## 2022 ARCADIA □

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Packet 11: at what point will Jon Bois content have literary significance

## **Tossups**

- 1. A people residing in this modern-day country raised cattle that grazed backwards in order to avoid sticking their horns in the ground. A period named for tribes from this country saw the establishment of the Bubastite Dynasty by a chief of the Meshwesh. The unsustainable drainage of "fossil water" by foggaras led to the decline of a civilization based in this country who hunted the "cave-dwelling" troglodytes. The "Nine Bows" of one civilization included this country's Tjehenu people, who terrorized them from the west. Battus I ("the first") founded a city in this country to save (\*) Thera from drought. Septimius Severus was born in this country, which was home to the Garamantes. The cities of Leptis Magna and Cyrene were located on this country's coast. For 10 points, the easternmost extent of Rome's Africa province was in what country located to Egypt's west? ANSWER: Libya [or State of Libya or Dawlat Lībiyā; accept Ancient Libya]

  <a href="https://doi.org/10.1001/journal.org/10.100
- 2. A ballad about this event ends by contemplating people who "meddle with our give and take / That converse bone to bone." Before his death in this event, a poet wrote, "The beauty of the world hath made me sad" in "The Wayfarer." Another speaker asks, "Was it needless death after all?" and mourns how "Too long a sacrifice / Can make a stone of the heart" in a poem about this event that describes a (\*) "drunken, vainglorious lout" who "too, has resigned his part / In the casual comedy." That speaker regrets their "polite meaningless words" after meeting participants in this conflict "at close of day / Coming with vivid faces." A poem about this conflict repeats that "a terrible beauty is born" after the martyrdoms of "MacDonagh and MacBride / And Connolly and Pearse." For 10 points, what 1916 Irish insurrection is the subject of a W. B. Yeats poem? ANSWER: Easter Rising [or Easter Rebellion or Éirí Amach na Cásca or Éirí Amach 1916 or Aiséirí na Cásca; prompt on Easter, 1916 by asking, "What event occurred on that day?"; prompt on The Rising (The first clue is about Yeats's "Sixteen Dead Men.")
- <AS, British Literature>
- 3. Bright orange types of these objects called *balağan* are built at Us Khatyn ("oos khah-TUN") for the largest celebrations of Ysyakh ("uss-YOCK"). Norman Foster drew inspiration from these objects for the Khan Shatyr Entertainment Center. A so-called "district" of these objects around the Gandan Monastery uses what3words's geocoding services as part of its nation's postal system. These objects are topped with a *tündük*, a hoop with two crossed groups of wooden bands, which features within a (\*) sun on one country's flag. Bags of *airag*, or fermented horse milk, are attached to the tops of a type of these structures called *ger* ("gare"). These structures' woolen felt covers and circular wooden frames are designed to be dismantled and carried on camel or yak saddles. For 10 points, name these tents used by Central Asian nomads.

  ANSWER: vurts [accept gers until read; prompt on tents until read by asking "What specific type of tent?"]

ANSWER: <u>vurts</u> [accept <u>gers</u> until read; prompt on <u>tents</u> until read by asking, "What specific type of tent?"] <AS, Geography>

4. The "polarity" of this feature in certain languages cannot be represented with the feature-matrix representational model, leading linguists to instead argue for an autosegmental model. Oklahoma Cherokee has this feature yet North Carolina Cherokee does not, due to contact-induced genesis of this feature.

Meeussen's rule describes a change of this feature in Bantu languages, which can also undergo "terracing," a form of this feature's (\*) "sandhi" ("SUN-dee"). This feature may comprise a morpheme on its own, called "floating [this feature]," and can undergo downstep from HH to HL. The importance of this feature in Mandarin is often demonstrated with minimal pairs of the syllable *ma* ("mah"), and this feature is romanized with diacritics in Pīnyīn. For 10 points, name this linguistic feature that can convey lexical information through rising or falling pitches.

ANSWER: <u>tone</u> [prompt on <u>pitch</u>] <IH, Social Science>

5. One pathogen's three programs for this process are interrupted by the ZEBRA protein, which preferentially binds methylated CpG sites. Using antioxidants like glutathione to force maintenance of this process is one proposed solution to address concerns about antibiotics ending it and activating Stx ("stix") virulence in Shiga-toxin-producing *E. coli* O157:H7. A recA-mediated response cleaves a repressor of *cro* transcription, (\*) cI ("C-one"), to end this process. The virulence of species like *V. cholerae* and *C. botulinum* is associated with this process's namesake conversion. This process ends when "induced" by an external factor like UV light. Temperate phages like lambda and pathogens like herpes simplex virus can undergo this process, whose result is a prophage. For 10 points, name this phase of viral dormancy in a host genome that can transition into the lytic cycle.

