinc sulfide surrounded a sheet of this element which deflected alpha particles, in the experiment where Rutherford proved the existence of the nucleus. For 10 points, name this noble metal located below silver on the Periodic Table, which has symbol Au.

ANSWER: gold [or Au before it is read]

<Silverman>

21. At one meeting, this man improved his country's bargaining position by befriendng a committee of eight smaller powers and demanding their representation. Letters from this man imply that he and Joseph Fouché gave orders to kidnap and execute the duke of Enghien. This man was unable to join the military due to a condition that may have developed from a chest of drawers falling on him at age four. Demands of this club-footed man inspired the motto (*) "Millions for defense, but not one cent for tribute" and the retort "No! no! not a sixpence!" He was excommunicated after being the first bishop to sign the Civil Constitution of the Clergy. For 10 points, name this diplomat who demanded bribes in the XYZ affair and represented France at the Congress of Vienna.

ANSWER: Charles Maurice de Talleyrand-Périgord

<Bailey>

22. This process is promoted by a paracrine loop in which the production of EGF by macrophages is increased by CSF-1. Stephen Paget's "seed and soil" hypothesis explains that cross-talk is vital for this process' success. Preceding it, over-expression of Snail, Slug, and Twist causes repression of E-cadherin, and an invadopodium degrades the basement membrane. This process requires an epithelial-mesenchymal transition. Intravasation allows cells undergoing this process to (*) cross into the lymphatic system and the bloodstream. Classically, malignant tumors, but not benign tumors, do this. For 10 points, name this process responsible for more than 90% of all deaths from cancer, in which tumor cells spread from a primary tumor to other sites.

ANSWER: metastasis [or word forms]

<Kothari>

23. One character in this novel owns a dog named Banga, to whom he complains about his hemicrania, and employs the hooded secret policeman Aphranius. Another character in this novel is a young poet who writes under an alias meaning "Homeless". The director of the Variety Theatre, Styopa, is transported to Yalta by members of a (*) retinue including Korovyeve and the enormous cat Behemoth in this novel. A major character from this novel attempts to burn a manuscript about Yeshua Ha-Notsri that is later returned to him with the reprimand "Manuscripts don't burn." For 10 points, identify this novel in which the Devil adopts the disguise of Woland to come to Moscow, written by Mikhail Bulgakov.

ANSWER: *The Master and Margarita* [or *Master i Margarita*]

<Gerr>

24. This poet praised Robert Sydney's home as "not...built to envious show" in a representative country house poem. This writer wrote a play in which a disguised justice is put into the stocks thanks to Wasp and Edgeworth, as is a man who preaches without a license named Zeal-of-the-Land Busy. In another play by this author of "To Penshurst," a character briefly disguises himself as Scoto the Italian mountebank; that play features Lady and Sir (*) Politic Would-Be. This author may be better known for a play whose title character pretends to be dying, assisted by Mosca, as three men vie to inherit his fortune. For 10 points, identify this Elizabethan-era playwright, the author of *Bartholomew Fayre*, *The Alchemist*, and *Volpone*.

ANSWER: Ben Jonson

<Gerr>

1. A poet betrays his red-headed girlfriend and her brother to the police after he begins to idolize a janitor's son who is now a police official in a novel set in this country titled *Life is Elsewhere*. For 10 points each:
[10] Name this country that provides the setting for *The Farewell Waltz* and is also the setting of a novel whose protagonist seduces Helena after suffering political exile for writing "Optimism is the opiate of the people!" on a postcard.

ANSWER: Czechoslovakia [or Ceskoslovensko; do not accept "the Czech Republic" or "Slovakia"]

[10] Those books were all written by this reclusive Czech novelist who now lives in France, and whose most famous novels are *The Joke* and *The Unbearable Lightness of Being*.

ANSWER: Milan Kundera

[10] This major male character of *The Unbearable Lightness of Being* has many affairs, including one with the bowler-hat-wearing artist Sabina, but remains otherwise dedicated to his wife Tereza.

ANSWER: Tomás

<Carson>

2. A smashed tomato lies on the ground next to a wall which also displays part of a racial slur in the background of this painting. For 10 points each:

[10] Name this 1964 painting which depicts Ruby Bridges being led to school by four U.S. marshals.

