

HARI (Hari's Academic Regionals(-minus) Invitational): Generalized method of Harimoments

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ROUND 2

Tossups

1. **This thinker's claim that sensibility and understanding form the two "stems" of cognitive abilities was rejected by a school he inspired, and which Ernst Cassirer belonged to, called the Marburg school. The "two-worlds" and "two-aspects" approaches seek to explain a concept of this philosopher that Schopenhauer identified with "will" in an appendix. This thinker argued that time and space are merely (*) appearances as part of a system underpinned by his idea of true objects unaltered by observation, or things-in-themselves. This thinker used the equation $7 + 5 = 12$ as an example of a synthetic *a priori* truth. For 10 points, transcendental idealism was laid out in which philosopher's *Critique of Pure Reason*?**

ANSWER: Immanuel Kant [accept neo-Kantian philosophy]

<Philosophy, Shanmugam>

2. **This ruler's memoirs was the earlier of two translated by Annette Beveridge. In his memoirs, this ruler lamented that the domain he ruled lacked any wine or melons, and he also reflected on laying siege to Isfara to quell Ibrahim Saru's revolt. As a gift from Ismail I, this ruler received a goblet made from the head of his frequent rival Muhammad Shaybani. This ruler's commander Mir Baqi ("MEER bah-KEY") commissioned the building of a mosque named for him in (*) Ayodhya ("ah-YODH-yah"). This ruler was exiled from his home kingdom of the Fergana after he invaded Samarkand. In one battle, this ruler defeated the forces of Ibrahim Lodi, and he was succeeded by Humayun. For 10 points, name this victor at the First Battle of Panipat, the founder of the Mughal Empire.**

ANSWER: Zahir al-Din Muhammad Babur

<World History, Nageswaran>

3. **The *Tur* explains a woman's obligation related to these objects as atonement for Eve shortening Adam's life by causing him to sin. Two of these objects are often used 18 minutes earlier than required on one holiday, in which they represent the commandments to "observe" and "honor" that holiday. During another holiday, *Ma'oz Tzur* is sung after a ceremony involving these objects. A braided one of these objects is used after three stars are seen in the sky in the (*) *Havdalah* ceremony that ends Shabbat. Yahrzeit examples of these objects are used to commemorate the dead. The *shamash* is one of these objects that occupies a central spot on the menorah. For 10 points, name these objects that provide light to the home during Shabbat.**

ANSWER: candles [or candlesticks; prompt on answers like flames; prompt on menorahs]

<Religion, Shanmugam>

4. In one story featuring these creatures, one man claims that a hawk carried off a boy in response to a claim that some of these animals ate an iron scale. In another tale from the *Panchatantra*, one of these creatures does not marry the sun, clouds, winds, or mountains. A proverb about proposing infeasible solutions comes from a story in which these animals agree, but none volunteers, to put a bell around the neck of a predator. After visiting its (*) cousin, one of these animals decides that it prefers a life of poverty over one of fear. In another tale, one of these animals who is spared by a lion later helps that lion escape a net. For 10 points, in an Aesop's fable, two of what animals respectively live in the country and in a town?

ANSWER: mouse or mice [accept rats; the proverb is "belling the cat."]

<Short Fiction/Other, Zhang>

5. These structures can be removed from cells by treating them with curing agents, which include acridine orange and sodium dodecyl sulfate. Joachim Messing developed a pair of these structures that lack *rop* (r-o-p), called pUC18 ("puck"-18) and pUC19 ("puck"-19), which allows them to have copy numbers of about 500. These structures are often engineered to contain a polylinker site and a selectable marker that confers (*) kanamycin or ampicillin resistance. These structures are treated with restriction enzymes, then an inserted gene of interest, and then DNA ligase in the procedure of molecular cloning. These structures are the typical vector for introducing recombinant genes to bacteria. For 10 points, name these small, circular extrachromosomal DNA molecules found in bacteria.

