

2016 MYSTERIUM: “I quiz all sounds, all thoughts, all everything”

Packet 11 – kapustin

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Tossups

1. **They aren’t gardens or houses, but “hanging” variety of these places was invented by the oyster merchant Sergius Orata, to whom Vitruvius attributes the invention of a technology used for these places. Prayers to Sullis Minerva about stolen property are written on the “curse tablets” unearthed at one of these places. Shortly after executing his son Crispus, Constantine had his wife Fausta killed in one of these places. The Stabian place of this type in (*) Pompeii is the oldest one to feature a hypocaust system. A library was built next to a large building of this sort named for Caracalla. These places usually featured a caldarium, a tepidarium, and a frigidarium, which were hot, warm, and cold rooms. For 10 points, name this sort of public building, also called a *thermae*, where Romans went to clean themselves.**

ANSWER: bathhouses [accept thermae until read]

<JB European/Ancient History>

2. **In a play from this country, a man is hung upside down and has two toenails pulled out for selling marijuana to students. In that play from here, a girl uses her airgun to shoot out the eyes of three men trying to kill a character enraged over the death of his cat Thomas. In a play from this country, Katurian is interrogated because his grisly stories resemble recent child murders. A playwright from this country created a young (*) widow who narrates as her love interest wins an off-stage mule race. *The Lieutenant of Inishmore* and *The Pillowman* were written in this country, which is home to an author of a play in which Pegeen falls for a man who tried to murder his father with a spade. For 10 points, name this country home to Martin McDonagh and the author of *Playboy of the Western World*, J. M. Synge.**

ANSWER: Ireland

<JB British Literature>

3. **To satisfy this property’s k form, attributes are suppressed or generalized until each row matches k minus 1 others. This property is vulnerable to unsorted matching or intersection attacks, which occurred on a high-D database in a 2006 Netflix contest. DC-nets allow for this property by XORing together shared secrets of each pair of parties, and inverting the result to send a message. A milestone February 1981 paper on this property was by David Chaum, deviser of the dining cryptographers problem. This property is the goal of (*) remailers, and a service where messages are encapsulated in layers of encryption during transmission. That system, like mix networks, transmits messages along a random path of relay nodes, none of which know the full path. This desired property of e-voting systems is enabled by a software called The Onion Router, or TOR. For 10 points, name this deliberate inability to be identified that will put the NSA’s target on your back.**

ANSWER: anonymity [accept word forms like anonymized or anonymous; prompt on answers like “pseudonymity,” “security,” or “privacy”]

<OL Other Science>

4. In a large open economy under the ISLM model, a reduction in this parameter leads to a lower interest rate, lowering net capital outflows, raising the exchange rate and reducing net exports. One method to endogenize this parameter involves looking for a consumption-maximizing “path” over time; that is done in the Ramsey–Cass–Koopmans model. In another model, this parameter’s optimum value is the ratio of the marginal product of capital to its average product; that value is the (*) “golden rule” value for this parameter in the Solow model. This quantity is unusually high for Chinese and Japanese households and businesses. Ben Bernanke explained low long-term interest rates in the 2000s with a “glut” in this quantity. This quantity is the S in ISLM. For 10 points, name this rate of deferred consumption, the percentage of income that is not spent.

ANSWER: savings rate

<SP Economics/Psychology>

5. A member of this family was accused by Joshua Wilson of heresy in 1835. Victoria Woodhull accused another member of this family of an affair with Elizabeth Tilton. A member of this family wrote the *Six Sermons on Intemperance* and, with Justin Edwards, co-founded the American Temperance Society. Another member of this family used the New England Emigrant Aid Society to ship supplies for use (*) against the Border Ruffians: Sharps Rifles known as his namesake “bibles.” When Abraham Lincoln met a woman who was *born* into this family, he supposedly said, “So you’re the little woman who wrote the book that started this great war!” For 10 points, name this family that included Lyman, Henry, and the wife of Calvin Ellis Stowe, who wrote *Uncle Tom’s Cabin*: Harriet.

