

ACF Nationals 2013

Packet by Chicago A, Maryland, and Penn B

Tossups

1. This work calls the word of God “sharper than any two-edged sword” in its section challenging readers to enter God’s rest. In another section, it states that since you have become “dull of hearing” you need “milk and not solid food.” This text is notable because unlike those it is grouped with, it ignores the Masoretic Text and always quotes directly from the Septuagint, even when it is incorrect. This text contains the only known Biblical reference to the tradition that the prophet Isaiah was executed by being sawn in half in a section that describes the suffering of the Old Testament prophets. It opens with “God, who ... spoke in time past to the fathers by the prophets has in these last days spoken to us by His son,” and its central point concerns Christ's role as a mediator of a new covenant. For 10 points, name this anonymously written epistle titled after the chosen people of God.

ANSWER: Epistle to the Hebrews

2. In an attempt to stop the reduction of this polity’s armed forces, General Tobin led the unsuccessful “Army Mutiny” here. Denis Gorey and Michael Heffernan led this polity’s agrarian Farmers Party. This polity authorized summary execution by military tribunal under the Public Safety Bill. This polity levied a tariff on coal while engaging in the so-called “Economic War” with a neighbor. This polity did not control three of its deep water ports, which were termed “Treaty Ports.” This polity’s head of government was called the “President of the Executive Council.” Legislators in this polity were controversially required to take an oath of fidelity and allegiance. The treaty that created this polity was negotiated by Arthur Griffith and David Lloyd George. For 10 points, name this polity that existed as a British Dominion from 1922 – 1931 with its capital at Dublin.

ANSWER: Irish Free State [or Saorstát Éireann; do not accept or prompt on Ireland]

3. One character in this novel dies after being poisoned by the radical poet Ferrante Palla. In its ending, two characters plot to fake the death of their child, Sandrino, which ends up killing him. Balzac’s enthusiastic review of this novel compared it to a modern version of *The Prince*. This novel’s main setting is ruled by Prince Ranice-Ernest V, who is manipulated by the protagonist’s aunt Gina. One of its characters uses three long smuggled ropes to escape from the Farnese Tower with the help of his lover Clelia. In one of its early sections, its main character rebels against his reactionary father and enlists in the French army, where he chaotically experiences the Battle of Waterloo. This novel was published in 1839, and concludes with its main character retiring to the title monastery. For 10 points, name this novel about Fabrice del Dongo’s experiences in the title Italian city, written by Stendhal.

ANSWER: *The* Charterhouse of Parma [or *La* Chartreuse de Parma]

4. In one work, this person analyzed the meaning of the Hebrew word “t’shuvah,” claiming that the connotation of “repentance” symbolizes the second title concept in the process of examining the first title concept. In another work, this writer examined the “enchanted character” of the title work for the “public teaching” and “secret teaching.” In addition to writing *Progress or Return?* and *On the Plan of the Guide of the Perplexed*, this thinker criticized Xenophon’s *Hiero* in the sections “Pleasure and Virtue” and “Piety and Law” in a work that also contains a chapter describing a debate between himself and Alexandre Kojève. That work is his *On Tyranny*. This philosopher and Joseph Cropsey edited *History of Political Philosophy*. He divided political philosophy into Ancient and Modern, claiming that the “Moderns” start with Machiavelli in his work *Natural Right and History*. For 10 points, name this German-American philosopher often considered the forefather of neoconservatism.

ANSWER: Leo Strauss

5. Rolipram is an inhibitor of the enzyme that degrades this compound. The asthma and COPD drug theophylline inhibits conversion of pulmonary fibroblasts into myofibroblasts by increasing the intracellular amount of this molecule. The slime mold *Dictyostelium* excretes this molecule to signal aggregation into a sporocarp. This molecule was discovered as part of Earl Sutherland's investigation of the activity of epinephrine. In bacteria, the accumulation of this compound in a low glucose environment is responsible for the upregulation of the lac operon when this compound complexes with CRP. This molecule's inactivation is catalyzed by phosphodiesterase four, and it is produced along with a pyrophosphate in a reaction catalyzed by adenylyl cyclase. For 10 points, name this molecule which primarily activates protein kinase A, a second messenger which is synthesized from ATP.