ANSWER: plasmids [prompt on DNA]

<Biology, Chen>

6. A former chairman of an organization whose name translates to "Atlantic Bridge" came in second in this party's leadership election in both 2018 and 2021. This party's head was criticized for laughing during a July 2021 speech in a flooded town. In 2019, a politician from this party succeeded Jean-Claude Juncker as President of the European Commission. This is the largest party in its country's "Jamaica coalition," which involves the Free (*) Democrats, Greens, and a sister party with "Social" in its name. This party fielded Armin Laschet in September 2021 elections after a leader from this party stepped down as chancellor of its country after 16 years. For 10 points, Ursula von der Leyen and Angela Merkel belong to what center-right German party?

ANSWER: Christian Democratic Union of Germany [or CDU or Christian Democrats; accept Christlich Demokratische Union Deutschlands]

<Current Events, Zhang>

7. A church canon who once tried to create these objects compares them to cheaters and impostors, which are defended by an "enchanted" man locked in a cage. The preface of Part Two of one novel instructs the reader to tell the creator of a fake one of these objects two stories about a madman and a dog. A housekeeper and a niece pretend that a magician named (*) Muñatón made some of these objects disappear. A priest hears the names of these objects and decides which ones are saved or burned by him and a barber. These objects, some of which contain exploits by Amadis of Gaul, inspire a man of La Mancha to become a knight. For 10 points, Don Quixote frequently reads what objects containing tales of chivalry?

ANSWER: books [accept Don Quixote's books; accept books of chivalry]

<Long Fiction, Zhang>

8. This man commissioned Frances Benjamin Johnston to take photographs for the Exposition Universelles. This man's efforts were supported financially by Julius Rosenwald, who established a namesake fund to carry on his work. General Samuel Armstrong is a recurring figure in this man's autobiography, which also discusses his graduation from the Hampton Institute. The *Sedalia Sentinel* published a poem attacking this man's (*) dinner with Teddy Roosevelt. In one speech, this man remarked on a ship that has been lost for many days only to be told to "cast your bucket down where you are". For 10 points, name this African-American activist and author of *Up From Slavery* who gave the "Atlanta Compromise" speech and founded the Tuskegee Institute.

ANSWER: Booker Taliaferro Washington

<American History, Nageswaran>

9. In one film, a boy compares this activity to "electricity" in an interview which his father made possible by pawning his dead wife's jewelry. That boy is encouraged to take up this activity instead of boxing by Mrs. Wilkinson. In another film, Thomas Leroy drives the protagonist insane through competition with Lily in this activity. An 11-year-old boy convinces his father to support him in this activity during a coal strike in the film (*) *Billy Elliot*. After stabbing herself with a glass shard from a broken mirror, a character hallucinates that she spontaneously grows black wings while performing this activity. For 10 points this activity which Nina Sayers, played by Natalie Portman, becomes obsessed with perfecting in the Darren Aronofsky film *Black Swan*.

ANSWER: ballet [prompt on dancing or dance; accept specific answer that describe performing in Swan Lake]

<Other Fine Arts, Schwartz>

10. A form of arthritis that affects these animals is scored using the Norberg angle or the distraction index. These animals are the host of a sexually transmitted venereal tumor that affects histiocytes. The DA2PP vaccine is formulated for these animals. They're not pigs, but *Bordetella bronchiseptica* infection commonly causes a respiratory disease of these animals often transmitted in confined areas. These animals have an unusually low LD50 of 300 milligrams per kilogram for (*) theobromine, which causes arrhythmia and internal bleeding in these animals. A highly inbred breed of these animals has an extremely short snout, which causes breathing and cooling issues. Bats, cats, and these animals are the most common carriers of rabies. For 10 points, name these domesticated canines.

ANSWER: doggos [accept Canis familiaris; prompt on canines] (The third to last clue is referring to pugs.)

<Other Science, Chen>

11. For his third attempt to win the Prix de Rome, William Bouguereau submitted a painting inspired by this author that depicts a nude man biting another man's throat. A figure in a brown cloak steadies this author in a painting whose background depicts a burning city. That painting, which depicts this author cowering away from some figures chewing on a boat, is by Eugene (*) Delacroix. Three figures place their fists next to each other at the top of a bronze sculptural group inspired by this author that also depicts two figures embracing in *The Kiss*. This author rests his face on his fist in contemplation in the sculpture *The Thinker*. For 10 points, Auguste Rodin was inspired to create *The Gates of Hell* by what author's *Divine Comedy*?