ANSWER: Beecher family [accept any specific Beecher]

<LL American History>

6. In a novel set during this war, Quail puts on a priest costume in order to trick a confession out of an idealistic journalist nicknamed Tenderfoot. During this war, a character fights a duel on a patio with a corporal who had captured him when he emerged from a mine shaft into an enemy camp. While fighting in this war, that character invents a story about meeting at a rock by the seashore to forget the fact that he raped his lover Regina and lets a comrade be (*) killed by a firing squad in order to marry that man’s sister Camilla. *The Underdogs* is set during this war. In a novel set during this war, Harriet Winslow buries a man who is shot by General Arroyo, the elderly Ambrose Bierce. For 10 points, name this war in which Artemio Cruz and the Old Gringo fight in two Carlos Fuentes novels.

ANSWER: Mexican Revolution

<JB Other Literature>

7. This musical features a teenage couple who are seeing each other secretly, Tommy Djilas and Zaneeta. In one scene, a woman kisses Charlie Cowell to delay him from delivering evidence to Mayor Shinn. The line “but he doesn’t know the territory!” is repeated frequently in this musical’s opening scene, which is set on a moving train. The lisping child Winthrop Paroo sings “Gary, Indiana” in this musical. A character in this musical sings, “With a capital T / that (*) rhymes with P / that stands for Pool!” in the song “Ya Got Trouble.” Characters declare “You ought to give Iowa a Try!” in this musical’s song “Iowa Stubborn.” This musical features the songs “Seventy-Six Trombones” and “Til There Was You.” It centers on a con man’s attempts to scam River City and woo Marian the Librarian. For 10 points, name this musical written by Meredith Willson about the con man Harold Hill.

ANSWER: *The Music Man*

<LL Other Arts>

8. In a two-level system with a linearly-varying energy gap, the probability to violate a theorem with this name is given by the Landau–Zener formula. That theorem with this name, which holds in the limit of a large level splitting, states that a system remains in an energy eigenstate under a slow time-dependent perturbation. During this type of process, P times V to the gamma remains constant, where gamma is an (*) “index” also known by this name. Two processes of this type connect an isothermal expansion and compression in a Carnot cycle. The only type of energy transfer that occurs in this type of process is work. If a process has this property and is also reversible, then it is isentropic. For 10 points, identify this type of thermodynamic process which occurs with no transfer of heat.

ANSWER: adiabatic [prompt on “isentropic” or “constant entropy” until “isentropic” is read; do not accept “reversible”]

<SE Physics>

9. One version of this text gives a shoutout to “the disciples of the disciples” or “*talmidei talmideihon*.” One section of this text begins “blessed and praised and glorified and exalted and extolled and honoured and adored and lauded be His name.” This text includes the collective affirmation “*y’hei shmei rabah m’vorach*.” It ends with a line beginning “*oseh shalom bimromav*.” This text is recited before the “extra” *maftir* reading. Along with the *Barchu* and parts of the *Amidah*, this prayer can only be said if ten people, a (*) *minyan*, are present. It switches to Hebrew for a plea for peace in its last three lines. This prayer’s name is similar to that of the blessing on the Shabbat wine, since it is the Aramaic word for “Holy.” This prayer, which begins “*Yitgadal v’yitkadash*,” can be said over a *Yahrzeit* (“YORT-site”) candle. This prayer marks the major divisions of the Jewish liturgy. For 10 points, name this Jewish prayer said by mourners.

ANSWER: Kaddish [accept more specific answers like Mourner’s Kaddish]

<JR Religion>

10. A poem claims that this place contains flavors from “Glow of the quince to blush of the rose. Persimmon bronze to cinnamon toes.” A dancer in this place with a “falsely-smiling face” is watched by “Applauding youths... with young prostitutes.” In a poem set in this area, the speaker explains “I like a pipe for a Christmas present, or records—Bessie, bop, or Bach” to a man who is “older... and somewhat more (*) free” after being told “*Go home and write a page tonight*.” In this area, a man sleeps “like a rock or man that’s dead” after crooning at the piano all night. A poem titled for this place concludes “Maybe it just sags like a heavy load. *Or does it explode?*” For 10 points, name this area which titles a poem that asks “what happens to a dream deferred?” as well as a “Renaissance” that its author, Langston Hughes, was part of.

