

### TOSSUPS

1. A shared origin for these structures was the synapomorphy of Cavalier-Smith's proposed sixth kingdom, whose members include the modern Alveolata in the SAR clade. The independent development of these structures in *Paulinella* 200 million years ago has resulted in loss of phagocytic ability. In *P. falciparum*, post-translational addition of both a signal peptide and a transit peptide provides localization to these structures inside the rough ER. Fixation has allowed these structures to retain enzymes in the MEP pathway. These structures may use both Sec61 and the Toc/Tic ("tock-tick") complex to translocate proteins across their two-to-four membranes. The trend of genome loss from these structures is essentially complete in the parasitic genus *Rafflesia*. For 10 points, name this category of organelle derived from the endosymbiosis of cyanobacteria.

ANSWER: **plastids** [accept **chloroplasts**; accept **apicoplasts**; prompt on primary **endosymbionts**; prompt on membranous **organelles** until read] (Thomas Cavalier-Smith proposed the kingdom Chromista for various microbial eukaryotes.)

<Biology>

2. This concept is represented as a centaur who must be killed in a speech by a drunken "specter" who later ends a family feud near a grove that a Yaruro ("yah-ROO-roh") chief cursed with storms. A one-eyed alligator apparently eats a woman named for this concept whose supernatural "Partner" helps her turn La Barquereña ("bar-kay-RAIN-yuh") into El Miedo ("mee-YAY-doh"). Horace Mann's wife Mary translated a book from the Generation of 1837 that symbolizes this title concept with mandatory red ribbons and contrasts it with Porfirio Díaz's *científicos* ("see-en-TEE-fee-kohs"). The lawyer Santos Lizardo reclaims the *hacienda* ("ahss-YEN-duh") Altamira from a woman named for this concept in a novel by Rómulo Gallegos ("gah-YAY-gohss"). A *caudillo* ("cow-DEE-yo") called the "tiger of the plains" personifies this concept alongside his ally Juan Manuel de Rosas. For 10 points, gauchos represent what concept in Domingo F. Sarmiento's *Facundo*, which contrasts it with civilization?

ANSWER: **barbarism** [or word forms of **barbarity**, **barbarians**, **barbarous**, **barbarie**, or **bárbaro**; accept *Doña Bárbara* or *Lady Barbara* or *Barbarita*; prompt on *Facundo*: *Civilization and Barbarism* or *Facundo: Civilización y Barbarie* until "civilization" is read and accept afterwards; prompt on **terror** or **violence** or **violencia** by asking "the book identifies it as an aspect of what central concept?"]

<World Literature>

3. In Mozart's *Coronation Mass*, this text is sung in a solo soprano aria whose melody anticipates his later aria "Dove sono." In a foreboding passage from Beethoven's *Missa solemnis*, two soloists alternate singing this text in recitative ("reh-sih-tuh-TEEV"), over trumpet fanfares and timpani rolls. In Mozart's Requiem, this text is set in a movement that begins with a loud D minor chord that gives way to a quiet run of 11 sixteenth notes in the violins. In Palestrina's *Pope Marcellus Mass*, this text is split across two movements, the latter scored for seven voices. In J. S. Bach's Mass in B minor, this prayer is set as a G-minor aria for contralto and two violins. Haydn's *Paukenmesse* ("PAO-ken-MESS-uh") is named for the violent timpani solo in its movement with this title, which follows the Sanctus and Benedictus. For 10 points, name this Latin prayer to the "Lamb of God."

ANSWER: **Agnus Dei** ("day") [prompt on **Lamb of God** until read; reject "Dona nobis pacem"]

<Classical Music>

4. This man's forces invested, then killed, a legitimate ruler whose alleged descendant claimed to be an incarnation of Indra and sparked a 70-year civil war with his dynasty. This ruler declared victory over a "domain of manifest civility" in a "great proclamation" written by an official who was supposedly executed for poisoning this man's son at his lychee garden. This ruler's grandson expanded his agrarian law code and Confucian exams and compiled "complete annals" starting with the Hùng kings. This so-called "Prince of Pacification" captured cannons during Jiāozhǐ's ("jee-OW-jurr's") brief fourth period of domination by "the north," which he resisted from Lam Sơn ("lahm sun") after the surrender of the Hồ and Later Trần dynasties. A golden turtle in Hoàn Kiếm ("hwan kee-um") Lake mythically reclaimed this man's sword Heaven's Will. For 10 points, what rebel expelled the Ming from Vietnam?

ANSWER: **Lê Lợi** ("lay luh-ee") [or **Lê Thái Tổ**; accept **Bình Định vương**; prompt on **Lê** or **Lợi** or **Thái Tổ**; prompt on **Lê Code**] (Clues include Trần Cao and the Lê–Mạc War, Nguyễn Trãi's *Bình Ngô đại cáo*, and Lê Thánh Tông compiling the *Đại Việt sử ký toàn thư*.)

<World History>

5. A treatise named for this place preserves an argument based on the "indiscriminability" of pairs of eggs, as well as the "inactivity objection" that faced a position named for this place. A leader of this place opposed ideas of "natural justice" since a shipwrecked sailor would be a fool to not kill a weaker man clinging to a plank of wood.