ANSWER: Dante Alighieri

<Visual Fine Arts, Parameswaran>

12. **Randall Collins proposed a micro-level theory of this phenomenon in a 1975 book. The intensity of this phenomenon is explained in terms of degree of superimposition and degree of mobility in a book titled for this phenomenon "in Industrial Society," by Ralf Dahrendorf. This phenomenon is treated as a form of socialization that creates group identities in a functionalist analysis written by Lewis Coser. This phenomenon names a (*) Marx-inspired macro-sociological approach that examines the unequal distribution of resources and power within society. Differences in class are the source of this phenomenon, according to Marx, who claimed it occurred between the bourgeoisie and the proletariat. For 10 points, name this sociological phenomenon in which actors oppose each others' interests.**

ANSWER: social **conflict** [or class **conflict**; or **conflict** theory; accept class **struggle**; prompt on **competition**; prompt on **violence**]

<Social Science, Chen>

13. **Performing a procedure named for this man is equivalent to traversing to the root of the Stern–Brocot tree. Gabriel Lamé proved that the runtime of that procedure named for this man does not exceed 5 times the number of digits of its smaller input, and its worst case runtime occurs for consecutive Fibonacci numbers. Coefficients of Bézout's identity are calculated in the (*) "extended" version of a procedure named for this man. An algorithm named for this man repeatedly subtracts multiples of the smaller input from the larger and outputs 1 for inputs of two relatively prime numbers. For 10 points, an algorithm that computes the greatest common divisor of two numbers is named for what ancient Greek mathematician and author of *Elements*?**

ANSWER: **Euclid** [accept **Euclid's** algorithm or **Euclidean** algorithm]

<Math, Zhang>

14. **Rebels of this ethnicity were told that their "pikes must be together" at the title time in the ballad "Rising of the Moon." Due to the similarity between their hairstyle and that of French revolutionaries, rebels of this ethnicity were named "Croppies," some of whom were killed at the non-Australian Battle of Vinegar Hill. A secret society of these people supported a (*) 1798 rebellion that was named after Wolfe Tone. The German spy ship Aud delivered arms to rebels of this ethnicity in a deal organized by Roger Casement. That rebellion of these people, which began at the General Post Office, was led by James Conolly and Patrick Pearse. For 10 points, name these people that sought to overthrow British rule in the Easter Rising.**

ANSWER: **Irish**

<European History, Hong>

15. **In a novel from this country, a woman becomes an empress of an alternate world after being sent by a sea storm through the North Pole. At the end of a different novel from this country, Lionel Verney ends up the only survivor of a shipwreck off of Italy while a Turkish plague wipes out the world. A third novel from this country was inspired by accounts of vermicelli that could voluntarily move. The utopian novel *The (*) Blazing World* was written by an author from this country, as was the first post-apocalyptic novel, *The Last Man*. A novel from this country ends with its title character dying of hypothermia while chasing a monster to Antarctica with Robert Walton. For 10 points, name this home country of Margaret Cavendish and Mary Shelley.**

ANSWER: **United Kingdom** [accept **England**; accept Great **Britain**]

<Long Fiction, Parameswaran>

16. A player of this instrument released his debut album *Imagine* in 2015. That player is Jean Rondeau. A concerto for this instrument begins with the strings playing a unison D-E-F, E, D, up to A up to D. Vivaldi's B-minor concerto for four violins was adapted into a piece for four of these instruments. This instrument has a long, virtuosic solo in the first movement of the fifth Brandenburg Concerto. A collection written for this instrument includes the French Overture and (*) Italian Concerto. This instrument is the subject of a treatise by Francois Couperin. Bach's Goldberg Variations were written for this instrument. For 10 points, name this popular Baroque keyboard instrument that uses a plectrum to pluck strings.

