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Tossups

1. This language's tense and aspect system was studied by Elizabeth Dayton. This language frequently drops final consonant clusters and various forms of "to be," including in an aspect called perfect phase or remote past. Shana Poplack analyzed texts from isolated enclaves in Samana and Nova Scotia and found that the grammar of early forms of it were similar to contemporary British dialects, suggesting that its modern form is a divergence from the mainstream rather than (*) de-creolization. It is differentiated from other dialects in its language system through its droppage of the copula *be* in the present tenses and its usage of negative concord. One work on this dialect argued against the "deficit theory" and was conducted in Philadelphia. That work is William Labov's *Language in the Inner City*. For 10 points, name this dialect of English spoken by many African-Americans.

ANSWER: African American Vernacular English [or Black English Vernacular or BEV or AAE or AAVE or Ebonics; prompt on "English" until "English" is mentioned]

2. It's not Thasos, but according to Pausanias, an athlete from *this city* called Kleitomachus (KLI-toh-MACK-us) won pankration (pan-KRA-tee-on), boxing, and wrestling at the Isthmian Games. Forces from *here* were victorious after the enemy, lacking distinctive shields, turned on each other in an early case of friendly fire, resulting in a victory for Pagondas (puh-GONE-duss) at the Battle of Delium. This city's tension with Athens grew after Athens declared support for its regional rival (*) Plataea. As a result, this city sided with Sparta during the Peloponnesian War, but later defeated them with an oblique formation at the battles of Tegyra (tuh-JEE-ruh) and Leuctra (LEWK-truh) under a leader who later died at Mantinea (MAN-tin-AY-uh). At the battle of Chaeronea (CARE-oh-NAY-uh), Philip II of Macedon, a former prisoner in this city, defeated its elite unit of 300 gay lovers, the Sacred Band. For 10 points, name this Greek city once led by Epaminondas (EPP-uh-min-NON-dus), a frequent leader of the Boeotian League, which according to legend, was founded by Cadmus.

ANSWER: Thebes

3. Maldistribution in apparatuses used for this technique can be diagnosed using a gamma grid scan. In one method of analyzing this technique, the pinch point is the intersection between the q-line and the equilibrium curve. One method of analyzing this process assumes constant molar overflow and constant relative volatility, and relies on the ratio between the K-value of the light key and heavy key; that method is abbreviated (*) F-U-G. The Bancroft temperature is the point at which this process becomes difficult due to the formation of a mixture that has the same proportions of components in the vapor and liquid phase; such a mixture can be broken using an entrainer and is called an azeotrope (AH-zee-oh-trope). Simple small-scale laboratory setups for this process have a condenser and a receiving flask. For 10 points, name this procedure which is used to separate liquids by boiling.

ANSWER: distillation [accept more specific answers like fractional distillation]

4. A Platonic dialogue on this topic features Socrates comparing the mind to an aviary to distinguish between possessing and having. Discussions about assessing the nature of evidence and "the right to be sure" appear in A.J. Ayer's essay about the "Problem" of this concept. Three different accounts of this thing equate it with perception, true judgement, and true judgement with an account. The (*) *Theatetus* (THEE-ah-TAY-tuss) is a Platonic dialogue that tries to define this concept, which is also the subject of the Gettier problems, which asks if this concept is "justified true belief." Immanuel Kant distinguished between *a priori* and *a posteriori* types of this concept to ask if this concept could be obtained without observation. For 10 points, name this concept often equated with "justified true belief," the subject of epistemology.

ANSWER: knowledge

5. In one book about this event, Volpatte sorts through his belongings with "a housewife's solicitous eyes," a man is scorned because he is ill instead of injured, and thus uninteresting, and another man pays twenty-five sous for Camembert (KAH-men-bear) that tastes like glue and plaster. Henri Barbusse (bar-BOOS) won a Prix Goncourt (pree gone-CORE) for his novel about this event, which is the setting for a novel in which a man who likes giving long, idiotic explanations about everyday objects like thermometers and postage stamps is run over by a cart while explaining what a pavement is. The protagonist of that novel is so absurdly patriotic that he is arrested for (*) treason before being sent to a madhouse, and before this event made a living as a dog thief. In another novel, the protagonist and his classmate Kemmerich are encouraged to take part in this event by Kantorek. For 10 points, name this conflict described in *Under Fire*, *The Good Soldier Švejk*, and *All Quiet on the Western Front*.