Augustine's first work is a dialogue "against" a tradition named for this place that promoted reliance on *pithanon*, or the "probable," in the face of *acatalepsia*. Due to scholars like Arcesilaus ("ar-sess-ih-LAY-us") and Carneades, this place names the more extreme of the two main traditions of ancient skepticism. Justinian closed this place, to which a plucked chicken was once brought to ridicule a definition of man as a "featherless biped." For 10 points, name this school in a grove outside Athens that was founded by Plato.

ANSWER: **Academy** [or Platonic **Academy**; or **Akademia**; accept New **Academy** or Third **Academy** or Old **Academy**; accept **academic** skepticism or *Against the Academicians* or *Academica*; prompt on the School of **Athens** until "Athens" is read] (The first sentence refers to Cicero's *Academica*.)

<Philosophy>

6. This interaction in "hard" and "soft" parts of a bilayer enables data recording in a namesake type of "spring media." DiVincenzo et al. showed that terms modeling this interaction can represent any quantum computation. This finite-range interaction contributes to the formation of Peierls ("PIE-urlls") droplets. The Goodenough ("good-enough")–Kanamori rules concern a "super" variant of this interaction that was used to model high-temperature superconductors by Philip Anderson. This interaction's strength is represented by negative  $J$  times a sum of " $\sigma_i$  times  $\sigma_j$ " terms, which gives rise to complex behavior in the Ising ("icing") model. In the absence of an external field, this interaction dominates below the Curie temperature, encouraging local alignment between magnetic moments. For 10 points, ferromagnetism is often modeled in terms of what interaction between nearby spins?

ANSWER: **exchange** interaction [or **exchange** force; accept super**exchange** interaction; accept **exchange** spring media; accept **Heisenberg** interaction; prompt on **spin**–spin interaction until "spins" is read]

<Physics>

7. In *Affinities*, Brian Dillon links Annie Dillard’s description of a solar eclipse with photos from this country from the books *Illuminance* and *Cui Cui*. A squatting woman eats a broken-open watermelon on the cover of a Taschen photobook of an artist from this country who photographed Lady Gaga and Björk and captured his wife in *Sentimental Journey*. U2 collaborated with an artist from this country known for the long-exposure *Seascapes* and *Theatres* series. A print from this country inspired Jeff Wall’s photograph *A Sudden Gust of Wind*. An artist from this country created “Tunafish sandwich piece,” an “event score” from her book *Grapefruit*. That artist from this country wears a black shirt and jeans and lies on a carpet with her nude husband curled around her in a photo by Annie Leibovitz. For 10 points, name this home country of Yoko Ono.

ANSWER: **Japan** [or **Nippon**; or **Nihon**] (The unnamed photographers are Rinko Kawauchi, Nobuyoshi Araki, and Hiroshi Sugimoto.)

<Other Fine Arts>

8. An ode to one of these people hopes for the birth of our “own Platos and quick-witted Newtons.” A poet brought a portrait of Louis-Pierre Louvel labeled as a “lesson to” these people to a theater and was then exiled. The direction “the people are silent” ends a verse drama titled for one of these people who is accused of murder by a fool wearing an iron cap. One of these people is addressed with a threat translated as “just you wait!” or “I’ll get you!” by a man angry that his “lethal willpower” indirectly led to the drowning of a girl who lived in a shanty by a willow tree. A novel about the “Moor” of one of these people follows the author’s great-grandfather Abram Gannibal. After shaking his fist at a statue of one of these people, Yevgeny is chased and killed by it. For 10 points, name this title held by the subject of “The Bronze Horseman” by Alexander Pushkin.

ANSWER: **tsars** [or **tsarinas**, **czars**, or **czarina**s; or **Russian emperors** or **Russian empresses**; prompt on **emperors**, **empresses**, or generic synonyms of **rulers**, **monarchs**, **kings**, or **queens**; prompt on **horseman** or **horsemen** or **statues** by until “statue” is read by asking “what was the title of the person depicted by the statue?”] (The ode in the first sentence was written by Mikhail Lomonosov on the accession of Empress Elizabeth. The verse drama is *Boris Godunov*.)

<European Literature>

9. Nan Lin et al. measured this concept with a “position-generator” technique. Daniel Aldrich linked this concept to resilience to natural disasters. It’s not migration, but a 1998 paper by Alejandro Portes critiqued theories of this concept for neglecting negative effects like downward-leveling norms and for circular reasoning in attributing it to political systems. It is not information or ideas, but Ronald Burt theorized that this concept arises from brokerage across structural holes. “Bonding” and “bridging” types of it are contrasted in a work that rejects a “reputing hypothesis.” A theorist who contrasted levels of this concept in Northern and Southern Italy argued that television and the end of a “civic generation” reduced it in the US. For 10 points, name this concept whose “decline” was traced in Robert Putnam’s *Bowling Alone*.

