

Early Fall Tournament 2016 - "Auntie Vivian's daughter can answer these questions, why can't you?"

Editors: Will Alston, Andrew Wang, and Richard Yu

Writers: Eddie Kim, Jason Cheng, Jason Zhou, Parikshit Chauhan, and Ryan Humphrey

With assistance from Ike Jose, Auroon Gupta, and Billy Busse

Packet 6

TOSSUPS

1. Using Maxwell's equations in the Lorenz gauge, one can derive a wave equation relating the d'Alembertian of this quantity to the charge density. This quantity can be calculated at a point R by integrating the charge density evaluated at R-prime divided by R minus R-prime times the differential of R-prime. In electromagnetism, the Helmholtz theorem ensures that the fields can be written in terms of the gradient of this quantity plus the curl of a related (*) vector quantity. Minus the gradient of this quantity gives the electric field. For a point charge, this quantity equals KQ/R , where Q is the charge and R is the distance from the charge. For 10 points, the potential energy per unit charge equals what quantity, which equals the product of current and resistance by Ohm's Law?

ANSWER: electric potential [or scalar potential; or voltage] <Phys, BB>

2. This author wrote about a boy who recalls hearing the cries of infant twins left to die in a pot, which made him feel "the snapping of a tightened bow." This writer created another character who a priest tells to kill a sacred royal python. In that novel, the epithet "Breaker-of-Guns" is earned by Captain Winterbottom, who oversees six villages where the protagonist is the chief priest. This author wrote about a man whom an elder (*) warns: "Bear no hand in his death," but nonetheless delivers a killing blow with a machete. That character of this author's beats his wife during the Week of Peace, is exiled for seven years for accidentally killing Ezeudu's son, and kills his adoptive son Ikemefuna. For 10 points, name this author of *Arrow of God* and creator of Okonkwo in *Things Fall Apart*.

ANSWER: Chinua Achebe [Albert Chinualumogu Achebe] <OLit, RY>

3. In what is now this country, Joseph W. Duncan massacred hundreds in the extinct volcanic crater of Mount Dajo. A group in this modern-day country made use of "oath-taking" commandos called *juramentados* ["HOO"-rah-men-TAH-dos]. The drafting of this country's 1935 constitution was set out in the Tydings-McDuffie Act. An essay mockingly "defending" Frederick Funston's actions in this modern-day country was written by Mark Twain. The American (*) Anti-Imperialist League was founded to oppose this country's annexation through the 1898 Treaty of Paris. Leonard Wood suppressed this country's Moro Rebellion, and led its Insular Government years after William H. Taft did. For 10 points, name this modern-day country where Emilio Aguinaldo rebelled against the U.S. after the Spanish-American War.

ANSWER: Philippines <AmHist, RY>

4. The third movement of this composer's Piano Concerto No. 1 begins with a short brass fanfare in A minor, even though the piece is in G minor. One of his pieces includes a march movement that begins with three solo trumpets playing a triplet of C's, then a longer C; that movement is often heard alongside Wagner's "Treulich geführt" [TROY-ish geh-FEWRT]. This composer wrote a concert overture at age seventeen, just one year after his String (*) Octet in E-flat major. The rhythm of the saltarello dance dominates the finale of this composer's *Italian* Symphony; his third symphony, meanwhile, was inspired by the same trip to Scotland that produced his overture *The Hebrides*. For 10 points, name this composer of incidental music to *A Midsummer Night's Dream*.

ANSWER: Felix Mendelssohn [or Jakob Ludwig Felix Mendelssohn Bartholdy] <Music, EK>

5. A feminist response to this event claims women have gained “greater scorn” from it and opens with the question “Man, are you capable of being fair?” A witness of it named Joseph de Maistre analyzed the negative consequences of this event, which titles an essay that argues against “abstract” entitlements to food and medicine and attacks Richard Price’s sermons. “Everything” is the answer to the title question of a political tract written just before this event which states that the (*) title group wants to become “something.” It’s not in America, but a book defending this event, Thomas Paine’s *The Rights of Man*, responds to a defense of constitutional monarchy in Edmund Burke’s “Reflections” on this event. Pamphlets like *What is the Third Estate?* helped kick off – for 10 points – what upheaval in late-18th century France?

