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TOSSUPS:

1. **Union organizer James Larkin founded the ITGWU in this city, an organization that participated in a 1913 lock-out strike of this city’s tram system. General John Maxwell declared martial law and executed a series of prisoners in this city’s Kilmainham Jail. In 1882, Henry Burke and Frederick Cavendish were killed in this city’s (*) Phoenix Park. Members of the Auxiliaries and the FIC killed 15 people at a sporting event in Croke Park in this city in retaliation for the killing of members of the Cairo Gang earlier that day. The seizure of the General Post Office in this city was a key event in the Easter Rising of 1916. For 10 points, name this city, the capital of a region that sought independence from Britain in the Home Rule Movement.**

ANSWER: Dublin, Ireland

<TH, European History>

2. **A politician from this state was accused of advocating infanticide after he made comments about this state’s Repeal Act, suggesting parents could choose not to resuscitate deformed babies. A politician from this U.S. state once called an Indian-American a “macaca.” A Republican candidate for U.S. Senate from this state, Corey (*) Stewart, is primarily known for his passionate defense of Confederate statues. This state’s Lieutenant Governor, Justin Fairfax, is currently facing multiple claims of sexual assault. In 2017, Heather Heyer was killed while counter-protesting a rally in this state. For 10 points, name this U.S. state where Governor Ralph Northam has recently faced pressure to resign following the discovery of racist pictures of him in his medical school yearbook.**

ANSWER: Virginia

<JM, Current Events>

3. **Micro-organisms use coenzymes B, M, and F-420 to produce this compound in a syntrophic relationship with proto-zoans in termites. Coal beds with this compound adsorbed onto them are desirable for extraction due to lack of contaminating hydrogen sulfide. The release of this compound from seabeds and permafrost can lead to a positive feedback loop of temperature according to the (*) Clathrate gun hypothesis. This compound is the main component of natural gas by mass. This greenhouse gas has a global warming potential 32 times that of carbon dioxide, and it is widely produced by livestock. For 10 points, name this simplest alkane with formula C·H·4.**

ANSWER: methane [accept methanogens; accept C·H·4 until mentioned, prompt after; prompt on natural gas]

<TH, Biology>

4. A massive shale oil formation in this country's Neuquen ("new-KEN") Basin is named for a dead cow. This country contains the Laguna del Carbon, the lowest point in the Western Hemisphere. This country's city of Mendoza is the center of its wine producing region of Cuyo. This country lays claim to, but does not control, the South Georgia and South Sandwich Islands, which are administered by a European nation. This member of the (*) Southern Cone contains the highest mountain in the western hemisphere, Mt. Aconcagua. The Strait of Magellan separates the mainland of this country from a southern archipelago it shares with its western neighbor. For 10 points, name this country that shares a 3200 mile border and Tierra del Fuego with its western neighbor Chile.

ANSWER: Argentina

<TH, Geography>

5. The radial basis function kernel commonly used in S·V·Ms has the same form as functions named for this mathematician. Under some assumptions on the errors, a theorem named for this mathematician and Markov says that the ordinary least squares estimator is the best linear unbiased estimator of regression coefficients. The sum of independent and identically distributed variables with finite variances will tend to a distribution named for this mathematician by the (*) central limit theorem This mathematician's namesake distribution is proportional to the exponential of negative x minus the mean squared over twice the variance squared. For 10 points, name this mathematician, whose namesake distribution is also known as the normal distribution.

ANSWER: Carl Friedrich Gauss [accept Gaussian distribution]

<DG, Other Science Math>

6. A mass by this composer features a Gloria movement in a Vivace-Adagio-Allegro form whose middle section features a solo cello and baritone beginning on the words "Qui tollis peccata mundi"; that mass by this composer makes extensive use of timpanis and was dedicated to the Hungarian Princess Maria. Brahms borrowed a melody originally attributed to this composer's (*) "Chorale St. Antoni" for a set of orchestral variations. This composer dedicated a mass to Horatio Nelson shortly after his victory at the Battle of the Nile. While working in the Esterhazy court, this composer pioneered a chamber genre that includes a two violins, a viola, and a cello. For 10 points, name this Austrian Classical-era composer who is called the father of the string quartet and the symphony.

ANSWER Franz Joseph Haydn

<TH, Classical Music>

7. Kenneth Kraus was involved in a much smaller predecessor to this event, that came to be known as the "Valentine's Day Open House." One side in this event described the presence of a "den of spies" to justify their actions, which were partially kickstarted by a former politician being allowed asylum to undergo lymphoma treatments. A couple of fake visas were key to a small portion of this event that was masterminded by a joint (*) CIA-Canadian alliance. A powerful *haboob*, a type of dust storm, contributed to the failure of Operation Eagle Claw, which tried to mitigate this event. For 10 points, name this event during the Carter Administration, which saw a group of Americans held captive in the U.S. embassy in a Middle Eastern nation.