ANSWER: **social capital** [accept “Bowling Alone: America’s Declining **Social Capital**”; prompt on **capital**; prompt on social **trust**]

<Social Science>

10. Beatrice de Graaf argued that the “machine” run by one of these things fostered “security culture” after it superseded one dismissed as a “loud-sounding nothing.” Henry Kissinger’s thesis, *A World Restored*, claims that restraining these things maximized the “freedom of action” sought by Count Stadion’s successor. During the Vormärz (“FOR-mairts”) period, one of these things could forcibly return revolutionary members to its “bosom” under a “preliminary protocol” drafted by Ioannis Kapodistrias (“cap-oh-DISS-tree-uss”) at Troppau. A “secret protocol” let one of these things militarize the Wellington Barrier after its renewal at Aix-La-Chapelle (“ECKS la shah-PELL”) in 1818. The 18th-century instability of these things was dubbed the “stately quadrille (“kwah-DRILL”).” The “concert system” managed “Holy” and “Quadruple” ones comprising the great powers. For 10 points, England reversed what type of relations in the Diplomatic Revolution?

ANSWER: **alliances** [or **ally**, **allies**, **allied** powers, or “**Allied** Machine”]; accept **coalitions** or **leagues** or **ententes**; accept Holy **Alliance** or Triple **Alliance**; prompt on **Congress** of Vienna, Wiener **Kongress**, **Concert** of Europe, or **conventions** by asking “what sort of group did it establish?”; prompt on great **powers** or **states** or similar by asking “organized into what sort of group?”; prompt on international **relations** or **diplomatic** contingents until each is read] <European History>

11. In a novel set in this state, a girl steals a snake from a preacher and nearly kills an old woman by dropping it into the sunroof of her car. Harry Houdini inspires that girl in this state to learn to hold her breath, which allows her to avoid drowning in a water tower. In another novel, crimes in this state apparently inspire a massacre at a bar in Rock Springs, Wyoming by Chinese men. In that novel, a strange dead Black man appears at the scene of this state’s serial killings of White men. Donna Tartt’s novel about Harriet Dufresnes (“dew-FRAYN”), *The Little Friend*, draws on her childhood in this state, where Percival Everett set *The Trees*. After a man in this state compares Milly, who has just borne him a child, to a mare, he is killed with a scythe by Wash Jones. For 10 points, what state contains the mansion of Sutpen’s Hundred in William Faulkner’s *Absalom, Absalom!*?

ANSWER: **Mississippi** [or **MS**]  
<American Literature>

12. CUBO (“KOO-boh”) Architects designed a visitors’ center about this natural resource for the DTU at its National Testing Center near Thy (“tew”) National Park. TenneT (“tenet”) proposed a transnational “hub-and-spoke” to connect with this resource’s facilities in a country that creates them with the “open door” procedure. 2023 protests against exploiting this resource on Sámi lands were joined by Greta Thunberg. Experiments with this resource by Poul la Cour and Johannes Juul informed the folk high school volunteers in the 1970s who first exploited it at scale in Denmark. This resource’s Dutch industry created Gemini and often faces protests over an alleged sonic “syndrome.” Capturing this resource with “parks” like the German Bight’s Alpha Ventus is vital to the *Energiewende* (“en-air-GHEE-ven-duh”). For 10 points, what renewable resource is harnessed by the North Sea’s offshore “farms”?

ANSWER: **wind** [accept **wind** power or **wind** energy; accept **wind** turbines, **wind** farms, **wind** power stations, **wind** power plants, or **wind** parks; prompt on **air**, **air currents**, **circulation**, or **atmosphere**; prompt on **motion** or **movement** or **kinetic** energy; prompt on **electricity** or **power** or **energy** by asking “generated with what natural resource?”] (The first line refers to the Technical University of Denmark and Østerild Wind Turbine Test Field.) <Current Events>

13. During this year's "Great Demonstration" in New York, orators recited songs and poems in French, Italian, and German. Craft workers nicknamed for this year spread the Louisville Platform to combat the rise of a political movement responsible for electoral violence on Bloody Monday. This is the first year covered in David Potter's *The Impending Crisis*. An author's claim that territorial concessions finalized in this year "will poison us" bolstered the argument of the "Spot" Resolutions. Barnburners left the Democratic Party in this year over opposition to a treaty negotiated by Nicholas Trist. A popular sovereignty proponent from Michigan lost this year's presidential election to a war hero nicknamed "Old Rough and Ready." For 10 points, in what year did the Treaty of Guadalupe Hidalgo end the Mexican–American War?

ANSWER: **1848** [prompt on '48 or the Forty-Eighters] (Ralph Waldo Emerson wrote that "Mexico will poison us.") <American History>

14. *Description acceptable.* Henri Lefebvre's *The Missing Pieces* notes how this artwork's success caused a crisis for its artist, who made kitschy "souvenir" versions of it in the 1970s. Whitney Chadwick says this piece embodies a movement's "oblique eroticism" and "alchemical transformation." A 1937 MoMA exhibit by Alfred Barr featuring this piece brought crippling fame to its artist, who had shown it at Charles Ratton's gallery. This piece was inspired by a collaboration on a partly brass bracelet with Elsa Schiaparelli and followed by trussed shoes titled *My Nurse*. This piece, which André Breton titled for *Luncheon on the Grass* and a Leopold von Sacher-Masoch ("ZAH-kur MAH-zock") novella, grew out of its artist's meeting with Pablo Picasso and Dora Maar at a café. For 10 points, material from a Chinese gazelle covers a saucer, spoon, and another item in what piece by Meret Oppenheim?