ANSWER: Harlem [prompt on “Manhattan” or “New York”]

<JB American Literature>

11. As the commander-in-chief of a navy, this man authorized an expedition in which the SMS *Novara* circumnavigated the globe. This man’s refusal to shave his beard thwarted Felix Salm-Salm’s plan to break him out of imprisonment. This ruler promulgated the Black Decree mandating the execution of prisoners associated with armed bands. After failing to obtain assistance from Pius IX, this ruler’s wife (*) Carlota went insane. This ruler adopted two grandsons of Augustín de Iturbide as his heirs. This ruler was executed along with his generals Mejía and Miramón following his defeat at Querétaro. For 10 points, name this Hapsburg monarch opposed by Benito Juárez, who gained power after Napoleon III’s intervention in Mexico.

ANSWER: Maximilian I of Mexico [prompt on “Maximilian”; accept Maximiliano for “Maximilian”]

<WC World History>

12. A memorial to this event consists of a cast-bronze hovering figure and was designed by Ernst Barlach. This event is depicted in landscapes such as *We Are Building a New World* by Paul Nash. Flags and badges from this war make up a Marsden Hartley painting which eulogizes a lover who died in it. A cycle of 51 prints about this war was created by an artist who depicted a veteran of this war with two wooden legs in his (*) *Metropolis* triptych, Otto Dix. A memorial to this war includes the Table of Silence and the Endless Column. After this war, the New Objectivity movement of George Grosz developed, and this war is the setting of a painting of a line of blindfolded soldiers by John Singer Sargent. For 10 points, name this war, the setting of John Nash's *Over the Top*, which depicts trench warfare.

ANSWER: **World War I** [or **WWI**; accept The **Great War** or The **First World War**]

<JB Visual Arts>

13. In animals, all amino acids except leucine and lysine are first converted to this compound before entering gluconeogenesis. In that pathway, this compound is an intermediate in the two-step transformation that is the reverse of the glycolytic pyruvate kinase reaction, and is the substrate for the enzyme PEP carboxykinase. This compound can be transaminated to form aspartate. To move this compound into the mitochondrion involves its alpha-carbonyl undergoing a two-electron reduction by NADH to form malate, which is then shuttled through the malate-aspartate shuttle and reoxidized. In its most important reaction, this compound's alpha-carbonyl is attacked by an (*) acetyl-CoA thioenol; that reaction is catalyzed in the mitochondrial matrix by citrate synthase and is the first reaction in the Krebs cycle. For 10 points, name this four-carbon dicarboxylic acid that is the first "intermediate" in the Krebs cycle.

ANSWER: **oxaloacetate** [accept **oxaloacetic acid** or **OAA**]

<SP Biology>

14. This concept is built on racism according to Charles W. Mills, while it was built on the "original" domination of women by men, according to a 1988 book by Carole Pateman. A book titled for this concept seems to anticipate Napoléon when it states that "I have a presentiment that this little island [of Corsica] will one day astonish Europe." That book titled for this concept claims that, for a democracy, "Gods would be needed to give men laws." This construct is created to end the (*) "original position" in Rawls' *Theory*. It includes a justification for revolution if basic rights are violated, according to Locke's *Second Treatise*. Although this term is not used in the text, a standard interpretation states that: to avoid the brutal State of Nature, people use this construct to establish civil society by creating a Sovereign, in Hobbes's *Leviathan*. For 10 points, people give up some freedoms in exchange for protection by the state in *what* agreement, which titles a book by Jean-Jacques Rousseau?

ANSWER: the **Social Contract** [or **contrat social**; prompt on partial answers or word forms, like "society"]

<JR Philosophy>

15. Ivar's twin Skule brings news of this event to his mother, who gives her wedding ring to Ulf while dying during this event in a convent. This event kills Master Nicholas, the sculptor of a statue of St. Mary, in *Narcissus and Goldmund*. In a book set during this event, a man decides to beat his wife after seeing a mule-driver on the Bridge of Geese, and an evil man becomes a saint after giving a false deathbed confession. This event (*) kills Kristin Lavransdatter in Sigrid Undset's *The Cross*. The story of patient Griselda appears in a book set during this historical event which is divided into 100 stories told by ten youths over ten days. For 10 points, name this disaster which the characters of Boccaccio's *Decameron* flee 14th-century Florence to escape.