ANSWER: **cAMP** [or **cyclicAMP**; or **cyclic adenosine monophosphate**]

6. One of this author's books begins with a story in which Clarence Latouche murders Asa Stryker, who had become rich from killing the title animals. That book by this author was declared obscene for a section about a man who bounces from casual sexual encounters with the working-class Brooklyn girl Anna and the pampered suburbanite Imogen. Another of his books begins with an introduction which notoriously compares governments to sea slugs which prey on smaller organisms. This second husband of Mary McCarthy included "The Man Who Shot Snapping Turtles" and "The Princess with the Golden Hair" in his *Memoirs of Hecate County*. He wrote an overview of Symbolist literature named for a prose poem by Villiers de l'Isle Adam, as well as a massive overview of the literature of the Civil War. For 10 points, name this American literary critic, the author of *Axel's Castle* and *Patriotic Gore*.

ANSWER: Edmund **Wilson**

7. One player of this instrument collaborated with Bob Haggart to compose the duet "Big Noise from Winnetka." That musician, Ray Bauduc, was one of the many players of this instrument to imitate the style of Warren "Baby" Dodds. Modern players of this instrument frequently use the Purdie shuffle. Lee Musiker secretly recorded videos of a player of this instrument yelling insults at other band members on his tour bus. Another player of this instrument recorded the 1958 hard bop album *Moanin'* along with his band, the Jazz Messengers. This instrument plays an extended solo in the middle of "Take Five." Art Blakey and Joe Morello both played this instrument, which is sometimes played using a brush. For 10 points, name this instrument featured in the legendary battles between Gene Krupa and Buddy Rich.

ANSWER: **drums** [or **drum kits**; prompt on the following individual drums: hi-hat, snare drum, bass drum, cymbals, tom-toms, or toms]

8. The double-tomb of Salar and Sanjar was built by this polity, as was a complex with one iwan for each of the four schools of Islamic jurisprudence, which was dedicated to Sultan Hassan. A ruler of this polity named Kait Bey spent lavishly on architectural projects, leaving this polity deeply in debt. Queen Shajar al-Durr was instrumental in the formation of this polity. This polity formed out of the unrest that followed the death of Turanshah, and its founders had previously won the Battle of Al Mansurah. This polity is divided into Bahiri and Burji periods, respectively dominated by Kipchaks and Circassians. This polity was vanquished at the Battle of Ridaneah, and it had been founded by Qutuz after his victory against the Mongols at the Springs of Goliath. For 10 points, name this Egyptian sultanate notably established by slaves.

ANSWER: **Mameluk** Sultanate [or **Mameluk** Dynasty; or **Mameluk** Empire; or **Mameluk** Egypt]

9. This formalization can be used to explicitly construct the propagator as an infinite sum by observing that terms for which a central quantity differs by $\pi \hbar$ are out of phase and their contributions cancel. Wick rotating and integrating by parts yields a central equation in this formality according to which the expectation of the variation of any functional of a field is minus i times the expectation of the product of the same functional and the variation of the action; that is the Schwinger-Dyson equation. Originally posited to explain the Wheeler absorber theory, this framework centers on a functional with weight $e^{i \text{action} / \hbar}$, which is integrated over all trajectories. For 10 points, name this formulation of quantum mechanics described in the doctoral thesis “The Principle of Least Action in Quantum Mechanics,” by Richard Feynman.