ANSWER: Object [or Meret Oppenheim's fur teacup; or Meret Oppenheim's saucer, teacup, and spoon covered in fur; or Le Déjeuner en fourrure; or Luncheon in Fur; or Breakfast in Fur; prompt on teacup; prompt on fur; prompt on descriptions of artworks by Meret Oppenheim until "Oppenheim" is read] <Painting & Sculpture>

15. The decline of IU Bloomington's software exchange was foreshadowed by the withdrawal of a program named for this person, whose "82" edition was distributed by Carnegie Mellon. The CNDO/2 method was an early application of three-zeta assemblages named for this person because they were developed in the same lab. A software suite named for this person controversially denied a license to its developer John Pople. Functions named for this person are stacked to reproduce the pointiness of Slater-type orbitals and are the components of the split-valence 6-31G basis set. Semi-empirical methods simplify electron correlation to one-center integrals using functions named for this person, which contain an "*e* to the minus-*r*-squared" term. For 10 points, what person names basis functions whose radial component resembles the normal distribution?

ANSWER: Karl Friedrich Gauss [accept Gaussian basis sets, Gaussian orbitals, Gaussians, Gaussian Inc., or Gaussian 82] <Chemistry>

16. *Description acceptable.* The Eastern Orthodox theologian David Bentley Hart called this doctrine "the only possible" credible interpretation of Christianity in a 2019 book titled for First Timothy Chapter 2, Verse 4. Hosea Ballou and George T. Knight controversially argued that this belief was standard in the early church based on the works of Gregory of Nyssa ("NISS-uh"). This doctrine's opponents cite Jesus's warning of a "narrow door" or "strait gate" in Luke Chapter 13. This doctrine may be expressed by Origen's ("origin's") idea of "apokatastasis" ("app-oh-kuh-TASS-tuh-sis"). This doctrine, which opposes conditional election and annihilationism, draws on First Corinthians' statement that "all will be made alive in Christ." Non-Trinitarianism and this doctrine name a non-creedal faith often called "UU-ism." For 10 points, what doctrine holds that in the long run, all souls will reach heaven?

ANSWER: universalism [or universal salvation or universal reconciliation; or descriptions of the belief that all souls will be saved, all souls will be reconciled with God, hell is temporary, or punishment for sin is not eternal; accept going to heaven in place of "saved" until "heaven" is read and prompt afterwards] <Religion>

17. The dynamics of these features are studied by equipping the Burridge–Knopoff model of a one-dimensional chain of blocks and springs with a “rate-and-state” friction law. Cataclasis (“cat-uh-CLAY-siss”) and melting within these features forms pseudotachylytes (“pseudo-TACK-ih-lites”). In practice, piercing points are rare in these features, so a bed and slickenside lineations are used to estimate a piercing point measurement. These geological features are divided into three regimes according to their maximum principal stress in Ernest Masson Anderson’s model of them, which is based on the Mohr–Coulomb failure criterion. As these features extend downwards, they transition to ductile shear zones. Displacement along these features causes the formation of horsts and grabens. For 10 points, “slip” refers to the relative motion at what planar fractures in the Earth’s crust?

ANSWER: **faults** [accept specific types of faults, such as strike-slip **faults** or transform **faults**; accept **fault** zones; accept **fault** blocks; prompt on **fractures** or **cracks** until “fractures” is read; prompt on plate **boundaries** or **boundary**; prompt on geologic **discontinuities** or **discontinuity**; reject “plates”]

<Other Science>

18. *Note to moderator: Read the answerline carefully. Note to players: Specific term required.* These people, whose oral history was collected in *Memoirs of the Maelstrom*, wrote contrasting accounts in *Strength and Goodness* and *The Rape of a Country*. A caricature of these people advertised the cocoa drink Banania (“ban-ann-YAH”) at a 1931 expo. These people, whose survivors won pensions in 2023, spoke the *forofifon naspa* jargon. These people, who suppressed the Somba, Bélé Dougou (“bay-lay-doo-GOO”), and Bani revolts, were denied back-pay and killed in the 1944 Thiaroye (“tyar-WAH”) massacre. Mosques like Missiri served these people’s winter camps during *hivernage* (“ee-vair-NAZH”). The “blood tax” killed over 30,000 of these people, including many *malgaches* (“mall-GOSH”) and Somalis, under Robert Nivelle (“ro-BAIR nee-VELL”). The “Black Horror on the Rhine” demonized these soldiers, whom Blaise Diagne (“blayz dee-YAN”) recruited as shock troops alongside Maghrebi *spahi* (“spah-YEE”) cavalry in World War I. For 10 points, name these riflemen from French colonies like Senegal.

ANSWER: **tirailleurs** (“tee-rah-YURR”) [accept **tirailleurs** from specific French colonies, like Senegalese **tirailleurs**; accept **turcos** or français-**tiraillo**; prompt on riflemen, **sharpshooters**, **skirmishers**, **African** army, Armée d’**Afrique**, troupes **indigènes**, **indigenous** troops, Armée **Coloniale**, **colonial** soldiers, **harkis**, **zouaves**, troupes de **marine**, or synonyms of any; reject “ascaris” or “spahis”] (Clues include Bakary Diallo, Lamine Senghor, the Paris Colonial Exposition, and the petit nègre jargon.)