ANSWER: <u>lysogeny</u> [or <u>lysogenic</u> cycle; accept <u>lysogenic</u> conversion; accept viral <u>latency</u> or word forms; prompt on any description of a <u>virus</u> or <u>phage integrating</u> into a <u>host genome</u>; prompt on any description of <u>prophage</u> <u>formation</u> until "prophage" is read] (The first clue refers to Epstein-Barr virus's ZEBRA protein, which induces the lytic cycle.)

<HK, Biology>

6. Nicholas de Nicolay detailed "renegadoes" referred to by this term in his magnum opus. Reverend Ólafur Egilsson published an account of travels with people described as this term. Jack Ward became a member of a group described as this term, known for operating bagnios ("BAH-nyohs"), when James I rejected his request for a royal pardon. An offshoot of a group described as this term occupied Lundy for five years, a period during which they (\*) sacked the Irish town of Baltimore. Jan Janszoon led members of that group to form the Republic of Salé ("sah-LAY"). The "founding fathers" of people given this name are Oruc ("oh-ROOCH") Reis and his younger brother Hayreddin Barbarossa. Stephen Decatur burned the USS *Philadelphia* during the first of two wars that America fought, described by this term. For 10 points, identify these pirates named for the North African coast.

ANSWER: <u>Barbary</u> pirates [or <u>Barbary</u> corsairs or <u>Ottoman corsairs</u> or <u>Ottoman pirates</u>; accept <u>Salé Rovers</u> or <u>Sallee Rovers</u> until "Salé" is read; accept <u>Barbary</u> Wars; prompt on <u>pirates</u> or <u>corsairs</u> or <u>privateers</u>; prompt on <u>Ottomans</u>]

<KT, European History>

7. In this mountain range, men dressed as half-bear *ukukus* carry blocks of glacier ice on their backs during the "snow star" festival. Worshippers in this range may light cigarettes in the mouth of the god of plenty, Ekeko, who is revered during the Alasitas festival. Tin miners and cane cutters in this range could make pacts with the Devil as told in a Michael Taussig work titled for commodity fetishism. This range's Witches' Market is run by folk healers known as *yatiri*. The (\*) *raymi* festivals are celebrated in this range. *Chicha* beer is spilled on the ground in this range to honor the goddess Pachamama. A city in this range was founded after a golden staff sunk into the ground. For 10 points, name this mountain range where coca was used for ritual purposes by the Inca.

ANSWER: <u>Andes</u> Mountains [or Cordillera de los <u>Andes</u> or <u>Anti</u>kuna or <u>Anti</u> Uraqi; prompt on <u>Altiplano</u>] <AS, Beliefs>

8. The movement of bipolaron units manifests as this property in oxidized poly thio phenes. To study the film of a polymer with this property, uni axially oriented films of the polymer were developed in the presence of a nematic liquid crystal phase by Hideki Shirakawa. Inert quaternary ammonium compounds such as Bu<sub>4</sub>NPF<sub>6</sub> ("B-U-four-N P-F-six") are used to increase this property for solutions. Cationic poly acetylene was the first polymer to practically demonstrate this property that can be attributed to its (\*) extended conjugated pi system. Loss of this quantity for solutions is prevented by salt bridges. Materials typically have this property if they have a low band gap energy between P-N junctions. For 10 points, solutions with electrolytes have what electrical property of allowing current to flow through them?

ANSWER: electrical **conductivity** [accept super**conductivity**; accept word forms like **conducting**; prompt on <u>aromaticity</u> or <u>conjugation</u> or <u>delocalization</u> of <u>electrons</u> by asking, "What other property does that involve?"] <JZ, Chemistry>

9. In one novel, this man's urinary incontinence is linked to memories of an encounter with a "skinny girl" at the Mahogany House. After surviving a massacre orchestrated by this man in another novel, Yves ("EEV") and Amabelle come to terms with the death of Sebastian. A third novel compares this man's downfall to the fall of Mordor and calls him "our Sauron, our Arawn, our Darkseid." The elderly Agustín discusses this man with his daughter, a New York lawyer and (\*) rape victim of this man named Urania Cabral, in a novel titled for his assassination. Beli is saved by a golden mongoose after she is beaten in a sugarcane field by this leader's goons as part of his fukú curse in the novel The Brief Wondrous Life of Oscar Wao. For 10 points, Mario Vargas Llosa's ("YO-sah's") The Feast of the Goat depicts what longtime dictator of the Dominican Republic?

ANSWER: Rafael <u>Trujillo</u> [or Rafael Leónidas <u>Trujillo</u> Molina] (The second sentence refers to Edwidge Danticat's *The Farming of Bones*; the other unnamed novel is *The Brief Wondrous Life of Oscar Wao*.)

<AS, World Literature>

10. This painting was repopularized by an ode that describes a soul hovering "in the ice air of that room," written by Charles Baudelaire. This painting inspired a later canvas created by Paul Baudry in which a woman in a striped dress appears in front of a map. This painting housed in Brussels's Oldmasters Museum inspired a 1907 canvas in which a red-haired woman stands in front of its subject. A document that reads, "Given that I am unhappy, I have a right to your help," is held by a figure in this painting whose (\*) drooping arm was inspired by Jesus in Caravaggio's *Entombment of Christ*. A quotation for the "The Friend of the People" newspaper by Charlotte Corday is held in this painting by a turbaned man bleeding into a bathtub. For 10 points, name this Jacques-Louis David painting of a murdered revolutionary.

