1. A particularly advanced type of these devices was first developed by Ernst Ruska and applied to new fields by his brother Helmut. The name of these devices was believed to have been coined by Giovanni Farber, after a different scientist presented one of these called the "occhiolino" to Federico Cresi. That example of these devices was based on one invented by Cornelius Drebbel. Jan Swammerdam pioneered the use of these devices as part of a dissection, and another pioneer of these devices used it to write the first scientific best-seller published by the Royal Society of London. For 10 points, name these devices used by Anton van Leeuwenhoek and Robert Hooke, the latter of whom used it to image cork and discover the cell.
ANSWER: **microscope** [or electron **microscope**; or light **microscope**]

2. This poet wrote, "The eye's plain version is a thing apart, the vulgate of experience" in one long poem. He noted, "until now I never knew that fluttering things have so distinct a shade," in the final stanza of a poem addressed to the "mother of heaven, regina of the clouds." This poet of *An Ordinary Evening in New Haven* addressed Ramon Fernandez in the penultimate stanza of a poem about a woman who "sang beyond the genius of the sea." Another of this author's speakers asks, "Why do you imagine golden birds?" of the "thin men of Haddam." For 10 points, name this poet whose first collection, *Harmonium,* includes "The Idea of Order at Key West" and "Thirteen Ways of Looking at a Blackbird."
ANSWER: Wallace **Stevens**

3. Passengers are now banned from riding on the roof of trains to Alausi along this country's Nariz del Diablo, or Devil's Nose railroad. This city's capital contains an winged aluminum statue of the Virgin Mary stepping on a snake on Panecillo hill. This country's fastest-growing city shares a name with Manta Bay on its coast. This country sued Chevron for extensively polluting around the Napo oil formation in the Lago Agrio region. Because the Earth is an oblate spheroid, the peak farthest from the earth's center is in this country, which owns Isabela island and the finches thereon. For 10 points, name this country home to the Cotopaxi and Chimborazo volcanoes, which owns the Galapagos Islands.
ANSWER: Republic of **Ecuador** [or República del **Ecuador**]

4. In a ceremony initiating a person into this role, a chorus chants "Bene, bene, bene respondere" after it is noted that a "virtus dormativa" gives opium poppies the power to make people sleepy. Purgon is one of these people who works with Thomas Diaforius's father in that French comedy, which ends with gypsies impersonating these people chanting fake Latin. In another play, one of these people helps Lucinde. In that play partly titled for this profession, the drunken woodcutter Sganarelle becomes one of these people "in spite of himself." These people fail to help a character who was played by a tubercular Moliere on the day he died. For 10 points, name these people who try to treat Argan in *The Imaginary Invalid.*
ANSWER: **doctor**s [or **physician**s; or **médicin**]

5. The two halves of this structure are bridged and partly held together by the dimerization of SUN and KASH domains. Proteins that support the inner surface of this structure are mutated in Hutchinson-Gilford progeria. Proteins traversing this structure do so via the Ran-GTP cycle. This structure is traversed by a series of complexes containing proteins with phenylalanine-glycine repeats, known as its namesake pore complexes. The space between the two halves of this structure is contiguous with the endoplasmic reticulum, and this structure is disassembled during prophase and reassembled in telophase. For 10 points, name this structure that consists of two lipid bilayers, which surrounds an organelle that contains chromatin and DNA.
ANSWER: **nuclear membrane** [or **nuclear envelope**; prompt on **nucleus**]

6. People undergoing this process were given a single red cloak each year, and pulled reeds out by hand from the Eurotas river. Membership in a *syssitia* was granted after completing this process. Early failures in this process were put on Mount Taygetus. Eurypontids and Agaids were exempted from this process due to their place in the two royal families. According to Thucydides, the place which enacted this process had a cautious, slow national character. In a violent part of this process called the *krypteia*, participants in this process had to kill a helot with impunity. For 10 points, name this system which, after exposing unfit infants to the elements, reared almost all other males in a militaristic ancient Greek city-state.
ANSWER: *agoge* [accept descriptive answers which refer to the **education**, military **training**, **coming of age**, etc. of **Sparta**n boys]