ANSWER: Iran Hostage Crisis [prompt on partial answers; do NOT accept or prompt on "Iranian Embassy Siege," which is a different event that took place in London] (The CIA-Canadian alliance mentioned refers to the "Canadian Caper")

<BK, American History>

8. **This author created a character who uses the example of a eucalyptus vine growing toward sunlight to illustrate the intelligent nature of plants in a story depicting a chess playing robot that kills its creator. In another of his stories, a six-year-old deaf and mute boy playfully interacts with soldiers before going home to find his house has been burned down. In a story by this author, a character mistakes the (*) “sharp, metallic percussion” created by the ticking of his watch for a blacksmith striking a hammer, shortly before being hung by Union Soldiers for attempting to burn the title structure. For 10 points, name this author of “Moxon’s Master” and “Chickamauga,” who wrote about Peyton Farquhar in “An Occurrence at Owl Creek Bridge.”**

ANSWER: Ambrose **Bierce**

<AS, Short Fiction>

9. **This man and Arthur Benton replaced the heat illusion test of Eysenck and Furneaux with a vibration suggestion test, in a paper discussing primary and secondary suggestibility. Another experiment by this man showed that test subjects only took candy after getting above 40 points in a rigged bowling contraption. In addition to his experiment with Carol (*) Kupers Whalen, another experiment by this man and Richard Walters resulted in his first book, *Adolescent Aggression*. A famous experiment by this man resulted in children physically abusing and yelling words like “sockeroo” at the title object. For 10 points, name this founder of social cognitive theory, who coined the term reciprocal determinism and created the Bobo Doll experiment.**

ANSWER: Albert **Bandura**

<JH, Psychology>

10. **An author from this nation dedicated the short-story collection *Lizard* to Kurt Cobain and wrote about a “sleep prostitute” in her novel *Asleep*. That author from this country wrote about an insomniac and food-loving woman in her novel *Kitchen*, and has the first name Banana. An earlier author from this country made numerous lists, such as “rare things” and “pleasing things” in her impressionist collection *The (*) Pillow Book*. The death of a promiscuous prince is implied by a blank chapter after the prince has a long affair with Lady Aoi in an early novel from this nation. For 10 points, name this home country of Heian-era authors Sei Shonagon and Murasaki Shikibu, who wrote *The Tale of Genji*.**

ANSWER: **Japan** [accept **Nipon**]

<BK, Long Fiction>

11. **A sketch in an 1883 paper depicts a scientist with the apparatus he used to measure critical velocities in these objects by injecting streaks of dye into them. Beyond the entrance region of these objects, the inviscid core disappears and the velocity field is called “fully developed”. Open-channel flow is often contrasted with a type of flow named for these objects. Plotting the Reynolds number versus the friction factor and relative (*) roughness is used to calculate the flow rate down one of these objects. The head loss per unit length of these objects is given by the Darcy-Weisbach equation. Fluid pressure drops in these objects due to drag along their walls. For 10 points, name these hollow cylinders made out of metal or plastic used to transport fluid.**

ANSWER: **pipes** [accept **duct**; accept **conduit**; accept **tubes**]

<JS, Physics>

12. Upon first encountering his wife as a little girl, this deity transformed her into a many-toothed comb and placed her in his hair. This deity was born from the cleaning of his father's nose, while his sister and brother were born from their father's left and right eyes respectively. This god had his hair tied to some rafters as a suitor escaped with this god's prized lute and daughter (*) Suseri-hime. This god had an old couple construct cupboards and brew sake in order to help him kill the eight-headed serpent Orochi. This deity created five gods from his sister's necklace and later threw a flayed horse at that sister, Amaterasu. For 10 points, name this son of Izanagi, the Shinto god of the sea and storms.

ANSWER: Susanoo [accept Susanoo-no-Mikoto; accept Susanowo; accept Kumano Ketsumiko no Kami]

<JH, Mythology>

13. Part of the serialized sequel to this novel is presented in the style of an airplane safety card; that comic book sequel to this novel was drawn by Cameron Stewart. The line "I want to have your abortion" was deemed too offensive and was cut from the film adaptation of this novel. The unnamed narrator of this novel attends a testicular cancer (*) support group, where he meets the big-breasted Bob. The protagonist of this novel enjoys reading IKEA catalogs while sitting in the bathroom, has a fraught relationship with Marla Singer, and is introduced to Project Mayhem by the soap-selling Tyler Durden. For 10 points, name this novel by Chuck Palahniuk ("PA-la-nick"), in which men are instructed not to talk about the title combat meetings.

ANSWER: Fight Club

<LL, Pop Culture Other>

14. In a play by this author, a widow yells at a landowner "You're a boor! A coarse bear! A Bourbon! A monster!" before initiating a duel with him. In addition to *The Bear*, this author wrote a play in which an "unlucky man" is referred to as "twenty-two troubles." Characters in a play by this author include Telegin, nicknamed (*) "Waffles," and Dr. Astrov, who is told that Sonya doesn't love him by that play's title character. In another play by this author, the servant Firs dies in an abandoned house as offstage axes cut down the trees on Madame Ranevskaya's estate. For 10 points, name this author of *Uncle Vanya* and *The Cherry Orchard*.