ANSWER: World War I [or the First World War; or the Great War]

6. Scaling up the number of *these things* allows the controlling of noise-based error below a certain threshold according to a theorem proved by Or and Aharonov. Rapid phase shifts of these things can prevent their amplitude evolution in a procedure called “bang-bang control.” Two paths through a Mach-Zender interferometer are used to distinguish states of these things in time-bin encoding. Superdense coding is a procedure for sending one of these things after forming a (*) Bell pair. These things are a superposition of the ket of zero and the ket of one, which allows unitary transformations of these things to be represented as rotations on a Bloch (block) sphere; those unitary transformations of them include the Hadamard and C-NOT gates. The fact that these things can be entangled allows them to perform several calculations simultaneously. For 10 points, name these simplest units of information in a quantum computer.

ANSWER: qubit [or quantum bit; prompt on “quantum computer” until mention; prompt on “quantum states”]

7. A ritual in one ceremony of *this religion* is performed clockwise in times of peace and counterclockwise in times of war. A member of this religion started the Suffering People’s Party. One set of rules in this religion is used to increase a life-force called “livity.” An early preacher of this religion is known as the “Gong Guru” and wrote *The Promise Key*; that adherent is Leonard Howell. An important text in this religion is divided into four books of Althyi. Fish over a foot long and added salt are discouraged in this religion’s (*) I-tal diet. This religion, which contains three sects called “mansions” and venerates a text called *The Holy Piby*, contrasts the fallen modern world “Babylon” with the utopian “Zion” and reveres Marcus Garvey as a prophet. For 10 points, name this religion that venerates Ethiopian emperor Haile Selassie and smokes a lot of Ganja.

ANSWER: Rastafarianism

8. This man’s grandson wrote *The River of Lost Footsteps*, which is partly a biography of this figure. This man was buried at the Cantonment Garden after students attempted to steal his coffin because the government refused to give him a state funeral. This man ordered a not-India-or-Pakistan-related Operation Grand Slam to gain air superiority for the ONUC over Moïse Tshombe’s (tuh-SHOM-bayz) Katangese secessionists. After denouncing the “troika formula,” this man appointed Petrovich Arkadev and (*) Ralph Bunche as his principal advisors in his highest post. This man, who acted as a secretary at the Bandung Conference and restructured his office into USGs and ASGs, is most well-known for his mediation of the “Hotline Agreement” ending the Cuban Missile Crisis. For 10 points, name this UN Secretary General who took over after Dag Hammarskjöld (HAM-arr-skold) and was from Burma.

ANSWER: U Thant [or Pantanaw U Thant]

9. A character in this novel lifts up a refrigerator and smashes it during a rant inspired by a suspicious fire; that precedes a search for weapons involving a volunteer in an incongruous San Jose State t-shirt. While at Sea Point, the protagonist of this novel has his first sexual experience with the sister of a vagrant named December. A doctor at Kenilworth narrates part of this novel, whose protagonist is taken in by Robert and his family while at Jakkalsdrif (JACK-uls-driff). Its protagonist also spends several periods at the (*) Visagie farm, the goal of a trip he undertook originally with his mother, then with her ashes. For 10 points, name this novel set during an imaginary civil war in South Africa that centers on a harelipped gardener, a Booker-winner by J. M. Coetzee.

ANSWER: Life & Times of Michael K

10. A composer from this country compiled madrigals such as *As Vesta was from Latmos hill descending* into a collection titled for *The Triumphs* of this country’s monarch. A composer from this country wrote one mass each in three, four, and five parts, and collaborated with his teacher on several books of *Cantiones sacrae* (CAN-tee-oh-nez SAH-cray) after receiving a 21-year monopoly to print polyphonic music. This country is home to the (*) *Prince of Denmark’s March*, which is better-known as a wedding piece called the Trumpet Voluntary. A composer from this country set the Book of Judith in a forty-part motet titled *Spem in alium*, and had another of his themes subject to a fantasia by Ralph (“rafe”) Vaughan Williams. For 10 points, name this country home to William Byrd and Thomas Tallis, the latter of whom was a court composer for Elizabeth I.