ANSWER: French Revolution [accept equivalents; accept *Reflections on the Revolution in France*; accept *Declaration of the Rights of Man* and *Citizen* specifically] <Phil, WA>

6. Missionaries for this religion were sent to king Amtiyoko by a ruler who convened its Third Council. Texts from this religion record questions asked of a sage by a ruler named Menander, who came from the Euthydemus dynasty like Demetrius the Invincible. Innovative art depicting figures from this religion was developed in the city of Taxila. This religion was heavily patronized by rulers of the (*) Bactrian and Kushan empires, the latter of which issued coins depicting the Three Jewels. This religion’s spread is indicated at places like Lumbini by pillar edicts created by a king who converted to it after the horrific Kalinga campaign. For 10 points, identify this religion adopted by Ashoka on account of its nonviolence.

ANSWER: Buddhism [accept Mahayana Buddhism specifically, but not “Theravada Buddhism”]
<WorldHist, WA>

7. One result derived by this scientist states that the curvature of a surface cannot change if one merely introduces “bends” into it without adding in deformations. The integral of curvature on a compact, boundary-less manifold equals 2-pi times the Euler characteristic according to a theorem named for this prover of the “Remarkable Theorem” (*) and Pierre Bonnet. A system of linear equations written inside a matrix can be solved by turning the matrix into a row-echelon form using this mathematician’s namesake “elimination.” Apocryphally, this man summed the numbers from 1 to 101 as a youth by realizing that it was an arithmetic sequence. For 10 points, name this German mathematician who names the normal distribution.

ANSWER: Carl Friedrich Gauss <OSci, IJ>

8. A sect named for this thing organized itself under *bhattaraka* leaders in the 12th century to avoid continuing disintegration. A religion that reveres a personification of this thing described with the adjective *khukh* and represented as a white goose is undergoing revival in Mongolia. This thing lends its name to a sect that believes that women cannot achieve *moksha* without first being reincarnated as men. This thing is the domain of the greatest Turkic deity, (*) Tengri. The name of the *Digambara* sect means “clad in” [this thing], since its adherents are nude. The general Indo-European archetype of a “father” deity associated with this thing is exemplified by the Greek god Ouranos. For 10 points, the thunder god Jupiter ruled over what heavenly domain?

ANSWER: the sky [accept sky-clad or Digambara; accept loose equivalents like heavens until “heavenly” is read] <Rel, WA>

9. The entrance to a museum in this city is towered over by an abstract Richard Lippold sculpture called *Ad Astra*. A museum in this city designed by Seattle architect Johnpaul Jones uses an Expressionist design to imitate the look of Pueblo sandstone architecture and contains the Heye collection. John McShain first was hired to redesign a building in this city, including putting wooden panels in the Map Room, (*) Vermeil Room, and China Room. This city is home to the painting *Princess From the Land of Porcelain*, which is found in the Peacock Room located in the Freer Gallery. The Landsdowne portrait executed by Gilbert Stuart is found in the Red Room in one of this city's buildings. For 10 points, name this city home to the Smithsonian and the White House.

ANSWER: Washington, District of Columbia [or District of Columbia] <OArts, WA>

10. This author created a character who listens to "the mysteries of the corridor" through his keyhole. This author wrote a story about a man who, while on a steamboat, discovers that a poor man selling oysters is his brother, who sadly never found success in America. A story by this writer ends with a red-bearded man, who is described as "the terror of all respectable people," whistling a national anthem while the (*) title character weeps. This author of "My Uncle Jules" wrote about a carriage full of travellers who are stopped at an inn where a Prussian officer demands the title woman become his mistress. In another of his stories, Mathilde pays off debt for ten years after losing a piece of beautiful jewelry. For 10 points, name this author of "Boule de Suif" and "The Necklace."