ANSWER: harpsichord [prompt on pianoforte before mentioned with "what instrument were the pieces originally written for?"; prompt on keyboard before mentioned]

<Auditory Fine Arts, Nageswaran>

17. *Description acceptable.* Edmund Rostand's *Cyrano de Bergerac* claims to know seven ways of doing this action in reference to a novel written by the real Cyrano about this action. Professor Barbenfouillis leads an instance of this action in a film, where it is represented by a cannon shot into an eye. The veracity of a real-life instance of this action is often confirmed with three retroreflectors. A Chinese program that aims to do this uses the "Long March" Series of (*) rockets; that program is named for a goddess that did this action, Chang'e. In a 1962 speech, John Kennedy promised to do this action before the end of the decade and gave the reason "not because [it is] easy, but because [it is] hard." For 10 points, Neil Armstrong first performed what action as part of Apollo 11?

ANSWER: moon landing [accept answers that indicate going to the moon or a manned mission to the moon; accept walking on the moon or moonwalk; prompt on going to space by asking "to where?"]

<Other, Zhang>

18. Judy-Joy Davies sarcastically claimed that this man was "the greatest swimmer of all time" after he claimed to have swam 15 kilometers in 65 minutes in 1966. This man argued that his people must "learn the spirit of absolute selflessness from" Norman Bethune in one of his essays. This man developed theories on protracted warfare while he was living in a cave. This man told dissenters to (*) "Bombard the Headquarters" in response to corruption accusations outlined in "big-character posters". Early during his rule, this leader compared "the flourishing of arts and the progress of science" to "one hundred flowers [blooming]." For 10 points, name this world leader whose aphorisms are collected in the *Little Red Book*.

ANSWER: Mao Zedong [or Mao Tse-Tung]

<World History, Parameswaran>

19. He's not George Meredith, but this poet wrote "left hand, off land, I hear the lark ascend" in a poem in which he used the Welsh verse form cynghanedd (king-HAH-neth). A poem by this poet describes "airy cages" that "quelled or quenched in leaves the leaping sun." This poet created the verb "unselve" to demonstrate his theory of "inscape" in that poem, which mourns the felling of a grove of (*) poplars. This poet wrote of "blue-bleak embers" that "gash gold-vermilion" in a poem whose speaker's "heart in hiding stirred" for the title bird. This poet described "fresh-firecoal chestnut-falls" and "skies of couple-colour as a brindled cow" in a poem that begins "Glory be to God for dappled things." For 10 points, name this poet of "The Windhover" and "Pied Beauty."

ANSWER: Gerard Manley Hopkins [The first two poems are "The Sea and the Skylark" and "Binsey Poplars," respectively.]

<Non-Epic Poetry, Faeder>

20. In a thought experiment, this phenomenon can only occur when an Elitzur-Vaidman bomb is a dud.

Wireless communication systems must mitigate the effect of the "intersymbol" form of this process caused by multipath propagation. Which-path information prevents this phenomenon from occurring in Wheeler's delayed-choice thought experiment. A device named for this phenomenon invented by Abraham (*) Michelson contains a pair of mirrors and a beam splitter. The spacing between "fringes" produced by this process depends on the wavelength of light. Light underwent diffraction and this phenomenon to produce the pattern seen in Young's double-slit experiment. For 10 points, name this phenomenon, the superposition of waves, which comes in "constructive" and "destructive" forms.

ANSWER: interference [accept quantum interference; accept intersymbol interference; accept interferometers or Michelson interferometers; accept interference fringes]

<Physics, Liu>

Bonuses

1. The U.S. hired this organization to develop spy satellites for the CORONA program. For 10 points each:

[10h] Name this think tank, whose members developed key strategic policies during the Cold War. Robert McNamara had a group of "Whiz Kids" from this non-Ford company help him develop foreign policy.

ANSWER: **RAND** Corporation

[10e] Albert Wohlstetter, a RAND mathematician, developed the "fail-safe" strategy regarding these weapons in his paper "The Delicate Balance of Terror." The doctrine of Mutually Assured Destruction ensured that no side in the Cold War would use these weapons.

ANSWER: **nuclear** weapons [accept **atomic bombs**, **hydrogen bombs**, **thermonuclear bombs**, and other equivalents]

[10m] RAND grew out of a company in this industry. Another company in this industry operated the top-secret Skunk Works plant.