ANSWER: England

11. In the *Gesta Danorum* (GAY-stuh day-NO-rum), King Hadingus finds a river full of weapons in one of these locations, and a creepy woman tosses the head of a rooster over an impenetrable wall. In the mythology of Mangaia, this kind of location is compared to the hollow of a coconut shell. Varima-te-takere, mother goddess, lives in one of these places, and names for this kind of location in Chinese myth include “Court of Yanluo” and “nine springs.” Odin rides to one of these places to determine the meaning of Baldr’s (*) nightmares, and Vainamoinen is able to escape from one only by turning into a snake. The ruler of one of these places twice had sex for six days straight with her

future husband; that couple was Ereshkigal and Nergal. Amaterasu, Susanowo, and Tsukuyomi were born after Izanagi's return from one of these places. For 10 points, name these locations ruled over by Yama and Hel.

ANSWER: underworlds [or hells; accept specific answers like Yomi, hell, Hel, land of the dead, etc.]

12. One character in this novel picks up a “kinda skanky-lookin” hitchhiker, but refuses to sleep with her because of his wife, who is with her mother in Odessa, while she refuses to believe he's a welder because of his machine gun. This novel ends with one protagonist recounting a dream in which his dead father carried a moon-colored horn lit with fire. While recovering in a Mexican hospital, a character in this novel is offered protection by the bounty hunter (*) Carson Wells. This novel's antagonist tells Carla Jean, “You didn't do anything. It was bad luck,” before flipping a coin and shooting her with his “stungun”. For 10 points, name this novel that takes its title from the Yeats poem “Sailing to Byzantium”, stars Llewelyn Moss, Sheriff Bell, and Anton Chigurh, and was written by Cormac McCarthy.

ANSWER: No Country for Old Men

13. An essay about this artist suggests that his approach to the world was inspired by an “infinite Logos,” and that this wondered whether the novelty of his painting came from the trouble with his eyes; that essay about this painter's “doubt” was written by Maurice Merleau-Ponty (MER-low-PAHN-tee). A bizarre painting by this artist is thought to depict Pluto's abduction of Proserpine and is titled *The Abduction*. That painting by him was once owned by his childhood friend (*) Emile Zola, whom this artist depicted in *Paul Alexis Reading to Emile Zola*. Another of his paintings uses a triangular composition of trees to frame the depiction of the title group of nudes. This artist of *The Large Bathers* lived in a home in Provence, where he painted many depictions of a certain mountain. For 10 points, name this French Post-Impressionist painter known for his depictions of Mont-Sainte Victoire.

ANSWER: Paul Cezanne

14. Patients with mutations in EVER1 or EVER2 are unusually susceptible to this virus. The evolution of this virus is thought to have split into five branches along with human ethnicities; the 16 type is classified into European and Non-European. This virus can cause koilocytic atypia as part of its cytopathic effect, and can cause HSIL and LSIL lesions. Its E-six-associated protein ubiquitinates (*) p53 while E-seven inactivates retinoblastoma protein by competing for its binding. Types of this virus are classified as “high risk” when they cause intraepithelial neoplasia in the affected areas. Infection by this virus is limited to basal cells of stratified epithelium. Ras oncogene must be activated to immortalize cells infected by this virus, which was used to develop HeLa (HEE-luh) cells. Testing for this virus is part of a Pap smear. For 10 points, name this virus vaccinated against by Gardasil, the leading cause of cervical cancer.