ANSWER: Feynman’s **path integral** formulation of quantum mechanics [accept **Feynman picture** or **Feynman formulation** before “Feynman;” prompt on **quantum electrodynamics** or **quantum field theory**]

10. One work in this genre, *Domestic Appliances*, shows a man’s hand turning on a lamp whose column is in the form of a woman and was one of 150 works in this genre titled *Psychoanalysis Will Help You* by Grete Stern. Two men and a woman sit at a table playing cards in *Evening, 9:10, 461 Lenox Avenue*, a work in this genre by Spiral founder Romare Bearden. Erwin Blumenfeld’s *Doe Eye*, which consists of the eyebrow, eye, and red lips of a woman, was included in a recent exhibit on works in this genre at the Met titled “Faking It.” One of the most famous works in this genre contains a poster reading “romance,” was shown at the This is Tomorrow exhibition, and sees bodybuilder Zabo holding a Tootsie Pop. For 10 points, identify this genre exemplified by *Just what is it that makes today's homes so different, so appealing?* where a work is assembled from multiple different source materials, particularly photography.

ANSWER: **Photomontages** [or **collage**]

11. This entity created the guards of Mashu and Kurnugi, those guards being flawless bowmen known as the *aqrabuamelu* who have the lower parts of scorpions. This being was deserted by the vizier Mummu and piqued at the murder of Lahmu and Lahamu, leading to the assemblage of the army of 11, including Basmu and Ugallu. The power of the 11 winds led to the defeat of that army, and this goddess herself, and the recovery of the Tuppî Shimati by the champion of her rival, Ea. This personification of the primordial ocean took the form of a multi-headed dragon. For 10 points, name this consort of Kingu and forger of the Tablets of Destiny, which would be taken from her by the Babylonian hero Marduk.

ANSWER: **Tiamat**

12. The approximate cooling rate of these objects varies with the $7/2$ power of their temperature, which is generally on the order of 10-to-the-7 Kelvins. An angular momentum-forbidden resonance stops these systems from fusing neon from their abundant carbon and oxygen. These bodies have electron mean free paths on the order of the electrons’ de Broglie wavelength. Their radius varies with the minus third power of their mass. A polytropic index of approximately 3 was used in the Lane-Emden equation to derive one central property of these stars. They can carbon detonate to form a Type Ia supernova once their mass exceeds that value, the Chandrasekhar limit. For 10 points, name these electron-degenerate stellar remnants that occupy the lower left of the H-R diagram, one example of which is Sirius B.

ANSWER: **white dwarfs** [or **white dwarves**]

13. In a study of a major Mexican reform to this policy, Hastings, Hortacsu, and Syverson explained high fees using a model of advertising to build brand loyalty and price insensitivity. Auerbach and Kotlikoff proposed a principle for measuring the allocation of the tax burden across time under this policy, their “Generational Accounting.” One argument in favor of this policy is based on the dynamic inefficiency of an OLG economy with income growing faster than the interest rate, according to a seminal 1965 model by Peter Diamond. High administrative overhead followed a Chilean reform to this policy based on a mandated 10% defined contribution and transition costs that massively increased the government debt-to-GDP ratio. For 10 points, name this public policy typically constructed as a pay-as-you-go public pension scheme funded by a payroll tax.

ANSWER: social security [prompt on “public sector pensions” and variations]

14. One author used this language to write a poem comparing himself to a cloud casting a passing shadow over a woman’s heart, “Chance,” as well as the poem “Saying Goodbye to Cambridge.” A modern author of poetry in this language wrote the collection *The Boy Who Catches Wasps* and won the 2010 Neustadt Prize for Literature. Two poets who wrote in this language founded the journal *Today*, which published works of this language’s Misty School. This language was used to describe “Wagons rattling and banging, horses neighing and snorting” in the poem “Ballad of the Army Carts.” A poet who wrote in this language described a figure who “Raises [his] cup to invite the bright moon” in “Drinking Alone by Moonlight.” For 10 points, name this language used by poets such as Duo Duo, Hai Zi, and Du Fu.

ANSWER: written Chinese [reluctantly accept Mandarin]

15. Because of his support for the Clayton Compromise, which banned slavery in the Oregon Territory, this man was stabbed by Judge Francis Cone. At age 70, this man came out of retirement to serve as Governor for the final four months of his life. As a Congressman, this man served as floor manager for the failed attempt to approve the Lecompton Constitution for Kansas. This Whig joined with his in-state rival, Democrat Howell Cobb, to create the first incarnation of the Constitutional Union Party, which helped elect his close ally Robert Toombs to the Senate. This man joined Robert M.T. Hunter and John Campbell aboard the *River Queen*. In one speech, this man praised a document “founded upon the great truth that the Negro is not equal to the white man.” For 10 points, name this man who gave the Cornerstone Speech, the Vice President of the Confederate States of America.

