

HARI (Hari's Academic Regionals(-minus) Invitational): Heated gamer Harimoment

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ROUND 10

Tossups

1. **The mechanism of buttressing prevents an instability undergone by objects made of this material that lie atop a retrograde slope. Aggregations of this material accumulate in size and then undergo Heinrich events in a binge-purge cycle. Objects made of this material detach at the grounding line. Depending on what this material is attached to, it can be classified as "anchor," "fast," or "brash." This material is gained at the zone of (*) accumulation and lost at the zone of ablation. Fragments of this material break from a larger object during calving. The loss of this substance caused by climate change means that the Arctic will likely be "free" of it in the summer by 2050. For 10 points, name this material that forms namesake shelves and sheets.**

ANSWER: ice [or frozen water; or solid water; accept ice sheets; accept icebergs; accept sea ice or anchor ice or fast ice or brash ice or drift ice or pack ice; prompt on glaciers; prompt on snow or firm with "what material does that eventually become?"; prompt on water or H₂O; do not accept or prompt on answers referring to liquid water] (The leadin refers to the marine ice sheet instability.)

<Other Science, Chen>

2. **After being criticized for plundering, this character arrogantly presents an apple as the "crown of all kings". Don Quixote learns about the invincibility-granting helmet of Mambrino from reading a work titled after this character. In that work, an English knight travels on Elijah's chariot to the moon to find this character's lost wits. In a sequel to Matteo Boiardo's work about this character "in love," he grows (*) "furious" at his love for the pagan princess Angelica. In a different work, Archbishop Turpin asks this character to sound an oliphant calling for help for the Franks, thereby dying in the process. For 10 points, name this paladin of Charlemagne, the subject of an epic by Ludovico Ariosto and an 11th-century *chanson*.**

ANSWER: Roland [or Orlando]

<Long Fiction, Parameswaran>

3. **On Good Friday, this country's prime minister ordered the round-up of a religious minority during the 1963 Coral Gardens incident. The People's National Party opposed this country's namesake "labor" party, led by founding father Norman Manley. This country also arrested the author of The Promised Key, known as "the Gong," for treason. The (*) Black Star Line was operated by an American immigrant from this country who founded the UNIA. A 1692 earthquake sank this country's city of Port Royal, where pirates like Henry Morgan took refuge. Leonard Howell founded a religious movement in this country which venerates Black nationalist Marcus Garvey as a prophet. For 10 points, name this Caribbean country where Rastafarianism was founded.**

ANSWER: Jamaica

<World History, Parameswaran>

4. A painting that depicts Marcel Duchamp being photographed by Edward Steichen is titled for this time "in the Country" and was painted by Florine Stettin. After a 1985 earthquake, a work partly titled for this time was moved to a museum dedicated to it across from the park in which it was set. That mural anachronistically portrays Mexican historical figures and La Catrina and is (*) "Dream of" this time "in the Alameda Central" by Diego Rivera. A painting set during this time mirrors the artist's earlier *Bathers at Asnières* by showing people including a woman with a leashed monkey along the Seine in a pointillist scene. For 10 points, Georges Seurat depicted Parisians relaxing on the Island of La Grande Jatte during what time period?

ANSWER: Sunday afternoon [prompt on partial answer; accept Sunday Afternoon in the Country; accept *Dream of a Sunday Afternoon* in the Alameda Central; accept A Sunday Afternoon on the Island of La Grande Jatte]
<Visual Fine Arts, Zhang>

5. In the prototypical example of a j-curve, this quantity decreases in the short term and increases in the long term as the result of a decrease in a different quantity. If the sum of price elasticities of demand is greater than one, currency depreciation causes an increase of this quantity, according to the Marshall-Lerner condition. This quantity is added to foreign aid and net income in the expression for the current account. This quantity is added to (*) consumption, investment, and government spending in the expenditure approach to calculating GDP. A goal of mercantilism is the accumulation of monetary reserves through maintaining a large, positive value of this quantity. For 10 points, name this quantity the United States has a deficit in as a result of an economic "war" with China.

