

LOGIC (Lots of Good Interesting Content)

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Written by the teams at Miami Valley, Stevenson and University Lab

Packet 1

Tossups

1. **In one novel by this author, the protagonist moves to Agua Santa after running away from the Revolt of the Whores. That protagonist becomes employed by a Turkish man with a cleft lip named Riad Halabí and is the storytelling daughter of Consuelo. In another novel by this author, a miner makes a fortune from his property (*) Tres Marias [trace mary-ahs] nine years after his fiancée is poisoned. The most famous novel by this author of *Eva Luna* is about an extended family whose members include Pedro Tercero and Clara the Beautiful. For 10 points, name this Chilean author who wrote about the Truebas in her novel *The House of the Spirits*.**

ANSWER: Isabel **Allende** [or Isabel Allende **Llona**] <EA, Long Fiction>

2. **Italian nationalist Gabriel d'Annunzio led an air raid which dropped 400,000 leaflets on this city in 1918. Georg Franz Kolschitzky opened the first coffeehouse in this city after finding beans left behind by the attackers in a 1529 siege here. This city's walls were demolished in 1858 to make way for construction of the (*) Ringstrasse [Ring-strow-suh]. A 1683 attack on this city was repelled by a cavalry charge led by John III Sobieski of Poland. A namesake congress held at this city reversed Napoleon's territorial gains. For 10 points, name this former seat of Habsburg rule, the capital of Austria.**

ANSWER: **Vienna** [or **Wien**; or the Congress of **Vienna**] <JL, European History>

3. **One national park in this country's center contains a rock formation known as the Olgas. This nation's Tanami Desert borders its coastal Kimberly region, whose largest city is Broome. This country's indigenous people include the Torres Strait Islanders. The south of this nation contains the treeless Nullarbor Plain, as well as the opal mining town of Coober Pedy. Mount (*) Kosciuszko [KOSS-ee-US-koh] is part of this nation's Great Dividing Range, which has a subrange named for the blue haze produced by eucalyptus trees. The Great Barrier Reef is located off its state of Queensland. Uluru is a large natural monolith sacred to the Aboriginal people of, for 10 points, what country known for its outback?**

ANSWER: Commonwealth of **Australia** <JG, Geography>

4. **Rouleaux [roo-LOW] are stacks of these cells formed during centrifugation. A deficiency of glucose-6-phosphate dehydrogenase causes these cells to break down. These cells, which mature from reticulocytes, have a lifetime of approximately 120 days before being broken down in the (*) spleen. A glutamine to valine mutation in a protein in these cells comprised of two alpha chains and two beta chains causes these cells to take on a sickle-like shape. Typically, these cells have a biconcave shape and lack a nucleus. Hemoglobin is found in--for 10 points--what oxygen carrying cells of the circulatory system?**

ANSWER: **red blood** cells [or **RBCs**; or **erythrocytes**] <GC, Biology>

5. **This artist stated that "My father today is Werner Heisenberg" in his *Anti-Matter Manifesto*, part of his nuclear mysticist period. He painted a nude queen seated on a pedestal while a swan is suspended behind her in his *Leda Atomica*. Two tigers lunge out of the mouth of a fish toward this artist's wife (*) Gala in one painting, which features his frequent motif of spindly-legged elephants in the background. In another painting by this artist, an orange stopwatch is covered with ants in the bottom left. That painting shows a bunch of clocks melting on a Catalonian beach. For 10 points, name this Spanish Surrealist painter of *The Persistence of Memory*.**

ANSWER: Salvador **Dalí** [or Salvador Felipe Jacinto **Dali** y Domenech] <DB, Visual Fine Arts>

6. NV centers in a material made of this element can be used as sensitive magnetometers. The chiral vector describes the orientation of a material made of this element that can exist in single-walled and multiple-walled forms. Exfoliation using scotch tape is used to isolate an extremely conductive material made up of a (*) monolayer of this element. Buckyballs and nanotubes are examples of fullerenes formed from this element. Common allotropes of this element include graphene, diamond, and graphite. For 10 points, name this element with symbol C.