<Other History>

19. In a 2012 play, a woman in this profession repeatedly trails off in fragmentary scenes that are revealed to all be part of a single conversation about assisted suicide. The beekeeper Roland marries Marianne, a woman in this profession who develops a brain tumor, in a play by Nick Payne. Retired members of this profession named Hazel and Robin run a dairy farm affected by a nuclear meltdown in Lucy Kirkwood’s *The Children*. A man in this profession debates which coworker he shot with a cap-pistol, and is asked why he did not turn his friend in to the Gestapo. That man’s wife Margarethe says he did nothing wrong when he laments the deaths of thousands in a play in which he and a colleague in this profession reconstruct their 1941 meeting. For 10 points, Michael Frayn’s *Copenhagen* explores the right of what profession to exploit atomic energy?

ANSWER: **physicist** [accept specific types of physicists, such as quantum **physicist**; accept **astronomer**; prompt on **scientist**, **researcher**, **professor**, **teacher**, or equivalents of any] (The play by Nick Payne is *Constellations*.)

<British Literature>

20. One of these objects names an annual feast at Fort Ouiatenon (“wee-ah-teh-non”) that reenacts Wea trade with Wabash River voyageurs (“voy-ah-ZHUR”). One of these objects caused blindness among the pale race said to have built a wall at Fort Mountain State Park, causing people with eyes like these objects to be killed by the Cherokee. A late summer raiding time nicknamed for one of these objects titles S. C. Gwynne’s history of Quanah Parker and the Comanche Empire. Farmer’s almanacs often listed ersatz “Indian” names for one of these objects, like the “sprouting grass,” “strawberry,” and “hunter’s.” One of these abiotic objects titles a David Grann book about William Hale’s schemes to acquire headrights to oil royalties in Oklahoma. For 10 points, a 2023 Martin Scorsese film about the Osage murders is titled for “killers” of what sort of object named for flowers?

ANSWER: **moons** [accept **months**; accept *Killers of the Flower **Moon***; accept *Empire of the Summer **Moon***; accept **moon**-eyed people; accept Feast of the Hunter’s **Moon**; prompt on natural satellites, astronomical bodies, celestial bodies, stellar bodies, heavenly bodies, or equivalents of any]

<Other Academic>

## BONUSES

1. C. L. R. James's story "Triumph" examines one of the communal yards within these structures that housed poor laborers in Port of Spain. For 10 points each:

[10m] What cramped buildings at St. Ann's housed Bridgetown's WIR ("W-I-R")? Africans were imprisoned in a type of these structures that titles Zora Neale Hurston's embellished account of Cudjoe Lewis, who survived America's last slave ship.

ANSWER: **barracks** [or **barraques** or **barracas**; accept **barracoons**, **barracón**, **barracones**, or **barracões**; accept **barrack**-yard, **barracks**-yard, yard-**barracks**, **barrack** ranges, or front **barracks**; accept West India **Barracks** or Stone **Barracks**; prompt on Saint Ann's **Garrison**; prompt on **dormitory**, **dormitories**, **huts**, or **cabins** by asking "what were they called in this context?"; reject "ships" or "boats"] (The WIR were the West India Regiments. Lewis was transported on the *Clotilda*.)

[10h] Haitian *braceros* lived in these wooden barracks on Dominican sugar estates. They share their name with Puerto Rican meeting spaces, Taíno ball courts, and Cuban millyards similar to *engenhos* ("en-ZHAIN-yoos").

ANSWER: **bateys** ("bah-TAYS") [or **bateyes**; accept **batu**]

[10e] Part of this Caribbean country's national museum is housed in 18th-century barracks in St. George's, which Eric Gairy renovated before his overthrow by Maurice Bishop.

ANSWER: **Grenada** [or **Gwenad**; accept **Grenada** National Museum]

<World History>

2. This artist painted wheat fields and flowers over blown-up photos from his Barjac studio for his *Morgenthau Plan* series. For 10 points each:

[10m] Name this artist whose textured Neo-Expressionist work uses materials like straw to examine German collective memory. Paul Celan's *Todesfuge* inspired his paintings of *Margarete*.

ANSWER: Anselm **Kiefer**

[10e] With a sculpture titled for this figure, Kiefer became the first artist since Georges Braque to have a permanent work in the Louvre. This mythical woman is curled up along a gold stream in a painting by Gustav Klimt.

ANSWER: **Danaë**

[10h] In the '70s, Kiefer obsessively depicted the floorboards of one of these places in paintings like *Parsifal I*. A stolen Biedermeier painting by Carl Spitzweg of a poet in one of these places was a favorite of Adolf Hitler's.

ANSWER: **attics** [accept **garrets**; accept **loft**] (The Spitzweg painting is titled *The Poor Poet*.)

