**HSAPQ Tournament #53**

**Packet 1 Tossups**

1. **The decision in this Supreme Court case allowed the defendant of *Doughty v. Sacks*, a rapist, to receive a retrial. Abe Fortas represented the defendant in this case. Hugo Black authored this case's decision, and it overturned the Supreme Court's earlier decision in (\*)** *Betts v. Brady*. The appellant in this case, who was accused of breaking and entering into a pool hall, was acquitted after the Supreme Court found that his Sixth Amendment rights had been violated. For 10 points, name this Supreme Court case that ruled that all criminal defendants have a right to counsel.

ANSWER: ***Gideon*** *v. Wainwright*

2. **The inert pair effect explains why this element's plus-two oxidation state is more stable than its plus-four state. This element is oxidized by sulfuric acid, but its oxide is reduced, forming two moles of its sulfate, in a device invented by Gaston Planté. This element is the heaviest so far discovered to have a (\*)** magic number of protons. Consequently, this member of the carbon group is at the end of the thorium and radium chains, since it's the heaviest element not to decay. For 10 points, name this toxic metal once used in pipes.

ANSWER: **lead** [or **Pb**]

3. **The world’s longest natural sand beach is located in this country’s city of Cox’s Bazar. The southwestern portion of this country is covered in the mangrove forests of the Sundarbans. Indigenous tribes such as the Chakma and the Marma make up most of the population of this country’s (\*)** Chittagong Hill Tracts. The Meghna River joins the Brahmaputra and the Ganges in this country to form the world’s largest delta, which flows into the Bay of Bengal. For 10 points, name this densely populated country with its capital at Dhaka.

ANSWER: People’s Republic of **Bangladesh**

4. **This ballet was originally scored for a double string quartet, piano, flute, bassoon, clarinet, and double bass, an unusually small thirteen-member ensemble. Isamu Noguchi designed the set for this ballet, which takes its title from Hart Crane’s “The Dance.” This ballet includes a set of variations on the (\*)** Shaker melody “Simple Gifts,” and it was commissioned by its choreographer, Martha Graham. For 10 points, name this ballet about American pioneers with music by Aaron Copland.

ANSWER: ***Appalachian Spring***

5. **This country is the setting for a novel whose title character murders the women of the Newby family. In another novel from this country, Laura Trevelyan maintains a relationship with the title explorer as he travels across the country. This country produced the author of (\*)** *Voss*, as well as the author of a novel about two gamblers who bet on the transportation of a glass cathedral. For 10 points, name this country home to Patrick White and Peter Carey, whose novels were inspired by the Aboriginal people.

ANSWER: **Australia**

6. **The power radiated by an accelerating charge is proportional to this power of the acceleration. Energy stored in a capacitor is equal to this power of voltage times half the capacitance. The power dissipated by a resistive element is equal to this power of the voltage or current divided or multiplied by the resistance, respectively. (\*)** Kirchhoff names this many circuit laws. This power of distance appears in the denominator of Coulomb's law. For 10 points, kinetic energy is equal to half the mass times what power of velocity?

ANSWER: **two** [or **second**; or **squared**]

7. **In this novel, Orr flees to Sweden, much to the delight of the protagonist, and another character gets promoted by a faulty IBM machine. The protagonist of this novel is traumatized by Snowden's death. Milo Minderbinder runs M&M Enterprises and buys the world's supply of (\*)** Egyptian cotton in this novel. In this novel, Major Major Major Major appears with the protagonist on the island of Pianosa as member of the 256th Airborne Squadron. For 10 points, name this satirical anti-war novel about Yossarian written by Joseph Heller.

ANSWER: ***Catch-22***

8. **A historical painting by this man depicts a group of naked boys stretching in a field, standing opposite four half-naked girls. This artist of *Young Spartans Exercising* painted women drying themselves in the series *After the Bath*. A man with a pipe in a café sits next to a fancily-dressed woman who stares at her (\*)** drink in one of his paintings. In another, a man reads a newspaper while others in black suits stand behind him around a table at the *New Orleans Cotton Exchange*. For 10 points, name this French artist of *L'Absinthe*, known for his many depictions of ballerinas.