ANSWER: carbon [or C until “C” is read] <GC, Chemistry>

7. Joan Didion took a line from this poem to title her essay collection about the counterculture movement in the Haight-Ashbury district of San Francisco. This poem describes the “shadows of indignant desert birds” flying over a figure with “a gaze blank and pitiless as the sun.” This poem describes “the best” losing “all (*) conviction” when a “blood-dimmed tide is loosed,” as well as “a vast image out of *Spiritus Mundi*.” This poem relents that “things fall apart; the centre cannot hold” as a “rough beast” “slouches towards Bethlehem to be born.” For 10 points, name this Biblically-titled poem written by William Butler Yeats.

ANSWER: “The Second Coming” (The Joan Didion collection is *Slouching Towards Bethlehem*) <EA, Non-Epic Poetry>

8. A countermelody borrowed from Franz Waxman’s fantasy on an opera by this composer is often inserted by soloists into the second movement of Pablo de Sarasate’s [sah-rah-SAH-tayz] fantasy of the same name. One work by this composer quotes the March of the Kings and was written as incidental music for Alphonse Daudet’s play *L’Arlesienne*. [l’ahr-lah-sie-ehn] The aria “Au fond du temple saint” is sung by Nadir and Zurga in this man’s opera *The (*) Pearl Fishers*. In another opera by this composer, the title character compares love to a rebellious bird. In that opera by this composer, Escamillo sings the Toreador Song and is killed by Don José for his love of the title Gypsy. For 10 points, name this composer of *Carmen*.

ANSWER: Georges Bizet [or Alexandre César Léopold Bizet] <JG, Other Auditory Fine Arts>

9. The extracanonical Gospel of James describes how this figure was raised by an angel in a temple for 12 years. This figure is the dedicatee of four of the twelve Great Feasts in Eastern Orthodox tradition. The German hymn “Lo, how a rose e’er blooming” is dedicated to this figure, who is also the subject of the Magnificat. This figure, who is called (*) Theotokos in the Eastern Orthodox Church, is invoked using a necklace of beads called a rosary, during which people say a prayer calling this figure “full of grace.” For 10 points, name this woman, the subject of the Immaculate Conception doctrine and mother of Jesus.

ANSWER: the Virgin Mary [accept Maryam; accept additional phrases or descriptors along with Mary such as “Mother of God” or “blessed”; accept Theotokos before mention] <EA, Religion>

10. In this country, the 19th of April Movement formed after the possibly fraudulent election of Misael Pastrana as president. The loser in that election gained control of this nation via a peaceful coup d’etat supported by the Liberals and Conservatives. The assassination of Jorge Eliecer Gaitan led this country into a period of unrest known as (*) La Violencia. In this country, public figures were attacked by the Medellín [meh-day-een] Cartel, whose founders included the notorious drug-lord Pablo Escobar. For 10 points, name this South American country whose attempts to cease violence included a 2016 peace deal with FARC.

ANSWER: Republic of Colombia <AN, World History>

11. This operation can be performed on a complex function if both its real and imaginary parts are harmonic, or equivalently, that it satisfies the Cauchy-Riemann equations, a condition called holomorphicity. This operation cannot be applied to the Weierstrass function at any point; more generally, this operation cannot be performed at a (*) cusp, such at (0,0) [zero comma zero] in the absolute value function. The result of this operation on a composition of functions can be determined using the chain rule. Applying this operation with respect to x to x-squared produces the function 2 times x. For 10 points, identify this operation from calculus which gives the slope of the tangent line of a function.