ANSWER: *The Problem We All Live With*

[10] *The Problem We All Live With* is a work of this American painter and illustrator, who created works such as *Saying Grace* and the Willie Gillis series for the *Saturday Evening Post*.

ANSWER: Normal Perceval Rockwell

[10] An old woman places a huge turkey on a crowded dinner table in the most famous of this series of Rockwell paintings, which depict the essential human rights laid out in FDR's 1941 State of the Union address.

ANSWER: the Four Freedoms

<Karas>

3. Name some things about the studies of the CUNY professor David Harvey, for 10 points each.

[10] Harvey is best known for legitimizing the "marxist" and "human" varieties of this discipline, which is the study of the earth's features and its inhabitants.

ANSWER: geography [or adjectives like "human", "physical", "political", "integrated" preceding geography]

[10] Harvey has championed Henri Lefebvre's "right to the city", the right to communal access to and influence over urban areas, which is often opposed to this economic and demographic shift that pushes out poor people in favor of the wealthy and amenities they desire.

ANSWER: gentrification [or word forms]

[10] Harvey also wrote a "brief history" of this economic philosophy, drawn from the work of Hayek and Friedman. This school inspired Pinochet's economic reforms in Chile in the 1980s and advocates for free trade and minimal central planning.

ANSWER: neoliberalism [prompt on "liberal" or "liberalism"]

<Spencer>

4. The tenor variety of this instrument is usually replaced with the euphonium, and a variety of this instrument is named for Wagner. For 10 points each:

[10] Name this lowest brass instrument in a symphony orchestra.

ANSWER: **tuba**

[10] An instrument quite similar to the tuba is named for this composer of "King Cotton" and the operetta *El Capitan*.

ANSWER: John Philip **Sousa**

[10] Wagner tubas are employed in this Austrian composer's *Symphony No. 7 in E major*, which is nicknamed "Lyric". His *Symphony No. 0* was never performed in his lifetime.

ANSWER: Anton **Bruckner**

<Lawrence>

5. Answer the following about angels in non-Judeo-Christian religion, for 10 points each.

[10] In Islam, this archangel lost the ability to laugh after gazing upon the horrors of Hell. His similar Christian counterpart leads God's army against the forces of Satan in the Book of Revelation.

ANSWER: **Michael** [or **Mikal**]

[10] These angel-like female cloud spirits in Hinduism and Buddhism live in Indra's domain and make a sport out of seducing ascetics.

ANSWER: **apsaras** [or **vidhya dhari**; or ted **apsar**; or **acchara**; or **a bo sa la tu**; or **bidadari**; or **biraddali**; or **hapsari**; or **widodari**; or **apson**]

[10] This religion venerates the amesha spentas, the six "divine sparks" of its supreme deity. Its scriptures are written in Avestan.

ANSWER: **Zoroastrianism** [or **Zarathustraism**; or **Magianism**]

<Gupta>

6. In the 19th century, magazines such as *Simplicissimus* lampooned the militarism of these people, whose name is a contraction of words meaning "young lord". For 10 points each:

[10] Name these noblemen who controlled most of the land in Prussia.

ANSWER: **Junkers** [(YOONG-kerz)]

[10] Despite being a Junker himself, this Iron Chancellor of Germany distrusted his Junker peers. This man launched the anti-Catholic Kulturkampf.

ANSWER: Otto von **Bismarck** [or Otto Eduard Leopold, Prince of **Bismarck**, Duke of Lauenburg]

[10] Junkers were exempt from urban taxes on producing this good. The longstanding *Reinheitsgebot*, mandating purity of ingredients in this good, was amended after Louis Pasteur discovered yeast.

ANSWER: **beer** [or **ale**; or **lager**; prompt on "alcohol"]

<Bentley>

7. The arrival of a German ship to this country prompted the "pajama conference" and the British decoded messages sent to this country in Room 40. For 10 points each:

[10] Name this country which Heinrich von Eckardt suggested should ally with Japan as Germany resumed unrestricted submarine warfare.

ANSWER: **Mexico** [or United **Mexican** States]

[10] This 1917 message from Germany promised Mexico renewed control over Texas in exchange for entering into World War I against the United States.

