

2013 Fall Kickoff Tournament – Round 4

1. The square root of the cohesive energy density gives the Hildebrand parameter for this property, and the ratio of this value for two phases is given by the partition coefficient. It decreases with the addition of certain species as described by the common ion effect, and this property for a gas in liquid is directly proportional to its partial pressure according to Henry's law. The extent of this of a substance in a specific solvent is measured as the saturation concentration. For 10 points, name this chemistry term which measures the ability of a substance to dissolve into a solvent.

ANSWER: **Solubility**

BONUS: Name these movies by Quentin Tarantino, for 10 points each.

[10] This film was released in 1994 and stars John Travolta as Vincent Vega. Uma Thurman and Samuel L. Jackson also starred in this movie.

ANSWER: **Pulp Fiction**

[10] This film, released in 2009, stars Brad Pitt as a leader of a band of Nazi-killing soldiers who assassinate Hitler and the other leaders of the Nazi party in a French theater.

ANSWER: **Inglourious Basterds**

[10] This film features Christoph Waltz as Dr. King Schultz, a bounty hunter who kills a man who previously had a slave ripped to shreds by dogs.

ANSWER: **Django Unchained**

2. One of the most famous sections of this text is the Throne Verse, contained in its second and longest chapter. That chapter recalls the sacrifice of a heifer by the Israelites and is called Al-Baqara, or The Cow. This book may be divided into thirty juz' or seven manāzil, allowing it to be read in a month or a week. This book consists of one hundred fourteen suras, which are divided into verses called ayat. Revealed by the angel Jibrīl over the course of twenty-three years to the prophet Muhammad, this is, for 10 points, what central religious text of Islam?

ANSWER: **Quran**

BONUS: This character refused to reveal the details of the escape of Emmeline and Cassy. For 10 points each:

[10] Name this character who was once owned by George Shelby, the title character of a novel by Harriet Beecher Stowe.

ANSWER: Uncle **Tom**

[10] This is the cruel owner who whips Uncle Tom to death for his unshakeable belief in God. He is a northerner by birth.

ANSWER: **Simon Legree** [accept either underlined part]

[10] This young girl is purchased as a companion to Eva. She proclaims her ignorance of both God and her mother.

ANSWER: **Topsy**

3. In one work by this man, Clodia disrupts a festival, and in another work, the protagonist hold several jobs after his car breaks down in 1926 Newport, Rhode Island. In addition to writing *The Ides of March* and *Theophilus North*, he wrote a work which has characters such as Judge Moses and the poet Homer. Another play, set in Grover's Corner, sees George Gibbs and Emily Webb getting married. For 10 points, name this American playwright and author of *The Skin of Our Teeth* and *Our Town*.

ANSWER: Thornton **Wilder**

BONUS: These particles have zero rest mass and exist as both a wave and a particle. For 10 points each:

[10] Name these particles which are tiny quanta of light and are the carrier particles for the electromagnetic force.

ANSWER: **Photons**

[10] These particles are released when potassium-40 decays and are either electrons or positrons; their release is mediated by the weak force.

ANSWER: **Beta** particles [accept **Beta Plus** or **Beta Minus**]

[10] This scientist is the namesake of the SI unit of radioactivity equal to one decay per second, and he is credited with discovering radioactivity inadvertently in a sample of uranium salts.

ANSWER: Henri **Becquerel**

4. This man unsuccessfully led a fleet at the Battle of Valcour Island and was briefly relieved of command after suffering leg wounds at Bemis Heights. This man was en route to Philadelphia when the Battle of Ridgefield broke out, which led to his promotion to major general. His most famous action was triggered when he was passed over for a promotion by the Continental Congress and was accused of malfeasance by other officers. This man showed great heroism at Fort Ticonderoga with Ethan Allen and at the Battle of Saratoga. For 10 points, name this traitor who attempted to sell West Point to the British during the Revolutionary War.

ANSWER: Benedict **Arnold**

BONUS: Answer some questions about Ruth Benedict for 10 points each.

[10] Ruth Benedict studied under this man, the author of *The Mind of Primitive Man*, known as the Father of Modern Anthropology.