ANSWER: **aircraft** industry [accept **aerospace** or **airplane** industry; prompt on **defense** industry or equivalents]

(The second company is Lockheed.)

<American History, Parameswaran>

2. A Texas county named for this man home to UT Austin's McDonald Observatory is a pentagon that borders Mexico at only a single vertex. For 10 points each:

[10h] Name this man. A site in Fairview, Kentucky commemorating this man contains a monument that is the tallest concrete obelisk in the world.

ANSWER: Jefferson **Davis** [accept Jeff **Davis** County; accept Jefferson **Davis** State Historic Site]

[10m] This other state's Jeff Davis County is one of two counties out of its 159 to have a two-word name. After Texas, this state has the most number of counties, the most populous of which are Fulton and Gwinnett.

ANSWER: **Georgia**

[10e] This state's Jefferson Davis Parish is in its Acadiana region, home to many members of its Cajun population.

ANSWER: **Louisiana**

<Geography, Zhang>

3. This equation can be derived by setting the chemical potential of species in mutual equilibrium equal to each other. For 10 points each:

[10m] Name this rule that relates the number of degrees of freedom, the number of components, and the number of phases at equilibrium in a system.

ANSWER: Gibbs **phase rule**

[10h] According to the Gibbs phase rule, if a one-component system has p phases coexisting in equilibrium, then in terms of p , how many degrees of freedom does the system possess?

ANSWER: **3-p**

[10e] Each degree of freedom corresponds to one of these variables that may be changed without disrupting the equilibrium. These variables do not depend on system size and are contrasted with extensive variables.

ANSWER: **intensive**

<Chemistry, Tong>

4. Dr. Mortimer reports the death of a member of this family. For 10 points each:

[10m] Name this family central to a story in which murders attributed to a mysterious hound are actually revealed to be the doing of Stapleton, who covered a dog with phosphorus in order for it to glow.

ANSWER: the **Baskervilles**

[10h] The Sherlock Holmes novel *The Hound of the Baskervilles* is the favorite story of this autistic protagonist of Mark Haddon's *The Curious Incident of the Dog in the Night-time*. This character runs from home after discovering that his father has killed Wellington, Mrs. Shears' dog.

ANSWER: **Christopher Boone** [accept either underlined portion]

[10e] Mark Haddon took inspiration from this author's "The Adventure of Silver Blaze," one of many stories this author wrote about Sherlock Holmes.

ANSWER: Sir Arthur Conan **Doyle**

<Long Fiction, Martin>

5. A version of one song in this language whose title translates as "we will win" was composed by singer and activist Victor Jara. For 10 points each:

[10e] Name this language. The "New Song" movement in countries speaking this language produced songs like "The People United Will Never Be Defeated!".

ANSWER: **Spanish**

[10h] While touring Chile, this singer befriended Jara. This American folk singer protested war in songs like "I Ain't Marching Anymore" and "Draft Dodger Rag."

ANSWER: Phil **Ochs**

[10m] The *nueva canción* movement inspired the *nueva trova* in this country that also combined folk music and political lyrics. This country's music was repopularized at the turn of the 21st century by the Buena Vista Social Club.

ANSWER: **Cuba**

<Fine Arts, Zhang>

6. One man involved in this event promised to kill his brother if he were a traitor, prompting Joachim Murat to forcibly disperse the Council of Five Hundred. For 10 points each:

[10m] Name this event which overthrew the French Directory in favor of the Consulate. This 1799 event is viewed by many as the end of the French Revolution.

ANSWER: Coup of **18 Brumaire** [prompt on Brumaire]

[10e] The coup of 18 Brumaire led to the ascension of this man to the First Consulship. In 1804, this man became Emperor of the French.

ANSWER: **Napoleon** Bonaparte

[10h] This member of the Directory participated in the coup, and became Second Consul as a result. This man is better known for declaring that the title group is "everything" in his 1789 pamphlet *What is the Third Estate?*

ANSWER: Emmanuel Joseph **Sieyès** [or abbe Sieyès]

<European History, Ah Now>

7. The "internationalization" of this concept is typically exemplified by the fact that the West now relies on the East for textiles and agriculture. For 10 points each:

[10m] Name this concept. Adam Smith used the example of a pin factory to illustrate how this concept improves efficiency.