ANSWER: Anton Chekhov

<JH, Drama>

15. READ TO PLAYERS: "Answer includes both a verb and a specific geographical location, such as swimming across the English Channel"

While this specific geographical action was almost certainly facilitated by a no-longer extant land bridge at the north end of the Sahul continent, Scott Cane has proposed that the first occurrence of this process was ancient humans moving south in response to the Toba Supereruption. The largest-ever marsupial, *Diprotodon*, and other "megafauna" likely went extinct as a direct consequence of this action, which introduced damaging agricultural practices such as (*) firestick farming to its relevant location. The earliest group to have performed this action fought a series of namesake "frontier wars" with the British, who accomplished this action via the First Fleet. For 10 points, name this action that resulted in the founding of Sydney on a certain landmass.

ANSWER: settling in Australia [accept colonizing Australia; accept living in Australia; accept moving to Australia; accept sending people to Australia or sending prisoners to Australia; basically, accept answers that indicate people residing in or travelling to Australia for the purpose of residing]

<TM, World History>

16. T.S. Eliot mocked a poem titled for this figure by ironically echoing its final line about “The army of unalterable law.” This figure flies among “the stars / Which are the brain of heaven” in that George Meredith poem about him “in Starlight.” In a different poem, this figure is described as weeping with six eyes down three chins while trapped up to the chest in a (*) frozen lake. A Charles Baudelaire poem from *Les Fleurs de mals* is named for the “Litanies of” this figure. In a 14th century epic poem, this figure is depicted eternally gnawing on Brutus, Cassius, and Judas Iscariot in the 9th circle. For 10 points, name this sinister figure from Christianity who rules Dante’s *Inferno*.

ANSWER: **Satan** [accept **Lucifer**; accept the **Devil**; accept “**Lucifer** in Starlight”]

<TH, Poetry>

17. According to David Miller, the “deliberative” type of this idea is premised on the fact that initial preferences will differ, and thus robust debate is necessary for decision-making. In his book *Beyond Left and Right*, Anthony Giddens championed a “dialogic” form of this idea as a way to avoid traditional exercises of power. Karl Popper advocated this system, as it allowed for the “Open Society” without need for revolution. An 1831 book argued that this system has a tendency to develop into either a (*) “soft despotism” or a “tyranny of the majority.” When this system is implemented at the lowest geographic or social level of organization, its is described as “grassroots.” For 10 points, Alexis de Tocqueville wrote a book on what political system “in America?”

ANSWER: **democracy** [accept **democratic** system; accept **Democracy in America**]

<TH, Political Science>

18. Henriette Negrin and Mariano Fortuny created one of these objects popular in the early 20th century named for the statue *Charioteer of Delphi*. One of these objects named for Lady Anne Fanshawe is notable for its extremely wide *pannier* (“pan-ee-YAY”). In the mid 19th century, crinolines were often used to widen the bottom half of these objects. Examples of these objects popular in the 18th century featuring long (*) *sacques* are named after the painter Watteau. The silhouette produced by these objects can come in sheath, empire, or a-line styles. Coco Chanel designed a “little black” example of, for 10 points, what garment consisting of a bodice and a skirt?

ANSWER: **dresses** [accept **gown**; accept **skirt** until mentioned]

<TH, Fashion>

19. A simile first made by Otto Neurath comparing the anti-foundational body of scientific knowledge to one of these objects was discussed in W.V.O. Quine’s paper “Epistemology Naturalized.” In *The Ethics of Belief*, W.K. Clifford asserts that one’s beliefs have a moral dimension in a thought experiment involving one of these objects. A thought experiment in the metaphysics of identity ask whether one of these objects that has had all of its (*) component parts replaced is the same object. That object is one belonging to Theseus. In Book VI of *The Republic*, Plato compares the city-state to one of these objects that can only be rightly piloted by a philosopher-king. For 10 points, name these vehicles that are the source of many nautical metaphors in Western philosophy.

ANSWER: **ship** [accept **boat**]

<TH, Philosophy>

20. This leader's favorite pieces of music included the finale from *Il Re Teodoro* and the duo from *La Molinara*, both by Giovanni Paisiello, who composed a *Te Deum* and a mass for this ruler's coronation. The castrato Girolamo Crescentini was a favored performer in this ruler's court. Mozart's *The Magic Flute* was adapted into *The Mysteries of Isis* by Henri Rigel during a military campaign of this leader. While in Milan, this leader had an affair with the opera singer (*) Giuseppina Grassini. An E-flat major symphony originally dedicated to this ruler was later re-dedicated "to the memory of a great man" in 1806. Beethoven's *Eroica Symphony* was originally dedicated to, for 10 points, what French Emperor who was defeated at Waterloo?