ANSWER: Franz **Boas**

[10] This was Benedict's seminal work about Japanese culture. It popularized the distinction between guilt and shame cultures.

ANSWER: *The **Chrysanthemum and the Sword***

[10] Benedict used the pseudonym Anne Singleton to write these types of works. Epic forms of this kind of work include *The Faerie Queen* and *The Song of Roland*.

ANSWER: **Poems** or **Poetry**

5. The Czech school of this movement included Otto Guttfreund, while the Puteaux Group or Golden Section practiced Orphism. The name for this movement was coined by Louis Vauxcelles as a criticism of the work of Fernand Léger. A portrait of the founder of this movement was made by Juan Gris. Works by more famous members of this movement include *Still-life with Chair Caning* and *Three Musicians*. A work by the founder of this movement depicts the bombing of a Basque town during the Spanish Civil War. For 10 points, name this art movement which had analytic and synthetic types, led by Georges Braque and Pablo Picasso.

ANSWER: **Cubism**

BONUS: For 10 points each, answer these questions about Canadian provinces.

[10] This Canadian province was named after a Cree word meaning "swift river" and was first explored by Henry Kelsey in the late seventeenth century. Reindeer Lake lies on its eastern border with Manitoba, and it is bordered on the north by the Northwest Territories.

ANSWER: **Saskatchewan**

[10] This capital of Saskatchewan is nicknamed "The Queen City." It is the second largest city in the territory, Saskatoon being the largest.

ANSWER: **Regina**

[10] This province is home to the cities of Red Deer and Lesser Slave Lake and along its western border lies the Continental Divide. This province hosted the 1988 Olympics in Calgary, and its capital is Edmonton.

ANSWER: **Alberta**

6. In the lyrics for this song, the artist claims that he drinks steaming coffee in one gulp. Its name alludes to the alleged lifestyle of its namesake district in an Asian city. In one scene in its music video, an elevator door opens to reveal the singer lying between another man's legs, who is doing pelvic thrusts. Its video also features a dance contest between two men in a parking garage, one of whom steps out of a red Mercedes. The dance move most commonly associated with this song resembles riding a horse. For 10 points, name this song, the most viewed video on YouTube by Psy.

ANSWER: **"Gangnam Style"**

BONUS: For 10 points each, name these candidates in the Election of 1860.

[10] This man was famous for introducing the idea of "popular sovereignty" and was largely responsible for the Compromise of 1850. He engaged in a series of debates with the eventual winner of this election.

ANSWER: Stephen **Douglas**

[10] This man was the youngest ever Vice President, serving under Buchanan. He became Confederate Secretary of War after he lost the 1860 election, running as the candidate for the Southern Democratic party.

ANSWER: John Campbell **Breckinridge**

[10] This man was the victor of the 1860 election and went on to issue the Emancipation Proclamation.

ANSWER: Abraham **Lincoln**

7. One trail on this mountain stops by the “Garden of the Senecios” and the Barranco Wall. The Western Breach, created by a landslide is located on this peak and leads up to the Lava Tower. The nearest settlement to it is Moshi, where an associated national park is located. The myth that this was presented to Queen Victoria by Wilhelm II has been debunked. For 10 points, name this tallest freestanding mountain in the world, a dormant stratovolcano in Tanzania and the tallest peak in Africa.

ANSWER: Mount **Kilimanjaro**

BONUS: This painting was first displayed in 1874 to hostile reviews, and one critic inadvertently named the art movement that this painting started. For 10 points each:

[10] Name that painting which shows a view of two rowboats in La Havre harbor during a certain time of day.

ANSWER: **Impression, Sunrise**

[10] Name the painter of that work, who was frontrunner of the impressionist movement and made many famous paintings of water lilies and haystacks.

ANSWER: Claude **Monet**

[10] Monet made many portraits of this structure during different times of day. He attempted to capture it in all sorts of different light, to show the audience how perception of an object changes depending on the time.

ANSWER: **Rouen Cathedral**

8. This author wrote that he felt a “calm so deep” caused by “all the mighty heart...lying still” while pausing in the morning. In addition to *Sonnet Composed upon Westminster Bridge*, another work of his notes that “five years have passed” since last he saw the title structure on the banks of Wye. He described an outing with his sister Dorothy and the sight of “a host of golden daffodils” in his poem *I Wandered Lonely as a Cloud*. For 10 points, name this author of *Tintern Abbey* who co-authored *Lyrical Ballads* with Samuel Taylor Coleridge.