ANSWER: Guy de Maupassant [Henry-René-Albert-Guy de Maupassant] <EuroLit, RY>

11. *This tossup requires two answers.* A river named for the capital of one of these countries, classically known as the Kopphen or Kubha, flows into the other's main river after passing through Warsak Dam. A mountain range that defines these countries' border contains the Throne of Solomon peak, which is found in one of these countries' Federally Administered Tribal Areas. The busiest point of entry for travel between these countries is the Torkham crossing, which leads into a province that contains Swat Valley. Their border is defined by the (*) Durand Line, which cuts through the Khyber Pass and follows the Hindu Kush mountain range. Combined, these two countries contain the majority of Pashtun people, as well as most Taliban militants. For 10 points, name these two countries whose capitals are Islamabad and Kabul.

ANSWER: (Islamic Republic of) Pakistan AND (Islamic Republic of) Afghanistan <Other, WA>

12. Point groups with this property cannot contain improper rotation symmetry, and include C_n [c-sub-n]. Complexes containing three bidentate ligands will have this property, and can undergo processes named for Bailar, or Ray and Dutt. This property is possessed by the Evans auxiliary, which is used in asymmetric induction to synthesize molecules with this property. Molecules with this property can be studied with (*) circular dichroism spectroscopy. The presence of this property is necessary for optical activity. Carbon atoms only have this property when all four groups they are bonded to are different. Molecules with this property possess isomers called enantiomers. For 10 points, name this property of having a non-superimposable mirror image, coming from the Greek for "handedness."

ANSWER: chirality <Chem, AW>

13. A bishop of this city nicknamed "against the world" compiled the first canonical list of the books of the New Testament in a "festal letter." After riots in this city, the rights of Jews were reaffirmed in a letter written by the Emperor Claudius. A Christian brotherhood called the *parabolani* was active in this home of Arian-hater Athanasius. The Septuagint was created in this city, where religious mobs murdered the scholar (*) Hypatia. In 391, Bishop Theophilus destroyed the Serapion of this city, which was sacred to Serapis. This city connected to the island of Pharos was home to scholars like Callimachus and Euclid when it was ruled by the Ptolemies. For 10 points, name this Egyptian city home to a huge lighthouse and expansive Royal Library.

ANSWER: Alexandria [or al-Iskandariyyah; or Eskendereyyah; or Aleksandria] <Brit/ClassHist, JZ>

14. This poet describes the “whole earth” as “a hospital” with a “wounded surgeon” and “dying nurse” where, “to be restored, our sickness must grow worse” in a poem that repeats, “In my beginning is my end.” One of this author’s poems locates the dance “At the still point of the turning world” in a poem that contrasts motion and stillness as well as “Time (*) present and time past.”

According to the extensive footnotes to one of this author’s poems, a fable about the meaning of thunder from the *Upanishads* heavily influences its section “What the Thunder Said.” That poem by this author opens with the declaration, “April is the cruelest month.” For 10 points, name this author who included “East Coker” and “Burnt Norton” in his *Four Quartets* and wrote “The Waste Land.”

ANSWER: T.S. Eliot [Thomas Stearns Eliot] <AmLit, JC>

15. Increases in these quantities are related to increases in productivity by the Balassa-Samuelson effect. In a so-called “crawling” restriction, fluctuations in these quantities are limited to a specific band of values through the use of open market transactions. Building on the “law of one price,” these quantities are brought in line with the prices of baskets of goods in different locations under the assumption of (*) purchasing power parity. Countries seeking to promote exports, like China, often deliberately depress these quantities, whose black market value - as in Venezuela - often deviates radically from values set formally by a government under a peg. For 10 points, identify these quantities which give the value of one currency in terms of another.