ANSWER: Napoleon Bonaparte [accept either underlined part]

<TH, Mixed Academic>

21. A theory that models combustion reactions by expanding around the reciprocal of the Zel'dovich number is called this quantity's "asymptotics". For atomic diffusion, this quantity is written as a sum of vacancy formation and migration components. This quantity is equal to delta H plus R·T for a gas phase process, but is often conflated with delta H in the Eyring equation. The negative of this quantity over R is the slope of a graph that plots the logarithm of the (*) rate constant versus one over temperature. This amount of energy that must be added to the reactants to form the transition state appears in the numerator of the Arrhenius exponent. For 10 points, name this energy required for a chemical reaction to occur, written E sub A.

ANSWER: activation energy [accept E-sub-A or E·A before mention; accept Gibbs free energy of activation; accept delta G double dagger; accept activation enthalpy before "H"; prompt on delta G; prompt on Gibbs free energy; do not prompt on "energy"]

<JS, Chemistry>

22. Legends about this figure's birth include accounts that he was in his mother's womb for 82 years and that he was born as an old man with grey hairs. This figure was stopped at the Hankao Pass by a gatekeeper who convinced him to take three days to write down his teachings before abandoning society. This figure, whose name can be translated as "The Old Boy", wrote a text whose notoriously hard to (*) translate first line can be rendered "the name that can be named is not the eternal name." This religious figure introduced a concept that is often interpreted as advocating "action through inaction." The concept of *wu wei* was introduced in the *Tao Te Ching* by, for 10 points, what semi-legendary founder of Taoism?

ANSWER: Laozi [or Lao-Tzu or Lao-Tze]

<TH, Religion>

23. King Louis-Philippe tasked Marshal Jean-de-Dieu Soult ("zhawn-day-d'yoo soolt") with quashing a series of revolts among producers of this commodity known as *canuts* ("can-oots"). Following the revocation of the Edict of Nantes, this commodity began being produced in England after thousands of Huguenots fled to Norwich. Lyon ("lee-ON") was a historical center for production of this commodity in France, and its pioneer Olivier (*) de Serres provided his name to the process of making it. During the reign of Frederick the Great, thousands of mulberry trees were planted across Germany to aid in the production of this good. Produced by the larvae of *Bombyx mori* worms, for 10 points, name this luxurious fiber, whose namesake "Road" consisted of trade routes connecting Europe with Asia.

ANSWER: silk [prompt on textiles or fiber]

<TH, Other History>

24. A seated sculptural portrait of Minamoto no Yoritomo from the Kamakura period is made out of this material. *Sky Cathedral*, like most assemblage sculptures by Louise Nevelson, is made of this material. The Ambrym people of Vanuatu make large slit gongs out of this material. An image of Saint Barbara and the *Holy Blood Altar* by German sculptor Tilman Riemenschneider are complex works made out of this material. Donatello's sculpture of the (*) Penitent Magdalene is made out of this material. Nordic stave churches are made primarily from this material. This material is usually manipulated by whittling or by using a carving knife. For 10 points, name this common artistic material derived from trees.

ANSWER: **wood** [accept **trees** until end; accept **hardwood** or **softwood**; accept **lumber**]

<TH, Sculpture>

BONUSES:

1. Due to micromanaging and accusations of falsified poultry yield figures, this man got into many spats with Booker T. Washington during his long tenure as head of the Tuskegee Agriculture Department. For 10 points each:

[10] Name this African-American agriculturist whose birth into slavery inspired his constant promotion of both the sweet potato, and of a different crop whose lauded “Possibilities” have led to his lasting association with said plant.

ANSWER: George Washington **Carver**

[10] Much of Carver’s peanut exaltation came from his knowledge of this other crop’s ability to cause soil depletion over few generations. Eli Whitney is best known for an invention that processes this crop, which formed the economic backbone of many slave plantations within the Antebellum South.

ANSWER: **cotton** [accept *Gossypium hirsutum*, *Gossypium barbadense*, *Gossypium arboreum*, or *Gossypium herbaceum*; feel free to look up other answers that claim to be more specific varieties of cotton]

[10] Unsung agricultural pioneer Phil Rowe performed incredibly diligent research upon this crop, though he sadly hanged himself from one of its trees in 2001. This crop is threatened by diseases such as black sigatoka, as well as Panama disease, which wiped out most of its Gros Michel (“gross mee-SHELL”) variety by the 1960s.

ANSWER: **banana** [accept Cavendish **banana**; again, just look up specific scientific names if given]

<JH, American History>

2. If the right side of this equation is zero, it reduces to Laplace’s equation. For 10 points each:

[10] Name this equation, which in electrostatics involves taking the Laplacian of electric potential.

ANSWER: **Poisson**’s equation

[10] The Laplacian of the electric potential equals this value everywhere when there are no source charges. The term “absolute” precedes this value in a term that refers to the lowest temperature that is theoretically possible.