ANSWER: balance of trade [or trade balance; or net exports; or NX; or net trade; or exports minus imports; or X minus N; accept trade deficit or trade surplus; prompt on current account or CA with "what component of the current account?"]
<Social Science, Chen>

6. Waste is processed under this condition by forcing it upwards through a reverse pyramidal setup called an upflow sludge blanket. This condition is present at the bottom of a test tube filled with thioglycolate broth. Digestion performed under this condition produces nutrient-rich solids called digestate. Brocadia bacteria perform ammonium oxidation under this condition. The consumption of glucose occurs faster under this condition in the Pasteur effect. In (*) wetlands, methanogenic archaea produce "swamp gas" under this condition. Instead of performing respiration, bacteria under this condition produce lactic acid and ethanol through fermentation. For 10 points, name this condition characterized by the lack of a molecule that composes 20% of the atmosphere.

ANSWER: anaerobic conditions [accept answers referring to a lack of oxygen gas or no oxygen; accept hypoxia or anoxia or hypoxic conditions or anoxic conditions; accept answers of oxygen or O2 after "lack of"; prompt on answers referring to a lack of air or no air with "what specific molecule is missing?"; do not accept or prompt on "aerobic" conditions]
<Biology, Chen>

7. Al Waxman's *Eastside Journal* was blamed for exacerbating tensions during this event. While opposing the lawyer Carey McWilliams, Jack Tenney argued that the National Lawyers' Guild was responsible for causing this event. Robert Kenney and the McGucken Committee investigated the causes of this event and found that, contrary to popular belief at the time, (*) juvenile delinquency was not its cause. The murder of José Gallardo Díaz, one of the sparks of this event, was termed the Sleepy Lagoon Murder. This event began when sailors attacked pachucos for wearing outfits they deemed "unpatriotic" because they used too much fabric. For 10 points, name these 1943 race riots in California which targeted Mexican-Americans who wore the title outfit.

ANSWER: Zoot Suit Riots
<American History, Nageswaran>

8. The "Natural Entrance" to a cave in this state leads to a room nicknamed the Post Office. That cave in this

state, along with Jewel Cave National Monument, is home to most of the world's frostwork and boxwork mineral formations. A national park in this state has a unit called the Stronghold District and is named for its eroded and difficult-to-travel terrain. This state is home to (*) Wind Cave National Park. This state's Rapid City is the nearest city to the site where Korczak Ziolkowski (CORE-chalk jewel-CUFF-ski) began the massive and unfinished Crazy Horse Monument. This state contains Badlands National Park, as well as a range chosen by Gutzon Borglum to house a sculpture of four presidents. For 10 points, name this state whose Black Hills contain Mount Rushmore.

ANSWER: South Dakota

<Geography, Zhang>

9. A story follows one of these animals, who is renamed "Auntie," performing a circus act and returning to the home of an alcoholic carpenter; that story is titled "Kashtanka", or "Chestnut." One of these animals accompanies a character who is amused at her own ignorance of whether her husband works for the Crown or provincial government; that title character is described as a (*) "newcomer" on the "sea-front" in the opening lines of a story. A man sees one of these animals after arriving in the town known only as S to visit the estate of Von Diederitz. Dmitri Gurov begins an affair with Anna Sergeyevna in Yalta in that story titled for one of these animals. For 10 points, a "Lady" with what sort of animal names a story by Anton Chekhov?

ANSWER: dog [accept "Lady with the Dog"]

<Short Fiction/Other, Zhang>

10. A piece in this form begins on a long held F-sharp and the slow descending sixteenth note passage (read slowly) B, G, E, D, C-sharp, D, C-sharp. A piece in this form comes directly before a minuet in Handel's Water Music Suite in F major. This is the first form in the name of three suites that contain pieces attributed to the father of Galileo and Marin Mersenne; those suites named for dances and "ancient" examples of this form were compiled by (*) Ottorino Respighi. John Dowland's three Books of Songs popularized this form, which uses lute accompaniment. A piece in this form from J. S. Bach's Orchestral Suite No. 3 is best known for being arranged by August Wilhelmj. For 10 points, name this form, an example of which was rearranged to be played "on the G string."