ANSWER: exchange rates [accept currency prices until “currency” is read; accept prices alone on the first clue and prompt thereafter; prompt on terms of trade or terms of exchange or price of money; do not accept or prompt on “money” alone] <SocSci, WA>

16. An author recalls filling “five dustbins to overflowing with good food” in this city in the essay “The Spike,” which inspired a memoir whose second half describes the author’s poverty in this city. Gordon Comstock destroys his poem about this city’s “Pleasures” at the end of the novel *Keep the Aspidistra Flying*. A character becomes a doctor in this city after he is found obsessively making shoes since his release from prison; that man is Lucie Manette’s father. This is the second (*) title city of a book in which George Orwell is *Down and Out*. A lawyer from this city claims to do “a far, far better thing... than I have ever done” by replacing his lookalike Charles Darnay at the guillotine in Paris. For 10 points, name this English title city of Charles Dickens’ *A Tale of Two Cities*.

ANSWER: London <BritLit, RY>

17. This artist painted an angel in gold plate holding a spear and chains stepping on Satan in his *Archangel Michael Binding the Devil*. A painting by this artist held at the Pennsylvania Academy was saved by a firefighter in 1845. Two cherubs pull on a kite while electricity sparks between a key and a man’s knuckles in a painting by this artist, who created a scene with dragons and monsters behind a mounted figure carrying golden spears. This second president of the (*) Royal Academy painted Lieutenant Brown hoisting a British flag above the title figure in one of his history paintings. In that work by this artist of *Death on the Pale Horse*, a kneeling Native American witnesses the title man’s passing at the Battle of Quebec. For 10 points, name this artist of *The Death of General Wolfe*.

ANSWER: Benjamin West <Painting, PC>

18. This kingdom is the subject of a comprehensive history titled *God's Playground* by the historian Norman Davies. The *Collegium Maius* was founded in this kingdom using funds donated by its only female ruler, St. Hedwig. This kingdom oddly made future French King Henry III its first elected monarch. This kingdom's nobility passed the *Nihil novi* act and could singlehandedly bring parliamentary action to a halt with the (*) *liberum veto*. With a northern neighbor, this kingdom adopted one of the world's first constitutions on May 3, 1791. This kingdom's *szlachta* [SHLOCK-tah] nobility participated in a legislature called the *sejm* ["same"]. A neighboring "Grand Duchy" was united with this kingdom by the Jagiellon [yah-gyell-on] dynasty. For 10 points, what kingdom united with Lithuania to form a Commonwealth?

ANSWER: (Kingdom of) Poland [accept Polish-Lithuanian Commonwealth or Poland-Lithuania after "Nihil Novi;" accept Regnum Poloniae or Polska or Królestwo Polskie] <EuroHist, JZ>

19. Besides pain, this is the most common symptom of disorders treated by etanercept and adalimumab, which are part of a class of drugs called DMARDs [DEE-mards]. The Westergren erythrocyte sedimentation rate can quantify this process, which causes the liver to release C-reactive protein. This process is encouraged by the cytokines IL-1 and TNF-alpha. The binding of IgE antibodies stimulates this process by causing degranulation of (*) mast cells. NSAIDs are named for the fact that they reduce the occurrence of this process, which occurs in response to the release of histamine. The presence of rheumatoid factor causes this process to occur at the joints. This is the typical symptom of conditions whose names end with "-itis." For 10 points, name this process in which causes an area to become warm and swollen.

ANSWER: inflammation [or inflammatory response; prompt on arthritis with "what symptom of arthritis?"; prompt on swelling] <Bio, AW>

20. According to Helenus, the proper burial of this hero's bones is required for victory in the Trojan War. He exiles two of his sons when they conspire to murder their brother Chrysippus. This man marries off many of his daughters to the sons of Perseus, which later allows for the kingship of Mycenae to pass to two of his sons. This hero founds the Olympic Games as a thank-you for a (*) chariot race he wins with the help of the treacherous Myrtilus. This father of Atreus slays Oenomaus after winning Hippodamia's hand in marriage, and later renames the southern peninsula of Greece after himself. He is given an ivory shoulder after Demeter eats his fleshy shoulder during a feast where this man is cooked and served as a meal by his father. For 10 points, name this son of Tantalus.

ANSWER: Pelops <Myth, EK>

IF THE GAME IS A TIE AFTER REGULATION: Report to the tournament director. Then, read a bonus from the tiebreakers packet that the tournament director determines the team has not yet heard.