ANSWER: **zero** [accept absolute **zero**]

[10] A change in magnetic flux induces a change in the electric potential according to this physicist’s law of induction. This British experimentalist discovered many of the principles of electromagnetism.

ANSWER: Michael **Faraday** [accept **Faraday**’s law of induction]

<LL, Physics>

3. Answer some questions about a group of Russian composers called the Mighty Five. For 10 points each;

[10] This composer wrote “quasi guitara” in the string parts of *Capriccio Espagnol*. He is best known for his symphonic suite drawing from the 1001 Nights, *Scheherazade*, and for his extremely fast orchestral interlude “Flight of the Bumblebee”.

ANSWER: Nikolai **Rimsky-Korsakov** [prompt on partial answer]

[10] This other member of the five is best known for his opera *Prince Igor* and the tone poem *In the Steppes of Central Asia*.

ANSWER: Alexander **Borodin**

[10] This instrument plays the “eastern theme” in *In the Steppes of Central Asia*. This instrument plays the main melody in Sibelius’s *Swan of Tuonela*.

ANSWER: **English horn** [accept **cor anglais**; prompt on **horn**]

<JH, Music>

4. These units may be “free” if they can sensibly stand alone as words, or may be “bound” if they exist only as affixes. For 10 points each:

[10] Name these small units of language; as these units consist of a fixed sound and semantic meaning, they differ from phonemes.

ANSWER: **morphemes**

[10] A type of bound morpheme rarer than prefixes and suffixes is this type, which is inserted within other morphemes. The “friggin” in “un-friggin-believable” is this type of morpheme.

ANSWER: **infixes**

[10] Words in this language family features roots of three consonants whose internal vowels are changed to alter meaning. This language family contains Hebrew and Arabic.

ANSWER: **Semitic** Language Family

<TH, Linguistics>

5. The terms of this meeting were barely affected by the return of Napoleon during the Hundred Days, though France was slapped with a 700 million franc indemnity for good measure. For 10 points each:

[10] Name this meeting that attempted to provide for peace and stability in Europe following the Napoleonic Wars. Major leaders present at this diplomatic meeting include Klemens von Metternich and the Russian Tsar Alexander I.

ANSWER: **Congress of Vienna** [prompt on partial answer]

[10] This man served as Napoleon’s chief diplomat before becoming the Bourbons’ negotiator at the Congress of Vienna. Earlier, this man’s requests for bribes from US government officials led to the XYZ Affair

ANSWER: Charles Maurice de **Talleyrand**-Perigord

[10] This diplomat, along with William von Humboldt, represented Prussia during the Congress. During his time as a chancellor for Frederick William III, this man abolished the Prussian serfdom and carried out civil service reform.

ANSWER: Karl August von **Hardenberg**

<DG, European History>

6. The Black-Scholes equation describes the price of these things over time. For 10 points each:

[10] Name these financial contracts that come in “call” and “put” types. They allow a buyer the right, but not the obligation, to buy or sell an underlying asset during a certain period or on a certain date.

ANSWER: **options** [accept call or put **options**]

[10] Options are often created to negotiate the trade of these financial securities that signify partial ownership of a corporation and represent a claim on part of the corporation’s assets through dividends.

ANSWER: **stocks** [accept **shares** or **equity**]

[10] Options can be traded on exchanges or be this kind of option, which is traded between two private parties. This three word term from finance denotes any trade not performed over a transparent exchange.

ANSWER: **over-the-counter** [accept **OTC**]

<TH, Economics>

7. Spanish Golden Age playwright Calderon de la Barca wrote about a prince of this non-Spain country locked away in a tower in *Life is a Dream*. For 10 points each:

[10] Name this country, whose grotesque king Ubu was written about in a play by Alfred Jarry. A playwright from this country satirized Stalinism in his play *Tango*.

ANSWER: **Poland**

[10] Like Sławomir Mrożek, this Eastern European playwright wrote about the absurdities of life under Communism in plays like *The Garden Party* and *The Memorandum*. He was also the first president of the Czech Republic.

ANSWER: Vaclav **Havel**

[10] Another politically active European playwright during the Cold War era was Dario Fo, a Nobel Laureate from this country. Fo often drew on stock characters from this country's *Commedia dell'arte* tradition.

ANSWER: **Italy**

<TH, Drama>

8. Soccer star Mohamed Salah caused controversy after his picture was taken with strongman Ramzan Kadyrov, the leader of this state. For 10 points each:

[10] Name this predominantly Islamic republic, where purges have recently targeted LGBTQ persons. This oil-rich federal republic has welcomed back hundreds of girls and women who joined ISIS, causing conflict with the larger nation-state that it is a part of.

ANSWER: **Chechnya** [accept **Chechen** Republic]

[10] Chechnya is a republic in this nation, which hosted the 2018 FIFA World Cup.

ANSWER: **Russia** [accept **Russian** Federation]

[10] Prior to the 2018 World Cup, another soccer star, Mesut Özil, ignited controversy after having his picture taken with this current president of Turkey.