ANSWER: *The <u>Death of Marat</u>* [or *La <u>Mort de Marat</u>; or <u>Marat Assassiné</u>] <GE, Visual Arts>* 

11. A "flow" named for this physicist on the cotangent bundle of a Riemannian manifold can be used to find geodesics. Those flows named after this physicist are vector fields on symplectic manifolds. A function named for this physicist denoted S is the input to a single, first order PDE co-named for him that is closely related to the Schrödinger equation. The statement that a system will take a path in configuration space for which the (\*) action is stationary is this physicist's namesake principle. This physicist names a formulation of classical mechanics that replaces generalized velocity with generalized momenta and co-names an equation with Carl Jacobi. For 10 points, name this British physicist whose namesake quantity is defined as the sum of the kinetic and potential energy.

ANSWER: Sir William Rowan <u>Hamilton</u> [accept <u>Hamilton</u>ian; accept <u>Hamilton</u>ian flow; accept <u>Hamilton</u>ian vector field; accept <u>Hamilton</u>'s principle; accept <u>Hamilton</u>-Jacobi equation]

<JF, Physics>

12. This river bounded the northern extent of the Gaza Empire at its height after further progress was stifled by a "Pacification Campaign." In order to regain his throne, Gatsi Rusere ("roo-SAY-ray") assented to a system of matrilineal estates along this river called *prazos*. This is the larger of two rivers near the site of Ingombe Ilede ("ill-LAY-day"), a trading center of copper and cowrie shells that declined from competition with southern cities like Khami and one that Karl Mauch thought to be the biblical city of (\*) Ophir. To combat the Kingdom of Mutapa, the port of Sofala near this major river's mouth was captured by the Portuguese. David Livingstone named a waterfall on this river after a British Queen. The watershed between this major river and the Limpopo was once commanded by Great Zimbabwe. For 10 points, name this river that contains Victoria Falls. ANSWER: Zambezi River

<AS, World History>

13. This artist asked Anthony Vaccarello to incorporate catcher's kneepads into a gold Space Age-inspired suit. After seeing portraits of Henry VIII, this artist asked the designers Michael Bush and Dennis Thompkins to add bullion embroideries to this artist's wardrobe. Maison Margela created a replica jacket copied from one worn by this artist that maintained a red "V." Christophe Decarnin's Balmain jackets were inspired by this artist's penchant for motocross and (\*) military jackets. Fred Astaire inspired this artist to wear fedoras. While wearing a white suit and blue undershirt, this artist maneuvered a peg into a slot in a shoe heel to accomplish a 45-degree "antigravity" lean. For 10 points, name this artist who appears as a zombie in a red leather jacket in the music video for "Thriller."

ANSWER: Michael **Jackson** [prompt on MJ]

<GE, Other Arts: Visual>

14. Two characters in this novel make love under a bar counter before spying on the woman's former lover through a peephole. In this novel, a lewd letter addressed to the woman with the garnet necklace from a member of the fire brigade is torn to shreds, and the woman's refusal to follow the letter's instructions results in the ostracization of her family. A couple in this novel begins living in the local schoolhouse after the man is employed as a (\*) janitor, leaving their lodgings at the Herrenhof Inn. The protagonist of this novel abuses his assistants Arthur and Jeremiah, one of whom has an affair with the protagonist's fiancée Frieda, the former mistress of the bureaucrat Klamm. For 10 points, name this final novel of Franz Kafka, in which the land surveyor K. attempts to access the title structure.

ANSWER: The <u>Castle</u> [or Das <u>Schloss</u>]

<HG, European Literature>

15. This thinker outlines how a "realistic utopia" could be achieved in a work that uses "Kazanistan," a hierarchical society that respects basic rights, to show how "Decent" and "Liberal" peoples should interact. This thinker identified "Public political culture" as the only fundamental basis for law that can preserve reasonable pluralism. This philosopher argued that economic and social inequalities must be such that they benefit the least well off in society. One work by this philosopher advocates (\*) "overlapping consensus" as the best guarantee of stability in liberal societies. That work by him says that one must enter a "veil of ignorance" to ensure the impartiality of this thinker's "original position" thought experiment. For 10 points, name this philosopher who argued for the idea of justice as fairness in *A Theory of Justice*.