BONUSES

1. As a recently hired investment banker, you are attempting to finance a company. Before the horrific work hours claim your soul, answer the following related to your task, for 10 points each.

[10] You suggest that your clients sell a lot of these debt instruments in order to raise money. Examples of these things issued by the U.S. treasury are considered the gold standard for safety in investment.

ANSWER: **bonds**

[10] Your clients are financially conservative, so you try to make sure the ratio of debt to *this quantity* remains relatively low. This quantity represents the value of assets minus liabilities.

ANSWER: **equity** [or **equities**]

[10] After painstakingly figuring out how to finance things, you learn that this theorem from finance states that, under certain assumptions, the value of any given company shouldn't be affected by how it's financed.

ANSWER: **Modigliani-Miller** theorem <Other, WA>

2. This country's leaders tried to distract its citizens from the failing economy by starting the Falklands War. For 10 points each:

[10] Identify this South American country, which has basically had troubles with the IMF ever since, most prominently from 1998 to 2002, when it undertook the largest sovereign default in history.

ANSWER: **Argentina** [or **Argentine Republic**; or República **Argentina**]

[10] This term coined by IMF critic John Williamson refers to the standard prescription of ten policies, including market liberalization and austerity, that are usually imposed on countries that receive bailouts.

ANSWER: **Washington Consensus** [do not accept or prompt on anything else]

[10] This critic of the Washington Consensus first became prominent leading coca-growing *campesinos* in protests against the War on Drugs. This ethnic Aymara and current world leader was elected in 2005 at the head of the Movement for Socialism ticket.

ANSWER: (Juan) Evo **Morales** Ayma <WorldHist, WA>

3. Namesake "belts" created by these events are typically found near subduction zones and lead to the formation of island arcs. For 10 points each:

[10] Name these geological events that are the primary mechanism for mountain range formation.

ANSWER: **orogenies** [or **orogeny**; or **orogenic** belts]

[10] G.K. Gilbert named the process of orogeny to distinguish it from epeirogeny and this general upheaval and depression of land. Epeirogeny is caused by the same set of forces that creates this phenomenon, which is the gravitational equilibrium between the mantle and the Earth's crust.

ANSWER: **isostasy** [accept word forms, like **isostatic** equilibrium]

[10] Orogenic movement is generally more complex than epeirogenic movement as it involves crust deformations formed by the convergence of these structures that cover the Earth's surface and are thought to move via seafloor spreading.

ANSWER: tectonic **plates** <OSci, RH>

4. This man kept up a correspondence with Ignatius Sancho, a freed slave who became the first black man to vote in Britain. For 10 points each:

[10] Name this Anglican clergyman who published 45 sermons before his *A Political Romance* was burned by the church, leading him to take up a writing career.

ANSWER: Laurence Sterne

[10] Sterne wrote a novel about the "Life and Opinions" of this man, who narrates his own birth in Books 2 and 3.

ANSWER: Tristram Shandy [accept either underlined portion]

[10] Many of Sterne's sermons were written using this pseudonym, which is also the name of a parson who baptizes Tristram. Prince Hamlet laments the death of a character of this name with "infinite jest" while holding his skull.

ANSWER: Yorick <BritLit, RY>

5. This artist's trip to the Haussmann-improved Paris in 1883 may have helped influence his *Rainy Day, Boston*. For 10 points each:

[10] Name this American artist, who painted several American flags during World War I in his *Avenue in the Rain*.

ANSWER: Childe Hassam

[10] This artist from the same movement depicted a veiled woman and her husband, who wears a tophat and holds an umbrella, in his *Paris Street; Rainy Day*. He painted several figures looking over a bridge in the Gare Saint-Lazare in *The Bridge of Europe*.

ANSWER: Gustave Caillebotte

[10] Hassam and Caillebotte were both members of this art movement, which included Caillebotte's good friend Pierre-Auguste Renoir. It got its name from a Claude Monet painting of a sunrise at Le Havre.