ANSWER: William **Wordsworth**

BONUS: The atomic model named for this man is a successor to the Rutherford model. For 10 points each:

[10] Name this Danish scientist who helped develop quantum mechanics. His model of the atom puts electrons in circular orbits and allows them to jump between discrete energy levels.

ANSWER: Niels Henrik David **Bohr**

[10] Along with Heisenberg, Bohr pioneered this interpretation of quantum mechanics that is named after a Danish city.

ANSWER: **Copenhagen** interpretation

[10] The wavelengths of spectral lines of various elements can be obtained using this formula, named after a Swedish physicist. This formula is a generalization of the Balmer formula, which yields the visible portion of the hydrogen emission spectrum.

ANSWER: **Rydberg** formula

9. These organisms contain clamp connections and Spitzenkorper, which are the organizing centers for their growth. They are classified as either septate or coenocytic, based on whether or not cytoplasmic division occurs. They reproduce using either a sac-like ascus or a basidia and use rhizomorphs to anchor themselves in place. A symbiotic relationship between them and plants is called mycorrhizae. They are composed of chitinous hyphae which branch to form mycelia. For 10 points, name this taxonomical kingdom which contains mushrooms.

ANSWER: Fungi [or Fungus]

BONUS: One character in this play runs into furniture because his father refuses to waste money on electricity. For 10 points each:

[10] Name this play, in which Edmund is diagnosed with tuberculosis, about the dissolution of the Tyrone family.

ANSWER: Long Day's Journey into Night

[10] This playwright, the first American playwright to win the Nobel Prize in Literature, also wrote *The Emperor Jones* and *Mourning Becomes Electra*.

ANSWER: Eugene O'Neill

[10] In the final scene of this O'Neill play, Yank opens the cage of the title creature and dies in its embrace. Name this play, titled after a common zoo primate.

ANSWER: *The* Hairy Ape

10. One god of this type is an old man revered by the Aborigines, The Bluetongue Lizard, who would feign blindness to have his sons hunt for him and is the source of the Warlpiri fire ceremonies. A European figure of this type is Reynard the Fox, often used as a peasant-hero. A common creature depicted in this way is the coyote or the raven, as according to Claude Levi-Strauss they are viewed as mediator animals between life and death. Another god of this type gave birth to Sleipnir after attempting to prevent a builder from completing the fortifications around Valhalla. For 10 points, name this type of deity, exemplified by Loki and Hermes.

ANSWER: Trickster gods

BONUS: Name these fictional detectives from European literature, for 10 points each.

[10] This character was first introduced in "The Tuesday Night Club" and then "The Thirteen Problems." Name this female detective created by Agatha Christie.

ANSWER: Miss Jane Marple [accept either underlined part]

[10] This character, also created by Agatha Christie, is a Belgian detective known for his "Twelve Labors."

ANSWER: Hercule Poirot [accept either underlined part]

[10] This detective, with lodgings at 221B Baker Street, was created by Sir Arthur Conan Doyle and works with his chronicler James Watson on cases such as "The Sign of Four" and "The Hound of the Baskervilles."

ANSWER: Sherlock Holmes [accept either underlined part]

HALFTIME – Announce the score and allow teams to substitute

11. This composer said, “the devil may play it” about his difficult *Wanderer Fantasy*, which he couldn’t play himself. He wrote the incidental music to a Helmina von Chezy play containing a shepherd’s song, *Rosamunde*. Another work begins with two Gs being played in triplets and describes an evil elf who kills a boy, *Der Erlkonig*. This composer abandoned a symphony after finishing only two of its movements and created a variation on an earlier work of his, “Die Forelle.” For 10 points, name this composer of the “*Unfinished*” *Symphony* and the *Trout Quintet*.

ANSWER: Franz Schubert

(NOTE TO READER: Do not reveal the alternative answer to the first or second part of the bonus unless necessary.)