ANSWER: **Zimmermann telegram** [or **Zimmermann note**]

[10] This Mexican president, known as the Jackal, fled to Jamaica on a German cruiser, ending the fight between him and Venustiano Carranza which cost him the presidency in 1914.

ANSWER: Jose Victoriano **Huerta** Marquez

<Bentley>

8. The regional form of this process occurs along convergent boundaries when large amounts of the crust are being deformed. For 10 points each:

[10] Name this process of using extreme amounts of pressure and heat to alter the mineral content, chemical composition and texture of other rocks.

ANSWER: **metamorphism** [or word forms]

[10] Schist and slate are metamorphic rocks with this property, meaning that the individual mineral grains are arranged in a flat configuration. This term refers to the tendency of the rocks to flake.

ANSWER: **foliated** [or word forms]

[10] This high grade metamorphic rock is foliated, and is made from mudstone, shale and igneous rocks. This rock features characteristic layers of black and white known as its namesake "banding".

ANSWER: **gneiss**

<Jose>

9. Members of this phylum have medusa and polyp life stages. For 10 points each:

[10] Name this phylum of radially symmetric animals which include jellyfish, sea anemones, and hydrzoans.

ANSWER: **Cnidarians**

[10] Rather than a brain, the nervous system of cnidarians and ctenophores consists of one of these decentralized structures characteristic of radially symmetric animals.

ANSWER: nerve **net**

[10] Jellyfish and corals exhibit this level of body organization, because during gastrulation, only two germ layers form: endoderm and ectoderm. Sponges and ctenophores also have this property.

ANSWER: **diploblastic** [or word forms]

<Kothari>

10. This novel is based on a real-life incident involving Chester Gillette and Grace Brown. For 10 points each:

[10] Name this novel about Clyde Griffith's rise from bellhop to factory worker to supervisor and his possibly-accidental killing of Roberta Alden.

ANSWER: *An* **American Tragedy**

[10] *An American Tragedy* is by this American naturalist who also wrote *Sister Carrie* and *Jennie Gerhardt*.

ANSWER: Theodore Herman Albert **Dreiser**

[10] In *An American Tragedy*, Clyde kills Roberta by capsizing their boat after striking her in the face with one of these objects.

ANSWER: a **camera**

<Mehigan>

11. This group traced its origins back to a document written by William Lovett. For 10 points each:

[10] Name this group that agitated for causes such as universal male suffrage and the payment of members of Parliament in early Victorian England.

ANSWER: **Chartists** [or **Chartism**]

[10] Chartists disliked the first act of this name for doing too little, though it doubled the electorate and eliminated "rotten boroughs." These acts made Parliament elections more democratic.

ANSWER: **Reform** Act of 1832 [or Great **Reform** Bill]

[10] In the 1840s, some Chartists split off into this organization, which was led by Richard Cobden and John Bright and attacked legislation favoring English landlords.

ANSWER: **Anti-Corn Law League**

<Bentley>

12. Henry Moore's *Nuclear Energy* and Jean Dubuffet's *Monument with Standing Beast* are both located in this city. For 10 points each:

[10] Name this Midwestern city whose Art Institute is home to Lorado Taft's *Fountain of the Great Lakes* and whose United Center is home to Omri Amrany's *The Spirit*, a statue of Michael Jordan.

ANSWER: **Chicago**, Illinois

[10] The centerpiece of Chicago's Millennium Park is this liquid mercury-inspired stainless steel sculpture by Anish Kapoor, which strongly resembles a large bean. Its underside contains a reflection-distorting "omphalos".

ANSWER: **Cloud Gate**

[10] This Catalan artist created a sculpture formerly titled *The Sun, the Moon, and One Star* that is now known as his *Chicago*. The Philadelphia Museum of Art is now home to his painting *Dog Barking at the Moon*.

ANSWER: Joan **Miró** i Ferrà

<Carson>

13. Identify the following about Victorian novels in which men spend a lot of time vacillating between two women, for 10 points each.

[10] Jude Fawley loves Sue Bridehead but keeps returning to Arabella Donn anyway in *Jude the Obscure*, a novel by this author of *The Mayor of Casterbridge*.

ANSWER: Thomas **Hardy**

[10] Laetitia Dale and Clara Middleton are both stuck dealing with the self-absorbed moron Sir Willoughby Patterne in this novel by George Meredith.