7. A tensor product of two objects named for this man is isometrically isomorphic to a space of operators named for him and Schmidt. Wrightman's axioms suggest that a construct named for this man exists that is acted upon by the Poincaré group in a unitary manner. A result named for this man states that a polynomial ring over a Noetherian ring is itself Noetherian. A finite- or-infinite dimensional space in which an inner product is defined is named for this man. A problem in this man's program was shown to be impossible by Godel's incompleteness theorem, and he included the continuum hypothesis and the Riemann hypothesis in another outline of work for the next century. For 10 points, name this German mathematician who laid out a list of 23 difficult-to-solve problems at the beginning of the 20th century.
ANSWER: David **Hilbert**

8. Many prefer Ferruccio Busoni's arpeggio-less transcription of this piece to the comparably popular one by Carl Tausig. Different theories posit that this piece was originally written for unaccompanied violin and that its unusual features owe to the limitations of an instrument the composer had to work with in Anhalt-Cothen. A different piece with the same name, key, and composer as this one is nicknamed the "Dorian." This piece begins with a mordant A in both hands, followed by a rapid descending G-F-E-D-C sharp, then D. The contrapuntal second title portion of this D minor piece is interspersed with the more virtuosic style of the first title section. For 10 points, name this spooky organ piece composed by J.S. Bach.
ANSWER: *Toccata and Fugue* in D minor [or **BWV 565**]

9. This man resigned after it was revealed he leaked Cabinet debates to French Minister Joseph Fauchet and expressed "contempt for the United States." This member of the Committee of Detail voted for ratification at his state's convention, despite being an anti-Federalist writer prior. This man's son Peyton succeeded to the governorship after the Richmond Theatre Fire. This person officially put forth a plan calling for a legislative branch to be represented in proportion to population. This proponent of the Virginia Plan at the Constitutional Convention succeeded Thomas Jefferson as Secretary of State. For 10 points, name this first Attorney General under George Washington.
ANSWER: Edmund Jennings **Randolph**

10. A poem about this man opens with him looking at an open gate and an unlocked door and "sorely weeping." George de Scudery and others critiqued a play about his man for fitting an implausible number of events into a single day. This man humiliates the Counts of Carrion by grabbing an escaped lion by the neck and putting it back in its cage. In a 1636 play, this man kills the count of Gormas, a fact which becomes an obstacle as he seeks to marry Chimène. The most famous play titled for this character skips over his service to the king of Saragossa on the Moorish side. For 10 points, name this subject of a Pierre Corneille play and a medieval Spanish *poema,* a legendary exiled knight of the Reconquista.
ANSWER: El **Cid** [or Le **Cid**; or Mio **Cid**; or El Cid **Campeador**; or Don Rodrigo **Díaz** de Vivar; or Don **Rodrigue**]

11. This work claims, adapting Aristotle, that "man is by his constitution a religious animal." Its author recalls a time sixteen or seventeen years ago when he saw a young queen "glittering like the morning star full of life and splendor and joy" before lamenting that chivalry is dead. This book was largely a response to sermons by Richard Price. Thomas Paine's *The Rights of Man* replied to this book, which praised the Glorious Revolution for being a slight change that preserved tradition, instead of destroying tradition and inviting anarchy as recent events seemed to be doing. For 10 points, name this 1790 political text by Edmund Burke.
ANSWER: *__Reflections on the Revolution in France__*

12. This character warns, "Time shall unfold what plighted cunning hides; who cover faults, at last shame them derides." A man tells this character that in prison they will "sing like birds i' th' cage" and laugh at the "gilded butterflies" trying to succeed in court. She marries the male hero in a rewriting by Nahum Tate of the play in which she appears. In another character's last entrance, he carries this woman's body and cries, "Howl, howl, howl, howl!" This character marries the King of France after getting in trouble for telling her father she loves him, "according to my bond; no more nor less," when that man is dividing his kingdom among his three daughters. For 10 points, name this youngest daughter of King Lear.
ANSWER: **Cordelia**

13. An essay titled for this man ends, "Let Hell loose, and get your own back, Europe!" That essay was written by D.H. Lawrence in his *Studies on Classic American Literature* and lambastes this individual's idea of the "Perfectability of Man." A long summary of this person's "philosophy of avarice" is used to explain the origin of capitalism in Max Weber's *Protestant Ethic.* A classic example of cognitive dissonance is this man's namesake effect, in which doing a favor for an enemy makes you more likely to do him another favor. This man's list of Thirteen Virtues appear in his unfinished autobiography published in 1791. For 10 points, name this Enlightenment thinker known as the "First American" who published *Poor Richard's Almanack.*
ANSWER: Benjamin **Franklin**