ANSWER: Edgar **Degas**

9. **This god drove the women of Argos mad when they failed to honor him, causing them to devour their own babies. He brought Hephaestus (huh-FAYS-tus) back to Olympus on the back of a donkey, and a variant of myth claims that Silenus raised this god as a child. A group of pirates tried to sell this (\*)** god as a slave and was punished by being turned into dolphins. Zeus placed this god in his thigh after his mother Semele died from looking at Zeus in his full glory. His followers include the maenads and satyrs. For 10 points, name this Greek god of wine.

ANSWER: **Dionysus** [or **Bacchus**]

10. **This dynasty passed the Partisan Prohibitions, which imprisoned Confucian scholars and caused civil unrest that led to this dynasty's downfall. This dynasty fought wars against the Xiongnu, and Zhang Qian brought knowledge of the Silk Road to this dynasty's Emperor (\*)** Wu. This dynasty's *Records of the Grand Historian* were completed by Sima Qian, and this dynasty was founded in 206 BCE by Liu Bang. For 10 points, name this Chinese dynasty that followed the Qin (CHIN) dynasty.

ANSWER: **Han** Dynasty

11. **A cartoon about this event shows a family dinner turning into a brawl, and this event occurred shortly after the Panama Scandal. During it, Max von Schwartzkoppen tore a blue telegram into fifty pieces, only for it to be accidentally sent to Georges Picquart by Major Henry. Ferdinand (\*)** Esterhazy's handwriting incriminated him in this event. A trial conducted during this scandal was attacked in Emile Zola's open letter "J'accuse." For 10 points, name this scandal during which a Jewish army captain was falsely accused of selling French military secrets.

ANSWER: The **Dreyfus** Affair

12. **This quantity constitutes the vertical axis of the IS-LM model, and the Taylor rule recommends how this quantity should increase with inflation, since a low value for it can lead to a liquidity trap. Recently, the European Central Bank chose to stipulate a (\*)** negative value for it. The nominal value for this quantity is approximately its real value plus inflation rate. An increase in money supply corresponds to a decrease in this quantity, that is set by the Federal Reserve. For 10 points, name this quantity, which gives the rate at which borrowers pay extra when repaying loans.

ANSWER: **interest rate**s [or nominal **interest rate**s; or real **interest rate**s]

13. **This city was once ruled by a family that was cursed for killing Cylon while he hid in a temple. A leader of this city went into exile for ten years and traveled across Egypt and Anatolia after enacting his reforms. This city’s legislative council was expanded to five hundred men by (\*)** Cleisthenes. The Thirty Tyrants ruled this city after it was defeated by Lysander. This city’s debt-slaves were freed by Solon, who reformed the laws set forth by Draco. For 10 points, name this democratic Greek city-state.

ANSWER: **Athens** [or **Athenai**]

14. **In this novel, a character who receives the Legion of Honor medal assists the protagonist's husband on a botched operation of the clubfooted boy Hippolyte. At the end of this novel, the protagonist's daughter Berthe is left as an orphan and begins working at a cotton mill. The protagonist of this novel (\*)** borrows money from Lheureux and engages in affairs with Leon Dupuis and Rodolphe Boulanger before consuming arsenic. For 10 points, name this novel about Emma, the wife of a boring country doctor, written by Gustave Flaubert.

ANSWER: ***Madame Bovary***

15. **A member of this family is haunted by the senseless deaths of beetles smashed by a mentally handicapped cousin. Another of its members, who is first introduced skinning a stag, matches wits with his cupbearer in Harrenhal. That character is played by Charles Dance. House (\*)** Tyrell allies with this family, whose members “always pay their debts” and whose legacy is threatened by sibling incest. For 10 points, name this house with a lion sigil from *Game of Thrones* that includes Tyrion, Jaime, and Cersei.

ANSWER: House **Lannister** of Casterly Rock

16. **In this novel, a group of children are consistently referred to as "littluns," and a member of that group believes that the title creature comes from the sea. In this novel, several characters reenact the killing of a sow in a frenzied manner until another character blows a (\*)** conch. Roger rolls the boulder that kills Piggy in this novel, and a Christ figure named Simon speaks with a pig's head on a stick. For 10 points, name this novel, which focuses on a group of boys stuck on an island, written by William Golding.