ANSWER: human papillomavirus [or HPV]

15. This work's composer claimed he wrote it to spite those who accused him of being “Wagnerian” and incapable of writing anything light. A prospective suitor in this work sings, stuttering, about how his mother told him to win the protagonist's love, and because he is attracted to Esmeralda, is later persuaded to fill in at a travelling circus, dressed in the costume of a (*) bear. The protagonist has an Act III aria in which she expresses her feelings of betrayal after finding out that her beloved, who had earlier praised love as superior to beer, accepted 300 florins. The opera features dances like the furiant and skočná, and at the end, Mícha's eldest son is revealed to be Jeník, so the latter is able to marry Mařenka. A landmark in the development of Czech national music, this is, for 10 points, which Smetana comic opera about a guy trading his fiancée for money?

ANSWER: *The Bartered Bride* [or *Prodaná nevěsta* or *The Sold Fiancée*]

16. This man employed the monk Gerard Sagredo as a tutor for his son, and he compiled a work on moral education called the *Admonitions* for his children. After another ruler levied a tax on salt transported to this leader, he sent the warrior Csanad (ZAHN-ad) to defeat that chieftain, Achtum. Mercurius stole this man's right hand, which was called the Holy Dexter and venerated it. Through his wife, Giselle of Bavaria, this man was the brother in law of Holy Roman Emperor (*) Henry II. This man's cousin Vazul attempted to overthrow him, and Vazul's grandson Ladislaus I eventually took the throne. This son of Grand Prince Geza was crowned by Pope Sylvester II on December 25th, 1000 AD. For 10 points, name this sainted first King of Hungary.

ANSWER: Saint Stephen I of Hungary

17. One of these objects with usually large proper motion is named for Teegarden. These objects' “desert” is a location beyond a distance where these objects have lower frequency, and is hypothesized to exist due to migration. Two different classes of them can be distinguished by the presence or absence of titanium oxide bands and metal hydride bands. The VLT mapped the atmosphere of Luhman 16B, one of these objects. The WISE and (*) 2-MASS surveys have detected several of these objects, which can be grouped into M, L, T, and Y types. These objects are confirmed by finding lithium in their atmospheres. These astronomical objects exist in the lower right of the HR diagram,

and they do not have enough mass to fuse hydrogen. Including Gliese 229B, for 10 points, identify these “failed” stars whose upper mass limit is around 80 times that of Jupiter.

ANSWER: **brown dwarf** [prompt on “star”, prompt on “dwarf”]

18. These people believe a giant hornet, the Ulagu (oo-LAH-goo), nested and fought with warriors on mountaintops until the Great Spirit blasted the mountains with lightning. Carved gourds with phalluses are often used as masks in this group's humorous "booger dances." One leader from this group captured the steamboat *JR Williams* as well as a wagon train at Cabin Creek and later surrendered at Doaksville. The names of those listed on the "By-Blood" section of the Dawes Rolls have complicated the classification of these peoples' "Freedmen," whose membership was opposed by (*) Wilma Mankiller. Florence Owens Thompson, the Migrant Mother photographed by Dorothea Lange, was a member of this group. This group was led by John Ross after the Treaty of New Echota (ee-CHO-tuh) forced their relocation from Georgia. For 10 points, identify this Native American tribe that undertook the 1838 Trail of Tears.

ANSWER: **Cherokee**

19. In one scene, this character tells his daughter and son that “I know thee not, nor ever saw till now / Sight more detestable than him and thee.” In his first scene, he complains that his second-in-command is no longer as beautiful as before, and claims that “the mind is its own place.” At one point, his shield is compared to the moon as seen by Galileo, and he himself is compared to a sunspot. He seeks out his victim by pretending that he wants to “with secret gaze / or open admiration him behold,” and is later caught squatting at a (*) woman’s ear like a toad. At the end of one of this character’s speeches, all of his companions and then he himself are turned into snakes. He flees a battle after seeing golden scales in the sky, and is defied by Abdiel and wounded by Michael. This character finds it “better to reign in Hell than serve in Heaven”. For 10 points, name this fallen angel who tempts Adam and Eve in Milton’s *Paradise Lost*.