ANSWER: Alexander Stephens

16. The third movement of this composer’s first cello sonata begins by quoting Contrapunctus 13 from *The Art of the Fugue*. This composer used the cello solo from the third movement of one of his piano concertos as the basis for the song *Immer leiser wird mein Schlummer*. His second piano concerto begins with a solo French horn playing a theme echoed by the piano, and includes a second movement he jokingly called a “little wisp of a scherzo.” At the age of twenty, this composer was introduced to the music world by the 1853 article “New Paths” in the *New Journal for Music*. The critic Eduard Hanslick championed this composer’s “absolute” music against the supporters of Wagner. After the death of his close friend Robert Schumann, he fell in love with Schumann’s wife Clara. For 10 points, name this German composer of twenty-one *Hungarian Dances* and a renowned lullaby.

ANSWER: Johannes Brahms

17. The last of these poems suggests that we “cannot restore old policies or follow an antique drum” before claiming that the dead “accept the constitution of silence.” That poem compares attachment, detachment, and indifference to roses in a thornbush and ends by claiming that “all manner of thing shall be well” when “the fire and the rose are one.” Another of these poems suggests that life is meaningful if we nourish “the life of significant soil” and declares “there are only hints and guesses / hints followed by guesses.” The third of them begins by comparing a river to “a strong brown god,” while the second one repeats the line “In my beginning is my end.” The first of these poems is named for a manor in Gloucestershire, and grew out of a deleted passage from its author’s play *Murder in the Cathedral*. For 10 points, name this cycle of poems by T. S. Eliot which includes “The Dry Salvages,” “Little Gidding,” and “Burnt Norton.”

ANSWER: **Four Quartets** [accept “**Little Gidding**” before “significant soil”]

18. Its namesake discovered it in 1944 by building on the work of Wooster and Godfrey. Calculations demonstrated that, contrary to the suggestion of this reaction's discoverer, initial protonation in the presence of an electron donor occurs at the ortho position. A modification which involves polycyclic hydrocarbons like naphthalene is called the Benkeser reaction. The mechanism of this reaction depends on the presence of solvated electrons from an electride salt. The result of this reaction differs from transition metal hydrogenations by not proceeding all the way to cyclohexane rings. A. L. Wilds noted that it works better with lithium and t-butyl alcohol, though it was first accomplished with sodium and ethanol. Occurring in a solution of alcohol, a salt, and ammonia, for 10 points, name this reaction that converts aromatic rings to 1,4 cyclohexadienes.

ANSWER: **Birch Reduction**

19. This group adopted the nefarious techniques of Eugene Terre'Blanche's AWB after an early leader returned from South Africa. This group established an annual march to memorialize three soldiers who crashed while trying to abscond with a foreign flag from the island of Imia, and had some of its members personally decorated by Radovan Karadzic for assisting in the Srebrenica massacre. This group launched the failed Patriotic Alliance in 2004 and rose to prominence by beating up college students during the 1992 Macedonian Naming Dispute. This party's spokesman was locked in a news station storeroom after repeatedly punching 58 year-old Liana Kanelli in the head on live TV in June, just a month after it unveiled plans to surround its country with immigrant-resistant landmines. Nicholas Michaloliakos leads, for 10 points, what Neo-Nazi party that in May won 7% of the Greek parliament?