ANSWER: ***Lord of the Flies***

17. **A blacksmith named Cunda allegedly gave this person his last meal. In Kandy, a temple is dedicated to a tooth of this person, who was nearly assassinated by Devadatta. This son of Suddhodana was born in Lumbini, in modern day (\*)** Nepal. The beliefs of this prophet on suffering make up his Four Noble Truths, and he also formulated the Eightfold Path. For 10 points, name this founder of a namesake religion, who at birth was known as Siddhartha Gautama.

ANSWER: Gautama **Buddha** [or **Siddhartha Gautama** until it is read]

18. **This procedure requires various dNTP mixes as building blocks and a *Pyrococcus furiosus* enzyme is used when high fidelity is required. A variant of this process that uses fluorescent dyes that fluoresce and are detected in a thermal cycler can be performed in real-time. An enzyme from *Thermus aquaticus* is often used in this procedure because it is thermostable. The item to be used in it is matched to a (\*)** primer. After this technique is performed, it can be visualized with gel electrophoresis. For 10 points, name this technique used to amplify short strands of DNA for study.

ANSWER: **PCR** [or **polymerase chain reaction**; or **molecular photocopying**]

19. **Yitang Zhang recently established a bound on the gaps between these numbers, making progress on a conjecture about the "twin" type of them. Fermat's little theorem is a result about remainders when dividing by these numbers. These numbers are circled, not crossed off, in the Sieve of Eratosthenes, and Euclid proved that there are (\*)** infinitely many of them with a simple contradiction argument. For 10 points, identify these numbers which have exactly two divisors: one and themselves.

ANSWER: **prime** numbers

20. **This composer was inspired by Paganini to write a set of “Grand Etudes,” including “La Campanella.” One of his compositions comprises 12 pieces, such as “Chasse-Neige” and “Mazeppa.” Heinrich Heine termed the European obsession over this composer his namesake (\*)** “mania.” “The Dance at the Village Inn” is the first of his *Mephisto Waltzes*. This composer of the *Transcendental Etudes* popularized the symphonic poem. For 10 points, name this composer who used melodies from his native land in *Hungarian Rhapsodies*.

ANSWER: Franz **Liszt**

21. **These insects relies on apitoxin and intense heat generated by vibrations to defend against intruders and defectors. The waggle dance is performed by these insects when foraging. These eusocial insects are naturally in the order *Hymenoptera* and are of the genus *Apis*. An aggressive, but disease-resistant subtype of these insects is known as (\*)** "Africanized". Their population has been declining due to colony collapse disorder. For 10 points, name this insect known for its production and storage of honey and its construction of wax hives.

ANSWER: honey **bee** [or ***Apis*** until it is read]

22. **In this politician's inaugural address, he described "The mystic chords of memory" and "the better angels of our nature." This politician gave a speech at Cooper Union and earlier stated that "A house divided against itself cannot stand" in his campaign against (\*)** Stephen Douglas. In another one of his speeches, this politician states that "government of the people, by the people, and for the people shall not perish from the earth." For 10 points, name this man who delivered the Gettysburg Address.

ANSWER: Abraham **Lincoln**

23. **This artist studied in Germany to fulfill his commission of a stained glass window depicting six soldiers, each representing the casualties of a different war. This artist painted a boy holding an axe near a cherry tree in his illustration of a popular legend, and created a satirical painting of three ugly old women sitting in front of (\*)** Leutze's *Washington Crossing the Delaware*. He painted his sister standing in front of a house next to his dentist, who is holding a pitchfork. For 10 points, name this American artist who painted *Daughters of Revolution* and *American Gothic*.

ANSWER: Grant **Wood**

**HSAPQ Tournament #53**

**Packet 1 Bonuses**

1. This conflict was followed by the Interim Peace and the Continuation War, in which the Hanko Peninsula was retaken. For 10 points each:

[10] Name this four-month war in 1939 and 1940, which ended with the Peace of Moscow.

ANSWER: **Winter War**

[10] The Soviet Union fought the Winter War against this neighbor over control of the Karelia region.