ANSWER: derivative [or differentiation] <GC, Mathematics>

12. A companion to this court case was prompted by Reverend Joseph DeLaine's work on inequality in Clarendon County. This case, whose ruling used a precedent set by *Sweatt v. Painter*, was paired with cases such as *Briggs v. Elliott* when appealed to the Supreme Court. The verdict of this case incorporated evidence from Kenneth and Mamie (*) Clark's doll experiments. This case brought NAACP attorney Thurgood Marshall to national attention and overturned *Plessy v. Ferguson*'s doctrine of separate but equal. For 10 points, name this Warren Court case which called for the desegregation of schools.

ANSWER: Brown v. Board [or Brown v. Board of Education of Topeka, Kansas] <AN, American History>

13. The President of this nation was criticized after suggesting Christianity and Islam were alien to it, while this country passed legislation that amongst other features imprisoned former Chief Minister Omar Abdullah. A state in this country was reorganized into two union territories, including Ladakh, due to the controversial revocation of Article 370. In this country's 2019 general elections, an alliance led by its (*) National Congress party lost heavily to the governing BJP. For 10 points, Narendra Modi is Prime Minister of which country, who disputes the Kashmir territory with Pakistan?

ANSWER: Republic of India <AN, Current Events>

14. One character with this profession describes losing his queen to Fortuna in a game of chess, which is a metaphor for the death of Lady White. Another character with this profession is accompanied on a pilgrimage by his twenty-year-old son and a yeoman [YO-min]. In one story, a character with this profession is tasked with discovering what (*) women want most. Two men with this profession, Arcite and Palamon, fight over Emily in a story told by a man with this profession in Chaucer's *Canterbury Tales*. A "Green" figure with this profession challenges Sir Gawain in one Middle English poem. For 10 points, name these usually chivalrous figures.

ANSWER: knights [or The Knight's Tale; or Knights of the Round Table] <TB, Short Fiction/Other>

15. This thinker described an "arc of culture" that different peoples would draw from to create individual cultures in a work that used adjectives like "restraint" and "abandon" to describe different tribes. This thinker described a type of moral debt known as "giri" that is repaid through "clearing one's name." This thinker analyzed the Zuni, Dobu, and Kwakiutl [KWAH-kee-YOO-tul] in a work that defined culture as (*) "personality writ large." This author of *Patterns of Culture* wrote a book which contrasted Japan's shame culture with the U.S.'s guilt culture. For 10 points, name this American anthropologist who wrote *The Chrysanthemum and the Sword*.

ANSWER: Ruth Benedict [or Ruth Fulton] <EA, Social Science>

16. This deity's soul was worshipped as the "soul of the ruler of the pillar" and was depicted as a ram. In one story, part of this deity's body is eaten by an oxyrhincus [oks-ee-RINK-us] fish. This deity was syncretized with the Apis bull into a figure named Serapis. In one story, this god was found inside the trunk of a tree in Byblos by his (*) wife, having earlier been sealed into a box with lead by his brother. This god's wife briefly revived him in order to conceive Horus. The ruler of Duat, or the underworld, is, for 10 points, what Egyptian god, the brother of Set and husband of Isis?

ANSWER: Osiris [or Usir or Aser] <EA, Mythology>

17. This empire employed cavalry forces called *sipahi*. This empire was the westernmost of the "Gunpowder Empires" identified by Marshall Hodgson and William McNeill for their use of gun technology. A prominent military unit in this empire was disbanded following the Auspicious Incident by the same ruler who initiated this empire's (*) Tanzimat reforms. That elite unit in this empire used the devshirme [dev-sheer-may] practice to forcibly recruit young Christian boys from the Balkans. This empire's ruler Mehmed the Conqueror captured Constantinople in 1453 with his army of Janissaries. For 10 points, name this Islamic empire centered in modern-day Turkey.

ANSWER: Ottoman Empire <GP, World History>

18. The term *vis viva* refers to an early formulation of this law, which Gottfried Leibniz found applied to systems without collisions. A consequence of Noether's theorem is that time-invariance symmetry implies this statement. An alternative to this principle used to formulate Hess's law states that (*) $\Delta U = Q - W$. The first law of thermodynamics is another way of expressing this statement. It's not the second law of thermodynamics, but perpetual motion machines that produce a work without an input violate this statement. For 10 points, name this statement that a quantity measured in Joules cannot be created or destroyed.