ANSWER: Impressionism [accept Impression; *Sunrise*] <Painting, PC>

6. Answer the following about theories of political legitimacy, for 10 points each.

[10] This German sociologist grouped legitimacy into charismatic, rational-legal, and traditional sources. He's more famous for his book *The Protestant Ethic and the Spirit of Capitalism*.

ANSWER: Max Weber

[10] This traditional Chinese theory originated during the Zhou dynasty; it grants rulers legitimacy based on their ability to govern competently and fairly.

ANSWER: Mandate of Heaven [or Heavenly Decree or similar answers that involve some sort of statement emanating from Heaven or Tian; or tianming; do not accept or prompt on "divine right of kings?"]

[10] In a 1973 book, this thinker introduced the concept of a "legitimation crisis" which occurs when states cannot achieve their goals with available means. In another work, he developed a two-level conception of society grounded in Edmund Husserl's notion of the "lifeworld."

ANSWER: Jürgen Habermas <SocSci, WA>

7. The only one of these structures that has been found in eukaryotes binds to TPP. For 10 points each:

[10] Name these structures that are segments of mRNA that can regulate the activity of the entire mRNA.

ANSWER: riboswitches

[10] A hairpin loop-forming riboswitch is responsible for terminating this process in prokaryotes in a rho independent mechanism. This process begins when a promoter is recognized.

ANSWER: transcription

[10] One particular riboswitch binds to the adenosylated form of this B vitamin that contains a cobalt atom coordinated to a corrin ring.

ANSWER: Vitamin B₁₂ [accept cobalamin or derivatives such as cyanocobalamin or adenosylcobalamin] <Bio, AW>

8. An author of this ethnicity wrote about a boy who admires Fred Astaire named Donald Duk and wrote the essay "Fifty Years of Our Whole Voice." For 10 points each:

[10] Name this ethnicity of Frank Chin, who compiled *Aiiieeeee!*, the first major anthology of Asian-American literature. This is the ethnicity of Gene Luen Yang and Maxine Hong Kingston, the author of *Woman Warrior*.

ANSWER: Chinese-American [prompt on just American or Chinese; I guess you could prompt on Asian if you're feeling generous; don't accept or prompt on any other subtype of Asian or Asian-American]

[10] Gene Luen Yang's *American Born Chinese* is a work in this medium. Marjane Satrapi's *Persepolis* was also written in this medium.

ANSWER: graphic novels [or comic books]

[10] An essay by this Filipino-American author was printed with Norman Rockwell's *The Freedom From Want* in the *Saturday Evening Post*. This author depicted Filipino migrant workers in California in *America is in the Heart*.

ANSWER: Carlos Bulosan <AmLit, JC>

9. The first act of this ballet features a rural village dancing a mazurka and celebrating the arrival of a new bell. For 10 points each:

[10] Name this Léo Delibes ballet in which a doctor tries to bring the title character to life by drugging Franz and stealing his soul.

ANSWER: Coppélia

[10] The title toy magically comes to life in this Pyotr Ilyich Tchaikovsky ballet set on Christmas Eve. It features such numbers as the Trepak and the "Dance of the Sugar Plum Fairy."

ANSWER: *The* Nutcracker [or Casse-Noisette; or Shchelkunchik]

[10] In the closing scene of *Coppélia*, Franz and Swanilda each dance one of these solo dances, which traditionally follows the graceful *adagio* section of a *grand pas de deux*.

ANSWER: variation <OArts, EK>

10. Augustus Saint-Gaudens's bronze relief sculpture on the Boston Common depicts the losing side of an assault on this fort. For 10 points each:

[10] Name this fort on Morris Island where Robert Gould Shaw died leading a failed assault by the 54th Massachusetts Infantry regiment.

ANSWER: Fort Wagner

[10] Fort Wagner was in the harbor of this South Carolina city, where P.G.T. Beauregard forced Robert Anderson to surrender Fort Sumter in the first battle of the American Civil War.

ANSWER: Charleston

[10] In Charleston, the submarine *H.L. Hunley* tried to break the Union blockade, like this other, English-built raider commanded by Raphael Semmes. After the war, the U.S. sued the U.K. for this ship's namesake "claims."