ANSWER: the **Black Death** [or the **Bubonic Plague**; or the **Black Plague**; prompt on "plague"]

<JB European Literature>

16. A memorial dedicated to a leader of this event is located at Banna Beach, where he had been captured after being dropped off by a submarine. Prior to this event, the *Libau*, disguised as the *Aud*, had failed to deliver German arms to its participants. While a man was on trial for participating in this event, the government circulated his *Black Diaries*, which depict him as a promiscuous homosexual. During this event, a republic was proclaimed at the (*) General Post Office. The socialist Citizen Army fought alongside the Volunteers under the leadership of James Connolly during this rebellion, and it ended with the surrender of its leader Patrick Pearse. For 10 points, name this 1916 rebellion for Irish independence that began the Monday after a religious April holiday.

ANSWER: Easter Rising [or Éirí Amach na Cásca; accept obvious equivalents for “Rising”]

<WC European/British History>

17. At a banquet in this series that features delicacies like a “frothy pink soup” and a “a creamy pumpkin brew,” a character refuses to drink a clear liquid that acts as an emetic. Characters in this book series include the cook Greasy Sae, who works at the Hob, and a “hideous-looking” yellow cat named Buttercup. Before this series was written, its author wrote another series in which the “warrior” contends with the prophecies of the mystic Bartholomew of Sandwich. That series, whose protagonist is Gregor, is *The Underland Chronicles*. Classical influences on this series include the (*) Roman names of major characters like Cinna and Plutarch. In the first book of this series, the alcoholic Haymitch mentors a character who develops an emotional attachment to Rue, a young girl who is a tribute from District 11. For 10 points, name this book series by Suzanne Collins that revolves around a namesake competition in which Peeta and Katniss participate.

ANSWER: *The Hunger Games*

<LL Mythology/Other>

18. *Description acceptable.* Llobet’s (“you-bet’s”) 9th Sor Variation for guitar uses this technique, as do Mompou’s 6th Prelude and 3rd Chopin Variation. Scriabin’s Opus 9 is a Prelude and Nocturne using this technique. This technique was used for 22 of Godowsky’s (“goh-DOF-ski’s”) 53 Chopin Studies. Otakar Hollmann commissioned Janáček’s (“YA-na-check’s”) *Capriccio* for flute, brass, and piano, which uses this technique throughout. Gary Graffman and Leon Fleisher have both played Brahms’s transcription of Bach’s Chaconne, which uses this technique to imitate how pitches are (*) determined on the violin. A plus sign was used in Variation 9 of Paganini’s 24th Caprice to mark this kind of pizzicato, which is often used while bowing long notes. Ravel wrote a D-minor concerto using this technique for Paul Wittgenstein, a pianist injured in World War I. For 10 points, name this technique of playing with only five fingers.

ANSWER: playing an instrument with the left hand only [prompt on “playing with one hand only”; prompt on “pizzicato” until read; prompt on “pull-offs”]

<OL Auditory Arts>

19. Electrophilic aryl-derivatives of this element can undergo *ipso* substitution where the sigma-complex is broken down by nucleophilic attack on this element. Allyl derivatives of this element can be reacted with ketones in the presence of Lewis acids to generate beta-gamma-unsaturated alcohols in the Sakurai reaction. The Hiyama reaction couples R-groups attached to this element to aryl and vinyl iodides under palladium catalysis. This element stabilizes carbo-cat-ions that are beta to it. The strength of the single bond between this element and (*) fluorine is 582 kilojoules per mole, which is why hydrofluoric acid attacks compounds of this element so well. Enol ethers of this element can be used as nucleophiles in aldol and Michael reactions. Hydrogens attached to this element commonly have negative chemical shifts in NMR, where a tetramethyl derivative of this element is used as a reference standard. For 10 points, name this element whose oxide composes glass, the second element in the carbon group.