ANSWER: **Golden Dawn** [or **Chrysi Avgi**]

20. The twelfth pope with this name issued *In Eminenti Apostolatus*, which officially banned Catholics from joining the Freemasons, and commissioned a contest for the construction of the Trevi Fountain. A German pope with this name canonized Wiborada and proclaimed the sale of spiritual items punishable by excommunication at a synod in 1047. The sixth pope of this name issued bulls condemning people who blamed the Black Death on the Jews. An Italian pope of this name entered into the League of Cognac with Venice and France in order to prevent the conquest of Rome by Charles V. A pope of this name disbanded the Knights Templars, retracted Boniface VIII's *Unam Sanctam*, and convened the Council of Vienne upon urging by Philip the Fair. For 10 points, give this papal name, the fifth Pope of which started the Avignon Papacy.

ANSWER: **Clement**

21. A densely-defined, closed, symmetric operator T has this quality if both T minus i and T plus i are surjective. If an operator is symmetric everywhere defined in a Hilbert space, then by a result of Hellinger and Toeplitz it is bounded and therefore must have this property. By the finite-dimensional spectral theorem, there is an orthonormal basis of a product space consisting of eigenvectors of this type of matrix. For a matrix of this kind, if and only if it is symmetric, the entries on the main diagonal must be real. For 10 points, give this term that describes an operator that is its own adjoint, or a matrix that is its own conjugate transpose.

ANSWER: **Hermitian** [accept **self-adjoint** before “adjoint”]

Bonuses

1. This author was arrested after killing the priest Philippe Sarmoise. For 10 points each:

[10] Name this 15th century French poet, whose “Ballad of the Hanged Ladies” includes the line “Where are the snows of yesteryear?”

ANSWER: François Villon [or François de Montcorbier; or François des Loges]

[10] “The Ballad of the Hanged Ladies” appears in this long poem by Villon. Based on the earlier poem *The Legacy*, this highly digressive poem is presented as the work of an old, dying man reflecting on his misspent youth.

ANSWER: *The Great Testament* [or *Le Grand Testament*]

[10] This contemporary of Villon wrote poems such as “While Looking Towards the Country of France” about his exile in England. This nobleman was imprisoned for twenty-five years after being captured at the Battle of Agincourt.

ANSWER: Charles d'Orleans

2. Daniel Miller portrayed this concept as critical to self-definition in a 2012 book about it “and its consequences.” For 10 points each:

[10] Name this concept, whose “shadows” are discussed in a book by Peter Dauvergne. Sidney Mintz analyzed its patterns in 19th century England in his book *Sweetness and Power*.

ANSWER: consumption [or equivalents such as consuming things]

[10] *Consumption and Its Consequences* argues that the global demand for this product is emblematic of the lust for individuality through personalized wear-and-tear. This type of clothing is notorious for its barter value in economies with cheap currencies, and helps conceal surface class distinctions because of its ubiquity in the Western world.

ANSWER: blue jeans

[10] Miller incorporates this author’s narrative of global financial markets’ rewarding mindboggling risk, as portrayed in this author’s *The Big Short*. This author wrote about the rise of sabermetrics in *Moneyball*.

ANSWER: Michael Lewis

3. One form of this law shows that the magnetic field is proportional to the gradient solid angle swept out by an area element of a loop. For 10 points each:

[10] Name this law whose general form states that the magnetic field is proportional to the volume integral of a current density crossed with the radial unit vector divided by the distance to the current density squared.

ANSWER: the Biot-Savart law

[10] The Biot-Savart law applies when this approximation holds. In this case, currents are steady and the displacement current term in Ampère’s law can be neglected.

ANSWER: magnetostatics [prompt on static or steady-state]

[10] In the relativistic limit, the Biot-Savart law becomes this equation. In cgs units, this equation states that the B-field is given by the all-space integral of the retarded current density, divided by the cube of the distance, plus the time partial of the retarded current density, divided by the distance squared times c, all crossed into the distance vector.

Answer: Jefimenko’s (second) equation

4. These heroes were mothered by Leda but, kinkily, fathered by both Zeus and Tyndareus. For 10 points each:

[10] Name both of these half-twin brothers.

ANSWER: Castor and Pollux [accept Polydeuces for Pollux; accept the Gemini or Tyndaridae or Dioscuri]

[10] Castor and Pollux wanted to marry these priestesses of Artemis and Athena, but they were already betrothed to Idas and Lynceus, so they did the reasonable thing: abducted the girls and killed their fiancées. Unfortunately, Castor was wounded in the process.