14. Aaron Curry recently displayed a series of fourteen sculptures called *Melt to Earth* at this complex. One building in this complex was designed by Pietro Belluschi and Eduardo Catalano and contains an entryway underneath a triangular corner. Another building in this complex contains an Elie Nadelman sculpture called "Circus Women" in its promenade. The sculptures *Summer*, *Venus without Arms*, and *Kneeling Woman* by Aristide Malliol flank the Grand Staircase of a building in this complex. This complex contains the Avery Fisher Hall and the Philip Johnson-designed David H. Koch Theater. For 10 points, name this complex of buildings in Manhattan that includes Julliard, the New York City Ballet, and the Metropolitan Opera.
ANSWER: **Lincoln Center** for the Performing Arts [reverse-prompt on **Metropolitan Opera** or **Met** until it is read]

15. The background of this painting contains one house set apart from three in a row, as well as a wall being climbed by a man trying to get away from the scene. A mirror image of this painting forms most of the backdrop to the best-known self-portrait by its artist. This artwork emphasizes the pinkish-white garb of a woman who is facing away from the viewer and looking at the ground, and who is joined at the bottom-left by two similarly penitent women. Like a more coastal, gloomier counterpart, this painting was produced during its artist's time in Pont-Aven in the Breton countryside, two years before he decided to escape European civilization and move to Tahiti. For 10 points, name this non-green depiction of the Crucifixion by Paul Gauguin.
ANSWER: The **Yellow Christ** [or Le **Christ Jaune**]

16. Cicero claimed that a priest of this god was not allowed to touch or name goats, raw meat, ivy or beans. Numa Pompilius tricked this god into accepting sacrifices of onions, hair, and fish instead of humans. The flamen dialis and the fetial priests were dedicated to this god, who turned Juturna into a pool of water. This god, whose aspects have epithets like "tonans" and "fulgur," was represented by an oak tree. He tells Venus the future history of Rome in the first book of the *Aeneid*. A temple on the Capitoline was dedicated to his aspect "Optimus Maximus." For 10 points, name this chief Roman god.
ANSWER: **Jupiter** [or **Jove**; prompt on **Zeus**]

17. Alain Chartier denounced an institution founded in this region for naming itself after a pagan object, which was re-identified with an item owned by Gideon. This region got its name from barbarians led by Godomar and Gundobad, the latter of whom issued its namesake law code in the 5th century CE, and it organized the Order of the Golden Fleece. One leader of this region put his brother Charles, duke of Berry, in charge of the League of the Public Weal. This duchy's power faded at Nancy in 1477, when Charles the Bold died in battle against forces of the "Spider-King," Louis XI. At its height, this duchy claimed land as far north as Flanders. For 10 points, name this historical region of eastern France that produces dark red wine.
ANSWER: **Burgundy** [or **Bourgogne**]

18. Spherically symmetric solutions to this equation must be static, according to one of Birkhoff's theorems. Kasner dusts satisfy this statement as an example of a perfect fluid with vanishing pressure. A constant factor of eight pi times big G over c to the fourth appears in this equation. The Kerr-Newman metric satisfies this equation when charge and angular momentum are nonzero. The FLRW metric is an isotropic solution to it. In this equation, the metric tensor multiplies the cosmological constant, a term which this equation's namesake claimed was his "biggest blunder". Schwarzschild's solution of it gives gravity outside a spherical mass. For 10 points, name this set of ten equations often written in tensor form, created by the physicist who theorized general relativity.
ANSWER: Einstein's **field** equations [or **EFE**]

19. A holder of this political office had earlier led militants in the Virunga Mountains after the death of Fred Rwigyema. Another holder of it was banned from forming the Party of Democratic Renewal, and was imprisoned on embezzlement charges in 2004. The RTLM radio station incited violence after the death of one of these people, who signed the Arusha Accords. Its current holder served as intelligence chief for Yoweri Museveni in Uganda before joining a Patriotic Front that invaded his home country. A holder of this post was killed when the plane he and Cyprien Ntaryamira were riding in was shot down, setting off genocide between Hutus and Tutsis in his country. For 10 points, name this political office currently held by Paul Kagame.
ANSWER: President of **Rwanda**