ANSWER: law of conservation of energy [accept first law of thermodynamics before "first"] <DB, Physics>

19. Heinrich Biber wrote 15 *Rosary Sonatas* for this instrument, which highlight various sonorities made possible through *scordatura* [score-dah-TOO-rah]. The 6th of Bach's *Brandenburg Concertos* omits this instrument entirely, and the last movement from his 2nd partita for this instrument is often performed as a standalone piece, "Chaconne." Giuseppe Tartini's dream-inspired (*) "Devil's Trill" Sonata is written for this instrument. Twelve concertos for this instrument are found in Vivaldi's *The Contest Between Harmony and Invention*. *The Four Seasons* are concertos for, for 10 points, what highest-pitched string instrument?

ANSWER: violin [or fiddle] <DB, Auditory Fine Arts>

20. In one part of this novel, the protagonist takes clothes and goods from a house floating down a river with a dead man in it. A man in this novel pretends to be a preacher from London named Harvey Wilks in order to get the gold from Peter Wilks's will. In another scene in this novel, the protagonist brings a Bible to Sophia, allowing her to run away with Harney, triggering a fight between the (*) Grangerfords and the Shepherdsons. This novel's protagonist fakes his death to run away from his father and runs into a worker for his tutor, Miss Watson. For 10 points, name this novel whose title character helps the slave Jim escape while floating down the Mississippi River, a novel by Mark Twain.

ANSWER: *The Adventures of* Huckleberry Finn [or Huck Finn] <EA, Long Fiction>

Bonuses

1. NOTE TO MODERATOR: Please do not reveal alternate prompts or answers to the first part of the bonus, as that will spoil the second part. Thanks!

Alfred Kastler developed one form of this technique, which won him the 1966 Nobel Prize in Physics. For 10 points each:

[10] Identify this technique, in which energy is transferred into a gain medium. The “optical” form of this technique is used to achieve population inversion by raising most of the members of the system into an excited state.

ANSWER: **pumping** [accept optical **pumping**; accept laser **pumping** but do NOT otherwise reveal “laser”; prompt but do not reveal answers referring to using a **laser** or **lasing**]

[10] Pumping is most commonly used to energize the gain media of these devices, which output amplified light using stimulated emission.

ANSWER: **lasers**

[10] Lasers often use the “cavity” form of this type of device, which facilitates oscillation at certain frequencies.

ANSWER: cavity **resonators** <DB, Physics>

2. The main characters of this film are attacked by a tank equipped with a flamethrower, which is called the “Dragon” of the swamp and incinerates the Jamaican boatman Quarrel. For 10 points each:

[10] Name this film, whose title character tries to disrupt a space shuttle launch by using a concentrated radio beam before being thrown in a nuclear reactor pool by the protagonist, who runs off with the damsel Honey Ryder.

ANSWER: **Dr. No**

[10] *Dr. No* is the first film in a series about this secret agent, who was originally created in a series of novels by Ian Fleming.

ANSWER: James **Bond** [accept **007** [double-o-seven]]

[10] In *Dr. No*, James Bond was played by this British actor, who also played the role in other early Bond films such as *Goldfinger* and *You Only Live Twice*.

ANSWER: Sean **Connery** [or Sir Thomas Sean **Connery**] <EA, Trash>

3. *Description acceptable.* This character overdoses on sleeping pills only to be revived by having her stomach pumped and her blood entirely re-circulated. For 10 points each:

[10] Name this character, who spends the majority of her time watching three wall-sized televisions and interacting with the actors on-screen using scripts she receives in the mail.