ANSWER: John <u>Rawls</u> [or John Bordley <u>Rawls</u>] (The work referenced in the first sentence is *The Laws of Peoples*.) <MB, Philosophy>

16. An early draft of this poem references the addressee as an "average-sized person" with "fine hands" and ends, "never never again." A dash appears before addressing an unknown "you" for the first time in this poem's final stanza, in which its only reference to the author's lover, Alice Methfessel, is "the joking voice, a gesture / I love." This poem lists "my mother's watch," "three loved houses," and "some realms I

**owned, two rivers, a** (\*) continent." Written after the suicide of her partner, Lota de Macedo Soares, this poem's author inserted the parenthetical note "Write it!" into its final line, "though it may look like - like disaster," which rhymes with its refrain. For 10 points, the speaker repeats that "the art of losing isn't hard to master" in what villanelle by Elizabeth Bishop?

ANSWER: "One Art"

<CM, American Literature>

17. A portrait of this person's daughter was discovered at Nag's Head after a group of shipwreckers known as the Carolina Bankers may have used false signal lights to beach the *Patriot*. This person was described as having an "angel's impartiality" and the "devil's rigor" while presiding over Samuel Chase's impeachment trial. South Carolina Governor John Alston married this person's daughter. John Barker Church accused this person of accepting bribes from the (\*) Holland Company. James Wilkinson conspired with that man to create an independent nation in the Texas Territory. Insults against this person in the Cooper Letter led to a confrontation at the Heights of Weehawken in which he murdered a former Treasury Secretary. For 10 points, name this first vice president of Thomas Jefferson, who dueled Alexander Hamilton.

ANSWER: Aaron <u>Burr</u> <KT, American History>

18. Timing side-channel attacks like Prime and Probe monitor these components in order to infer the activity of a victim process. The performance of these components is visualized on a histogram of stack distances. Bus snooping is used in distributed systems to maintain coherence between these components. Replacement of the least-recently used entry may be prompted by failed read attempts to these components, which are classified as (\*) compulsory, conflict, or capacity. Data for the fully-associative type of these components can be stored in any block, in contrast with the direct-mapped type. Modern CPUs typically integrate levels in this component up to L3 and exploit spatial locality to reduce the number of accesses to main memory. For 10 points, name these small components of memory in CPUs and browsers that store recently accessed data.

ANSWER: caches

<KJ, Other Science: Computer Science>

19. The first movement of one piece for this type of ensemble is summarized by an eight-bar unison F-minor theme that questioningly ends on a C major chord. Rising A-major sextuplet arpeggios punctuate the first movement of a piece for this ensemble that Sylvester Paumgartner asked to be modeled on a piece by Johann Hummel. Hermann Levi convinced Johannes Brahms to recast a sonata for two pianos as his lone, F-minor piece for this ensemble. Felix Mendelssohn helped compose the funeral march and scherzo of (\*) Robert Schumann's E-flat major piece for this ensemble, which he premiered in place of Clara Schumann. A bass unusually plays in a Franz Schubert piece for this ensemble named for its variations on his lied "Die Forelle" ("dee for-REL-luh"). For 10 points, name this chamber ensemble comprised of a string quartet and a piano.

ANSWER: piano quintet [prompt on quintet]

<IZ, Auditory Arts>

20. In Krachi myth, this phenomenon occurs whenever Owuo blinks. In a Jamaican tale, this phenomenon captures Anansi's family as they fall from the ceiling because the trickster had stolen his barbecue. A forest of bananas is grown in a day by Mwindo under the orders of Muisa, a god of this phenomenon. Ogbanje torment mothers by repeatedly undergoing this phenomenon. In a ceremony that occurs *after* individuals undergo this phenomenon, they relate a "Negative Confession" in front of 42 judges. Unkulunkulu introduces (\*) marriage to counter this phenomenon after the chameleon loses a race to the lizard. It's not day or light, but individuals were guided through the Duat with the aid of a "book" of magical spells named for this phenomenon. For 10 points, the Weighing of the Heart occurs after what event, whose domain is presided over by Anubis? ANSWER: death [accept Book of the Dead; accept Brother Death or Brah Death; accept rebirth or being reborn]

1. BARDA, NIOSH, and NIST hosted a competition for evaluating submitted designs for these objects. For 10 points each:

[10e] Name these objects. Airgami made an origami "dragon's egg" design of these objects that has large breathing space while still fitting tightly on the face to block particulate matter.

ANSWER: masks [accept N95 respirators; prompt on filters by asking, "What are the filters on?"]

[10m] Finalist mask designs will be tested for leakage using Schlieren imaging, which creates images based on how variations in this property of a fluid will cause light to bend because of this property's relation to the index of refraction.

ANSWER: **density** [accept **rho**]

[10h] Light used as an input in Schlieren imaging must have this property, which can be achieved for X-rays by using a Söller device that has rectangular foils.

ANSWER: collimated [accept collimator]

<JZ, Physics>

2. Leibniz defined this quality as a "simple quality which is positive and absolute, or, which expresses without any limits whatever it does express." For 10 points each:

[10h] Name this quality that Descartes calls an innate idea in our minds that, like infinity, is used to grasp God's existence in the fifth chapter of *Meditations on First Philosophy*.