ANSWER: air [or ayre; accept aria; accept *Ancient Airs and Dances*; accept "Air on the G String"]

<Auditory Fine Arts, Zhang>

11. The startup PsiQuantum is attempting to utilize these particles to create fault-tolerant qubits. A non-superconducting "hotspot" is formed by the interaction of a single one of these particles with a superconducting nanowire, which function similarly to transition edge detectors. If a device has a quantum efficiency of one, that means that every one of these particles generates an (*) exciton. These particles are used to pump electrons in the gain medium of a III-V semiconductor in a PIN diode, which produce a collimated stream of these particles. If the energy of one of these particles exceeds the workfunction of a metal, an electron will be ejected from the metal. For 10 points, name these particles that are used to transmit information through fiber optic cables.

ANSWER: photons

<Physics, Parameswaran>

12. Jonathan Kvanvig claimed that this concept confers very little additional value compared to a less strictly defined concept in his resolution to the swamping problem. Fred Dretske claimed that due to the existence of "relevant alternatives," this concept does not obey a closure principle. A thought experiment in which job applicant Smith thinks that the person who gets the (*) job will have 10 coins in their pocket is used to reject a classical definition of this concept by Edmund Gettier. The explanations of this concept as "perception" and as "true judgment" are rejected in Plato's *Theaetetus*, which later claims that this concept is "justified true belief." For 10 points, name this concept that is studied in epistemology.

ANSWER: knowledge [prompt on justified true belief or JTB]

<Philosophy, Chen>

13. A poet from this state walked from it to New Mexico on one of three tours that earned him the nickname of "troubadour." That poet was popularized by Harriet Monroe, who founded *Poetry* magazine in this state. A poem set in this state asks "And who will bring white peace / That he may sleep upon his hill again?" and is about a "mourning figure" who "will not rest." Real residents of this state (*) inspired characters like Old Fiddler Jones in Edgar Lee Masters' *Spoon River Anthology*. In a poem by Vachel Lindsay, Abraham Lincoln "Walks at Midnight" in a city in this state. The largest city in this state was described as the "Hog Butcher for the World." For 10 points, name this state home to Carl Sandburg, the author of "Chicago."

ANSWER: Illinois

<Non-Epic Poetry, Zhang>

14. The primeval cow Auðumbla (ah-DOOM-bluh) uncovered one of these parts of a larger object after two days of licking a salty ice block. After failing to smash a glass goblet by throwing it at a pillar, Thor throws the goblet at one of these objects to win a cauldron for a feast. An object of this type is sent to Odin after it becomes clear that Hoenir only says "let others decide" in another god's absence. To goad Brokkr and Eitri into making weapons, Loki (*) wagers this type of object; when he refused to give it up, his lips were sewn together instead. After the Vanir killed one figure, one of these objects belonging to him was embalmed with herbs so it can still grant wisdom. For 10 points, Odin carries what type of talking body part that had belonged to Mimir?

ANSWER: heads [accept answers like embalmed heads or severed heads; prompt on body or bodies]

<Mythology, Zhang>

15. This king views one of his opponents through a spyglass in a cartoon by James Gillray, who dubbed him a "farmer." John Wilkes's scathing attacks of this king in the *North Briton* caused him to be jailed in Southwark. The slogan "His Majesty, King Mob" was painted on Newgate Prison's walls during an event in his reign. This king's opposition to Catholic emancipation forced the (*) "Ministry of All the Talents" to dissolve, and it would also be the focal point of the Gordon Riots during his reign. Arsenic poisoning may have caused this king to suffer from porphyria late in life. Lord North resigned from this king's cabinet after hearing the results of the Battle of Yorktown. For 10 points, name this British king who received the Declaration of Independence.