ANSWER: **Mildred Montag** [or **Mildred**; or **Mrs. Montag**; or “Guy **Montag’s wife**”; prompt on “**Montag**”]

[10] Mildred Montag appears in this Ray Bradbury novel. In this novel, the teenager Clarisse McClellan rubs a dandelion under the fireman Guy Montag’s chin to test if Guy is in love with anyone.

ANSWER: **Fahrenheit 451**

[10] Guy eventually switches off the parlor televisions and reads this Matthew Arnold poem to Mildred’s friends, causing one of them to cry. This poem ends by describing “a darkling plain” where “ignorant armies clash by night.”

ANSWER: “**Dover Beach**” <TB, Long Fiction>

4. NOTE TO MODERATOR: Please do not reveal alternate answers to the first part of the bonus, as that will spoil the second part. Thanks!

One piece of this type begins with a *lento* two-measure melody, which is played again with chords before a loud crashing descending scale is played *allegro con brio* over a louder version of the theme. For 10 points each:

[10] Name this type of pedagogically challenging piano piece, which includes one in A minor nicknamed “Winter Wind.” Franz Liszt wrote a set of “Transcendental” pieces in this genre.

ANSWER: **Étude** [or *Transcendental Études*; ACCEPT, BUT DO NOT OTHERWISE REVEAL: “Opus 25 Piano **Études** by Frederic Chopin”]

[10] This composer of the *Winter Wind* etude composed several others, including the *Revolutionary* etude and the *Black Key* etude. His Opus 25 set of etudes were dedicated to Liszt’s mistress, Marie d’Agoult.

ANSWER: Frederic **Chopin**

[10] The first of Chopin’s Opus 25 etudes is named after a harp of this type, played by the wind. This term also denotes the modal scale that matches the A natural minor scale.

ANSWER: **Aeolian** harp [or **Aeolian** mode] <DB, Auditory Fine Arts>

5. The Casket Letters implicated this monarch in the death of her husband, Lord Darnley. For 10 points each:
[10] Name this queen who was executed by her cousin after approving a scheme to assassinate that cousin and take the throne in the Babington Plot.

ANSWER: **Mary, Queen of Scots** [accept **Mary I of Scotland** or **Mary Stuart**; do not accept Mary I]

[10] This “spymaster” foiled the Ridolfi, Throckmorton, and Babington plots while working with William Cecil. This royal secretary witnessed the St. Bartholomew’s Day Massacre while serving as Ambassador to France.

ANSWER: Sir Francis **Walsingham**

[10] Walsingham worked for this “Virgin Queen.” This final Tudor monarch employed Sir Francis Drake to defeat the Spanish Armada raised against this monarch.

ANSWER: **Elizabeth I** [or **Elizabeth Tudor**] <JG, European/British History>

6. NOTE TO MODERATOR: Please do not reveal alternate answers to the first part of the bonus, as that will spoil the second part. Thanks!

This allegory speculates that a man who finally sees the light will eventually be able to appreciate the goodness of the sun, similar to the Analogy of the Sun that appears later in the work. For 10 points each:

[10] Name this allegory in which people are only able to see the shadows on a wall cast by a fire and puppeteers, and the people looking at the wall only know those shadows as their reality.

ANSWER: Allegory of the **Cave** [accept Myth of the **Cave**, Metaphor of the **Cave**, or parable of the **cave**; accept, but DO NOT OTHERWISE REVEAL Plato’s **Cave**]

[10] The Allegory of the Cave appears in this ancient Greek philosopher’s dialogue the *Republic*, where it represents his theory of forms. This philosopher included his teacher Socrates in most of his dialogues.

ANSWER: **Plato** [or **Platon**]

[10] This other parable from the *Republic* asks whether a person can remain just if they have no chance of being caught doing evil acts using the title object, which grants a person invisibility and allows them to surrender to their appetites.

ANSWER: the **Ring of Gyges** <EA, Philosophy>

7. After defeating the Sherden Sea Pirates, this ruler allowed some into his personal guard. For 10 points each:

[10] Name this pharaoh from the 19th dynasty, known by the epithet “the Great.” This pharaoh, also known as Ozymandias, engaged in several wars and signed the first recorded peace treaty after the Battle of Kadesh.