ANSWER: **Finland**

[10] The Winter War was precipitated by Soviet demands for Finnish territory ostensibly to defend this city, currently known as St. Petersburg, which was the site of a two-and-a-half year German siege.

ANSWER: **Leningrad**

2. This character rides a donkey named Dapple. For 10 points each:

[10] Name this witty character who acts as Don Quixote’s squire.

ANSWER: **Sancho** Panza [or Sancho **Panza**]

[10] *Don Quixote* was written by this Spanish novelist.

ANSWER: Miguel de **Cervantes**

[10] Quixote’s promise that Sancho will govern one of these places is a recurring motif in the novel.

ANSWER: an **island**

3. This warrior withdraws from fighting in the Trojan War after Agamemnon takes the slave Briseis away from him. For 10 points each:

[10] Name this Greek hero who was dipped in the River Styx as an infant, making him invulnerable everywhere except for his heel.

ANSWER: **Achilles**

[10] Achilles battles and defeats this Trojan prince, then drags his corpse around the gates of Troy.

ANSWER: **Hector**

[10] After the death of Achilles, Odysseus and Ajax argue over who should receive this item belonging to Achilles. This item allowed Patroclus to disguise himself as Achilles.

ANSWER: his **armor** [prompt on **clothes**]

4. This author described Rintha's discovery of her brother Culla's baby in his second novel, *Outer Dark*. For 10 points each:

[10] Name this author of *Suttree*, who wrote about Llewelyn Moss's discovery of drug money in *No Country for Old Men*.

ANSWER: Cormac **McCarthy**

[10] McCarthy wrote about the kid's journeys with the Glanton gang in *Blood Meridian*, a twist on this genre of literature. Novels in this genre are set in the American frontier and often feature cowboys.

ANSWER: **western** fiction

[10] Another example of western fiction is this Owen Wister novel, whose title character kills Trampas and works on a ranch with Judge Henry.

ANSWER: *The* ***Virginian***

5. This man was indicted on treason charges for allegedly planning to lead an army to capture New Orleans. For 10 points each:

[10] Name this American politician, who is better known for fatally wounding Alexander Hamilton in a duel.

ANSWER: Aaron **Burr,** Jr.

[10] Burr served in this office under President Thomas Jefferson. Jefferson served in this same office under John Adams, who occupied this position under George Washington.

ANSWER: **Vice-President** of the United States

[10] Due to Burr's shenanigans in the Election of 1800, this Amendment was proposed and ratified, requiring separate elections for President and Vice President.

ANSWER: **Twelfth** Amendment

6. Answer the following questions regarding Earth's lithosphere, for 10 points each.

[10] The lithosphere consists of the uppermost section of the mantle and this layer of the Earth. It is composed mostly of oxygen and silicon, and can be either oceanic or continental.

ANSWER: **crust**

[10] The Earth's crust is split into these pieces. The Juan de Fuca and Nazca are examples of these entities, which can feature mountains or oceanic trenches along their boundaries.

ANSWER: tectonic **plate**s

[10] J. Tuzo Wilson hypothesized this type of fault in order to complete plate tectonic theory. This type of fault neither destroys nor creates lithosphere, making is a conservative plate boundary. ANSWER **transform** fault

7. A melody from this orchestral composition became the tune of the hymn "I Vow to Thee, My Country." For 10 points each:

[10] Name this orchestral suite whose fourth movement is titled "Jupiter, the Bringer of Jollity." Its final movement, "Neptune, the Mystic," features an offstage women’s chorus.

ANSWER: *The* ***Planets***

[10] *The Planets* is by this British composer, who also wrote two suites for military band, the second of which quotes "Greensleeves" in its final movement, "Fantasia on the *Dargason*."

ANSWER: Gustav **Holst**

[10] "Mars, the Bringer of War," the first movement of *The Planets*, is written mostly in this time signature. Dave Brubeck’s album *Time Out* includes a track where they “take” this time signature.

ANSWER: **five-four** [or **quintuple meter**]

8. The speaker of this poem wonders “what shoulder and what art could twist the sinews of thy heart.” For 10 points each:

[10] Name this poem found in the collection *Songs of Innocence and of Experience* in which the speaker asks "what immortal hand or eye dare frame thy fearful symmetry?"