ANSWER: George III [prompt on George]

<European History, Parameswaran>

16. In 2015, a "National Reserve" of this food was found to violate the Takings Clause and ended by *Horne v. Department of Agriculture*. "Dark houses" called chunches are used to produce this food in Turpan, Xinjiang. It's not snail, but this food is baked into bread in the breakfast item of escargot pastry. Lorraine Collett modeled for a mascot who advertises this food; that mascot is a girl who wears a red (*) bonnet. William Thompson introduced the "seedless" variety of a crop used by 95 percent of California producers of this food. This food, whose "golden" variety is sultana, is individually placed on celery to make ants on a log. Red packaging is used for this food by its largest producer, Sun-Maid. For 10 points, name this food made by drying grapes.

ANSWER: raisins [accept sultanas before "sultana"; prompt on dried grapes before "grapes"]

<Other, Zhang>

17. The "diffusion ordered" version of this technique uses different signal outputs to sort chemical species by size. For complex molecules, the four steps of preparation, evolution, mixing, and detection are used to place signals from this technique on a 2 dimensional plot. In the detection phase, signals generated from free induction decay are converted into the (*) frequency domain using a Fourier transform. Deuterated compounds are used as solvents in this technique, which uses tetramethylsilane to calibrate chemical shift. In this technique, nuclei such as hydrogen-1 and carbon-13 absorb energy in the presence of an applied magnetic field. For 10 points, name this technique that is used to determine chemical structure.

ANSWER: NMR spectroscopy [or nuclear magnetic resonance spectroscopy; prompt on DOSY or diffusion ordered spectroscopy]

<Chemistry, Hong>

18. In the 1990s, residents in the Kahama District of this country were controversially evicted after Barrick Gold gained access to the Bulyanhulu mine. During a war against its western neighbor, the Kikosi Maalum fought for this country. The Afro-Shirazi Party and another party in this country merged to form the Chama Cha Mapinduzi. This country launched Operation (*) Vijiji to communalize farming in it. This country was formally unified after a 1964 revolution that overthrew Sultan Jamshid bin Abdullah. A leader of this country put forth the Arusha Declaration, which outlined his socialist idea of "ujamaa." For 10 points, name this country led by Julius Nyerere, formed by the merger between the island of Zanzibar and Tanganyika.

ANSWER: United Republic of Tanzania

<World History, Nageswaran>

19. A soldier in this novel repeatedly adjusts his hat in order to look presentable even though his head is covered in bandages. A child in this novel is told that his absentee father has actually been at a fair for years. A character in this novel who is reminded of his mistress by the smell of linden trees promises to marry another woman while his mother Anna is on her deathbed. This novel ends with a collection of (*) poems written by the title character like "White Night," "Bad Roads in Spring," and "Hamlet." The title character of this novel is forced to join the Russian Civil War by the Forest Brotherhood before he can tell his wife Tonya about his affair with Lara. For 10 points, name this novel about the physician Yuri by Boris Pasternak.

ANSWER: Doctor Zhivago

<Long Fiction, Schwartz>

20. This city contains a domed building on a terrace whose spiral staircase led to it being dubbed "The Snail." For resembling monasteries, a trio of this city's buildings in the Puuc style were termed "The Nunnery." Flint was used to create the teeth of a cinnabar-painted statue from this city that contains 74 "spots" made out of jadeite. During the equinoxes, the steps of a building in this city cast a shadow resembling a (*) serpent. In the 1900s, Edward Herbert Thompson uncovered thousands of artifacts while dredging this city's Sacred Cenote. A jaguar-shaped throne is located in the middle of this city's "El Castillo," a pyramid meant to honor the feathered serpent deity Kukulcan. For 10 points, name this ancient Mayan city on the Yucatan Peninsula.

ANSWER: Chichen Itza

<Other Fine Arts, Parameswaran>

Bonuses

1. In the 1890s, Albert Ellis discovered rich deposits of this resource on Nauru and Banaba Island. For 10 points each:

[10e] Name this resource, which was also the subject of the Chincha Islands dispute in the 1860s. Imperialists desired it as a convenient means of creating fertilizer.

ANSWER: **guano** [or **phosphates**; accept **dung** or **poop**; prompt on **nitrogen**]

[10h] Spain disputed this country's ownership of the Chincha Islands. This country's monopoly on phosphates in its province of Tarapacá ended after the Treaty of Ancon was signed.