20. Alexander III may be the source of a legend about one of these people named Andreas who became Pope. Edgardo Mortara was one of these people, who was controversially made a ward of the state. Until 1955, the intercession for them on Good Friday was the only intercession where the congregation did not kneel. That prayer asked God to "remove the veil" from these people's hearts. *Nostra Aetate* declared these people should not be "presented as rejected or accursed by God." These people were deported during the Roman razzia. In the Gospel of John, these people demand the death of Jesus. Pius XII was accused of condoning their genocide during World War II. For 10 points, name these people that read the Torah.
ANSWER: **Jew**ish people

21. Archibald Hill's empirical equation modelling this process gives an inverse relationship between force and velocity. Activation of dihydropyridine receptors in L-type calcium channels signals for this process to occur. According to the most common model of this process, ATP binding causes S1 to "cock", but then ATP hydrolysis causes it to lengthen as part of the power stroke. Huxley and Niedergerke proposed the sliding filament model of this process, in which cross-bridges force the Z bands closer to each other. Acetylcholine is required for activation of this process, during which the myosin head slides along actin. In tetanus, this process is never turned off. For 10 points, name this process in which sarcomeres are voluntarily stretched or compressed, such as when you stretch a biceps.
ANSWER: **muscle contraction** [or **muscle tension**; or **concentric contraction**; or obvious equivalents; prompt on **muscle movement**]

22. This man wrote a one-act in which a new lamp lights up a seedy street called *Lux in Tenebris*. A conversation this man had with Mark Blitzstein about "prostitution" in society inspired the Orson Welles-directed labor musical *The Cradle Will Rock*. In another of his plays, the apparently-dead Jussup pops back to life as soon as he hears that the draft is over, and an army called the Iron Shirts forces a woman to flee Georgia with her baby. This man employed the "distancing effect," a principle of "epic theater," and depicted Judge Azdak ruling in Grusha's favor in a maternity dispute. For 10 points, name this leftist German dramatist who wrote *The Caucasian Chalk Circle* and *Mother Courage and Her Children.*
ANSWER: Bertolt **Brecht**

23. Luigi Albertini's thesis about this event was challenged by Fritz Fischer, who used the Septemberprogramm as evidence of goals in it. A recent book by Christopher Clark claims to explain the "how" but not the "why" of this event. Arno Mayer argued that this event's cause was less foreign policy and more the aristocracy's attempt to maintain domestic power. Politicians after this event ended blamed its outcome on the "November Criminals." Erich Ludendorff promulgated the Dolchstoss myth about its end, which claimed Jews and communists had undermined the government's efforts. For 10 points, name this event whose loser was assigned responsibility in the war guilt clause of the Treaty of Versailles.
ANSWER: **World War I** [or the **Great War**]

1. For a hollow sphere, this quantity has a factor of 2/3, but for a solid sphere, the factor is 2/5. For 10 points each:
[10] Name this rotational analogue of mass.
ANSWER: **moment of inertia** [or **rotational inertia**]
[10] Consider a rigid body of mass m. A parallel axis, located a distance d away from the axis through the center of mass, is drawn. In terms of m and d, by how much does the moment of inertia about this new axis increase?
ANSWER: **m** times **d squared** [or **md^2**]
[10] A tensor for moment of inertia is dotted with the angular velocity to calculate the components of torque in a set of equations named for this physicist. He also names a special case of the Navier-Stokes equation for zero viscosity and heat conduction.
ANSWER: Leonhard **Euler**

2. A fade-out effect in this movement was achieved by placing several performers in an adjoining room, the door to which was carefully closed during the last bar. For 10 points each:
[10] Name this movement, the only in its larger composition to be originally be scored for solo organ, that includes two wordless three-part women's choruses.
ANSWER: "**Neptune**, the Mystic"
[10] "Neptune" is the last movement of this composer's *The Planets*.
ANSWER: Gustav **Holst** [or Gustavus Theodore von **Holst**]
[10] The melody of this middle movement of *The Planets,* subtitled "The Bringer of Jollity," was adapted into the hymn tune "Thaxted," which fit the patriotic poem "I Vow to Thee My Country."
ANSWER: "**Jupiter**, the Bringer of Jollity"