ANSWER: **Satan** [or **Lucifer**]

20. This state’s only endemic bird species is a uniquely social species of scrub jay found along the Lake Wales Ridge, an ancient island chain that contains this state’s most prominent point at Sugarloaf. Phosphate-rich pebbles are mined at Bone Valley upstream from Port Charlotte in this state. The Hillsborough River in this state flows into a body of water across from the historic Ybor City cigar-making district on the Pinellas Peninsula. A group of herpes-infected (*) rhesus monkeys inhabits the forest near Silver Springs in this state where the Big Cypress Preserve helps protect an endangered subspecies of cougar. The Apalachicola River drains the northwest of this state while the St. John’s River drains the northeast and meets the Atlantic Ocean at Jacksonville. For 10 points, identify this state where the Kissimmee River flows to Lake Okeechobee south of Orlando.

ANSWER: **Florida**

Bonuses

1. This painting was attacked in 1914 by suffragette Mary Richardson. For 10 points each:

[10] Name this Diego Velazquez painting which depicts the title brunette goddess lying on a bed looking at herself in a mirror with pink and grey ribbons held up by her son Cupid.

ANSWER: **The Rokeby Venus** [or The **Toilet of Venus**; prompt on "Venus at her Mirror"; prompt on "Venus and Cupid;" and "La Venus del espejo"]

[10] Diego Velazquez also created this painting of the *infanta* Margaret Theresa surrounded by her maids of honor and her dog.

ANSWER: **Las Meninas**

[10] After the completion of *Las Meninas*, Velazquez added *this decoration of this color* to his chest to indicate his Order of Santiago, since he did not receive it until after the painting was completed.

ANSWER: a **red cross** [prompt on “cross” or “St. James Cross”]

2. Answer some questions about nuclear decay, for 10 points each:

[10] Name this most common isotope of iron, which possesses an extremely stable nucleus and really high binding energy. This accounts for its relative abundance compared to less stable nuclei.

ANSWER: iron-**56**

[10] Almost all the helium on earth was created as a result of this process occurring in underground uranium and thorium deposits. This form of nuclear decay emits a particle consisting of two protons and two neutrons.

ANSWER: **alpha** decay

[10] This is the lightest observed element to undergo alpha decay. This metalloid is added to steel to improve machinability, bonded to cadmium in solar panels, and found in the agar used to grow corynebacterium (kuh-RIN-uh-back-TEER-ee-um) diphtheriae.

ANSWER: tellurium [or Te]

3. This symphony's fourth movement abruptly shifts from Presto and 2/2 time to a lengthy coda in Adagio and 3/8 time written in the parallel major key. For 10 points each:

[10] Name this F-sharp minor symphony written to inform Prince Esterházy that his court orchestra wished to return home from his summer palace.

ANSWER: Farewell Symphony [or Symphony No. 45 by Joseph Haydn]

[10] A sudden loud chord in this Haydn symphony interrupts the quiet opening of its second movement.

ANSWER: Surprise Symphony [or Symphony No. 94]

[10] Anton Weidinger was the dedicatee of both Haydn's trumpet concerto and the one in E major by this composer, whose Piano Concerto No. 3 in B minor is among the first to call for four horns.

ANSWER: Johann Nepomuk Hummel

4. Winfield Scott was the inspiration for John A.B.C. Smith, a war hero now composed almost entirely of prostheses, in this author's story "The Man That Was Used Up." For 10 points each:

[10] Name this American author who wrote a story about a visit to a mental institution in which it turns out the patients have overthrown and imprisoned the staff, called "The System of Doctor Tarr and Professor Fether."

ANSWER: Edgar Allan Poe

[10] This Poe story includes the poem "The Conqueror Worm," which contains the line "That the play is the tragedy, 'Man.'" Upon the titular character's death, the narrator marries Lady Rowena.

ANSWER: "Ligeia"

[10] The narrator of this Poe story has the family motto "Nemo me impune lacessit" - "No one insults me with impunity." His victim later calls out to him, "For the love of God, Montresor!"