ANSWER: *The* **Egoist**

[10] Hetty Sorel and Dinah Morris are the source of much conflict, both internal and external, for both Arthur Donnithorne and the title carpenter of this first novel by George Eliot.

ANSWER: **Adam Bede**

<Carson>

14. This husband of Cigfa is named "Gwri of the Golden Hair" while being raised by Teyrnnon. For 10 points each:

[10] Name this king of Dyfed who dies in single combat with Gwydion during a war started by Gwydion's theft of his pigs.

ANSWER: **Pryderi**

[10] Pryderi is the only character to appear in all four branches of the *Mabinogion*, a collection of myths from this component nation of the United Kingdom.

ANSWER: **Wales**

[10] In the *Mabinogion*, this horse-riding mother of Pryderi is framed for the boy's murder when servants smear dog's blood over her mouth.

ANSWER: **Rhiannon**

<Bollinger>

15. A book about *The Future of Culture* in this country was written by the author of *The Tree of Misery* and the three-part autobiography *The Days*. For 10 points each:

[10] Name this country, the home of Taha Hussein. Another author from this country wrote about the assassination of one of its presidents in *The Day the Leader Was Killed* and also penned the novel *Palace Walk*.

ANSWER: Arab Republic of **Egypt** [or Gumhuriyyat **Misr** al-Arabiyyah]

[10] *Palace Walk* precedes *Palace of Desire* and *Sugar Street* in the Cairo Trilogy, the most famous accomplishment of this Egyptian author of *The Thief and the Dogs*.

ANSWER: Naguib **Mahfouz**

[10] Mahfouz received death threats culminating in his near-fatal stabbing after the release of this controversial novel, whose final section centers on the scientist Arafa. Three other major characters--Gabal, Rifa'a, and Qasim--represent Moses, Jesus, and Mohammed.

ANSWER: ***Children of Gebelawi*** [or ***Awlad Haretna***; or ***Children of Our Alley***]

<Carson>

16. This book uses the development of the timetable to illustrate the kind of power that results in the creation of "docile bodies." For 10 points each:

[10] Name this book that illustrates the transition from a "culture of spectacle" to a "carceral system" by contrasting the execution of Robert-Francois Damiens with the opening of the Mettray colony.

ANSWER: ***Discipline and Punish: The Birth of the Prison*** [or ***Surveiller et punir: Naissance de la Prison***]

[10] In *Discipline and Punish*, Michel Foucault used this institutional design to show how discipline is created without physical force. Devised by Jeremy Bentham, it allows a single watchman the ability to watch any inmate, though the inmates can't know if they are being watched.

ANSWER: **Panopticon**

[10] Jeremy Bentham argued for maximizing "the greatest happiness for the greatest number" as a proponent of this ethical doctrine, which also titles a book by John Stuart Mill.

ANSWER: **utilitarianism**

<Kothari>

17. Common examples of these organisms include lambda and T4. For 10 points each:

[10] Name these viruses which infect bacteria.

ANSWER: bacteri**ophages**

[10] In this process, phages act as vectors for horizontal gene transfer of bacterial DNA. Lysogeny can allow the DNA transported by the phage to re-insert itself into the bacterial genome.

ANSWER: **transduction**

[10] Bacterial resistance to phages is inheritable, a fact discovered by this Italian biologist in an experiment he conducted with Max Delbruck. A solution containing yeast extract, sodium chloride, and tryptone is sometimes, erroneously, named for him and Bertani.

ANSWER: Salvador **Luria** [or **Luria** broth]

<Silverman>

18. Answer these questions about oddities within the presidential election of 1824, for 10 points each.
[10] Henry Clay got this reward after throwing his support to John Quincy Adams in a deal dubbed the "corrupt bargain".

ANSWER: he was appointed **Secretary of State**

[10] 1824 was the last time this tiebreaking procedure was used to decide the presidency, since no candidate received an electoral majority. The Twelfth Amendment reaffirmed this procedure laid out in Article 2.