ANSWER: **division of labor**

[10h] The international division of labor characterizes world systems theory, which uses these two words to designate the most- and least-powerful countries economically. In dependency theory, resources flow from one of these two regions to the other.

ANSWER: **core** AND **periphery** [accept answers in either order]

[10e] This process has accelerated the international division of labor through the rapid exchange of culture, technology, and resources worldwide.

ANSWER: **globalization**

<Social Science, Parameswaran>

8. Answer the following about the circuitry of a standard quizbowl buzzer system. For 10 points each:

[10m] For a buzzer system to store energy, current from an outlet must be converted from AC to DC using one of these devices. Four diodes compose their "full wave" variety.

ANSWER: **rectifiers** [accept full-wave **rectifiers**]

[10e] Buzzer systems can have malfunctioning fourth position buzzers while maintaining their fifth buzzer's functionality thanks to this setup, where multiple paths exist for current to flow through, in contrast to series circuits.

ANSWER: **parallel** circuits

[10h] Players can be "locked out" of buzzing using one of these data selection devices, which select a single output from a group of multiple inputs. They are represented by trapezoids on circuit diagrams.

ANSWER: **multiplexors** [or **multiplexers**; accept **MUX**]

<Physics, Schwartz>

9. Rachmaninoff's earliest piece for orchestra is a D minor piece with this name, inspired by a section of the same name in Mendelssohn's incidental music to *A Midsummer Night's Dream*. For 10 points each:

[10h] Name this type of composition. Chopin's four pieces of this type are noted for their dark character, such as the second one in B flat minor.

ANSWER: **scherzo**

[10m] During the Romantic era, the scherzo largely replaced one of these pieces as the third movement for symphonies. In symphonies, these 3/4 dances were often paired with a trio section.

ANSWER: **minuets**

[10e] Webster's Scherzo is an introductory piece in the Suzuki books for this non-violin instrument to practice playing at quicker tempos. Players of this instrument include Pablo Casals and Yo-Yo Ma.

ANSWER: violon**cello**

<Auditory Fine Arts, Nageswaran>

10. Cynthia devotes herself to spiritualism after the suicide of Sybil in this author's short story "The Vane Sisters". For 10 points each:

[10h] Name this author, who wrote about an elderly couple who decide to bring ten jars of jelly to their child suffering from "referential mania" in the short story "Signs and Symbols".

ANSWER: Vladimir **Nabokov**

[10e] "The Vane Sisters" has one of these narrators. Exemplified by Humbert Humbert in *Lolita*, these narrators provide 1st-person accounts which cannot be trusted due to character flaw.

ANSWER: **unreliable** narrators

[10m] In a 1929 Nabokov short story, the circus performer Fred Dobson is ridiculed for having this physical trait. In an earlier story, characters with this trait save a princess by cutting the laces of a corset.

ANSWER: **dwarfism** [or **dwarves**; Nabokov's story is "The Potato Elf".]

<Short Fiction/Other, Parameswaran>

11. A poet from this country created the Everyman alter ego Mr. Cogito during his travels abroad. For 10 points each:

[10e] Name this European country home to Zbigniew Herbert. A Nobel laureate from this country who wrote with "ironic precision" lived in its city of Kraków.

ANSWER: **Poland**

[10h] The aforementioned Nobel laureate is this poet of the collection *Nothing Twice*. Every sentence of her poem "Possibilities" begins with "I prefer."

ANSWER: Wisława **Szymborska** (vis-WA-va shim-BOR-ska)

[10m] This other Polish Nobel laureate of *The Captive Mind* wrote "A Treatise on Poetry," which details the literary life and history of Poland before going into its last section set in Pennsylvania.