BONUS: Identify the following types of white blood cells, for 10 points each:

[10] These cells are identified by either the CD4 or CD8 surface proteins and are activated by interactions with the MHC complex. They come in helper and cytotoxic varieties.

ANSWER: T cells [or T lymphocytes]

[10] These cells were first discovered in the bursa of birds and produce antibodies in the humoral immune response.

ANSWER: B cells [or B lymphocytes]

[10] Both of these cells belong to this class of white blood cell, named for the nodes in which they mature in the body.

ANSWER: Lymphocytes

12. This civilization’s culture is detailed on the Florentine Codex. This civilization was known for fighting a series of ritualistic wars known as “Flower Wars.” This civilization’s armies were famous for their elite warriors who dressed up as animals, such as the Eagle Warriors and the Jaguar Warriors. One of the last emperors of this civilization mistook an invading Spaniard for the god Quetzalcoatl. For 10 points, name this civilization which ended when Hernan Cortes conquered it for Spain after taking Emperor Montezuma II hostage.

ANSWER: Aztecs Empire [prompt on “Mexico” or the “Triple Alliance”]

BONUS: This author wrote a novel in which Michael Henchard sells his wife and daughter while drunk. For 10 points:

[10] Name this author who wrote *The Mayor of Casterbridge* as well as a poem about a bird’s spontaneous song upon a coppice gate, “The Darkling Thrush.”

ANSWER: Thomas Hardy

[10] In this Hardy work, the protagonist, Bathsheba Everdene, sends a valentine’s letter to William Boldwood and is approached by suitors such as Sergeant Troy and Gabriel Oak.

ANSWER: Far From the Madding Crowd

[10] The title of *Far From the Madding Crowd* is a line from a poem by the author of another work in memory of his lifelong friend Horace Walpole. Name this author of *Elegy Written in a Country Churchyard*.

ANSWER: Thomas Gray

13. This thinker introduced his concept of “the doctrine of the mean” as a balance between excess and deficiency, the ideal expression of virtue. In addition to that work named after his son, he described his impetus theory of motion in his *Physics*. In *Politics*, he claimed that the title entity is dynamic and comes before family and the individual. He stated that the objective of tragedy is to invoke catharsis in *Poetics*. For 10 points, name this Greek Peripatetic philosopher who wrote *The Nicomachean Ethics* and was taught by Plato.

ANSWER: Aristotle

BONUS: The composer of this piece won the 2003 Pulitzer Prize for it. For 10 points each:

[10] Name this piece commissioned by the New York Philharmonic and Lincoln Center's Great Performers. It commemorates those who lost their lives in the September 11th attacks.

ANSWER: *On the Transmigration of Souls*

[10] *On the Transmigration of Souls* is a piece by this American composer also known for operas like *Doctor Atomic*, which follows Robert Oppenheimer and the Manhattan Project.

ANSWER: John Coolidge Adams

[10] One of Adams' best known works is an opera about this president's meeting with Mao Zedong. In that opera, this president is accompanied by his wife Pat and Henry Kissinger.

ANSWER: Richard Nixon [accept *Nixon in China*]

14. The narrator of this work has seen “the eternal Footman hold [his] coat, and snicker.” He describes “yellow fog that rubs its back upon the window-panes” and declares that he “should have been a pair of ragged claws.” The speaker is conscious of his bald spot and states that he has measured out his life with coffee spoons. This poem opens with an invitation to make a visit “when the evening is spread out against the sky.” For 10 points, name this work, a romantic, dramatic monologue by T. S. Eliot, in which the title character notes “women come and go/Talking of Michelangelo.”

ANSWER: *The Love Song of J. Alfred Prufrock* [prompt on partial title]

BONUS: This empire was founded after a victory by Persian forces at the First Battle of Panipat. For 10 points each:

[10] Name this empire, which ruled large parts of what are modern day India and Pakistan. It reached its peak under Akbar the Great and Jahangir.

ANSWER: Mughal Empire [also accept Mogul Empire; do not accept “Mongol”]

[10] This man was the founder of the Mughal Empire, a descendent of both Tamerlane and Genghis Khan.