ANSWER: CSS Alabama <AmHist, RY>

11. The Penguin edition of this poet's work was written by Maurice Bowra, who published a standard introduction to this author as well as a translation of his *Carmina*. For 10 points each:

[10] Identify this poet, who names a poetic form consisting of a strophe and antistrophe of identical stanza form, followed by an epode, which is of different form.

ANSWER: Pindar (the form is a Pindaric ode)

[10] Pindar's ode form was admired and imitated by this Roman ode writer, who coined the phrase "carpe diem."

ANSWER: Horace [or Quintus Horatius Flaccus]

[10] Horace's *Carmen Saeculare* is written using a stanza form named for this Aeolic-using poet, which consists of two hendecasyllabic lines and a third beginning the same way, followed by five more syllables. This author's "Ode to Anactoria" was adapted by Catullus.

ANSWER: Sappho of Lesbos <OLit, WA>

12. Odin spends nine days hanging himself from this object in order to learn the secrets of the runes. For 10 points each:

[10] Name this enormous ash tree which supports the nine worlds of Norse mythology.

ANSWER: Yggdrasil

[10] The base of Yggdrasil is home to a number of these locales including Hvergelmir, one belonging to Mimir, and one named Urdarbrunnr used by the three Norns.

ANSWER: well [or obvious equivalents]

[10] An enormous tree sits in the great hall of this son of Rerir, who is conceived when his mother eats a magic apple, and subsequently spends six years in her womb.

ANSWER: Volsung <Myth, EK>

13. This battle was won by the Duke of Cumberland. For 10 points each:

[10] Name this battle that ended the Jacobite Rebellion of 1745, a crushing defeat for the forces of Bonnie Prince Charlie.

ANSWER: Battle of Culloden Moor [or Blar Chuil Lodair]

[10] The 45 Rebellion was part of the Jacobite movement, which sought to restore members of this family to the English throne. The last member of this family to hold the throne, James II, was deposed in the Glorious Revolution.

ANSWER: House of Stuart [or House of Stewart; House of Stiubhard]

[10] This song recounts Bonnie Prince Charlie's ignominious escape from the Battle of Culloden disguised as Flora MacDonald's maid. It is titled for the Isle to which he fled and hopefully closes: "Yet ere the sword cool in the sheath / Scotland will rise again!"

ANSWER: Skye Boat song <Brit/ClassHist, JZ>

14. This philosopher's notion of the existence of an independent higher world of ideas is generally referred to as the theory of forms. For 10 points each:

[10] Name this student of Socrates, who recorded his teacher's sayings in dialogues like *Crito*.

ANSWER: Plato [or Platon]

[10] In this Platonic dialogue, Socrates teaches geometry to a slave who poses a paradoxical question asking how it is possible for a person to inquire about a topic of which he is ignorant.

ANSWER: Meno

[10] In *Meno*, Socrates uses the example of a boy constructing the Pythagorean theorem to argue that all knowledge is a result of *this process* in response to Meno paradox. The specific Greek word or a general description are both acceptable.

ANSWER: anamnesis [or Socratic repetition; accept answers indicating the recollection or rediscovery or remembering of knowledge from past selves/lives; prompt on just recollection or remembering or rediscovery; don't accept just "discovery" or "learning"] <Phil, WA>

15. Coupled examples of these systems have solutions called normal modes. For 10 points each:

[10] Name these systems, a simple example of which experiences a linear restoring force, such as a mass on a spring or a pendulum.

ANSWER: oscillator [accept simple harmonic oscillator]

[10] Adding additional oscillators to a coupled system increases the number of these entities in the system, one of which may be lost in “gimbal lock.” These entities serve as the axes of phase space.

ANSWER: degrees of freedom

[10] This sort of influence decreases the magnitude of an oscillatory system, and for a mass and spring can be introduced with a dashpot. When it occurs in a critical fashion, the system goes to equilibrium without oscillating.