ANSWER: Republic of **Peru**

[10m] Nauru was classified as a "Class C" type of these territories, allowing British phosphate mining to continue. These territories were administered by Britain and France in lieu of the League of Nations.

ANSWER: **mandates**

<World History, Parameswaran>

2. A guide on rules for using this item was written by Georg Muffat. For 10 points each:

[10m] Name this item traditionally made of materials such as carbon fiber or Pernambuco wood. The bottom end of this item is called the frog.

ANSWER: **bow**

[10e] In addition to reading the Muffat guide, students attempting to learn Baroque bowing may also read a manual by Leopold, a member of this family. Leopold's son Wolfgang composed the Jupiter Symphony.

ANSWER: **Mozart** [accept (Johann Georg) Leopold **Mozart**; accept Wolfgang Amadeus **Mozart**]

[10h] In place of vibrato, Baroque music heavily utilizes messa di voce ("MESS-ah dee VO-chay"), which involves changing this quality of the note. A symbol sometimes called a "hairpin" signifies changing this quality of the note when playing.

ANSWER: **volume** [accept **dynamic** or **loudness**]

<Auditory Fine Arts, Nageswaran>

3. Desargues's theorem, which relates the perspective of two triangles, has the "self" form of this concept. For 10 points each:

[10h] Name this geometric concept, a form of symmetry in which lines can be replaced by points and vice versa and still satisfy certain theorems.

ANSWER: **duality** [accept self-**dual**]

[10m] Duality between points and lines is studied in a geometry described by this word. The Euclidean plane is extended to this type of plane by adding a point at infinity to each line.

ANSWER: **projective** [accept **projective** geometry; accept real **projective** plane or finite **projective** plane]

[10e] This is the number of lines through each point and points on each line in the Fano finite projective plane. This is the number of noncollinear points that determine a plane.

ANSWER: **3**

<Math, Zhang>

4. In one story, a man claims he was "to all intents and purposes" one of these creatures, and was "conscious only of [his] happiness" as one of them. For 10 points each:

[10m] Name this creature. After waking up, the man wondered if he was a man dreaming he was one of these creatures or vice versa.

ANSWER: **butterfly** [or **butterflies**]

[10e] "The Butterfly Dream" appears in an eponymous text written by Zhuangzi that serves as a foundational text for this religion. Laozi founded this religion, which stresses following "the way."

ANSWER: **Taoism** [or **Daoism**]

[10h] Zhuangzi wrote about a master telling his carpenter about a sacred tree with this quality. The carpenter later dreams about the tree telling him that it has managed to survive for so long because it strived for this quality.

ANSWER: **uselessness**

<Philosophy, Nageswaran>

5. This author wrote a play-within-a-play where Black actors reenact the murder of a white woman by putting on whiteface. For 10 points each:

[10m] Name this French playwright of *The Blacks*. A play by this author is set at Irma's brothel after a revolution.

ANSWER: Jean **Genet** [The second play is *The Balcony*.]

[10e] This playwright criticized Genet in her play *Les Blancs*, which was left unfinished at her death. The Black Younger family moves into a white neighborhood in her *A Raisin in the Sun*.

ANSWER: Lorraine **Hansberry**

[10h] In this play, white characters watch and talk over the actions of a Black family in a play-within-a-play. Keisha, a member of the Black family, invites white audience members onstage in this play by Jackie Sibblies Drury that won the 2019 Pulitzer Prize for Drama.

ANSWER: **Fairview**

<Drama, Zhang>

6. Before dying in the Kurukshetra War, Iravan's desire to be married leads to him marrying this goddess. For 10 points each:

[10h] Name this goddess, who distracted the Asuras and distributed amrita to the Devas during the churning of the ocean. This goddess and Shiva are the parents of Ayappa.

ANSWER: **Mohini** [prompt on but do NOT otherwise reveal Vishnu or Krishna by asking "In the form of which goddess?"]

[10e] Mohini is the female form of this preserver god in the Trimurti. This god's ten avatars include Krishna and Kalki.

ANSWER: **Vishnu**

[10m] Mohini was able to get the demon Bhasmasura to kill himself by touching his head while performing this action. The *Nataraja* form of Shiva depicts him performing this action.