ANSWER: a simple-majority vote of the **House** of Representatives in which each state's delegation gets only one vote [accept answers indicating that the **House** of Representatives breaks the tie, so long as no incorrect information is added]

[10] This medical ailment affected William Crawford, the fourth-place candidate and Democratic-Republican caucus nominee, damaging his campaign. Franklin Roosevelt died of this cause, which affected Woodrow Wilson in his second term.

ANSWER: a **stroke** [or a cerebral **hemorrhage**]

<Wasserman>

19. The south, east, and west Sundarbans Wildlife Sanctuaries are located in the southwestern part of this country. For 10 points each:

[10] Name this Asian country, where the Bayazid Bostami shrine and Patenga Beach are found in a port city on the Karnaphuli river.

ANSWER: People's Republic of **Bangladesh** [or Gana Prajatantri **Bangladesh**]

[10] This city on the Buriganga River is home to the Shaheed Minar and is the capital of the same country that contains Chittagong, Bangladesh.

ANSWER: **Dhaka**

[10] Bangladesh is separated from this country by India's Siliguri Corridor. In 2008, this country dissolved its monarchy and became a constitutional republic.

ANSWER: Federal Democratic Republic of **Nepal** [or Sanghiya Loktantrik Ganatantra **Nepal**]

<Karas>

20. When the interactions of individual particles in this substance must be considered, it is described by the Vlasov equation. For 10 points each:

[10] Name this type of ionized gas, often described as a "fourth state of matter".

ANSWER: **plasma**

[10] Plasma physicist Hannes Alfvén explained the origin of these loops of charged particles, named for an American physicist, that are held in place by the Earth's magnetic field.

ANSWER: **Van Allen** radiation belts

[10] Alfvén won the 1970 Nobel Prize in Physics for developing this field closely related to plasma physics. It combines Maxwell's equations with the Navier-Stokes equations, and systems in this field are characterized by their magnetic Reynolds number.

ANSWER: **magnetohydrodynamics** [or **MHD**; or **magnetofluidynamics**; or **MFD**]

<Eltinge>

21. Answer the following about a data structure that isn't used in the real world: the red-black tree, for 10 points each.

[10] The red-black tree is this type of search tree, which means that every node has at most two children. This type of search works on an already-sorted array and cuts the interval length in half on each iteration.

ANSWER: **binary**

[10] The reason for marking nodes as red or black is to maintain this property of a tree, which means that there is a bound on the number of descents one must make when searching a red-black tree.

ANSWER: height **balance** [or word forms]

[10] The height of a red-black tree is thus proportional to this function of n, where n is the number of nodes of the tree. It is also the Big O runtime of binary search.

ANSWER: **logarithm** of n

<Jose>

22. Answer the following about Victoria Woodhull, the first American woman to run for president, for 10 points each.

[10] Woodhull first ran in this election year, despite being younger than 35 and unable to vote. In this year, the Credit Mobilier scandal beset the incumbent, though his opponent Horace Greeley still lost.

ANSWER: United States presidential election of **1872**

[10] Woodhull chose this man as her running mate, though he never accepted. This orator and former Maryland slave published the abolitionist *North Star* newspaper in Rochester.

ANSWER: Frederick **Douglass** [or Frederick Augustus Washington **Bailey**]

[10] This head of the Society for the Suppression of Vice had Woodhull arrested for mailing her a provocative newspaper. He names a law passed soon after making "obscene" mailings about abortion and contraception illegal.

ANSWER: Anthony **Comstock**

<Wasserman>

23. This novel's protagonist works as an engraver in a silver shop and befriends people like the tomboy Mick Kelly and the diner owner Biff Brannon. For 10 points each:

[10] Name this novel about the deaf-mute John Singer, whose best friend Spiros Antonapoulos is taken away to an insane asylum and later dies there, precipitating John's own suicide.

ANSWER: *The **Heart is a Lonely Hunter***

[10] *The Heart is a Lonely Hunter* was the debut novel of this author of *A Member of the Wedding* and *Reflections in a Golden Eye*?

ANSWER: Carson **McCullers** [or Lula Carson **Smith**]

[10] In this novella by McCullers, Marvin Macy gets out of prison and heads to a small town in Georgia, where he destroys the business built by his ex-wife Amelia and her new lover, the hunchbacked Lymon.

ANSWER: *The **Ballad of the Sad Cafe***

<Mehigan>