<Painting & Sculpture>



3. The *Wén Xuǎn* (“wun shwen”) omits many ornate Yǒngmíng “poems on things” in this form, whose Vietnamese cognate titles Lê Quý Đôn’s (“lay kwee dohn’s”) “complete anthology” of Classical Chinese poems. For 10 points each:

[10m] Name this verse form contrasted with *Chǔcí* (“choo-tsih”)-style *fù* (“foo”) rhapsodies. This form’s generic name comes from the Chinese title of the 305 anonymous airs and hymns translated as the *Book of Odes* or *Classic of Poetry*.

ANSWER: **shī** (“shurr”) [or **shih**; accept *Shījīng*, *Shih-ching*, *Sì-gìng*, *Sy-chin*, *Kinh Thi*, or *Thi kinh*; accept *Máo shī* or *Máo shī zhuàn*; accept yǒngwù **shī** or yung-wu **shih**; accept *Toàn Việt thi lục*; accept, but DO NOT REVEAL, *siyán shī*; reject “*Shījīng*”]

[10h] After the “great preface,” the first poem in the *Shījīng* (“shurr-jing”) opens by repeating this word twice. This word is an onomatopoeia for the cry of mating ospreys who represent a gentleman courting a maiden.

ANSWER: **guān** (“gwahn”) [or **kuan** or **kwan**; accept “**Guān** jū,” “**Kuan** chu,” “**Guān** guān,” “**Kuan** kuan,” “**Guān**! cry the ospreys,” “**Guān** guān! cry the fishhawks,” “**Guān**! goes the osprey,” or similar translations; accept \***krón**]

[10e] “**Guān** jū” (“gwahn joo”) inspired many *chéngyǔ* (“chung-yew”) idioms of this many characters, the standard number in early *shī* lines. Confucians paired this many books with five classics.

ANSWER: **four** [or **4**; or **sì**; accept **Four** Books or **Sìshū**; accept **tetrasyllabic** verse or **sìyán shī**; accept **four**-character idioms or **tetragrams** or **four**-syllable expressions]

<World Literature>

4. The “static” type of this quantity applies in the case of a stationary particle on an inclined plane. For 10 points each:

[10e] What dimensionless quantity, often denoted by the letter mu, is very low for materials displaying superlubricity?

ANSWER: **coefficient of friction** [accept static **coefficient of friction**]

[10m] [read slowly] If the coefficient of friction between the particle and the plane is “one over root 3,” then what is the maximum inclination of the plane to the horizontal for which the particle can stay in equilibrium in the absence of external forces? You have 10 seconds.

ANSWER: **30** degrees [or **pi over 6** radians or one-**sixth pi** radians] (The maximum angle is given by the arctangent of the coefficient of friction.)

[10h] The angles between the forces acting on the particle are related by this French mathematician’s namesake theorem based on the sine rule. He stated the parallelogram law of forces around the same time as Isaac Newton and Pierre Varignon (“vah-rin-YON”).

ANSWER: Bernard **Lamy** [or Bernard **Lami**; accept **Lami**’s theorem]

<Physics>

5. *Description acceptable.* Alan Dundes (“DUN-diss”) criticized both nationalist and “Indianist” folkloristics in a “casebook” about this ritual, which inspired Slovenia’s Rojna Vrsta (“ROY-nuh VER-stuh”) dance. For 10 points each:

[10h] What ritual inspired folk songs like “Master Manole (“muh-NO-lay”),” “The Bride of Strumica (“STROO-meet-suh”),” and “Arta’s Bridge”? Vuk Karadžić (“KAH-ruh-jeech”) recorded Old Rashko’s *gusle* (“goose-leh”) performance of an epic about a *vila* who demands this ritual in Skadar.

ANSWER: **foundation** sacrifice [accept **builders’** rites or **masonic** sacrifices or **cornerstone** deposits; accept **immurement**, **inhumation**, **walling up**, **entombment**, or word forms or equivalents; accept descriptions of sacrificing humans to protect a **building** or any specific type of structure; accept *The Walled-Up Wife*; prompt on human **sacrifice** or **burial** or equivalents by asking “in what context?”]

[10m] Infant burials in Lepenski Vir’s houses may represent this type of protective magic exemplified by witch-marks and witch bottle deposits. Amulets provide this counter-magic named for warding off evil in Greek.

ANSWER: **apotropaic** (“APP-uh-troh-PAY-ick”) magic [or **apotropaism**] (Brian Hoggard’s *Magical House Protection* discusses the idea that dried cats found in buildings represent a reduced tradition of foundation sacrifice.)

[10e] These objects confer apotropaic (“APP-uh-troh-PAY-ick”) protection from Greek Christmas demons called *kallikantzaroi* (“kal-ee-KANT-sah-roy”) in a similar tradition to Scandinavian ones named for Yule.

ANSWER: **logs** [accept **branches**, **wood**, **kindling**, **twigs**, tree **trunks**, or other types of wood; accept Yule **logs** or **skakantzalos** or **badnjaks**; prompt on **fires**, **flames**, **hearths**, **fireplaces**, or equivalents by asking “burning what objects?”]

<Mythology>

6. Roman Jakobson (“YAH-cub-son”) argued that linguistic systems were generally built on oppositions between forms with this quality and those lacking it. For 10 points each:

[10m] Name this property of linguistic forms that stand out when compared to default forms. Since the feminine gender often has this property, masculine forms are often used to refer to mixed-gender groups.