3. Name these leaders of South American countries, for 10 points each.
[10] After being jailed for an unsuccessful 1992 coup against Carlos Andres Perez, this Venezuelan president, who died in 2013, was elected with the support of the Fifth Republic Movement.
ANSWER: Hugo Rafael **Chavez** Frias
[10] This half-Bulgarian leader of the Workers' Party succeeded Lula as president of Brazil.
ANSWER: Dilma Vana **Rousseff**
[10] This woman served as a pediatrician before defeating Sebastian Pinera in a 2006 election, but lost a 2010 rematch.
ANSWER: Michelle **Bachelet**

4. Cells located in this structure have a unique ion channel that is gated by cyclic GMP, and flame hemorrhages appear in this structure in people with diabetes. For 10 points each:
[10] Name this structure located in the back of the eye that contains photosensitive rod and cone cells.
ANSWER: **retina**
[10] This test, which consists of numbers written with colored dots, is used to diagnose color blindness.
ANSWER: **Ishihara** test
[10] This genetic disease is caused by mutations in the cGMP-binding subunit of the aforementioned ion channel. Unlike macular degeneration, vision is lost in the periphery first in this disease.
ANSWER: **retinitis pigmentosa** [or **RP**]

5. One of these writings contains the maxim "What is done in love, is well done," and another expresses the author's desire to found an artists' colony in Southern France. For 10 points each:
[10] Identify these 844 writings, the majority of which were addressed to their author's brother Theo.
ANSWER: Vincent **van Gogh's letter**s
[10] A staggering thirteen of van Gogh's letters were about this painting of his, which exists in three versions that differ in the placement of furniture and wall paintings in the title location within the Yellow House.
ANSWER: ***Bedroom in Arles***
[10] Van Gogh roped Gauguin into a "pact of silence" in the first letter he wrote after this incident, which he supposedly underwent so that he could give a prostitute a bizarre gift. Afterwards, he painted a famous bandaged self-portrait.
ANSWER: **cutting his ear off** [or equivalent answers such as **amputating his ear**]

6. At the end of Act 1, this character walks out on his estranged family, playing "My ducats and my daughter" on the trombone. For 10 points each:
[10] Name this character who angers his charitable daughter Barbara by buying out the Salvation Army, then convinces her to take over his munitions business.
ANSWER: Andrew **Undershaft** [or **Andrew** Undershaft]
[10] *Major Barbara* was written by this dramatist who also wrote *Arms and the Man.*
ANSWER: George Bernard **Shaw**
[10] Undershaft only agrees to hand over the business when he finds out that this character, Barbara's husband, is actually a foundling, even though he's a scholar of Greek.
ANSWER: Adolphus **Cusins** [or **Adolphus** Cusins]

7. James Frazer distinguished between the homeopathic and contagious forms of a "sympathetic" form of this concept, which is based on the principle that like produces like. For 10 points each:
[10] Name this concept, which Frazer placed before the religious and the scientific as the first stage in human belief. Malinowski described its intimate connection with language in a book on its use in Trobriand gardening.
ANSWER: **magic** [or word forms]
[10] With Henri Hubert, this anthropologist outlined a general theory of magic. He is better known for a book which analyses the potlatch and the Maori *hau,* and describes its central practice as a "total social fact."
ANSWER: Marcel **Mauss**
[10] This anthropologist describes how magic boosted the status of Malagasy slave descendants in his dissertation. He also wrote *Fragments of an Anarchist Anthropology* and *Debt: The First 5000 Years.*
ANSWER: David Rolfe **Graeber**

8. This man led the "Spear of the Nation," the militant wing of the African National Congress. For 10 points each:
[10] Name this South African leader who became president in 1994 after spending 27 years in prison.
ANSWER: Nelson **Mandela**
[10] Mandela spent much of his incarceration on this island, at a facility that also imprisoned Jacob Zuma and Govan Mbeki.
ANSWER: **Robben** Island
[10] Nelson Mandela, Walter Sisulu, and other ANC leaders were tried at this trial that took place in 1963 and 1964.
ANSWER: **Rivonia** Trial

9. This poem's protagonist is betrayed by his stepfather Ganelon. For 10 points each:
[10] Name this Old French poem in which the title paladin of Charlemagne blows a horn to call for aid against the Saracens until his temples burst. It fictionalizes the battle of Roncesvalles.
ANSWER: *The **Song of Roland** * [or *La **Chanson de Roland***]
[10] *The Song of Roland* is one of these Old French poems about heroic deeds, which preceded the more courtly poems of the troubadours.
ANSWER: *chanson*s de *geste*
[10] This Saracen king, who rules from Saragossa, sends the pagan army to Roncesvalles. This ally of Babylon's emir Baligant loses a hand and his queen Bramimonde as Charlemagne avenges Roland's death.
ANSWER: **Marsilla** [or **Marsille**; or **Marsilion**]