ANSWER: "The Cask of Amontillado"

5. The left foot of this statue curls around the edge of the rock on which it stands, and its hands are slightly bent and nearly touching in front of its chest in a position of prayer. For 10 points each:

[10] Name this wooden sculpture, which depicts Mary, who atones after having spent thirty years in the desert for being a prostitute.

ANSWER: Penitent Magdalene or Penitent Magdalena

[10] This Renaissance sculptor created the *Penitent Magdalene*. He also created a statue of Habbakuk called *Lo Zuccone* and a bronze statue of David.

ANSWER: Donatello

[10] This Renaissance art historian calls the *Penitent Magdalene* a work with "perfect anatomy." He coined the term Renaissance in his *Lives of the Artists*.

ANSWER: Giorgio Vasari

6. Name some methods of numerical integration, for 10 points each:

[10] This method works by generating random points, then determining the ratio of points inside the desired volume to points in a slightly larger domain of known volume. It can use recursive stratified sampling.

ANSWER: Monte Carlo integration

[10] This rule, one of the Newton-Cotes formulas, works by approximating the region under the graph of a function as a namesake shape. It is usually more accurate than methods using rectangles.

ANSWER: trapezoidal rule

[10] This method is based on expanding the integrand in terms of Chebyshev polynomials. It substitutes the term cosine of theta for x in the integral, and then uses a discrete cosine transform approximation for the cosine series.

ANSWER: Clenshaw-Curtis quadrature

7. This goddess was married to Tegid Foel, or Tacticus the Bald. For 10 points each,

[10] Name this enchantress who had both a beautiful daughter, Creirwy, and a hideous son, Morfran. She owned a cauldron of poetic inspiration, or Awen.

ANSWER: Ceridwen (kir-RID-wen)

[10] Three drops from a mixture of Awen meant for Ceridwen's son fell onto the thumb of this boy, who sucked his hurt thumb and gained wisdom and poetic inspiration. He was eaten by Ceridwen and later reborn.

ANSWER: Taliesin or Gwion Bach

[10] Taliesin was rescued by Elffin, who was hunting for this type of animal. In a story similar to that of Taliesin, Finn MacCool's thumb was burnt by the dripping fat of one of these animals.

ANSWER: salmon [prompt on less specific answers like "fish"]

8. The subject of this work was the product of a union between a Revolutionary War hero and a barmaid he cheated on his wife with. For 10 points each:

[10] Name this book by Henry H. Goddard about the pedigree of a woman living in the New Jersey Home for the Education and Care of Feeble-minded Children.

ANSWER: The **Kallikak Family**: A Study in the Heredity of Feeble-Mindedness

[10] *The Kallikak Family* was one of several works in the early 20th century that advocated this social philosophy, the selective breeding out and elimination of detrimental traits. It was of course terribly racist.

ANSWER: eugenics

[10] This Victorian-era statistician invented the term eugenics. He also observed the idea of “regression to the mean” and was the first to use the phrase “nature versus nurture.”

ANSWER: Sir Francis Galton

9. This man wrote a series of letters attributed to a Chinese traveler named Lien Chi that were published under the title *The Citizen of the World*. For 10 points each:

[10] Name this author who may also be the origin of the phrase “goody two-shoes.” He lamented the depopulation of “Sweet Auburn!” in his poem “The Deserted Village” and penned a novel whose title character is Charles Primrose.

ANSWER: Oliver Goldsmith

[10] Goldsmith’s most famous dramatic work is this play, in which Kate Hardcastle pretends to be a low-class serving maid to get Charles Marlow to fall in love with her.

ANSWER: *She Stoops to Conquer*

[10] In the aforementioned *The Vicar of Wakefield*, Primrose’s sudden bankruptcy temporarily prevents his son George from marrying a woman with this first name. Another character with this first name gives birth to a child nicknamed “Little Father Time” after Jude Fawley leaves her.

ANSWER: Arabella [accept Arabella Wilmot or Arabella Donn]

10. In one military campaign, this man had the opposing commander, Arthur Aston, beaten to death with his own wooden leg. For 10 points each:

[10] Name this Lord Protector of England and leader of the Roundhead faction during the English Civil War.