ANSWER: Czesław **Miłosz** (CHESS-waff MEE-wosh)

<Poetry, Zhang>

12. In Maori myth, the offspring of Rangi and Papa performed this action after becoming tired of living in shadow. For 10 points each:

[10h] Name this action. In Chinese myth, Pángǔ accomplishes this action with one swing of his axe before standing up and continuously growing to prevent this action from being reversed.

ANSWER: separating the **sky** from the **earth** [accept **heaven** in place of "sky"; accept **ground** in place of "earth"; accept equivalents like **creating the sky**; prompt on **splitting the cosmic egg** by asking "what does the splitting symbolize?"; prompt on **creation of the world** by asking "what step in the creation of the world is being referred to?"]

[10e] Pángǔ awakens in one of these objects before he splits it with his axe. In Orphic myth, the primordial deity Phanes hatches out of one of these objects, while in Maori myth the two half-shells from this type of object become the sky and earth.

ANSWER: cosmic **egg** [or world **egg**]

[10m] Depictions of the cosmic egg in Orphic myth often feature Ananke taking the form of these creatures. In Pelagian myth, Ophion is one of these creatures who is sometimes depicted with the cosmic egg, and these **(emphasize)** real animals are depicted in Ouroboros symbolism.

ANSWER: **serpents** [or **snakes**]

<Mythology, Hong>

13. The lethality of Komodo dragon bites comes from compounds in their venom that prevent this process. For 10 points each:

[10e] Name this process, which leeches can disrupt by secreting hirudin. This process occurs due to the aggregation of platelets.

ANSWER: blood **clotting** [accept answers referring to the formation of **clots** or **thrombuses** or **thrombi**; or **coagulation**]

[10m] The presence of the clotting-initiator coagulase can be used to identify one species of this genus. A bacterium of this genus metabolizes the blood in super-absorbent tampons during reproduction to produce TSST-1, which causes toxic shock syndrome.

ANSWER: **Staphylococcus** [accept **Staphylooccus aureus**]

[10h] A clotting factor called coagulogen is extracted from these animals to create LAL, which can be used to test if an ingestible medicine can cause an infection. These blue-blooded living fossils belong to the taxon Limulidae.

ANSWER: **horseshoe crabs** [do not accept or prompt on "crabs"]

<Biology, Chen>

14. The violent warlord Roman von Ungern-Sternberg liberated and then terrorized this country before being captured by the Soviets. For 10 points each:

[10e] Name this country, which declared independence from Qing China under the Bogd Khan, who established a capital in present-day Ulaanbaatar.

ANSWER: **Mongolia**

[10h] Before the Bogd, Mongolia was partly controlled by an Oirat khanate that was established by these people. The Qianlong Emperor ordered a massacre of these people after a 1755 rebellion.

ANSWER: **Dzungar Khanate** [accept **Dzungaria**]

[10m] Many Han Chinese businessmen set up shop in Mongolia as part of the New Policies, which were backed by this Qing Dowager Empress. She was also influential in supporting the anti-imperialist Boxer Rebellion.

ANSWER: Empress Dowager **Cixi**

<World History, Zhang>

15. In *The Rani of Sirmur: An Essay in Reading the Archives*, this thinker wrote that Europe had maintained its power by defining its colonies as "others." For 10 points each:

[10h] Name this thinker. This thinker cites the rewriting of a suicide as exemplifying that the central group "cannot be heard or read" in response to the title question of a different essay.

ANSWER: Gayatri Chakravorty **Spivak** (The essay is "Can the Subaltern Speak?".)

[10m] This book claims that the West has defined itself by identifying the title region as the Other. This Edward Said (**sa-EED**) book criticizes exoticized western views of the title region.

ANSWER: **Orientalism**

[10e] Simone de Beauvoir argued that these people were defined as "the Other" by society, in an influential book in the second wave of a movement centered on these people.

ANSWER: **women** [accept **woman**; accept equivalents such as **females** and **girls**]

<Philosophy, Nageswaran>

16. After discovering several sculptures of birds made from this material, Willi Posselt looted many and hid others so that he could return later. For 10 points each:

[10m] Name this material used for the Great Zimbabwe bird sculptures that now appear on Zimbabwe's flag.