ANSWER: silicon [or Si]

<SP Chemistry>

20. *Description acceptable.* A late 18th-century theorist of this practice disseminated his ideas on it in an epistolary novel about a woman named Gertrude. Another theorist claimed, following Erich Fromm, that this practice normally enforces a “fear of freedom,” and advocated the use of pictorial “codification” in this practice, which was the main activity of Johann Heinrich Pestalozzi. An early-20th century theorist argued that this activity should promote “human tendencies.” This activity ought to increase (*) class awareness, or “conscientization” and should be “problem-posing,” according to a book about doing it with oppressed people by Paulo Freire. Another theorist argued for performing this activity with many age groups simultaneously, and letting participants choose their own activities, based on her work in the *Casa dei Bambini*. For 10 points, name this main field of Maria Montessori.

ANSWER: education [or pedagogy; accept any answer involving teaching, instruction, learning, etc.]

<JR Social Science/Thought>

Bonuses

1. Answer some questions about outlandish harmonies in Stravinsky, for 10 points each.

[10] This early Stravinsky ballet uses a combination of C and F-sharp major chords to represent the title jealous puppet, who is killed by the Moor.

ANSWER: **Petrushka** [or **Pétrouchka**]

[10] In the second section of Stravinsky's *Rite of Spring*, one of *these* chords based on E-flat is stacked on top of an F-flat major triad. These four-note chords are named for their usual function as the penultimate chord in a cadence.

ANSWER: **dominant seventh** [or **major-minor seventh**; prompt on "seventh"; do **not** accept "dominant"]

[10] Both of those combinations are bitonal, which means that they draw on chords from two of *these* musical constructs. These constructs can usually be deduced by looking at their namesake "signature" of sharps and flats.

ANSWER: **keys** [accept **key signatures**]

<OL Auditory Arts>

2. A 2015 book about this project entitled *Tunnel Visions* criticized the decision to place it in the Dallas exurb of Waxahachie ("walks-a-HATCH-ee"), rather than near the existing infrastructure at Fermilab. For 10 points each:

[10] Name this proposed American particle accelerator that was never built. It would have achieved a maximum collision energy of up to 40 tera-electron-volts.

ANSWER: **Superconducting Super Collider** [prompt on "SSC"]

[10] Many of the SSC's potential projects were instead undertaken at this CERN-run particle accelerator on the French-Swiss border. The ATLAS and CMS detectors on this accelerator discovered the Higgs boson.

ANSWER: **Large Hadron Collider** [or **LHC**]

[10] While some condensed matter physicists like Philip Anderson opposed the SSC, this high-energy theorist from UT-Austin testified in favor of it before Congress. He shared the 1979 Nobel Prize in Physics with Abdus Salam and Sheldon Glashow for electroweak theory.

ANSWER: Steven **Weinberg**

<SE Physics>

3. This poet told a "little adulteress" that "your tar-black face was beautiful" and "I almost love you" in his poem "Punishment." For 10 points each:

[10] Name this poet who described a "Murdered, forgotten, nameless, terrible" girl in "Strange Fruit." One of his poems ends "Between my finger and my thumb / The squat pen rests. / I'll dig with it."

ANSWER: Seamus (Justin) **Heaney**

[10] Heaney's poems "Punishment" and "Strange Fruit" were inspired by these objects. Heaney wrote "Someday I will go to Aarhus" to see one of these things which he later wrote about "in Springtime."

ANSWER: **bog bodies** [or anything indicating **people** or **corpse**s that were found in **bogs**; prompt on "bodies" and the like]

[10] In his *Station Island*, Heaney excerpted a part of this poem, which opens with Dante wandering in a dark wood before being taken by Virgil to a gate reading "Abandon hope all ye who enter."

ANSWER: **Inferno** [prompt on "*The Divine Comedy*" or "*Comedia*"]

<JB Other Literature>

4. Along with Thomas B. Catron, this man was one of the first US Senators from New Mexico. For 10 points each:
[10] Name this Secretary of the Interior who allowed his friends Harry Sinclair and Edward Doheny to drill for oil in the Elk Hills Naval Reserves.

ANSWER: Albert **Fall**

[10] Fall was Interior Secretary for this president, whose administration was rocked by the Teapot Dome scandal. He was succeeded by his vice president Calvin Coolidge.

ANSWER: Warren Gamaliel **Harding**

[10] Harding's 1920 Presidential campaign was managed by this member of the "Ohio Gang." After failing to appear before a committee on the Teapot man's brother was the subject of the *McGrain* case, which held that Congress could compel testimony.