ANSWER: **Ramses II** [or **Ramses the Great** before “the Great” is read; prompt on **Ramses**]

[10] Ramses II fought these people from Anatolia at the Battle of Kadesh, where they were led by Muwatalli I and Hattusili III. These people had their capital at Hattusa and were ruled at their height by Suppiluliuma I.

ANSWER: **Hittites**

[10] Ramses II ordered the construction of this cliffside temple complex to commemorate the Battle of Kadesh. This complex was relocated to prevent it from being flooded by the Nile after the Aswan High Dam’s construction.

ANSWER: **Abu Simbel** <GP, Ancient/Other History>

8. This area’s Gellért Hill is home to the Fisherman’s Bastion and the Liberty Statue, one of the few Communist-era statues that was not relocated to the Memento Park. For 10 points each:

[10] Name this hilly location that served as the capital of a Central European kingdom and was united with its eastern neighbor in 1873.

ANSWER: **Buda** [prompt on **Budapest** by asking “which half?”]

[10] Buda was first connected to its flatter counterpart, Pest [**pesht**], in 1849 by the Széchenyi Chain Bridge, which spans this river. Other cities on this second-longest river in Europe include Bratislava, Belgrade, and Vienna.

ANSWER: **Danube** River

[10] Perhaps the most recognizable landmark in Budapest is a Gothic Revival building of this type on the Pest bank of the Danube. Another building of this type is the Palace of Westminster in London. A description is acceptable.

ANSWER: **parliament** building [accept clear equivalents like **National Assembly**] <JG, Geography>

9. The Maxwell-Boltzmann distribution gives the distribution of particle velocities for a substance in this phase. For 10 points each:

[10] Identify this phase of matter. Substances in this phase have no definite volume and take the shape of their container.

ANSWER: **gases**

[10] The rate of gas-phase chemical reactions is predicted by collision theory, which states that for a reaction to occur, the energy of a collision must exceed this threshold.

ANSWER: **activation** energy [or **E_a**]

[10] Collision theory therefore predicts reaction rate to be proportional to this function of the negative activation energy. The Arrhenius equation states that the rate constant is equal to a constant A times this function of negative activation energy divided by RT.

ANSWER: **exponential** function [or **e to the x** power; accept answers which use any other variable name in place of “x”; or **exp()**] <GC, chemistry>

10. The author of this poem values a person who “can make one heap of all [their] winnings and risk it on one turn of pitch-and-toss” as he discusses someone who “can keep their virtue.” For 10 points each:

[10] Name this poem that lists a series of virtues before exhorting that “Yours is the Earth and everything that’s in it, and—which is more—you’ll be a Man, my son!”

ANSWER: “**If—**”

[10] “If—” was written by this Victorian author, whose time living in India inspired his more famous work *The Jungle Book*.

ANSWER: Rudyard **Kipling**

[10] This other poem by Kipling tells the reader to “Go mark them with your living...and with your dead” as they “send forth the best ye breed.” This racist poem’s title became a phrase closely associated with late European colonialism.

ANSWER: “The **White Man’s Burden**” <EA, Non-Epic Poetry>

11. The Ku Klux Klan offered to assist the Mexican government in its conflict with this institution. For 10 points each:

[10] Name this institution which was targeted by the administration of Plutarco Eliás Calles [caye-yes], triggering the Cristero [Kris-tair-oh] War. This institution’s leader was angered by the passage of Mexico’s Reform Laws.

ANSWER: Roman **Catholic Church**

[10] Calles’ successor Lazaro Cardenas created the state-controlled PEMEX, which extracted this commodity. This commodity is extracted by ARAMCO in Saudi Arabia, its biggest exporter.