**ANSWER:** perfection

[10e] Inferring the existence of God through the idea of God's perfection is key to Descartes's and Leibniz's examples of these arguments for God's existence. Saint Anselm formulated the most well known of these arguments.

ANSWER: ontological arguments

[10m] Leibniz's cosmological argument for God's existence rests on this principle, which states that everything's existence has an explanation. Arthur Schopenhauer wrote a thesis on the "fourfold root" of this principle.

ANSWER: principle of sufficient reason [or PSR]

<JS, Philosophy>

3. James Donovan planned to gift a diving suit filled with Madura foot fungus and tuberculosis bacteria to accomplish this goal. For 10 points each:

[10m] Name this goal. In the book *Legacy of Ashes*, Tim Weiner describes attempts to accomplish this goal such as a poisonous chocolate milkshake or a hypodermic needle hidden inside a ballpoint pen.

ANSWER: <u>killing</u> Fidel <u>Castro</u> [accept similar answers regarding the <u>assassination</u> of Fidel <u>Castro</u>; prompt on <u>destabilizing Cuba</u> or other answers that are related to the country; prompt on <u>assassination</u>s by asking, "Of whom?"]

[10e] Donovan also negotiated the releases of Cuban exiles from Brigade 2506, a unit equipped by the CIA before this failed 1961 invasion intended as a counterrevolution to Castro's rise.

ANSWER: <u>Bay of Pigs</u> Invasion [or Invasión de <u>Playa Girón</u>; or Invasión de <u>Bahía de Cochinos</u>; or <u>Batalla de</u> Girón]

[10h] An exploding cigar and a deadly conch shell were two murder ideas fabricated by Edward Lansdale and William King Harvey as part of this CIA campaign to destabilize Cuba with help from Italian mobsters.

ANSWER: Operation Mongoose

<GE, American History>

4. In one of this choreographer's ballets, the bride and groom are selected based on their height, and a group of maidens hold onto the bride's long braids in its first of four tableaus. For 10 points each:

[10h] Name this choreographer. The lengthened silhouettes of dancers *en pointe* recall saints in Byzantine iconography in this dancer's choreography for Igor Stravinsky's *Les noces*.

ANSWER: Bronislava Nijinska [reject "Nijinsky"]

[10e] Nijinska and Stravinsky collaborated to create *Aurora's Wedding*, a shortened version of this Tchaikovsky ballet in which a dancer balances *en pointe* and turns in a circle to face four suitors during the Rose Adagio.

ANSWER: The <u>Sleeping Beauty</u> [or <u>Spyashchaya krasavitsa</u>]

[10m] This ballet ends with a triple wedding in a kolkhoz, which climaxes in a folk-inspired piece that features eighth note F-sharps on the xylophone.

ANSWER: Gayane

<AY, Other Arts: Auditory>

5. A magazine founded in this city represented its bicontinental heritage with its logo of an eagle wearing a Phrygian cap and holding a pen. For 10 points each:

[10e] Name this city that lends its name to a literary "review" established by George Plimpton in 1953. Ernest Hemingway and other writers of the "Lost Generation" moved to this European city after World War I.

ANSWER: **Paris** [accept The **Paris** Review]

[10m] The *Paris Review*'s celebrated "Writers at Work" series is in this format. This form also provides the structure of a David Foster Wallace collection that examines "hideous men."

ANSWER: **interview**s [accept Brief Interviews with Hideous Men]

[10h] This poet scored a hit tweet in 2013 by asking the *Paris Review*'s Twitter account, "So is Paris any good or not." This author of the prose poem "Rape Joke" published her debut novel *No One is Talking About This* in 2021.

ANSWER: Patricia <u>Lockwood</u> <HG, American Literature>

6. Cyanide irreversibly binds a protein located within this structure, while another protein found within this structure has F0 and F1 subunits. For 10 points each:

[10m] Name this highly invaginated, impermeable structure. Because it is impermeable to NADH and NAD<sup>+</sup>, glutamate and alpha-ketoglutarate must be antiported through this structure with aspartate and malate, respectively. ANSWER: <u>inner mitochondrial membrane</u> [accept word forms and other word orders; prompt on <u>membrane</u> or <u>mitochondrial membrane</u> by asking, "Which one?"; prompt on <u>inner membrane</u> by asking, "Of what?"; prompt on <u>cristae</u> by asking, "What structure comprises cristae?"; prompt on <u>mitochondria</u> by asking, "Which part of mitochondria?"; reject "cell membrane" or "plasma membrane"]

[10e] A recently-appreciated mitochondria-associated membrane belongs to this organelle and associates via protein tethers to help regulate calcium homeostasis and lipid metabolism. This organelle has smooth and rough varieties.

ANSWER:  $\underline{endoplasmic\ reticulum}$  [or  $\underline{ER}$ ; accept smooth  $\underline{ER}$  or rough  $\underline{ER}$ ; accept mitochondria-associated  $\underline{ER}$  membrane; prompt on  $\underline{MAM}$ s]

[10h] Formation of isolation membranes indicative of this process occurs at mitochondria-associated ER membranes, as does localization of ATG proteins that regulate this process.