ANSWER: Zahir ud-din-Mahommed Babur

[10] This emperor, the grandson of Akbar, was confined to Agra Fort by his son Aurangzeb when he fell ill in 1658. Name this ruler who constructed the Taj Mahal for his late wife Mumtaz Begam.

ANSWER: Shah Jahan [prompt on partial answer]

15. This man destroyed the Sacred Band of Thebes while leading the cavalry wing of his father's army at Chaeronea. One of his castles was known as the Castle of the White Demon, and in one siege, he built a mile-long causeway to transport siege engines. In one battle, he surprised King Pyros at the Hydaspes River with his horse Bucephalus. After his death, Diadochi ruled his empire, which was split among his many generals. He defeated the King Darius at the Battles of Gaugemela and Issus. For 10 points, name this son of Philip of Macedon who founded a Hellenistic Empire.

ANSWER: Alexander the Great [or Alexander III of Macedon; prompt on "Alexander"]

BONUS: This work was described as "an explosion in a shingle factory." For 10 points each:

[10] Name this Marcel Duchamp work which caused a stir at the Armory Show and depicts the title figure in an almost cubist fashion.

ANSWER: Nude Descending a Staircase No. 2

[10] This other Duchamp work is two large panes of glass with lead foil, fuse wire, and dust. This work also contains sections known as the "Bride's Domain" and the "Bachelor's Apparatus."

ANSWER: The Bride Stripped Bare by Her Bachelors Even [or The Large Glass]

[10] Marcel Duchamp was a member of this anti-art movement, supposedly named for the French word for a hobbyhorse.

ANSWER: Dada or Dadaism

16. This organelle contains the enzyme glucose-6-phosphatase, which catalyzes the final step of gluconeogenesis. One form of this organelle stores and pumps calcium ions and is found in smooth muscle. Although it is not the Golgi complex, COPI marks vesicles to be transported here, while COPII marks vesicles to be sent from this organelle. Newly-synthesized proteins are bound to BiP in this organelle, which comes in a "sarcoplasmic" type. For 10 points, name this organelle which comes in smooth and rough varieties, the latter of which has ribosomes on its surface.

ANSWER: endoplasmic reticulum [or ER; accept sarcoplasmic reticulum; accept rough ER and smooth ER before mentioned]

BONUS: This goddess was the child of Ra and identified with the Greek Aphrodite and the Roman Venus. For 10 points each:

[10] Name this Egyptian goddess of joy, feminine love, and motherhood. She was often depicted as a cow, and she may be depicted on the Narmer palette.

ANSWER: Hathor

[10] The name of this goddess means "throne," and she was the mother of Horus.

ANSWER: Isis

[10] The mother of Isis and Set, this goddess was often depicted as a star-covered nude woman arching over the earth. She was the wife of Geb.

ANSWER: Nut

17. Anton Dexler founded this party as the DAP, sponsored by the Thule society. This party was opposed by the White Rose Movement, organized by students who distributed pamphlets against their ideals. Their official song was "The Flag Up High," named in honor of Horst Wessel, a party member who died in a street fight against Communists. Leaders of this party led the purging of the SA and may have burned the Reichstag. The national symbol of this party was the swastika, and it had leaders including Hermann Goering and Heinrich Himmler. For 10 points, name this German Workers' Party led by Adolf Hitler.

ANSWER: Nazi Party [or National Socialist German Workers' Party]

BONUS: For 10 points each, answer the following about metals.

[10] Stainless steel is primarily formed from an alloy of iron and this metal that is also used in various batteries and has atomic number twenty-eight.

ANSWER: Nickel

[10] The iodide of this element is used in cloud seeding, and its halide salts are photosensitive, leading to their use in photographic media.

ANSWER: Silver

[10] This is the least reactive metal on the periodic table and is used in several catalysts such as Adams' catalyst. Name this element with symbol Pt.

ANSWER: Platinum

18. This artist, using an etching of nudes battling by Pollaiuolo, created his depiction of the Lapiths in his *Battle of the Centaurs*. In an unfinished work, he created a "bearded," "rebellious," "awakening," and "dying" version of a particular figure. On that same work, he sculpted a horned Moses. In a fresco, he painted Jonah looking at God in front of a whale above an altar. His most famous sculpture, and the only one he signed, depicts Mary holding Jesus in her arms. For 10 points, name this Renaissance Italian artist who sculpted the tomb for Pope Julius II and the Pieta.