ANSWER: **markedness** [or word forms of **marking**; accept **markedness** constraints]

[10e] Carol Myers-Scotton proposed the markedness model of this behavior, in which a speaker alternates between two or more languages or varieties within a single conversation.

ANSWER: **code-switching** [accept **code-mixing**]

[10h] The utility of markedness has been criticized by Martin Haspelmath, who co-edits this massive typological database maintained by the Max Planck Institute for Evolutionary Anthropology.

ANSWER: **World Atlas of Linguistic Structures** [or **WALS**]

<Social Science>

7. The inoculum effect produces a significant increase in this quantity, which inversely correlates with the diameter of the disk in the Kirby–Bauer disk diffusion test. For 10 points each:

[10h] Name this quantity known by a three-letter acronym. It must be exceeded in both time-dependent killing and concentration-dependent killing.

ANSWER: **minimum inhibitory concentration** [or **MIC**]

[10e] The minimum inhibitory concentration increases over time as this property develops. The use of “broad spectrum” agents can promote this property seen in MRSA (“MURR-sa”) strains.

ANSWER: **antibiotic resistance** [or **antimicrobial resistance** or **AMR**; accept **multidrug resistance** or **MDR**; accept descriptions of bacteria that are **resistant to antibiotics**]

[10m] The MIC of a drug can be calculated using this technique, which is also used in titer testing for antibodies. In this technique, the concentration is repeatedly halved until a change is observed.

ANSWER: **serial dilution** [prompt on stepwise **dilution** or word forms of **dilute**]

<Biology>

8. Paul of Aegina's ("ee-JYE-nuh's") medical compendium cites a cosmetic text by a physician identified with this ruler, who was credited with medieval writings on pessaries and alchemy like the *Chrysopoeia* ("kry-so-PEE-uh"). For 10 points each:

[10m] Name this ruler who cuts open the wombs of enslaved women to study sexual differentiation in a story from the Talmud. This ruler supposedly cured baldness with bear's grease and dissolved a pearl in vinegar.

ANSWER: **Cleopatra** [or **Cleopatra** VII or **Cleopatra** VII Thea Philopator; accept "**Cleopatra** the Physician" or "**Cleopatra** the Alchemist"]

[10h] Either Cleopatra or this pseudonymous woman was credited with writing the *Diseases and Cures of Women*.

ANSWER: **Metrodora** (Her name means "gifts of the womb," and scholars disagree if she was a real doctor or a fictional moniker of unknown scholars.)

[10e] Metrodora sourced remedies from the *Euporista* spuriously credited to this author, who was called a student of Cleopatra in Arabic texts. Soranus's *Gynecology* followed the principles of this Roman physician from Pergamon.

ANSWER: **Galen** [or Claudius **Galenus**; or **Galen** of Pergamon or **Galen** of Pergamum; accept Pseudo-**Galen**; accept **Galenic** medicine or **Galenic** corpus; prompt on **Claudius**]

<Other History>

9. Indiana was the hub of a Midwestern branch of this style led by classically-trained Black women like May Aufderheide and Julia Lee Niebergall. For 10 points each:

[10e] Name this style of highly-syncopated piano music that began in St. Louis with pieces like "The Entertainer."

ANSWER: **ragtime**

[10m] This composer wrote rags like "Grace and Beauty" and "Frog Legs Rag" after visiting his idol Scott Joplin in St. Louis, a journey akin to J. S. Bach's much earlier Lübeck pilgrimage. He, Joplin, and Joseph Lamb are ragtime's "Big Three."

ANSWER: James **Scott** [or James Sylvester **Scott**]

[10h] Pieces in this offshoot rag style were often sold on piano rolls due to their excessive complexity. Zez Confrey's "Dizzy Fingers" and Arthur Schutt's "Bluin' the Black Keys" exemplify this style.

ANSWER: **novelty** piano [or **novelty** rag; reject word forms such as "novel"]

<Other Fine Arts>

10. This author's essay "Going to See a Man Hanged" is about the execution of François Benjamin Courvoisier ("koor-vwah-zee-YAY"), a valet who murdered his employer, Lord William Russell. For 10 points each:

[10m] Name this author whose novel *Catherine* satirizes the glamorized criminals of his era's Newgate novels. An Irishman created by this author is impressed into the Prussian army after pretending to be Lieutenant Fakenham.

ANSWER: William Makepeace **Thackeray** (The Irishman is the title character of *The Luck of Barry Lyndon*.)

[10h] This Newgate novel by William Harrison Ainsworth led Courvoisier to kill Lord Russell. Its title character is repeatedly captured by the thief-taker Jonathan Wild and eventually hanged.

ANSWER: **Jack Sheppard**

[10e] This author also attended Courvoisier's execution. In "Going to See a Man Hanged," Thackeray criticizes this man's unrealistic character Nancy, an associate of Bill Sikes and Fagin.

ANSWER: Charles **Dickens** [accept **Boz**] (Nancy appears in *Oliver Twist*.)

<British Literature>

11. Contrary to intuition, these functions do not vary systematically with properties of a galaxy. For 10 points each:  
[10h] Name these functions written as a piecewise power law, in which one piece is the original Salpeter power law with an exponent of negative 2.35.