ANSWER: Phoebe and Hilaeira [or the Leucippides or the daughters of Leucippus]

[10] In a kind-of prelude to the Trojan War, Castor and Pollux had to retrieve their sister Helen after she was kidnapped by this king. Castor and Pollux rescued her and abducted this king's mother, Aethra, as revenge.

ANSWER: Theseus

5. This artist's *Annunciation after Titian* series grows increasingly abstract, while his work *Abstraktes Bild* auctioned in 2010 for the record-breaking price of 21 million dollars. For 10 points each:

[10] Name this contemporary German artist whose other works include *Eight Grey* and *Baader-Meinhof*.

ANSWER: Gerhard Richter

[10] Richter was once a member of this art movement, whose manifesto stated they wanted to "purge the world of bourgeois sickness ... of dead art." Dick Higgins and Joseph Beuys were both members of it.

ANSWER: Fluxus

[10] One of these objects rests to the right of a bottle in a photo painting by Richter. This fruit dominates the interior in Magritte's *The Listening Room*, and covers the face of the central figure in Magritte's *The Son of Man*.

ANSWER: Green Apple

6. This dynasty was one of the Three Kingdoms of Korea, along with Goguryeo and Baekje. For 10 points each:

[10] Name this dynasty, which eventually conquered Goguryeo and Baekje to unify much of the Korean peninsula. Much of the writing saw the use of hanja, or Chinese characters. It also saw the introduction of Buddhism as a state religion

ANSWER: Silla

[10] Modern Korean writing today utilizes Hangul, the creation of which was overseen by this Korean ruler. This ruler performed official events according to Confucianism, and also invaded Tsushima island to stop piracy in the East China Sea.

ANSWER: Sejong the Great

[10] This South Korean president traced his lineage back to King Taejong of Joseon. More famously, he was ousted by the April 19 Movement, and he and his wife Franziska Donner fled to Hawaii, before being replaced by Yun Bo-seon.

ANSWER: Syngman Rhee

7. This author wrote that the ideal, five-part dramatic form should begin slowly, accelerate, and end rapidly in his treatise *The Transmission of the Flower*. For 10 points each:

[10] Name this author, who championed the "imitation of things" and revised his father's work about two melancholy ghost sisters, *The Wind in the Pines*.

ANSWER: Zeami Motokiyo [or Kanze Motokiyo]

[10] Zeami is considered the foremost classical master of this Japanese dramatic form, which featured all-male casts wearing elaborate masks and preceded the popular Kabuki style.

ANSWER: Noh

[10] Traditional Noh plays were not performed in isolation, but rather as part of an all-day series interspersed with these short comedic interludes. This dramatic form evolved from the earlier *sarugaku*, which apparently translates as "monkey fun."

ANSWER: Kyogen [prompt on "mad words" or "wild speech" or similar answers]

8. It was developed by considering manganese oxide and copper chloride. For 10 points each:

[10] Name this theory that describes the effect that surrounding positive charges have on the energies of valence electrons. It was later combined with molecular orbital theory into the more accurate and powerful ligand field theory.

ANSWER: **Crystal Field** Theory

[10] This is the list of ligands or metals ordered by how much change they produce in the energy of d orbitals. That difference is called the ligand field splitting parameter or crystal field splitting parameter.

ANSWER: **Spectrochemical** Series

[10] This effect is the decrease of the B Racah parameter when a transition metal bonds with a ligand. The size of the reduced Racah parameter forms this effect's namesake series, which is similar to the spectrochemical series.

ANSWER: **Nephelauxetic** effect or series

9. This man's election was vetoed three times by Franz Joseph, who despised him. For 10 points each:

[10] Name this mayor of Vienna from 1897 – 1910, whose virulent anti-semitism may have inspired a young Adolf Hitler.

ANSWER: Karl **Lueger**

[10] Leuger was finally allowed to take office as mayor at the request of this Pope, who is more famous for issuing *Rerum Novarum*.