ANSWER: Recep Tayyip **Erdoğan**

<JM, Current Events>

9. During a perm, straight hair is made curly by the reduction of this type of bond present in alpha-keratin. For 10 points each:

[10] Name these strong covalent bond that form between the thiol groups of cysteine residues.

ANSWER: **disulfide** bonds [accept **S-S** or **sulfur-sulfur** bonds; accept **disulfide** bridges]

[10] Di-sulfide bonds form cross-links between cure sites on alkenes (“al-keens”) and allyl groups in this process that hardens and stabilizes rubber. Systems for this process usually use zinc oxide, a fatty acid, and organic accelerators.

ANSWER: sulfur **vulcanization** [accept **vulcanization** of rubber]

[10] In addition to nitrogen, phosphorus, and potassium, sulfur is the fourth most important plant nutrient used in these materials. These materials are added to the soil to improve plant growth.

ANSWER: **fertilizers** [accept **plant foods**]

<TH, Chemistry>

10. Answer some questions about Chinese-funded infrastructure projects in Africa. For 10 points each:

[10] China financed a 3.2 billion dollar railway connecting the coastal city of Mombasa to Nairobi in this country led by Uhuru Kenyatta.

ANSWER: **Kenya**

[10] The Chinese government is funding this country's enormous Caculo Cabaca hydroelectric project, located near the city of Dondo. This country contains the most populous Portuguese-speaking national capital in the world.

ANSWER: **Angola**

[10] China has also funded a light rail system in this East African capital city to relieve traffic congestion. The African Union Headquarters is located within this city.

ANSWER: **Addis Ababa**, Ethiopia

<TH, Geography>

11. The Mbuti people of the Congo region produce forest-inspired, black and white paintings on this type of material. For 10 points each;

[10] Name this material, whose colorful *kente* variety is produced by the Akan people in modern day Ghana.

ANSWER: **cloth** [accept **textiles**; accept bark **cloth**; accept **fabric**; prompt on **bark**]

[10] This other material made up numerous artifacts in the shape of human heads that were found during a series of 1938 archaeological digs at Ife, the Nigerian center of the Yoruban people. West African art often features this metallic alloy of copper and tin.

ANSWER: **bronze**

[10] An earlier example of African sculpture are the bird columns made of this material that can be found in the ruins of Great Zimbabwe. This soft metamorphic rock is used in the outer layers of the *Christ the Redeemer* Statue in Rio de Janeiro.

ANSWER: **soapstone** [accept **talc**; prompt on **stone** or **rock**]

<TH, Sculpture>

12. Answer the following about American authors who wrote haikus, for 10 points each:

[10] This author wrote many haikus late in life and published them in *Haiku: The Last Poems of an American Icon*. He is better known for novels such as *Black Boy* and *Native Son*.

ANSWER: Richard **Wright**

[10] This author published a book of haikus in 2003. Some of those haikus had earlier appeared in this Beat author's work *Dharma Bums*.

ANSWER: Jack **Kerouac**

[10] This American Imagist poet published several haikus in her collection *What's O'Clock*. She asked "what are" [the title objects] for" in her poem "Patterns."

ANSWER: Amy Lawrence **Lowell**

<JH, Poetry>

13. In his first appearance in the short “Scent-imental Over You,” this character pursues a hairless dog wearing a black and white coat. For 10 points each:

[10] Name this odiferous French cartoon character who romantically pursues Penelope Pussycat in a series of animated shorts.

ANSWER: Pepe le Pew [accept either underlined part; accept Henri]

[10] This Warner Brothers animator received an Oscar for the Pepe le Pew short “For Scent-imental Reasons,” one of his many *Looney Tunes* shorts. After leaving Warner Brothers he worked on *Tom and Jerry* and the TV adaptation of *How the Grinch Stole Christmas*.

ANSWER: Chuck Jones

[10] In “For Scent-imental Reasons,” Penelope briefly reciprocates Pepe’s love after this happens to Pepe, masking his scent. In *Arrested Development*, Tobias Funke does this to himself in preparation to be an understudy for a performance art group named for a color.

ANSWER: get covered in blue paint [accept equivalents mentioning being colored blue; accept “I just blue myself”; prompt on paints themselves or gets covered in paint by asking “of what color?”]

<TH, Pop Culture TV>

14. For 10 points each, answer the following about how our bodies deal with nitrogenous waste:

[10] A·L·T catalyzes the transamination of this molecule to alanine in the Cahill cycle to shuttle waste from muscle cells to the liver. Thiamine pyro·phosphate serves as the cofactor for the step in a reaction catalyzed by this molecule’s dehydrogenase complex.

ANSWER: pyruvate [accept pyruvate dehydrogenase complex]

[10] 60-80% of nitrogen excreted from the body is in the form of this compound. In the final step of this compound’s cycle, arginase generates this compound and ornithine from arginine.