ANSWER: "The **Tyger**"

[10] "The Tyger" was written by this British poet who also wrote the poems "The Lamb" and "London."

ANSWER: William **Blake**

[10] This Blake poem describes “babes reduced to misery fed with cold and usurous hand.” The companion poem of this title describes a procession of children in church on the title holiday.

ANSWER: "**Holy Thursday**"

9. A song by this band claims that “Your mama kept you but your daddy left you” and “I’ve got a love that keeps me waiting.” For 10 points each:

[10] Name this musical act consisting of Dan Auerbach and Patrick Carney that included the aforementioned “Lonely Boy” on the follow-up to their album *Brothers*.

ANSWER: The **Black Keys**

[10] “Lonely Boy” is the first track on this 2011 album by The Black Keys. Another song on this album notes that “a broken heart is blind” and asks an operator to “put me back on the line” because “this is wrecking my mind.”

ANSWER: ***El Camino***

[10] “El Camino” was produced and co-written by this former member of Gnarls Barkley that rose to prominence after combining a Beatles album with one by Jay-Z to create *The Grey Album*.

ANSWER: **Danger Mouse** [or Brian Joseph **Burton**]

10. Answer some questions about transcription, for 10 points each.

[10] Transcription is the conversion of this molecule to mRNA.

ANSWER: **DNA** [or **deoxyribonucleic acid**]

[10] During transcription, this enzyme transcribes the DNA to RNA, creating the RNA from the 5-prime end to the 3-prime end. It is recruited by transcription factors.

ANSWER: **RNA polymerase**

[10] In prokaryotes, transcription begins when the RNA polymerase core enzyme binds to one of these proteins, forming the holoenzyme. Specific ones include the ferric citrate one.

ANSWER: **sigma** factor

11. Albert Einstein was awarded the Nobel Prize in Physics for his description of this effect. For 10 points each:

[10] Identify this effect in which electrons are emitted from metals when illuminated by light.

ANSWER: **photoelectric** effect

[10] The description of the photoelectric effect led to this physicist positing the wave-particle duality for all matter. He names the relation between wavelength and a particle's momentum.

ANSWER: Louis-Victor **de Broglie**

[10] In order to release an electron from a metal in the photoelectric effect, the photon's energy must exceed this quantity.

ANSWER: **work function** [prompt on **binding energy**]

12. PUT A MATH BONUS HERE

13. One of this artist’s self-portraits shows two versions of herself with their hearts connected. For 10 points each:

[10] Name this wife of Diego Rivera, whose self-portraits often show her unibrow.

ANSWER: Frida **Kahlo** [or Magdalena Carmen Frieda **Kahlo** y Calderon]

[10] Kahlo and Rivera were both painters from this country, whose ancient Mayan architectural sites include Chichen Itza and Tulum.

ANSWER: **Mexico**

[10] For a number of years, Kahlo lived with Rivera in a house of this color, where she was born.

ANSWER: **blue** [or Casa **Azul**]

14. The first “rural” facility of this type in America, Mount Auburn, was founded by the Massachusetts Horticultural Society in 1831. For 10 points each:

[10] Give the general name for these places, whose “rural” or “garden” type served as the forerunners to large public parks, and whose famous Catholic examples include Gate of Heaven in New York.

ANSWER: **cemeteries**

[10] Laurel Hill Cemetery and The Woodlands Cemetery are two rural cemeteries in this city, which is situated between the Schuylkill (SKOY-kill) and Delaware Rivers in Pennsylvania.

ANSWER: **Philadelphia**

[10] The Green-Wood Cemetery, near Prospect Park, is the final resting place of numerous New York luminaries including Horace Greeley and “Boss” Tweed and is found in this Long Island borough.

ANSWER: **Brooklyn**

15. A character in this novel referred to as the "Holy Goof" divorces his wife Camille in Mexico City in order to marry his girlfriend Inez. For 10 points each:

[10] Identify this novel, first typed on a continuous 120-foot scroll of paper, about the adventures of Sal Paradise and Dean Moriarty.