ANSWER: **oil** [accept **petroleum**]

[10] Secular and economic reforms were brought about in a Mexican document of this type in 1917. Mexico’s version of this type of document is still in place today and was amended in 2005 to ban capital punishment.

ANSWER: **Constitution** <GP, World History>

12. Unlike the related annelids or nematodes, members of this phylum completely lack a body cavity. For 10 points each:

[10] Identify this often-parasitic phylum of worms. which includes tapeworms and flukes.

ANSWER: **platyhelminthes** [or **flatworms**]

[10] This order of platyhelminthes are capable of completely regenerating themselves after being cut into pieces as small as one two-hundredth of their original size. *Schmidtea mediterranea* is a model organism used to study cellular regeneration that belongs to this order.

ANSWER: **planarians** [or **Tricladida**]

[10] The regenerative capabilities of planarians are primarily the result of neoblasts, which are a type of these undifferentiated progenitor cells. These cells can be harvested from the inner cell mass of a blastocyst, or from an embryo.

ANSWER: **stem** cells [accept specific types of stem cells like embryonic **stem** cells; prompt on **ESCs**] <GC, Biology>

13. This man painted an oncoming typhoon and a dramatic red sunset in the background of *The Slave Ship*, which he painted for a meeting of the British Anti-Slavery Society. For 10 points each:

[10] Name this British Romantic painter known for landscapes like *Dido Building Carthage* and seascapes like *The Fighting Temeraire*.

ANSWER: J.M.W. **Turner** [or Joseph Mallord William **Turner**]

[10] Turner's painting *Rain, Steam and Speed* depicts one of these vehicles as it crosses the Maidenhead Bridge. Claude Monet painted one of these vehicles arriving at the Saint-Lazare station in Paris.

ANSWER: **trains** [or equivalents]

[10] Turner requested that *Dido Building Carthage* be hung next to *The Embarkation of the Queen of Sheba*, a painting by this French painter of classical and mythological landscapes active during the Dutch Golden Age.

ANSWER: Claude **Lorrain** <JG, Visual Fine Arts>

14. For 10 points each, answer the following about objects used in wedding traditions around the world.

[10] In Judaism, the groom breaks one of these objects with his foot, typically sparking a shout of "Mazel tov!" The breaking of this object may symbolize the destruction of the Second Temple.

ANSWER: wine **glass** [or synonyms for "glass" like **cup**]

[10] In this traditional religion, a key wedding ritual involves the couple drinking three cups of *sake* [sah-kay] three times in three sips. Sites of worship in this religion are often attended by maidens called *miko*.

ANSWER: **Shintoism**

[10] In African-American weddings, the couple might jump over this household object to cement their union. While "jumping [this object]" dates back to slave traditions, and ultimately to pagan traditions from Europe, it saw a resurgence in the '70s due to the TV show *Roots*.

ANSWER: **broomstick** <TB, Religion>

15. This author used the term "mojo wire" to refer to a fax machine he used to send in his reports in *Fear and Loathing on the Campaign Trail '72*. For 10 points each:

[10] Name this author, who fictionalized himself as Raoul Duke in *Fear and Loathing in Las Vegas*. He also wrote "The Kentucky Derby Is Decadent and Depraved" for *Scanlan's Monthly*.

ANSWER: Hunter S. **Thompson** [or Hunter Stockton **Thompson**]

[10] Thompson is the most famous practitioner of the "Gonzo" form of this discipline. While working in this field, Nellie Bly went undercover in an asylum and wrote about it in Joseph Pulitzer's *New York World*.

ANSWER: **journalism** [or **Gonzo journalism**; or investigative **journalism**]

[10] Thompson had a long-running relationship with this magazine founded by Jann Wenner. This magazine is known for its coverage of rock music and for its left-wing political commentary by writers like Matt Taibbi.