ANSWER: urea [accept carbamide]

[10] The urea produced by the liver travels to these bean-shaped organs and is excreted in the form of urine. Individuals with Hartnup disease cannot reabsorb amino acids in these organs’ renal tubules.

ANSWER: kidneys

<JS, Biology>

15. Name some characters from the play *Hamlet*, for 10 points each:

[10] This royal advisor claims “brevity is the soul of wit,” which is sort of ironic considering that *Hamlet* is Shakespeare’s longest play. This father of Ophelia is stabbed by Hamlet while hiding behind a curtain.

ANSWER: Polonius

[10] A character with this profession sings a namesake song before throwing a skull up in the air. After the death of Ophelia, two characters with this job tell each other morbid riddles right before Hamlet discovers the skull of the jester Yorick.

ANSWER: The gravediggers [accept the Gravedigger’s Song]

[10] This character claims he could tell a tale that would “freeze thy young blood” and make “each particular hair to stand on end.” Nicholas Rowe claimed that this character was played by Shakespeare himself during the original staging of *Hamlet*.

ANSWER: the ghost of Hamlet’s father [accept Hamlet’s father or any answers indicating the father of Hamlet; accept King Hamlet; prompt on Hamlet, since that is also the father’s name]

<BK, Other Lit>

16. Subsets of this diverse group of people include the Kharia, who practice a style of agriculture referred to as *jhum* (“joom”), which is commonly referred to as swidden, or slash-and-burn. For 10 points each:

[10] Give this indigenous umbrella term for the various forest-dwelling aboriginal groups of the Indian subcontinent. Groups of these people known by this term have recently been victims of violence in clashes between Naxalites and the Salwa Judum.

ANSWER: **Adivasi** people

[10] This civilization, once based in the northwest region of the Indian subcontinent, may have had its origins in Adivasi tribes who moved towards more permanent means of agriculture near its namesake geographical feature. Its archaeological sites include one known for a “Great Bath,” Mohenjo-Daro.

ANSWER: **Indus** River Valley Civilization [accept **Indus** River Civilization or **Indus** Valley Civilization; accept **Harappan** Civilization or **Harappan**]

[10] Both the Adivasi and Indus people lived in South Asia prior to the arrival of a group of people named for these texts. Ancient practitioners of a religion named after these texts believed in the principle of *rta*, and practiced the *ashvamedha* ritual, where a horse would be allowed to wander the countryside for a year before being sacrificed.

ANSWER: The **Vedas** [accept **Vedic** people; accept **Vedic** religion, which served as a precursor to Hinduism]
<TH, World History>

17. A song by this composer notes “some get a kick from cocaine/ I’m sure that if I took one sniff / that would bore me terrifically too” in his song “I Get a Kick Out of You.” For 10 points each:

[10] Name this Broadway composer and lyricist who wrote *Kiss Me, Kate*. His contributions to the Great American Songbook include “I’ve Got You Under My Skin” and “Night and Day.”

ANSWER: Cole **Porter**

[10] A version of Porter’s “I Get a Kick Out of You” is sung with an exaggerated accent in a 2000 musical film adaptation of a work by this author. A song from *Kiss Me Kate* sung by two gangsters recommends brushing up on this author to impress the ladies.

ANSWER: William **Shakespeare** [accept “Brush Up Your **Shakespeare**”] (The film is Kenneth Branagh's *Love's Labour's Lost*)

[10] This “First Lady of Song” made a 1956 recording of the Cole Porter songbook. Her celebrated scat singing ability is on display in her version of “A-Tisket A-Tasket” with the Chick Webb Orchestra.

ANSWER: Ella **Fitzgerald**

<TH, Jazz>

18. A simple way to perform parallel computations with this language’s multiprocessing package is to create a pool of threads and then use map to compute a function over an array of inputs. For 10 points each:

[10]. Name this programming language whose idioms include using the “in” keyword in loops and using “truthiness.” Programmers often make fun of the use of whitespace to denote blocks of code in this language.

ANSWER: **Python**

[10] The CPython implementation of Python incorporates a “Global Interpreter” one of these things. In general, these synchronization mechanisms ensure that more than one thread is not currently executing a critical section.

ANSWER: **lock** [accept Global Interpreter **Lock**; prompt on **G·I·L**; accept **mutex**; accept **semaphore**; accept binary **semaphore**; accept counting **semaphore**]

[10] CPython is transformed into bytecode which is then interpreted, so it is never converted into this format before being run. Machine code is in this format consisting of ones and zeros.

ANSWER: **binary**

<JS, Other Science CS>

19. Apart from his innovations in railway engineering, Isambard Kingdom Brunel designed three early examples of these vessels, each of which became the largest by gross tonnage at the time of their building. For 10 points each:

[10] Name these maritime vessels operated by companies such as Cunard and White Star. Unlike cruise ships, boats of this type existed primarily to transport passengers across large bodies of water on a fixed schedule, and they have since largely been rendered obsolete.