ANSWER: **dancing** [accept word forms like **dance**]

<Mythology, Nageswaran>

7. Vann Molyvann was part of an architectural revival named for this ethnic group. For 10 points each:
[10h] Give this ethnic group, which revolted against the ruling Sangkum government during the Samlaut Uprising. The Sangkum was also opposed by this ethnicity's "Serei" movement.

ANSWER: **Khmer** [accept New **Khmer** Architecture]

[10m] Vann Molyvann was patronized by this king of Cambodia, who also headed the one-party Sangkum government. He was overthrown in 1970 while vacationing in France.

ANSWER: **Norodom** Sihanouk [or Norodom **Sihanouk**]

[10e] After returning to power in the 1990s, Norodom resumed renovation of this Cambodian national landmark. Suryavarman II ordered the construction of this Hindu temple complex in the Khmer capital.

ANSWER: **Angkor Wat**

<World History, Parameswaran>

8. This novel's author compares the death of his father, who "worked on a big book about Beethoven's sonatas," to the grief of Tamina's failure to retrieve her diaries with her dead husband Pavel. For 10 points each:

[10h] Name this book, "a novel in the form of variations." The first and fourth sections of this book are both titled "Lost Letters," while the third and sixth are both called "The Angels."

ANSWER: *The **Book of Laughter and Forgetting***

[10m] This character created by the author of *The Book of Laughter and Forgetting* compares his love life to Beethoven's phrase *Ess muss sein* and uses it to justify returning to Prague to be with his wife Tereza.

ANSWER: **Tomáš** [from *The Unbearable Lightness of Being*]

[10e] This Czech author of *The Book of Laughter and Forgetting* wrote *The Unbearable Lightness of Being*.

ANSWER: Milan **Kundera**

<Long Fiction, Zhang>

9. The bassline to "Groove Is in the Heart" is sampled from the track "Bring Down the Birds" which appears in a work of this type by Herbie Hancock. For 10 points each:

[10h] Duke Ellington included the track "Haupe" on one of the first works of this type by a Black person. The jazz albums *Ascenseur pour l'échafaud* and *Jack Johnson* are also works of this type.

ANSWER: film **scores** [or film **soundtracks**]

[10e] *Ascenseur pour l'échafaud* and *Jack Johnson* are film scores by this jazz trumpeter of *Kind of Blue*.

ANSWER: Miles **Davis**

[10m] One of the few recordings of this saxophonist playing a jazz standard is in the soundtrack to the film *Naked Lunch*. He also made the seminal free jazz album *The Shape of Jazz to Come*.

ANSWER: Ornette **Coleman**

<Other Fine Arts, Berns>

10. Oh no, you have the hiccups! Answer the following about your condition, for 10 points each:

[10e] Your hiccups are caused by repeated contractions of this muscle, which creates a region of negative pressure in the thoracic cavity and causes air to rush into the lungs.

ANSWER: **diaphragm**

[10h] You might have the "hiatal" form of this medical condition, which can result from improperly performing the Valsalva maneuver when you powerlift. This condition refers to the tissue of an organ puncturing through the cavity it normally resides in.

ANSWER: **hernia** [or hiatal **hernia**]

[10m] If your hiccups result from hiatal hernia, you might develop this condition, which can cause Barrett's esophagus. Proton pump inhibitors are used to treat this disease caused by dysfunction of the gastroesophageal sphincter.

ANSWER: **GERD** [or gastroesophageal **reflux** disease; or acid **reflux**; prompt on **heartburn**]

<Biology, Chen>

11. One of these buildings on Çamlıca Hill has minarets that are each 107.1 meters tall in honor of the 1071 Battle of Manzikert. For 10 points each:

[10e] Name these places. President Erdogan controversially declared Hagia Sophia to be one of these places in 2020, annulling a 1930s decision made by Atatürk.

ANSWER: **mosques**

[10m] In an attempt to bypass the Montreux Convention, Erdogan is also planning one of these construction projects. Chinese businessman Wang Jing financed a failed one of these projects in Nicaragua.