ANSWER: <u>autophagy</u> [or <u>autophagocytosis</u>; or macro<u>autophagy</u>] <HK, Biology>

7. In her comparison of this animal to the "miraculous creatures" that appear in Old English riddles, Erin Sebo argued that a poem's opening line "Ic aught" is similar to the riddles' opening line "Ic seah," ("EECH sakh") or "I see." For 10 points each:

[10m] Name this animal whom that poem describes as "Brute beauty and valour and act, oh, air, pride, plume" and introduces as "morning's minion, king- / dom of daylight's dauphin."

ANSWER: the windhover [prompt on kestrel or hawk or falcon or bird]

[10e] This English poet employed his characteristic sprung rhythm in poems like "Pied Beauty" and "The Windhover."

ANSWER: Gerard Manley **Hopkins** 

[10h] Hopkins also used sprung rhythm to evoke this bird's song in a poem in which "The whole landscape flushes on a sudden at a sound." The Middle English rota "Sumer is icumen in" tells this type of bird to "loudly sing."

ANSWER: <u>cuckoo</u> < CM, British Literature>

8. A memory of hearing the *saenghwang* ("SENG-h'wong") playing from a distant mountain inspired a piece for this instrument titled for an Egyptian symbol for air. For 10 points each:

[10h] Name this free reed instrument played by Wu Wei, with 17 vertical bamboo pipes. This Chinese instrument sustains a high A to open Unsuk Chin's concerto  $\check{S}u$  ("shoo").

ANSWER: sheng ("shung")

[10e] Melodies in traditional *sheng* music are played in parallel octaves and notes separated by an interval of this number. A triad contains a root, a third, and a scale degree with this number: the dominant.

ANSWER: **five** [accept perfect **fifth**; accept parallel **fifth**s]

[10m] The *sheng* also accompanies performances on one of these instruments, whose buzzing timbre is produced by a *mó kŏng*. Japanese *gagaku* orchestras once prominently featured one of these instruments that *fuke* monks used while meditating.

ANSWER: flute [accept dízi ("DEE-dzuh"); accept shakuhachi]

<EG, Auditory Arts>

9. Lila Abu-Lughod rejects the notion that women who wear these objects are being coerced by male pressure in *Do Muslim Women Need Saving?* For 10 points each:

[10e] Name these objects, which include a blue variety that the Taliban forces women to wear in public.

ANSWER: <u>veils</u> [accept <u>hijab</u>s; accept <u>burqa</u>s; accept <u>burqa</u>s; accept <u>burkini</u>s; accept <u>headscarf</u> or <u>headscarves</u>; accept answers like <u>face covering</u>s]

[10m] A 2011 book by Leila Ahmed calls the choice of Muslim women to take on the veil as a display of piety a "quiet" one of these events. Theda Skocpol studied these events in France and China in a book titled for "states and social" examples of them.

ANSWER: revolutions [accept A Quiet Revolution; accept States and Social Revolutions]

[10h] Susan Moller Okin claims Islam, along with Christianity and Judaism, commonly seeks to "justify the control and subordination of women" in an article whose title asks if this concept is "bad for women."

ANSWER: <u>multiculturalism</u> [accept "Is <u>Multiculturalism</u> Bad for Women?"]

<GP, Social Science>

10. After the death of his mentor, Edward Mansvelt, this man took control of the "Brethren of the Coast" and led plundering expeditions to Spanish settlements across the Caribbean. For 10 points each:

[10e] Name this Welsh privateer who obtained enough money through piracy to purchase three Jamaican sugar plantations. For that reason, a popular brand of rum is named after this "Captain."

ANSWER: Henry Morgan [or Captain Morgan]

[10m] Morgan's privateering only afforded him a place in the "Bachelor" class of these people since he did not join organizations like ones named after a garter or a thistle.

ANSWER: **knight**s [accept **Knight**s Bachelor]

[10h] In 1668, Morgan captured this Spanish settlement, also the site of Mansvelt's execution. Edward Vernon besieged this settlement in modern-day Panama during the War of Jenkins' Ear.

ANSWER: Porto Bello [or Portobello; accept Battle of Porto Bello]

<GP, Other History: British>

11. In *Wor(l)ds Interrupted*, M. NourbeSe Philip claims that "this current insists that we do not speak" with this feature, arguing instead for the "explosive staccato" of a "no·language·of·our·own." For 10 points each:

[10h] Name this poetic feature. In *History of the Voice*, Kamau Brathwaite claims that "the hurricane does not roar" with this feature to argue that British poetic techniques cannot accurately represent the Caribbean experience.

ANSWER: iambic **pentameter** [prompt on meter]

[10e] Philip states that this poet "tempts then tames the iambic pentameter sparring with the dactyls of Calypso in the spoiler's return," referring to this poet's use of the dactyl in *Omeros*.