ANSWER: ocean **liners** [prompt on passenger ship; do NOT accept or prompt on ferries, tramp steamers, or cruise ships]

[10] Perhaps the most famous ocean liner is this one, a British liner that sank in the northern Atlantic Ocean after colliding with an iceberg on her 1912 maiden voyage to New York City.

ANSWER: RMS ***Titanic***

[10] Ocean liners were often requisitioned for military purposes, either as transport or prison ships. Two of these German liners, one named for a region on the island of Rugen (“**ROO-gun**”), the other named for a Swiss Nazi leader, both sunk in the Baltic Sea in 1945, and remain two of the largest maritime losses of life in history. Name either.

ANSWER: SS ***Cap Arcona*** or MV ***Wilhelm Gustloff***

<TH, Other History>

20. This promoter of suppositional logic countered scholastic contemporaries like Peter of Spain and Walter Burley in his treatise *Summa Logicae*. For 10 points each:

[10] Name this philosopher excommunicated by Pope John XXII for advocating for poverty within the Franciscan order. This “more than subtle doctor” argued for nominalism and held a divine command theory of ethics.

ANSWER: William of **Ockham**

[10] William of Ockham is best known for promoting a methodical bias toward simple solutions known as Ockham’s [this]. The statement containing this word is also known as the principle of parsimony.

ANSWER: Ockham’s **razor**

[10] Ockham’s nominalism was influenced by Roscelin, the teacher of this theologian who wrote *Sic et Non*. This man is also known for his love affair with Heloise.

ANSWER: Peter **Abelard**

<JH, Philosophy>

21. Its author’s recurring symbol of parabolas appears in the opening line of this novel, which begins “Snow-Balls have flown their Arcs, starr’d the Sides of Outbuildings.” For 10 points each:

[10] Name this novel, which is narrated to children cooped up for the winter by Reverend Cherrycoke. Surreal moments in this 1997 novel include a giant wheel of cheese rolling through the English countryside and a sentient mechanical duck.

ANSWER: ***Mason & Dixon***

[10] *Mason & Dixon* is a novel by this reclusive American novelist, who also wrote about Tyrone Slothrop in *Gravity’s Rainbow* and Oedipa Maas in *The Crying of Lot 49*.

ANSWER: Thomas Ruggles **Pynchon**

[10] In Pynchon’s novel, Mason and Dixon first get to know each other when attempting to view a transit of Venus in the colony that would become this country. Contemporary novelists born in this country include Zakes Mda and J.M. Coetzee.

ANSWER: **South Africa** [prompt on the Cape Colony]

<TH, Long Fiction>

22. Examples of cats, ibises, baboons, and crocodiles that underwent this process have been discovered at various cult sites in the Nile Delta. For 10 points each:

[10] Name this ritual that involves embalming and wrapping deceased people in linens.

ANSWER: **mummification** [accept obvious equivalents like making **mummies**]

[10] This Egyptian god was often depicted as a green-skinned mummy. This legendary father of Imhotep is credited with inventing the opening of the mouth ritual.

ANSWER: **Ptah** (“puh-tah”)

[10] Ptah was often accompanied by this sacred bull of Memphis. He was the son of Hathor.

ANSWER: **Apis** [accept **Apis** Bull]

<JH, Mythology>

23. This animal’s last words to his handler Irene Pepperberg were “You be good, see you tomorrow. I love you.” For 10 points each:

[10] Name this extremely intelligent African Grey Parrot who could use hundreds of English Language words and identify objects by color, shape and function. He was also able to sound out words and had knowledge of abstract concepts like zero.

ANSWER: **Alex** [or **Avian Language Experiment**]

[10] The most intelligent bird species is thought to be the species of crow native to this Pacific Island and French territory east of Australia. The crow native to this island is known to make complex tools like hooks to retrieve food.

ANSWER: **New Caledonia** [accept *Nouvelle-Calédonie*; accept **New Caledonian** Crow; accept *Kanaky*]

[10] Bird intelligence researcher Louis Lefebvre made headlines in 2005 when he announced that this flightless national bird of Australia was the stupidest extant bird species.

ANSWER: **Emus**

<TH, Other Academic>

24. Name some objects that you may find around a Jewish home, for 10 points each:

[10] Upon entering you may notice this small, angled box adjoined to the doorframe. It contains a scroll with the Shema prayer written on it and it is customary to touch or kiss this object when entering as a guest.

ANSWER: **mezuzah**

[10] If it is near the end of the year, you may see this nine-branched candelabrum whose eight candles are lit for each of the eight nights of Hanukkah.

ANSWER: **menorah**

[10] If you are there on the right week, you maybe find one of these ceremonial “booths” constructed for a similarly named Jewish harvest celebration. These temporary structures are often adorned with branches or other plantlife. Either the name of the booths or the holiday itself is acceptable.

ANSWER: **sukkah** [accept booths or structures for **Sukkot**]

<TH, Religion>