ANSWER: Michelangelo di Ludovico Buonarrotri Simoni

BONUS: This empire was once ruled by Tunka Manin, and its demise brought the rise of the Sosso people. For 10 points each:

[10] Name this empire which had its capital at Koumbi-Saleh and gives its name to a modern day country with capital at Accra.

ANSWER: Ghana Empire

[10] This empire reached its peak under Sonni Ali, who conquered Timbuktu and imposed harsh restrictions on its scholars. It had greater wealth at its peak than Ghana.

ANSWER: Songhai Empire

[10] The "buffalo horns" formation was created by a ruler of this empire that forced movements called the Mfecane. Name this empire that was most notably led by Shaka.

ANSWER: Zulu Empire

19. One of these is emitted in the Auger Effect, and these particles were detected in a Faraday box after a nickel target was rotated, which allowed for the calculation of lattice spacing and confirmed the de Broglie hypothesis. These particles scatter photons in the Compton Effect, and they were the first particles hypothesized to exhibit spin. For 10 points, name these elementary particles that were the focus of the Davisson-Germer experiment, orbit the nucleus of an atom, and have a negative charge.

ANSWER: **Electrons**

BONUS: This conflict was preceded by actions by Walter the Penniless and Peter the Hermit. For 10 points each: [10] Name this conflict called for by Pope Urban II at the Council of Clermont, launched in 1095.

ANSWER: **First Crusade** [prompt on "Crusade"]

[10] This was an attempt to recapture the Holy Land after it was retaken by forces led by Saladin. It also involved Phillip II of France, Frederick Barbarossa, and Richard the Lionheart.

ANSWER: **Third Crusade** [prompt on "Crusade"]

[10] After a call for help from this city by Alexius Angelus, the objective of the Fourth Crusade was changed from attacking Egypt to sacking it.

ANSWER: **Constantinople**

20. The protagonist of this work accidentally visits a friend and suffers through a party with a number of aristocrats. He falls in love with a woman engaged to a man eleven years her senior and cultivates a friendship with both of them. The protagonist asks Albert for two pistols, claiming to need them for a hunting trip. The release of this book caused many young men to emulate the final action undertaken by its protagonist, who was in love with the peasant girl Charlotte in the village of Wahlheim. For 10 points, name this epistolary novel by Goethe in which the title character kills himself.

ANSWER: The **Sorrows of Young Werther**

BONUS: This man and his followers were forced out of Missouri after the deaths of twenty-two people in 1838. For 10 points each:

[10] Name this man who founded the Church of Jesus Christ of Latter-Day Saints, who was given a book of the *Bible* inscribed on golden plates.

ANSWER: Joseph **Smith**

[10] Members of the Church of Jesus Christ of Latter-Day Saints are more commonly known by this name.

ANSWER: **Mormons**

[10] This Angel delivered the *Book of Mormon* to Smith. He was once a great warrior who died in a battle between two pre-Columbian civilizations.

ANSWER: Angel **Moroni**

END OF MATCH – Announce final score and do not read tiebreaker tossup(s) unless the score is tied

Tiebreaker Tossups – If the match is tied, read one tossup at a time until the score changes (correct answer or neg).

21. The royal family during this period was symbolized by three hollyhock leaves. One set of edicts passed during this time period was called the “Compassion for Living Things” laws and was focused on protecting stray dogs. This time period was started after the Toyotomi clan loyalists were defeated at the battle of Sekigahara. For 10 points, name this period of Japanese history which preceded the Meiji Restoration and was the final shogunate to rule Japan.

ANSWER: Tokugawa Shogunate

22. With Merle Randall, this man names a rule that can be used to find a mixture’s fugacity. In *The Atom and the Molecule*, he described the sharing of electrons, what would become a covalent bond, and described free radicals as "odd molecules" for not sharing electrons. He also coined the term "photon" as the smallest unit of radiant energy. For 10 points, name this American chemist who has namesake dot structures and a concept of acids and bases.

ANSWER: Gilbert N. Lewis