ANSWER: **canals**

[10h] Erdogan's plans to demolish this park for a proposed mall sparked 2013 protests in it. Erdogan referred to protesters here as *çapulcu*, or thieves, a phrase reappropriated by pro-democracy fighters.

ANSWER: Taksim **Gezi** Park [accept **Taksim** Square]

<Current Events, Parameswaran>

12. A faction supporting this queen met with Rafael Maroto at the Convention of Vergara. For 10 points each:

[10h] Name this queen, who caused tensions between Britain and France over her marriage to Francis, Duke of Cádiz. The Pragmatic Sanction of 1830 secured her succession to the throne.

ANSWER: **Isabella II** [prompt on **Isabella**]

[10e] Isabella II was a member of this dynasty, whose rule in Spain was briefly interrupted on her deposition by the Carlists. Philip V, the grandson of Louis XIV, began this dynasty's rule in Spain.

ANSWER: House of **Bourbon**-Anjou

[10m] This conflict was in-part fostered through Leopold of Hohenzollern's refusal to take the Spanish throne following Isabella's deposition. The Ems Dispatch manipulated the aforementioned incident to start this conflict.

ANSWER: **Franco-Prussian** War

<European History, Liu>

13. Angela Carter wrote a story in which a woman makes a plan to strangle this figure with his own hair. For 10 points each:

[10h] Name this figure who promises a boy that he will "grace thee with garments of gold" and that his "daughters shall tend thee with sisterly care" before stealing his soul.

ANSWER: The **Erlking** [or **Erlkönig**; accept The **Elf King**]

[10e] "Erlking" is a poem in the Sturm und Drang movement by this German author. His other works about demonic temptation include his two part play *Faust*.

ANSWER: Johann Wolfgang von **Goethe**

[10m] This other potentially-demonic golden-haired creature from German folklore lures sailors to their death by causing them to drown in the Rhine. This siren "combs her golden hair" in a poem by Heinrich Heine.

ANSWER: The **Lorelei** [or Die **Lorelei**]

<Non-Epic Poetry, Schwartz>

14. In an *ad hoc* paradigm, devices can communicate with each other via this technology without an intermediary. For 10 points each:

[10m] Give this technology, which is typically implemented with the IEEE 802.11 standard. Devices using this technology often use the 2.4 or 5 gigahertz frequencies.

ANSWER: **Wi-Fi**

[10h] Wi-Fi relies on these entities to ensure proper communication at the physical layer. Defined in the network interface controller of devices like modems, an ARP table associates these entities with IP addresses.

ANSWER: **MAC addresses** [or **Medium Access Control addresses**]

[10e] MAC ("**mack**") addresses consist of 6 pairs of digits in this numerical system. For example, the MAC address used to broadcast a message to every computer on a network would have 12 F's.

ANSWER: **hexadecimal** [or **base-16**]

<Other Science, Parameswaran>

15. The popular psychographic novel *Nosso Lar* advanced the reach of this movement in its author's country. For 10 points each:

[10h] That author Chico Xavier was influenced by this movement's founder, Allan Kardec. This movement is a more codified set of beliefs that grew out of a similarly-named movement influenced by Franz Mesmer.

ANSWER: **spiritism** [prompt on **spiritualism**]

[10e] Thanks to Chico Xavier's influence, this South American country has the most Kardec Spiritists. Spiritism strongly influenced this country's Umbanda religion. Its related Candomblé religion was developed by slaves brought to it by Portugal.

ANSWER: **Brazil** [or Federative Republic of **Brazil** or **Brasil**]

[10m] Both Umbanda and Candomblé venerate Olorun as the father of all of these spirits that they venerate. You may also give the name of the spirits in the Yoruba religion, from which the name was derived.

ANSWER: **Orixás** [accept **Orishas**]

<Religion, Parameswaran>

16. This woman exchanged over a thousand letters with her husband John, who gave her the nickname "Portia." For 10 points each:

[10e] Name this woman, who sent many of those letters from her home in Braintree. She later served as the first Second Lady and the second First Lady.