ANSWER: Derek Walcott [or Derek Alton Walcott]

[10m] Philip compares her resistance of iambic pentameter with that of this character. In Aimé Césaire's ("eh-MAY say-ZAIR's") postcolonial adaptation of a Shakespeare play, this character leads a slave revolt after demanding to be called X.

ANSWER: <u>Caliban</u> <AS, World Literature>

12. The cooling of one body's interior and its subsequent shrinking is responsible for the generation of these phenomena at lobate scarps. For 10 points each:

[10h] Name these comparatively "weak" phenomena that were first detected following the placement of the PSE. Meteorite impacts and tidal forces can cause these events, whose occurrence is evidenced by "boulder tracks."

ANSWER: <u>moonquake</u>s [prompt on <u>quakes</u> or <u>seismic waves</u> or <u>vibration</u>s by asking, "On what body?"; accept **quakes** on the **Moon**; reject "earthquakes"]

[10e] Lobate scarps are curvilinear structures that form above the thrust type of these geological fractures. On Earth, quakes are caused by sudden movements along these boundaries.

ANSWER: **fault**s [accept thrust **fault**s]

[10m] A team of JPL and CalTech scientists hopes to send heliotropic balloons to this planet's atmosphere in order to detect quakes. The landscape of this planet, which may have undergone a "catastrophic resurfacing" event, is marked with tesserae.

ANSWER: Venus

<KT, Other Science: Astronomy>

13. Olga Bondareva and Lloyd Shapley proved that this set is non-empty if and only if a cooperative game is balanced. For 10 points each:

[10h] Identify this set of actions by the grand coalition in a cooperative game that cannot be blocked, as no coalition has incentive to break off. All competitive equilibria of a market belong to this set.

ANSWER: the core

[10e] When viewing a consumer market as a cooperative game, each player's payoff function is one of these functions. These functions represent the amount of satisfaction that a consumer receives from a bundle of goods.

ANSWER: utility functions

[10m] A non-empty core is guaranteed when a cooperative game has this property, in which the incentive to join a coalition is larger for larger coalitions. The utility function of a [emphasize] risk-seeking actor has this property.

ANSWER: **convex** [accept word forms]

<VD, Social Science>

14. Two Black people pick cherries in the background of a painting in which a man in a green coat draws back a curtain and points at this man. For 10 points each:

[10e] Name this central figure of Grant Wood's painting *Parson Weems's Fable*, whose face is modeled from Gilbert Stuart's *Athenaeum Portrait*.

ANSWER: George Washington

[10m] Frustrated with the perception of *American Gothic*, Wood painted this other canvas as a "queer parody" of history to make people "rant and rave." In this satirical painting, three women resembling the Founding Fathers enjoy tea in front of Leutze's *Washington Crossing the Delaware*.

ANSWER: <u>Daughters of Revolution</u> [accept <u>Daughters of the Revolution</u>]

[10h] In contrast to Wood's feminine depiction, Phidias's statue of Zeus at Olympia inspired this sculptor's *Washington Enthroned*, in which the president extends a sword. During renovations to the U.S. Capitol Building, a crane dropped this sculptor's pieces *The Rescue* and *The Discovery of America*.

ANSWER: Horatio **Greenough** ("GREE-no")

<ME, Visual Arts>

15. The evolution of the queen from one of the weakest chess pieces to the strongest began in Spain under this ruler. For 10 points each:

[10e] Name this "Catholic monarch" who completed the Reconquista and began the Spanish Inquisition with her husband Ferdinand II.

ANSWER: Isabella I of Castile

[10h] An early sign of Isabella's power was her victory in the War of the Castilian Succession over this rival claimant to the throne. This woman's nickname came from the royal favorite who was supposedly her true father.

ANSWER: Joanna la Beltraneja [or Juana la Beltraneja; prompt on Joanna or Juana]

[10m] The adventures of Margaret of Anjou during the Wars of the Roses are unlikely to have influenced the queen's powers, but the juxtaposition of her war-making with this infirm husband of hers needing to be protected is very reminiscent of the royal dynamic in chess.

ANSWER: Henry VI of England

<RR, European History>

16. While serving as Minister of Finance for Angela Merkel, Wolfgang Schäuble blamed the expansion of this currency to Southern European countries like Portugal and Greece during an early 2010s economic crisis. For 10 points each:

[10e] Name this currency that Croatia will adopt in 2023, becoming the twenty-sixth country to join its namesake "zone."

ANSWER: **euro** [accept **euro**zone]

[10h] Schäuble disapproved of bailouts to some countries during the European debt crisis, a decision made by this informal group of institutions. You may either give the informal group name or the names of its individual members.

ANSWER: the <u>Troika</u> [accept the <u>European Commission</u> AND the <u>European Central Bank</u> AND the <u>International Monetary Fund</u>; accept <u>EC</u> AND <u>ECB</u> AND <u>IMF</u>]

[10m] This is the only EU country that meets the Maastricht convergence criteria but is not a member of the eurozone, opting instead to keep using kroner like two northern countries. To join the EU, candidate states must meet a set of criteria named for this country's capital.