10. A test named for this man shows that a sequence of functions whose values are all less than the positive values of a converging sequence will converge uniformly. For 10 points each:
[10] Name this mathematician, who with an American names a theorem proving on a closed interval, any continuous function can be approximated arbitrarily close by a polynomial.
ANSWER: Karl **Weierstrass**
[10] Weierstrass also names a function that is continuous everywhere but possesses this property nowhere. The mean value theorem holds for functions continuous on a closed interval and possessing this property on the open interval.
ANSWER: **differentiable** [or the **derivative** exists; or obvious equivalents]
[10] A function will equal its Taylor series if it possesses this property. Functions with this property are differentiable for all orders, which can be symbolized C raised to infinity.
ANSWER: **smooth**

11. This family is commented upon sardonically by Cora and Vernon Tull, the latter of whom watches them cross a river in which Cash breaks his leg. For 10 points each:
[10] Name this dirt-poor family which seeks to bury its matriarch Addie in the county seat of Jefferson. It includes Darl and his illegitimate brother Jewel.
ANSWER: **Bundren** family
[10] The Bundren family appears in this novel by William Faulkner, whose many point-of-view chapters include one from Addie Bundren beyond the grave.
ANSWER: *As I Lay Dying*
[10] Anse Bundren, the family patriarch, is largely motivated not by the need to bury his wife, but by his desire to obtain a new wife and buy these items for himself in Jefferson.
ANSWER: a new set of false **teeth** [or **dentures**]

12. The Main Divide is a range within the Southern Alps in this non-European country. For 10 points each:
[10] Name this country which controls the Chatham Islands.
ANSWER: **New Zealand**
[10] North and South Island are separated by this strait. The capital city of Wellington lies on this body of water, named for an English explorer.
ANSWER: **Cook** Strait
[10] This is the main city in the South Island's Canterbury Plains. It is named after a part of the University of Oxford.
ANSWER: **Christchurch**

13. Memnon of Heraclea claims that this kingdom's ruler King Bas defeated Calas, one of Alexander's generals. For 10 points each:
[10] Name this kingdom whose ruler Nicomedes I founded the city of Nicomedia. Its last king, Nicomedes IV, bequeathed the kingdom to Rome at his death.
ANSWER: **Bithynia**
[10] After defeating Nicomedes IV and his Roman allies, this man slaughtered Roman settlers in the massacre of the Asiatic Vespers. This king of Pontus fought a series of three wars with the Romans.
ANSWER: **Mithridates VI** [or **Mithridates Eupator** Dionysius]
[10] Mithridates VI was eventually defeated by this member of the First Triumvirate. He was killed in Egypt and his head was presented to Caesar.
ANSWER: **Pompey** the Great [or Gnaeus **Pompeius** Magnus]

14. Answer these questions about riots which rocked France in late 2005 as unrest among young people of North African descent boiled over, for 10 points each.
[10] This person, then Interior Minister, dealt with weeks of riots in October and November 2005. He then defeated Segolene Royal in a 2007 election to become President of France.
ANSWER: Nicolas **Sarkozy**
[10] The rioters targeted these objects for special destruction. In East Germany, these things included the poorly-designed Trabant.
ANSWER: **car**s
[10] The riots broke out first in these residential areas surrounding Paris, whose name connotes poverty, unlike American suburbs. Immigrants are often pushed into housing projects called HLMs in these areas.
ANSWER: *__banlieue__*s

15. Answer these questions about the minutia of Jewish holiday observance, for 10 points each.
[10] Hillel and Shammai argued over how to light this object on Hanukkah. Jews today add candles each day from right to left, then light them from left to right using the *shamash.*
ANSWER: Hanukkah **menorah** [or **hanukkiyah**]
[10] Judaism traditionally defines nightfall, and thereby the start and end of Shabbat, by the presence of this visual astronomical marker.
ANSWER: when **three stars** are visible in the sky [or the appearance of the **third star** in the night sky]
[10] This term for the whole body of Jewish law, including the commandments of the Torah and rabbinic dictates, provides details governing the observance of most holidays.
ANSWER: **halakha**h