ANSWER: **Abigail Adams** [prompt on Adams]

[10m] In a March 1776 letter, Abigail implored John to perform this three-word action when designing a "Code of Laws," since "all Men would be tyrants if they could."

ANSWER: "**remember the ladies**"

[10h] Abigail described her efforts in an April 1776 letter to this frequent correspondent of hers. This woman wrote a three-volume history of the American Revolution as well as several plays satirizing Thomas Hutchinson.

ANSWER: Mercy **Otis Warren** [accept either underlined answer]

<American History, Zhang>

17. This woman's memoir *Burning Lights* was posthumously published in 1946. For 10 points each:

[10h] Name this woman who floats alongside the artist in the paintings *The Birthday* and *Over the Town*. In another painting, this woman towers over a green landscape in a portrait of her "with White Collar."

ANSWER: **Bella Rosenfeld** [accept either underlined portion; prompt on, but DO NOT OTHERWISE REVEAL, Marc Chagall's wife]

[10e] Bella Rosenfeld was the first wife of this Belarusian artist best known for his painting *I and the Village*.

ANSWER: Marc **Chagall**

[10m] Bella Rosenfeld met Marc Chagall in this town, where both she and Chagall were born. This town is the setting of most paintings by Chagall, including *The Fiddler* and *I and the Village*.

ANSWER: **Vitebsk**

<Visual Fine Arts, Martin>

18. Pauline Clance and Suzanne Imes first described a phenomenon named for this type of person in "High Achieving Women." For 10 points each:

[10e] Name this type of person. Individuals attribute their success to luck and fear being exposed as a "fraud" in a syndrome named for this type of person.

ANSWER: **impostor** [accept **impostor** syndrome]

[10h] Desire of children to comply with parenting leads to the development of a "false self" according to Donald Winnicott, who worked with Melanie Klein to develop a theory named for these things' relations. Winnicott described blankets and teddy bears as the "transitional" type of these things.

ANSWER: **objects** [accept transitional **objects** or **object** relations theory]

[10m] Defects in this faculty may cause the Capgras delusion, in which people suspect that a familiar person has been replaced with an impostor. It is controlled partially by a namesake region of the fusiform area, and is impaired in prosopagnosia.

ANSWER: **facial recognition** [accept answers referring to the ability to recognize or identify **faces**; prompt on vision or eyesight; do not accept or prompt on "object recognition"]

<Social Science, Zhang>

19. Answer the following about how engineers characterize radiation damage. For 10 points each:

[10h] First, name this quantity that is plotted against penetration depth on a Bragg plot. It is often written in terms of linear energy transfer, and is equal to the negative derivative of energy with respect to path length.

ANSWER: **stopping power** [do not accept or prompt on "stopping potential"]

[10m] Equally important is this quantity, which describes the probability that incoming radiation interacts with a given material. This quantity, symbolized lowercase sigma, can be measured in barns.

ANSWER: scattering **cross section** [accept differential **cross section**; prompt on area]

[10e] Empirical data on radiation damage is collected using these devices, which "click" when particles interact with tubes of inert gases. They are named after a German scientist.

ANSWER: **Geiger**-Müller **counters**

<Physics, Parameswaran>

20. In one work, the author notes that this character's entire life is controlled and driven by fear. For 10 points each:

[10h] Name this character, who that author declared to be Uncle Tom's descendant. This character is told to "die free" by another character at the end of the novel he appears in.

ANSWER: **Bigger** Thomas [accept Bigger **Thomas**]

[10m] An analysis of Bigger Thomas appears in an essay titled for "Everybody's" novel of a genre named for this action. That essay whose title references a genre named for this action is in the collection *Notes of a Native Son*.

ANSWER: **protesting** [accept "Everybody's **Protest** Novel"; accept **protest** novels]

[10e] This author attacked the "self-righteous, virtuous sentimentality" of *Uncle Tom's Cabin* in his essay "Everybody's Protest Novel." This author's novels include *Go Tell it on the Mountain* and *Giovanni's Room*.

ANSWER: James Arthur **Baldwin**

<Short Fiction/Other, Nageswaran>