ANSWER: Harry Micajah **Daugherty**

<LL American History>

5. This essay describes the "hybrid utterance" in Dickens' use of one speaker to parody both low and high society at the same time. For 10 points each:

[10] Name this essay that introduced the idea of heteroglossia.

ANSWER: "**Discourse in the Novel**" [or "**Slovo v romane**"]

[10] "Discourse in the Novel" was collected in this author's *The Dialogic Imagination*. This Russian literary critic also studied literary "polyphony" in *Problems of Dostoevsky's Poetics* and coined terms like "chronotope."

ANSWER: Mikhail (Mikhailovich) **Bakhtin**

[10] In another essay from *The Dialogic Imagination*, Bakhtin contrasts the novel with *this* other long literary form, which he calls "high-distance." These long narrative poems usually center on a hero like Odysseus.

ANSWER: **epic** [accept "**Epic and Novel**"]

<JR Social Science/Thought>

6. This reaction is responsible for the polymerization of cyanoacrylate. For 10 points each:

[10] Name this reaction, where a nucleophile conjugately adds to an alpha, beta-unsaturated carbonyl compound. It was first characterized by an American organic chemist.

ANSWER: **Michael** reaction [accept **Michael** addition]

[10] Nucleophiles with this property are more likely to perform conjugate addition, whereas nucleophiles that have its opposite property add directly to the carbonyl. This property is possessed by Gilman reagents and thiolates, but not Grignards.

ANSWER: **softness**

[10] Pearson's hard-soft acid-base theory assigns hard and soft labels to species which fit this American chemist's definition of acids as electron acceptors and bases as electron donors. His "dot diagrams" are used to model covalent bonding.

ANSWER: Gilbert Newton **Lewis**

<SP Chemistry>

7. Rummy Mitchens and Snobby Price pretend to be more boorish than they really are to please this organization. For 10 points each:

[10] Name this organization that Bill Walker believes has corrupted his girlfriend Jenny. An industrialist decides to donate 5,000 pounds to this organization after hearing Bodger has donated 5,000 pounds as well.

ANSWER: The **Salvation Army**

[10] The Salvation Army features prominently in this play, in which the arms manufacturer Andrew Undershaft makes the Professor of Greek Adolphus Cusins the heir of his business and fortune.

ANSWER: **Major Barbara**

[10] *Major Barbara* is by this author, who also wrote *Man and Superman* and *Pygmalion*.

ANSWER: George Bernard **Shaw**

<LL British Literature>

8. Answer the following about people named John who opposed the Ottoman Empire. For 10 points each:

[10] John III Sobieski, the king of Poland, defeated Kara Mustafa to lift the 1683 siege of this Austrian city, a turning point in the Ottoman-Habsburg wars that marked the end of Ottoman expansion into Eastern Europe.

ANSWER: **Vienna** [or **Wien**]

[10] John Hunyadi led this 1444 crusade against the Ottoman Empire, during which Murad II was called back to retake the throne from his 14-year-old son Mehmed II after the crusaders broke the Peace of Szeged.

ANSWER: Crusade of **Varna**

[10] Suleiman the Magnificent conquered this island from the Knights of Saint John, or Knights Hospitallers, in 1523, after which Charles V granted the Knights of Saint John control over Malta.

ANSWER: **Rhodes**

<WC European/British History>

9. Answer some questions about classic Chinese architecture, for 10 points each.

[10] One of the most prominent elements of Chinese architecture was an interlocking wooden form of *these* supports called *dǒugǒng* (“*doh-gung*”). These supports jut out from a wall, and other examples include corbels.

ANSWER: **brackets**

[10] Like modern skyscrapers, classic Chinese buildings had “curtain” walls, which are opposed to *this* kind of wall, which is more structural.

ANSWER: load-**bearing**

[10] The traditional Chinese “quadrangle,” or *sìhéyuàn* (“*suh-huh-y’WEN*”), consists of several houses surrounding one of *these* spaces. This general term applies to any outdoor space enclosed by a building.

ANSWER: **courtyards** [prompt on “*héyuàn*” since that’s kind of in the question]

<JR Other Arts>

10. Answer some questions about cauldrons in Norse mythology, for 10 points each.

[10] In the cauldron Óðrerir, Fjalar and Galar mixed Kvasir’s blood and honey to make this substance. Odin later stole this substance under the guise of the farmhand Bolverk.