ANSWER: <u>Denmark</u> [or <u>Danmark</u>; accept Kingdom of <u>Denmark</u> or Kongeriget <u>Danmark</u>] <GP, Current Events>

17. The *keriah* is torn either upon reciting a blessing that proclaims God to be the "Master of Truth" or before this event, which follows *aninut*. For 10 points each:

[10m] Name this event during which neighbors prepare a *seudat havra'ah* ("hav-rah-ah"). Mirrors are covered to focus attendants' thoughts during this week-long period, which involves sitting on low stools.

ANSWER: <u>shiva</u> [accept sitting <u>shiva</u>; prompt on <u>mourning</u>, <u>avelut</u>, <u>lamenting</u> the dead, <u>grieving</u> or <u>bereavement</u>; reject "funeral"]

[10h] Because this collection of psalms is joyous, it cannot be recited if *shiva* overlaps with Rosh Chodesh, Sukkot, or Passover. Each line of a "Great" Psalm with this same title ends, "For His mercy endureth forever."

ANSWER: <u>Hallel</u> [accept the Great <u>Hallel</u>; accept Psalms <u>113-118</u>; accept half <u>Hallel</u> or full <u>Hallel</u>]

[10e] Mourners during *shiva* also abstain from luxury by not wearing leather or makeup, as is custom on Tisha B'Av and this holiday. This Day of Atonement begins with three recitations of *Kol Nidrei*.

ANSWER: Yom Kippur [or Yom HaKippurim]

<BW, Beliefs>

18. A husband refers to his wife's plan for him to do this action as an "infantile charade," but is enraged when, while doing this action, he hears his houseguest call him a "gullible" fool that he can "lead by the nose." For 10 points each:

[10m] Name this action that Orgon performs at the urging of his wife Elmire in order to catch his duplications houseguest making declarations of love to his wife.

ANSWER: <u>hiding under</u> the <u>table</u> [accept answers like <u>concealing</u> in place of "hiding"; accept answers like <u>beneath</u> or <u>behind</u> in place of "under"; prompt on answers like <u>eavesdropping</u>; prompt on partial answers; reject "hiding in the closet"] (Damis hides in a closet earlier in the play.)

[10e] Orgon hides under the table to observe the vulgarity of the title pseudo-religious hypocrite in this play by Molière.

ANSWER: Le <u>Tartuffe</u> [or <u>l'imposteur</u>; or The <u>Impostor</u>]

[10h] This author fictionalized Molière in his play *The Cabal of Hypocrites*. This author also wrote about the Turbin family during the Ukrainian Civil War in a novel later adapted into a play.

ANSWER: Mikhail <u>Bulgakov</u> [or Mikhail Afanasyevich <u>Bulgakov</u>] (The play is *The Days of the Turbins*; the novel is *The White Guard*.)

<PS, European Literature>

19. Answer the following about using stains to visualize amines in thin-layer chromatography, for 10 points each. [10m] After heating a TLC plate, amines can react with this stain to form a color known as Ruhemann's ("REW-ehman's") purple. In forensics, this stain can react with and detect amino acids in fingerprints.

ANSWER: <u>ninhydrin</u> [accept <u>2,2-dihydroxy-1H-indene-1,3(2H)-dione</u> or <u>2,2-dihydroxyindane-1,3-dione</u> or <u>1,2,3-indantrione</u> hydrate]

[10e] Amines contain this trivalent atom bonded to at least one hydrocarbon group. Ammonia, which has this central element, can be substituted to produce amines.

ANSWER: **nitrogen** [accept **N**]

[10h] If you plan to synthesize an amide using an amine and a carboxylic acid, use this stain that is incredibly good at staining carboxylic acids as yellow spots on a blue background. This pH indicator can be used to measure serum albumin concentrations.

ANSWER: bromocresol green [accept BCG]

<ME, Chemistry>

20. A "translation movement" of works into this language was aided by the knowledge of paper gleaned from captured Chinese prisoners after the Battle of Talas. For 10 points each:

[10e] Name this working language of the "House of Wisdom" in Baghdad, where Greek texts were translated for use by the Abbasid court.

ANSWER: Arabic [or al-'Arabiyyah]

[10m] The "House of Wisdom" was founded by either Harun al-Rashid or this second Abbasid ruler, who stabilized the empire following the death of As-Saffāh and had Abu Muslim assassinated.

ANSWER: Al-Mansūr [or Abū Jaʿfar ʿAbd Allāh ibn Muhammad al-Mansūr]

[10h] The "House of Wisdom" was based on the Academy of Gondishapur, the intellectual center of this dynasty. This dynasty sent the physician Borzuya to India to translate the *Panchatantra*.

ANSWER: **Sassanid**s [or **Sasanian**s]

<GP, World History>