ANSWER: **Leo XIII** [prompt on **Leo**]

[10] Leo XIII used diplomacy to obtain the dismissal of this German education minister; this man is most famous for his namesake laws, issued in May 1872, which were a critical part of Bismarck's *kulturkampf*.

ANSWER: Adalbert **Falk**

10. Many of the ideas in this house were later expanded in the Rourke House, and its architect mandated that photographer Julius Shulman emphasize its novel mechanized sliding living room panes and temperature controls. For 10 points each:

[10] Name this domicile built in the International Style by Richard Neutra in 1946, commissioned by and named for the man who also commissioned Wright's Fallingwater.

ANSWER: **Kaufmann** Desert House

[10] Richard Neutra built the Landfair and Strathmore Apartments in this city. Neutra also constructed the steel-framed Lovell House on the side of a ravine in this city in partnership with Rudolph Schindler.

ANSWER: **Los Angeles**, California

[10] This other architect designed his Villa Savoye in the International Style and wrote *Towards A New Architecture*.

ANSWER: **Le Corbusier** [or Charles-Edouard **Jeanneret**]

11. Name some hydrothermal vents, for 10 points each:

[10] These rare springs periodically release bursts of hot water and steam that can tower many tens of meters in the air. Examples of this type of vent include Strokkur and Old Faithful.

ANSWER: **geysers**

[10] These colorfully-named underwater vents emit columns of sulfides and other material that solidify into chimney-like structures as the minerals precipitate out when the superheated water contacts the freezing sea water. A group of five in the mid-Atlantic ocean is named Loki's Castle.

ANSWER: **black smokers** [prompt on **sea vent**]

[10] Named for the Latin for smoke, these fissures in the Earth's surface emit steam. They can occur in namesake fields, usually in the neighborhood of volcanoes.

ANSWER: **fumaroles**

12. In October of this year, F. Augustus Heinze failed to corner the stock of the United Copper company, causing his Knickerbocker trust company to bust. For 10 points each:

[10] Name this year in which the previously described events caused an economic Panic. This year also saw the departure of the Great White Fleet.

ANSWER: 1907

[10] Heinze was known as one of the “Copper Kings” of this city for his attempts to control the local copper mines. This seat of Silver Bow county is home to the nation’s largest superfund site, the Upper Clark Fork River.

ANSWER: Butte, Montana

[10] This banker and financier saved the city of New York during the panic of 1907 by buying up 30 million dollars in bonds. His name is still present on the major bank that he founded.

ANSWER: John Pierpont Morgan

13. These entities collect and arrange the boolean output value for each combination of values of two input propositions. For 10 points each:

[10] Name these objects useful for determining the logical connection between two statements. Wittgenstein is often credited with their creation in his *Tractatus*.

ANSWER: truth tables

[10] This is the name for logics of higher order than propositional logic. In this type of logic, formulae take the form of a function of one or more variables which may be quantified. The functions may then be true for some arguments and false for others.

ANSWER: predicate logic [prompt on first-order logic or second-order logic or anything like logic of order higher than zero]

[10] In first order logic, this process is the removal of all existential quantifiers to make a statement into the namesake normal form. The resulting statement may not be logically equivalent to the original, but it will be equisatisfiable with it.

ANSWER: Skolemization

14. This group was founded by Abimael Guzman in the 1960s and first attacked in 1980 at Ayacucho. For 10 points each:

[10] Name this terroristic, guerrilla organization which sought to impose Maoism on Peru.

ANSWER: Shining Path [or Sendero Luminoso]

[10] The progress of the Shining Path was aided by the unwillingness of this president to enact martial law. That fear was justified by the fact that his first term from 1963-1968 was ended by a military coup that saw 11 years of martial law before his second term began in 1980.

ANSWER: Fernando Belaunde Terry

[10] Eventually the government began to fight the Shining Path by training and arming these peasant patrols. They still exist today in the form of unpaid community watch groups.