ANSWER: **mead of poetry** [or **mead of Suttungr**; accept clear equivalents]

[10] Andhrímnir uses the cauldron Eldhrímnir to cook Sæhrímnir, which takes the form of this animal, as a daily meal for the Æsir. Freyja disguised Óttar as one of these to learn about his ancestry, and Freyr’s primary mount is one of these animals.

ANSWER: **boar**

[10] After fishing for Jörmungandr, Thor and Týr take this giant’s cauldron to brew beer at Ægir’s feast.

ANSWER: **Hymir**

<AF Mythology/Other>

11. Rosetta's *Philae* was the first spacecraft to land on one of these objects, Churyumov–Gerasimenko. For 10 points each:

[10] Name these small, icy bodies that often have eccentric orbits. When passing close to the Sun, these objects can produce both an ion gas tail pointing away from the Sun, and a curved dust tail.

ANSWER: **comets**

[10] The dust tail is created by this phenomenon in Poynting–Robertson drag, the transfer of momentum from solar photons to dust grains. This phenomenon propels solar sails and causes bumpy asteroids to spin in the YORP effect.

ANSWER: **radiation pressure** [accept **radiation force**; prompt on “pressure”; do not accept “solar wind” – that creates the ion tail]

[10] This term describes the elongated, two-lobed shape of Comet Churyumov–Gerasimenko, Comet Tuttle, and the asteroid Itokawa. This term also describes binary star systems in which both stars overflow their Roche lobes.

ANSWER: **contact** binary

<OL Other Science>

12. It opens with a description of Futani hearing bells and ends with a misanthropic doctor writing that description in an abandoned town. For 10 points:

[10] Name this novel, set in a rain-soaked town whose villagers await the arrival of Irímias for six steps, then move six steps backwards with him. It served as the basis for the script of an equally bleak, seven hour film.

ANSWER: **Sátántangó** (“SHAH-tahn-TONG-oh”)

[10] *Sátántangó* was written in this language, which was used to write the obscenely long novel *Parallel Stories*. A book consisting of a lot of negative answers, *Kaddish for an Unborn Child*, was also written in this language.

ANSWER: **Hungarian** [or **Magyar**]

[10] The narrator of *Kaddish for an Unborn Child* refuses to have a child after surviving *this* place. Imre Kertész (“EEM-reh KARE-tace”), the author of *Kaddish*, set his novel *Fatelessness* in this concentration camp, and attacked *Schindler's List* in an essay called “Who Owns [*this place*].”

ANSWER: **Auschwitz**-Birkenau

<IKD European Literature>

13. This poet wrote that “water is increased by water, fire by fire, and earth causes its own substance to increase, and air, air.” For 10 points each:

[10] Name this pre-Socratic philosopher, who theorized the conflicting forces of Love and Strife.

ANSWER: **Empedocles**

[10] Empedocles was the first to theorize that the world is made entirely of *these* things. Aristotle proposed five of them by adding aether to the traditional earth, fire, air, and water.

ANSWER: the four Classical **elements**

[10] Empedocles was heavily influenced by this philosopher's followers, who worshipped a graphical representation of the numbers 1 through 4. This man is credited with a theorem relating the squared side lengths of right triangles.

ANSWER: **Pythagoras** [accept **Pythagoreans**]

<JR Philosophy>

14. The winning side in this war pursued a failed economic policy of “war communism.” For 10 points each:

[10] Name this conflict between the Red and White Armies that began after the fall from power of Nicholas II.

ANSWER: Russian Civil War

[10] In the Ukraine, the Red and White Armies were opposed by the Black Army, which was led by this anarchist.

ANSWER: Nestor Makhno

[10] These people were targeted for extermination after the Russian Civil War, since their Zaporozhian and Kuban groups had sided with the White Army.

ANSWER: Cossacks

<NC European/Ancient History>

15. This highly-branched polymer of glucose monomers is used by animals to store energy. For 10 points each:

[10] Name this polysaccharide, most of which is stored in the liver. Genetic errors in the proteins controlling its metabolism are responsible for a variety of diseases.