ANSWER: **Rolling Stone** <TB, Short Fiction/Other>

16. This group's manifesto declared its intention to become a "Forum of Modern Photography" and showcase "what it considers the best contemporary photography of the West." For 10 points each:

[10] Name this San Francisco-based photography collective that included Imogen Cunningham, Sonya Noskowiak, and Edward Weston. This group's name referred to a very small camera aperture setting.

ANSWER: **f/64** [or **f-stop 64**; or **f.64**]

[10] f-stop 64 met at a gallery called 683, a joking reference to this photographer's gallery 291. This photographer of *The Steerage* organized exhibits of paintings by his wife, Georgia O'Keeffe.

ANSWER: Alfred **Stieglitz**

[10] Ansel Adams, the best-known member of f-stop 64, took numerous photographs in this national park, including *Moon and Half Dome*. Carleton Watkins also photographed this national park in California.

ANSWER: **Yosemite** National Park <TB, Other Visual Fine Arts>

17. While all plays have actors, name some things about plays that have to do with actors! For 10 points each:

[10] This character hires an acting troupe to perform “The Mousetrap,” a play about the murder of Gonzago. During the performance, Claudius runs out after being reminded of his guilt for murdering this man’s father.

ANSWER: **Hamlet**

[10] Rehearsal for the play *Mixing it Up* is interrupted by the title characters in this Italian author’s play *Six Characters in Search of an Author*.

ANSWER: Luigi **Pirandello**

[10] In this play, an actress calls a play written by her son “decadent rubbish.” That play within this play features Satan, as represented by “two glowing red points” and the smell of sulfur.

ANSWER: *The **Seagull*** [or ***Chayka***] <EA, Drama>

18. In Hinduism, one of these objects called Vajra is used to kill the serpent Vritra, and is wielded by a god who rides the white elephant Airavata. For 10 points each:

[10] Name these objects, one of which was used to kill Asclepius, and which are wielded by deities such as Indra.

ANSWER: **thunderbolt** [or **lightning bolts**; prompt on **lightning** or **thunder**]

[10] This chief god of the Slavs uses a lightning bolt to kill the serpentine god of the underworld, Veles, in a battle that is replayed every year.

ANSWER: **Perun**

[10] While at the castle of Utgard-Loki, this other thunder god wrestles old age and fails to lift a cat that is actually the Midgard Serpent in disguise. This Norse god wields the hammer Mjolnir.

ANSWER: **Thor** <WG, Mythology>

19. Answer some questions about symmetry in algebra. For 10 points each:

[10] Symmetric groups are groups whose elements consist of these things, which are rearrangements of some set. The number of these things for n elements is equal to n factorial.

ANSWER: **permutations** [accept **bijections** or **bijective functions** or **invertible functions**]

[10] Symmetric polynomials are useful in representation theory, a field of math that expresses elements in groups in terms of these mathematical objects studied in linear algebra. These rectangular arrays of numbers can have determinants and their multiplication is not commutative.

ANSWER: **matrices** [or a **matrix**]

[10] A matrix is itself said to be symmetric if it is equal to this function of itself. This function is equivalent to reflecting the matrix across its main diagonal, and it converts rows into columns, and vice versa.

ANSWER: **transpose** <CT, Mathematics>

20. The Gulf of Tonkin Resolution’s circumvention of this power led to a 1973 Act limiting the executive branch’s ability to wield this power. For 10 points each:

[10] Name this power given to Congress by Article I, Section 8 of the Constitution, but last used as intended in 1941.

ANSWER: the power to **declare war** [accept word forms involving a **declaration** of **war**; accept **War Powers** Clause]

[10] The most recent Congressional declarations of war came in December 1941 after Japan bombed this U.S. naval base in Hawaii, causing the United States’ entry into World War II.

ANSWER: **Pearl Harbor**

[10] This Montana representative, an avowed pacifist, was the only member of Congress to vote against declaring war on Japan. She became the first woman to serve in Congress when she first won her seat in 1916.

ANSWER: Jeannette **Rankin** [or Jeannette Pickering **Rankin**] <TB, American History>