ANSWER: Ronda Campesina [accept Rondas]

15. This author analyzed *Finnegans Wake* in his book *ReJoyce*. For 10 points each:

[10] Name this English author, who wrote about the multiracial schoolteacher Victor Crabbe in the first novel of his trilogy fictionalizing Britain’s withdrawal from Southeast Asia, *The Long Day Wanes*.

ANSWER: Anthony Burgess

[10] This Burgess novel focuses on Alex, a lover of “ultraviolence” whose behavior is modified by the Ludovico Technique.

ANSWER: A Clockwork Orange

[10] In A *Clockwork Orange*, Alex leads a gang of “droogs” consisting of Dim, George, and this character. In the final chapter, Alex realizes that he is maturing after meeting this character and finding out that he is married.

ANSWER: Pete

16. These proto-oncogenes encode transcription factors with basic helix-loop-helix leucine zipper domains. For 10 points each:

[10] Disregulation of the c- gene in this family has been linked to Burkitt's Lymphoma, while the n- gene is associated with neuroblastomas.

ANSWER: **myc**

[10] Myc protein regulates gene expression by binding to these transcription factor binding sites. They are located in promoter regions of eukaryotic DNA and have sequence CACGTG.

ANSWER: **Enhancer Boxes** [or **E-boxes**]

[10] Myc protein also regulates gene expression by inducing the acetylation of two families of these proteins that DNA spools around to form nucleosomes.

ANSWER: **histones**

17. Economist Evsei Liberman inspired this man's major legislative effort, which granted greater autonomy to Soviet enterprises and rehabilitated the concept of business profits in the USSR. For 10 points each:

[10] Identify this Soviet Premier from 1964 to 1980, known for sharing power with Leonid Brezhnev.

ANSWER: Alexei **Kosygin**

[10] Kosygin oversaw the 8th, 9th, and 10th of these, which guided the centrally managed Soviet economy for half a decade. The first was issued by Stalin.

ANSWER: **five year plans**

[10] Kosygin approved this Polish leader's plan to take out loans from the west, which he saw as a way of saving the USSR foreign aid money. This man led Poland from 1970 to 1980, and left it in massive debt despite greatly improving the standard of living.

ANSWER: Edward **Gierek**

18. This piece was inspired by its composer's trip to Ghana, where he studied with Gideon Alorworye. For 10 points:

[10] Name this minimalist four-movement piece which premiered in 1971. Each of its movements is scored for different combinations of human voices and percussion instruments which slowly move in and out of phase.

ANSWER: **Drumming**

[10] *Drumming* was written by this baseball cap-wearing contemporary American composer, whose other works include *Music for 18 Musicians* and *Different Trains*.

ANSWER: Steve **Reich**

[10] Reich won the 2009 Pulitzer for Music for this composition, scored for flute, clarinet, violin, cello, vibraphone, and piano. It was commissioned by the ensemble Eighth Blackbird, who premiered it in 2008.

ANSWER: **Double Sextet**

19. This author commanded "Whirl up, sea" in her poem "Oread." For 10 points each:

[10] Name this American poet, who wrote about a figure which "all Greece hates" in her poem "Helen." During the London Blitz, she wrote "The Walls Do Not Fall," the first book of her poem *Trilogy*.

ANSWER: **H. D.** [or Hilda **Doolittle**]

[10] H. D. was a leader of this poetic movement, which favored clear, concise language and was championed by Ezra Pound.

ANSWER: **imagism**

[10] H. D. was briefly married to Richard Aldington, who may be best known for this novel about the artist George Winterbourne, who is killed in World War I.

ANSWER: **Death of a Hero**

20. Answer the following about a certain religion, for 10 points each:

[10] Mambos lead prayer in hounforts in this syncretic religion where loas are subservient to a creator god, Bondiye, who was later associated with the Biblical God.

ANSWER: **Voodoo**

[10] While mambo is used for a female priest, this term is used for a male priest. They have ranks known as asogwe and sur pwen.

ANSWER: **Houngan**

[10] A Houngan who practices black magic is given this name, translated as “sorcerer.” It is this type of priest who is capable of raising a zombie.

ANSWER: **bokor**