ANSWER: Oliver Cromwell

[10] During the English Civil War, Cromwell served as second-in-command of the New Model Army headed by Sir Thomas Fairfax. The two of them teamed up to win this 1645 battle near Northamptonshire.

ANSWER: Battle of Naseby

[10] After the war, John Lambert, a commander in the New Model Army, drew up this only written constitution of England. Its ideas were similar to the “Heads of Proposals” held up by the Grandees at the Putney Debates.

ANSWER: Instrument of Government

11. This man is the namesake of a limited renaissance that included the works of the nun Hroswitha of Gandersheim. For 10 points each:

[10] Name this son of Henry the Fowler who put down a revolt led by Eberhard of Franconia. This man had his son marry Princess Theophano of the Byzantine empire.

ANSWER: Otto the Great

[10] At Lechfeld, Otto the Great managed to halt the invasions of Western Europe by these people. Much later, these people revolted against Soviet domination in 1956 under Prime Minister Imre Nagy (naj).

ANSWER: Hungarians [or Magvars]

[10] Otto the Great installed people like Herman Billung and Gero to this post. In general, this post refers to the person responsible for the military command of one of the Holy Roman Empire’s border provinces.

ANSWER: Margrave

12. This play ends with the line “Silence, silence I say! Silence!” For 10 points each:

[10] Name this play in which Adela commits suicide after hearing that Pepe el Romano has died. Her mother protests at the end of the play that Adela died a virgin, despite evidence to the contrary.

ANSWER: The **House of Bernarda Alba** [or La **Casa de Bernarda Alba**]

[10] *The House of Bernarda Alba* is by this Spanish author of *Gypsy Ballads* and *Play Without a Title*. He wrote about Leonardo and the Bride’s tragic romance in *Blood Wedding*.

ANSWER: Federico García Lorca

[10] Lorca’s poem “Lament for the Death of a Bullfighter” opens with a section titled “Cogida and Death,” in which every other line is this five-word scene-setting refrain.

ANSWER: “At five in the afternoon” [or “A las cinco de la tarde”]

13. This book analyzes the *Odyssey* and the relationship between myth and science and explores historical patterns of dominance to explain failures of traditional Marxist theory. For 10 points each:

[10] Name this 1944 collaboration by Max Horkheimer and Theodor Adorno.

ANSWER: Dialectic of Enlightenment [or Dialektik der Aufklärung]

[10] Horkheimer and Adorno coined this phrase, which titles a chapter sub-titled “Enlightenment as Mass Deception.” This phrase refers to how society is lulled into passivity through a “defrauding of the masses” through mass-produced film, radio and other media.

ANSWER: the Culture Industry [or Kulturindustrie]

[10] Horkheimer and Adorno were members of a school of philosophy named for this German city; its other members included Walter Benjamin and Jürgen Habermas.

ANSWER: Frankfurt [or the Frankfurt School]

14. In 2014, Terence Tao showed that the averaged three-dimensional version of these equations have solutions that blow up in finite time. For 10 points each:

[10] Name these famously difficult to solve partial differential equations which model the flow of viscous fluids.

ANSWER: Navier-Stokes equations

[10] The Navier-Stokes equations are particularly useful for modelling this kind of flow, which occurs at high Reynolds numbers. In this kind of flow, vortices and eddies are common.

ANSWER: turbulent flow

[10] The Navier-Stokes equations reduce significantly when considering this type of fluid, for which the divergence of the flow velocity vector field is equal to zero.

ANSWER: incompressible

15. This character is astounded to hear of the invention of an instrument used to steal cloaks from pegs by reaching over a gymnasium wall and of the discovery of the reason fleas buzz, and begs to meet the man responsible. For 10 points each:

[10] Name this character who is dismissed as a student after Socrates finds him masturbating under a blanket instead of meditating.

ANSWER: Strepsiades

[10] In *The Clouds*, Strepsiades’s son Pheidippides takes his place at this institution, a school run by Socrates.

ANSWER: The Thinkery [or Phrontisterion]

[10] *The Clouds* was written by this playwright, a proponent of Greek Old Comedy who also wrote *Lysistrata* and *The Frogs*.