ANSWER: glycogen

[10] This glycogen storage disease, characterized by a deficiency in debranching enzyme, is named after the husband-wife pair who also discovered the cycle by which muscle lactate is converted back to glucose in the liver.

ANSWER: glycogen storage disease (GSD) type III [accept Cori’s disease or Forbes’ disease or limit dextrinosis]

[10] This other GSD is caused by a deficiency in muscle glycogen phosphorylase, which catalyzes the first step of glycogenolysis at the periphery. Its obvious symptoms involve myalgia and muscle weakness.

ANSWER: glycogen storage disease (GSD) type V [accept McArdle’s disease]

<SP Biology>

16. Statues of this kind include the “Keros Musician.” For 10 points each:

[10] Name this branch of Ancient Aegean art, known for its abstract statues of harp players and female figures, like the “Syros Woman.”

ANSWER: Cycladic art

[10] Because they’re old statues of naked women, those cycladic figurines have inevitably been compared to *this* 30,000-year-old statue of a large woman with no face. It was found near a namesake town in Austria.

ANSWER: Venus of Willendorf [or The Woman of Willendorf]

[10] Most of the best-known Cycladic sculptures were, like most surviving Greek sculptures, made of *this* white rock.

ANSWER: marble

<JR Visual Arts>

17. This man wrote *Personality and Psychotherapy* with John Dollard. For 10 points each:

[10] Name this Yale psychologist known for his development of biofeedback.

ANSWER: Neal E. Miller

[10] Miller proposed that fear was a behavior that could be learned through *this* process. Pavlov used this process to make his dogs salivate whenever he rang a bell.

ANSWER: classical conditioning (*doorbell rings* Pavlov: “*Oh shit, I forgot to feed the dog!*”)

[10] Miller and Dollard also developed an influential, if somewhat obvious theory in which aggression springs from *this* state of being unable to complete one’s goals.

ANSWER: frustration [accept word forms like frustrated, but do not accept common-language synonyms]

<JR Economics/Psychology>

18. Tip Smith tells a story about a destroyed Indian settlement on the title place in this author's "The Enchanted Bluff." For 10 points each:

[10] Name this American author whose visit to Native American cliff dwellings at Mesa Verde inspired their appearance in several of her works. She also wrote *O Pioneers!* and *My Ántonia*.

ANSWER: Willa **Cather**

[10] Cliff-dwellings in a Panther Canyon are described in Part Four of this Cather novel, which follows Thea Kronborg's rise to fame as an opera singer.

ANSWER: *The **Song of the Lark***

[10] This other Cather novel includes a diary detailing the discovery of an abandoned cliff settlement by Tom Outland, a deceased student of the nostalgic title character, Godfrey St. Peter.

ANSWER: *The **Professor's House***

<JB American Literature>

19. This Veda contains the Chandogya and Kena Upanishads. For 10 points each:

[10] Name this collection of musical hymns to Vedic gods such as Agni and Varuna.

ANSWER: **Samaveda**

[10] This primary Veda, the oldest, contains important sayings such as the Gayatri Mantra and is traditionally divided into 10 *mandalas*.

ANSWER: **Rigveda** [or **Rk** Veda]

[10] The tenth section of the Rigveda is a *suktam* describing *this* primordial sacrificial being who is one thumb's length larger than everything, yet smaller than everything. Indra and Agni came from its face, Chandra from its heart, Surya from its eyes, and Vayu from its breaths.

ANSWER: **Purusha**

<AP Religion>

20. This country led the Greater East Asia Co-prosperity Sphere, which consisted of several puppet states that it had established in countries that it had invaded and occupied. For 10 points each:

[10] Name this country, an Axis power whose Kwantung Army invaded China before and during World War II.

ANSWER: **Japan**

[10] Japan established a Chinese puppet state governed from Nánjīng by this leader, once a left-wing member of the Guómíndǎng. He previously formed a regime in Wǔhàn with the communists to oppose Chiang Kai-shek.

ANSWER: **Wāng Jīngwèi**

[10] Another collaborator with Japan was this leader of the Azad Hind, a provisional government of India. He founded the radical Forward Block of the Indian National Congress, and was given the honorific Netaji.

ANSWER: Subhas Chandra **Bose**

<WC World History>