ANSWER: ***On the Road***

[10] *On the Road* was written by this Beat Generation author of *The Dharma Bums*, who based Sal Paradise on himself.

ANSWER: Jack **Kerouac** [or Jean-Louis **Kerouac**]

[10] In *On the Road*, the character of Old Bull Lee was based on this fellow Beat Generation author of *Junkie* and *Naked Lunch*.

ANSWER: William S. **Burroughs** [or William Seward **Burroughs**]

16. The diamond darter was threatened by a 2014 industrial disaster in this state. For 10 points each:

[10] Identify this state, where Freedom Industries spilled a large amount of crude MCHM into Elk River, rendering non-potable the drinking water in nine counties.

ANSWER: **West Virginia** [or **WV**]

[10] This government disaster relief organization, which did a very poor job after Hurricane Katrina, distributed bottled water in West Virginia after the spill.

ANSWER: **FEMA** [or **Federal Emergency Management Agency**]

[10] FEMA changed its mind about not providing aid to West, Texas, after a 2013 explosion there at a distribution facility for this specific industry.

ANSWER: **fertilizer** industry [or ammonium **nitrate** industry]

17. This leader was supported by the Descamisados or "shirtless ones," and his third wife Isabel succeeded him in his highest role after his death in 1974. For 10 points each:

[10] Identify this populist South American president.

ANSWER: Juan Domingo **Perón**

[10] Juan Perónwas twice preisdent of this country, which was under the control of Jorge Rafael Videla at the end of its “Dirty War” period.

ANSWER: **Argentina**

[10] Perón's second wife was this actress, who died from cancer at age thirty-three. She became the subject of a Tony-winning musical.

ANSWER: María **E**va Duarte de **Perón** [or **Evita**; prompt on **Perón**]

18. It follows from this concept that ideas and knowledge are acquired through experience. For 10 points each:

[10] Name this analogy that describes the mind at birth as lacking innate ideas.

ANSWER: ***tabula rasa*** [or **blank slate**]

[10] This English philosopher, who wrote *Two Treatises of Government*, described the mind as a *tabula rasa* in *An Essay Concerning Human Understanding.*

ANSWER: John **Locke**

[10] Locke argued that the continuity of this concept defines personal identity. Thomas Reid criticized that theory by conjecturing a brave officer who both is and is not himself as a boy.

ANSWER: **memory** [or **consciousness**]

19. This structure is the home of the Yale University hockey team. For 10 points each:

[10] Name this New Haven edifice which is known for its double curvature form and resemblance to a certain sea mammal.

ANSWER: **Ingalls Rink** [or the Yale **Whale**]

[10] This Finnish architect designed Ingalls Rink, as well as Dulles International Airport and the TWA Flight Center.

ANSWER: Eero **Saarinen**

[10] This Midwestern city is home to Saarinen's most famous construction, the Gateway Arch, as well as the Busch Stadium and One Metropolitan Square.

ANSWER: **St. Louis**, Missouri

20. He defended the city of Arcot against an overwhelming siege after taking it from Chanda Sahib. For 10 points each:

[10] Name this general who defeated Siraj ud-Daulah at the Battle of Plassey to recapture Calcutta.

ANSWER: Robert **Clive**

[10] Clive served this company that traded tea, opium, and other goods in Asia.

ANSWER: British **East India** Company [or English **East India** Company; Honourable **East India** Company; or United Company of Merchants of England Trading to the **East Indies**]

[10] Clive led the East India Company’s armies against this country’s own East India Company, which was founded by Louis XIV’s finance minister Jean-Baptiste Colbert.

ANSWER: **France**

21. This philosopher’s writings include *Meno* and *Gorgias*. For 10 points each:

[10] Name this ancient Greek philosopher, who featured his teacher Socrates in namesake dialogues.

ANSWER: **Plato**

[10] Plato’s *Republic* includes a famous allegory about people chained in one of these places, where they watch shadows on the wall.

ANSWER: the **cave**

[10] In the *Republic*, Plato considers morality in a thought experiment involving this object, which allows its possessor to become invisible.

ANSWER: the **ring of Gyges**