ANSWER: Aristophanes

16. Recent studies have been showing evidence of interbreeding between modern humans and this species as recently as forty thousand years ago. For 10 points each:

[10] Name this extinct species closely related to *Homo sapiens* which exhibited complex social behavior like advanced toolmaking and burying their dead.

ANSWER: *Homo* neanderthalis

[10] Humans and neanderthals do *not* share this kind of DNA, of which all modern non-African humans have Haplogroup L3. This DNA’s HVR1 and HVR2 hypervariable regions are used to sort it into haplogroups.

ANSWER: mitochondrial DNA

[10] This migration theory argues that pluvial periods created lakes and rivers in a certain African desert, allowing migration across a land bridge into Eurasia.

ANSWER: Saharan pump theory

17. Aldrich Ames worked in the counterintelligence division of this agency while he conducted espionage for the Soviet Union. For 10 points each:

[10] Identify this American spy agency that chased after false Soviet leads at its facility at Warrenton while Ames continued to work at its headquarters in Langley, Virginia.

ANSWER: CIA or Central Intelligence Agency

[10] Ames as well as FBI double agent Robert Hanssen both used this system of leaving information in various locations and marking that it was ready to be picked up without actually meeting their live handlers in person.

ANSWER: dead drops [prompt on just “drops”]

[10] The Walker Spy Ring used many dead drops throughout the Washington DC area to provide information to the Russians on new technology and communication codes from this organization.

ANSWER: United States **Navy** [prompt on “military” or “armed forces”]

18. This sect’s most visible movement is the Chabad Lubavitch sect, and they can be distinguished partly by their wearing of the kolpiks and their organization into different dynasties. For 10 points each:

[10] Name this sect of Orthodox Judaism and subset of the Haredim. It’s founder’s student, Dov Ber of Mezeritch, helped spread the faith, and it was excommunicated by the Gaon of Vilna.

ANSWER: **Hasidim** [or **Hasidic** Jews]

[10] This founder of Hasidic Judaism held a pan-entheist view of god, and believed that all things must contain some good if God is within them. He was a harsh critic of the Frankists.

ANSWER: **Baal Shem Tov** [or **Besht** or Israel Bin **Eliezer**]

[10] This is the name often used for the assistant to a Hasidic Rebbe, or any person who assists in running synagogue services. They’re also responsible for calling up members of the congregation to read the Torah.

ANSWER: **shamash** or **gabbai** [prompt on **warden**]

19. This man’s claim was rejected by the Khatmiyya sufi order, leading him to send his forces against him. For 10 points each:

[10] Name this figure who led an uprising against the British that was dealt a huge defeat when his successor, Abdullah al-Taashi, was defeated by the forces of Herbert Kitchener at the Battle of Omdurman.

ANSWER: the **Mahdi** [or Muhammad **Ahmad** bin abd Allah]

[10] The Mahdist revolt occurred in this modern day nation, which was split in 2011. The Mahdi himself died during the Siege of Khartoum in this nation.

ANSWER: **Sudan**

[10] Winston Churchill wrote this book about his experiences serving as an officer during the Mahdist War. Passages about the regressive nature of Islam in this book are often loved by modern far-right groups.

ANSWER: *The **River War**: An Historical Account of the Reconquest of the Soudan*

20. R.U. Ready for this robot-themed bonus? For 10 points each:

[10] This book detailing the exploits of the “constructors” Trurl and Klapaucius. This book’s robots include one that writes such good poetry that all the poets in the universe despise it and one that repeatedly insists that $2 + 2 = 7$.

ANSWER: *The **Cyberiad***

[10] This Polish author of *The Cyberiad* wrote other books about robots but is best known for two novels about extraterrestrial contact, *His Master’s Voice* and *Solaris*.

ANSWER: Stanislaw **Lem**

[10] This science fiction author formulated the Three Laws of Robotics and created the scientist Susan Calvin in his short story collection, “I, Robot.” He also wrote the *Foundation* series.

ANSWER: Isaac **Asimov**