ANSWER: **soapstone**

[10h] An obelisk sculpted from soapstone was supposedly erected after the death of a king of this ethnicity named Oranyan. Eighteen bronze heads made by these people at Ife were unearthed in 1938.

ANSWER: **Yoruba**

[10e] The sculptor Aleijadinho (**ah-ley-zha-DIN-yo**) was best known for a set of twelve soapstone prophets found in this country. *Christ the Redeemer*, a sculpture located in this country, has an exterior made of soapstone.

ANSWER: Federative Republic of **Brazil**

<Visual Fine Arts, Martin>

17. The x86 instruction set architecture is the most common architecture used in these components. For 10 points each:

[10e] Name these hardware components, which can store data in their registers. Most modern examples of these components have multiple cores.

ANSWER: **CPU** [or **central processing unit**; prompt on microprocessors]

[10m] The x86 architecture was designed by this company for its 8086 microprocessor. This company produces the i5 and i7 CPUs, and is a competitor to AMD.

ANSWER: **Intel** Corporation

[10h] CPUs typically utilize this technique, which is often implemented using the MIPS architecture. The RISC implementation of this parallelization technique involves five steps: fetch, decode, execute, memory access, and writeback.

ANSWER: instruction **pipelining** [accept word forms like instruction **pipelines**]

<Other Science, Parameswaran>

18. A 2012 La Jolla Playhouse adaptation of a story set in this country faced criticism for casting white actors in lead roles, including that of a ruler who creates a mechanical bird. For 10 points each:

[10h] Name this country. An author from this country depicted the downfall of an incestuous family in the play *Thunderstorm*.

ANSWER: **China** (The playwright is Cáo Yǔ.)

[10e] That adaptation was of the story *The Nightingale*, one of many fairy tales by this Danish author of *The Little Mermaid*.

ANSWER: Hans Christian **Andersen**

[10m] The director of that *Nightingale* production, Moisés Kaufman, also created this documentary play. This play includes many interviews with residents of the title Wyoming city, concerning the murder of the gay student Matthew Shepard.

ANSWER: *The* **Laramie Project**

<Drama, Zhang>

19. A *hanif* with this given name and surname ibn Amr was said to have castigated Muhammad for idolatry, turning him off of the practice. For 10 points each:

[10h] Give this name of both that monotheist and the figure who Muhammad was travelling with at the time, an adopted son of his and early convert to Islam. The scribe who collected the Qu'ran after Muhammad's death also had this given name.

ANSWER: **Zayd** [accept **Zayd** ibn Amr or **Zayd** ibn Haritha or **Zayd** ibn Muhammad or **Zayd** ibn Thabit]

[10e] Muhammad adopted Zayd ibn Haritha on the steps of this location, home to the idols worshipped by many pre-Islamic Meccans. This cubic structure is the holiest site in Islam.

ANSWER: **Kaaba** [or al-**ka'bah**]

[10m] Zayd ibn Haritha later accompanied Muhammad on this journey from Mecca to Medina. The name of the Islamic New Year is derived from this journey's name.

ANSWER: **Hijra** [or **Hijrat**; or **Hegira**; accept **Hijri**]

<Religion, Shanmugam>

20. Alexander Cunningham, who discovered the first of these objects in 1872, connected the script on them to the Brahmi script. For 10 points each:

[10h] Name these objects, whose text has still not been deciphered today. A cryptic one of these objects depicts a seated god surrounded by a tiger, rhinoceros, elephant and bull.

ANSWER: Indus River Valley **seals** [accept **seals** from Mohenjo-Daro; prompt on general answers like Indus River Valley **artifacts**, **carvings**, or **inscriptions** by asking "What specific type of object?"]

[10m] An Elamite script described with this adjective has been suggested as a candidate for those on Indus seals. The Mycenaean used a script described by this adjective.

ANSWER: **linear** [accept **Linear** B; accept **Linear** Elamite]

[10e] The "Pashupati" seal has been used to argue that the Indus River Valley was settled by these people, who migrated to India around 1800 B.C. Hitler believed Germans to be descendants of these people.

ANSWER: Indo-**Aryans**

<World History, Nageswaran>