16. Leopold Stokowski was convinced to conduct at one of these places in Philadelphia with the opportunity to play the largest pipe organ in the United States. For 10 points each:
[10] Name these retail places that included Wanamaker's and Macy's. Traditionally they sold a wide variety of consumer goods in a single location.
ANSWER: **department store**s
[10] In 1936, Congress passed this law to outlaw price discrimination that might give large retail chains an advantage over independent stores.
ANSWER: **Robinson-Patman** Act
[10] One of the earliest department stores was this one in Chicago that began as mail order company. Its property was seized by US troops in 1944 when its president refused to comply with the War Labor Board and recognize its union.
ANSWER: **Montgomery Ward**

17. Linus Pauling proposed a hexagonal ring structure for this substance's Ih phase. For 10 points each:
[10] Name this substance whose Ic phase contains oxygen atoms in a diamond shape. Its low-density amorphous phase probably constitutes noctilucent clouds.
ANSWER: **ice** [do not accept water or other wrong answers]
[10] Many phases of ice, including Ih, III, V, and VI, undergo dielectric relaxation because they are disordered structures. This physicist derived a relation for the frequency dependence of the orientation polarization in dielectric relaxation.
ANSWER: Peter **Debye**
[10] Water, ice, and water vapor all coexist at this point on their phase diagram, where a gas, liquid, and solid are capable of coexisting.
ANSWER: **triple** point

18. This man hung from Yggdrassil for nine days to learn the language of runes. For 10 points each:
[10] Name this one-eyed god, the supreme god of the Norse pantheon.
ANSWER: **Odin** [or **Wotan**]
[10] Odin uses his trickery to obtain the mead of poetry, made from the remains of this wise Norse god after Fjalar and Galar killed him.
ANSWER: **Kvasir**
[10] Kvasir is born during a truce after the Aesir-Vanir war, when the Aesir and Vanir all donate some of this substance and mix it together.
ANSWER: **saliva** [or **spit**; prompt on **water**]

19. In one scene in this play, two characters pretend to drive through a flock of butterflies at 100 miles per hour. For ten points each:
[10] Name this play in which Zachariah tries to get his lighter-skinned brother Morris to pose as him and meet his white pen-pal.
ANSWER: ***Blood Knot***
[10] *Blood Knot* is a work of this South African playwright who also wrote about racism in *Master Harold...and the Boys*.
ANSWER: Athol **Fugard**
[10] *Blood Knot* opens with Zach discovering that Morrie has bought a cheaper brand of this product instead of Dr. Schultz's. Zach uses this product because of his work as a gatekeeper at a zoo.
ANSWER: bath **salt**s [or obvious equivalents]

20. Answer the following about the sculptural output of people who were primarily painters, for 10 points each.
[10] Not even for his sole sculpture, *Little Dancer of Fourteen Years,* could this man depart from his fixation on underage ballerinas.
ANSWER: Hilaire Germain Edgar **Degas**
[10] This bronze sculpture of a man holding a quirt in one hand and a "fistful of mane" with the other was made by the painter of countless images of hostile Native Americans.
ANSWER: ***Bronco Buster*** [or ***Broncho Buster***]
[10] This city provides the nickname of both a climbable Cubist sculpture by Picasso and a fork-incorporating construction originally called *The Sun, the Moon, and One Star.*
ANSWER: **Chicago** [or **Chicago** Picasso; or Miro's **Chicago**]

21. This man presented his interpretation of James Joyce's *Finnegans Wake* in *A Shorter Finnegans Wake.* For 10 points each:
[10] Name this author of *Earthly Powers,* a British writer and literary critic who depicted a prostitute named "Lucy Negro" among the lovers of Shakespeare in his novel *Nothing Like the Sun.*
ANSWER: Anthony **Burgess** [or John Anthony **Burgess** Wilson]
[10] Anthony Burgess invented the Russian-based slang jargon Nadsat for this dystopian novel, in which the teenager Alex commits "ultra-violence" with his gang of droogs.
ANSWER: A ***Clockwork Orange***
[10] *A Clockwork Orange* opens in one of these locales called Korova, where young hoodlums ask for drugs such as synthemesc to be added to an otherwise harmless beverage.
ANSWER: **milk bar**s