ANSWER: damping <Phys, AW>

16. This composer’s motet *Nulla in mundo pax sincera* for soprano solo has been performed by Emma Kirkby and Jane Edwards. For 10 points each:

[10] Name this composer of a C major concerto for mandolin and a D major concerto for lute.

ANSWER: Antonio Vivaldi [or Antonio Lucio Vivaldi]

[10] Vivaldi is best-known for this set of concertos found in his collection *The Contest Between Harmony and Invention* about the title divisions of the year.

ANSWER: *The* Four Seasons [or *Le quattro stagioni*]

[10] This composer’s *Ancient Airs and Dances* are based on Renaissance and Baroque pieces for lute, viol, and guitar. Another of his pieces depicts the Villa Borghese, a catacomb, the Janiculum, and the Appian Way.

ANSWER: Ottorino Respighi <Music, EK>

17. Name these masterpieces of German literary modernism, for 10 points each.

[10] Paul von Hindenburg is referred to as the “Big Beast” in this Heinrich Böll novel about the Faehmel family, which takes place entirely on September 6, 1958.

ANSWER: Billiards at Half-Past Nine [or Billiard um hab zen]

[10] In this Robert Musil novel’s second book, *Pseudoreality Prevails*, the emotionless narrator Ulrich takes part in the Collateral Campaign celebrating the 70th anniversary of Franz Joseph’s monarchy.

ANSWER: *The* Man Without Qualities [or *Der Mann ohne Eigenschaften*]

[10] This Gunter Grass novel follows the life of Oskar Matzerath, who considers himself to have two fathers, decides to stop growing at the age of three, and cherishes the title instrument.

ANSWER: *The* Tin Drum [or *Die Blechtrommel*] <EuroLit, WA>

18. Solvents used in this technique are typically deuterated so as to not interfere with signal, and are often spiked with tetramethylsilane as a reference. For 10 points each:

[10] Name this technique that analyzes molecules in a strong magnetic field. Its namesake phenomenon only affects isotopes with spin such as hydrogen-1 or carbon-13.

ANSWER: nuclear magnetic resonance spectroscopy [or NMR spectroscopy]

[10] The actual measured signal for an NMR spectrum is one of these things generated in response to a radio frequency pulse. Taking its Fourier transform results in the NMR spectrum, and its duration is dependent on relaxation times.

ANSWER: free induction decay [or FID]

[10] Magic angle spinning is performed on samples with this property to cancel out anisotropic interactions which occur due to the long range order present in this state of matter.

ANSWER: solids <Chem, AW>

19. This dynasty's icon-hating was ended by its last ruler, Empress Irene of Athens. For 10 points each:
[10] Name this dynasty of Leo the Khazar and Constantine VI. It came to power at the end of the Twenty Years' Anarchy and was supplanted by Nikephoros I.

ANSWER: Isaurian dynasty

[10] Destruction of icons was ended by Irene at the second council located at this city. The first council here was called by Constantine the Great and names a much-used creed.

ANSWER: Nicaea [accept Nicene creed]

[10] The second period of Byzantine iconoclasm began under Leo V, who was descended from these people. A king of these people named Tiridates III had become Christianized under St. Gregory the Illuminator, making theirs the first Christian kingdom; their other kings included Tigranes the Great.

ANSWER: Armenians [or Hayer] <EuroHist, JZ>

20. This movement believed that all things were prescribed by God for the good of the soul. For 10 points each:

[10] Identify this movement from late 17th-century Christianity whose leaders included Miguel de Molinos. It emphasized contemplation and acceptance, rather than meditation and vocal prayer.

ANSWER: Quietism [or Quietist movement]

[10] This English contemporary may have adopted many Quietist ideas into the religious movement he founded, which emphasizes the "inner light" given to all people by God.

ANSWER: George Fox

[10] Fox founded this movement, which accepts a priesthood of all believers. Its other famous adherents include William Penn.

ANSWER: Quakers [or Society of Friends] <Rel, WA>

IF ADDITIONAL BONUSES ARE NEEDED: Report to the tournament director. Then, read a bonus from the tiebreakers packet that the tournament director determines the team has not yet heard.