ANSWER: **initial mass** functions [or **IMFs**]

[10m] An initial mass function, or IMF, is used to derive the rate of this process from the amount of ionizing radiation emitted by a galaxy. The rate of this process scales with some power of the gas surface density according to the Kennicutt–Schmidt law.

ANSWER: **star formation** [or word forms of **star-forming**; or descriptions of **stars** being **created**; accept **star formation rate**]

[10e] Unresolved binaries complicate the determination of IMFs because the relation of stellar mass to this quantity breaks down. Unlike magnitude and brightness, this quantity is an intrinsic measure of radiant power.

ANSWER: **luminosity** [prompt on **L**]

<Other Science>

12. Frederik van Eedeën, a leader of the Dutch Tachtigers (“TOCKT-ih-hers”) and Significs, identified nine types of these things and pioneered recording them in diaries. For 10 points each:

[10m] Name these things that Aleksey Remizov transcribed. Doctor Fridolin attends a masked orgy after his wife Albertine confesses her hidden desires in an Arthur Schnitzler novella titled for these things.

ANSWER: **dreams** [accept **nightmares**; accept lucid **dreams**, **dream** diaries, **Dream Story**, **Traum**novelle, or **Dream Novella**; prompt on **sleep** or equivalents; prompt on **visions**, **fantasies**, **fantasy**, **figments**, **fancies**, **chimeras**, **visionary literature**, or equivalents of each]

[10h] The Javanese resident’s wife Léonie van Oudijck (“OW-dake”) cherishes the “secret vice” of dreams in this decadent Dutch author’s novel *The Hidden Force*. An heiress has a nervous breakdown in his 1889 “novel of the Hague” *Eline Vere* (“AY-leen-uh veer”).

ANSWER: Louis **Couperus** (“loo-EE koo-PEER-us”) [or Louis Marie-Anne **Couperus**]

[10e] Couperus (“koo-PEER-us”) wrote a Symbolist fairy tale about this princess, who marries Cupid in a myth from *The Golden Ass* by Apuleius.

ANSWER: **Psyche** [or **Psyché**]

<European Literature>

13. Daniel Defoe made an ill-fated attempt to farm these animals for their secretions, which infused cotton wipes during their Guinea trade. For 10 points each:

[10m] What viverrids (“vye-VER-rids”) are nicknamed “toddy cats” in Sri Lanka due to their taste for palm sap? SARS originated from these animals, whose feces is scoured for *kopi luwak* coffee berries in Indonesia and East Timor.

ANSWER: **civets** (“SIV-its”) [accept palm **civets**; accept specific species like masked palm **civets**; accept **musang**; accept **civet** coffee; prompt on **carnivores** or **carnivorans** or **feliforms**; reject “felines” or “mongooses” or “genets”]

[10e] African civets (“SIV-its”) became a byword for perfume since the civetone-rich oil of their perineal glands provides notes of this scent class, which also names Arctic “oxen.”

ANSWER: **musk** [or word forms of **musky**; accept **musk** oxen or *O. moschatus*] (Musk oxen are not true oxen; similarly, musk deer are not true deer.)

[10h] Al-Jāhiz’s (“JAH-hizz’s”) Abbasid debate between civet and deer musk spurned this resinous Asian heartwood, which is infected with parasitic mold. A princely state with the same name bordered India’s “perfume capital,” Kannauj (“KUN-nodge”).

ANSWER: **oudh** (“ow’d”) [or **ūd**; accept **Oudh** State, **Awadh** State, **Oudh** Subah, or **Awadh** Subah; accept **agarwood**, **aloeswood**, **eaglewood**, lign-**aloe**, **calambac**, **gharu**wood, **Gyrinops**, **Aquilaria**, **aguila**, **garo**, **alud**, **gaharu**, **karas**, **kỳ nam**, **trâm hương**, or **xylaloes**] (The debate, whose other contenders are saffron and ambergris, is discussed in Anya H. Hiking’s *Scent from the Garden of Paradise: Musk and the Medieval Islamic World*.)

<Geography>

14. Eric Hobsbawm characterized the start of this period as a “major servile upheaval” during the 17th-century “General Crisis.” For 10 points each:

[10h] Give this term for the chaotic period after the Khmelnytsky Uprising in Ukraine, when the Hetmanate’s Left and Right Banks were divided. It overlapped with the Polish–Lithuanian Deluge.

ANSWER: the **Ruin** [or **Ruina** or **Ruyína**]

[10e] Geoffrey Parker’s book *Global Crisis* argues that this period of early modern cooling prolonged the Ruin and Deluge, citing the Swedish army’s march across the frozen Baltic.

ANSWER: **Little Ice Age** [or **LIA**; reject “Ice Age”]

[10m] Sam White termed the Little Ice Age a “climate of rebellion” exploited by the Celâlis (“jay-LAH-lees”), challenging Halil İnalçık’s (“ee-NAHL-jick’s”) view that this technology drove *sekbans* to banditry. Hodgson and McNeill defined early modern “patronage states” by this technology.

ANSWER: **gunpowder** [or **black powder**; accept **gunpowder** empires or **gunpowder** era; prompt on **explosives** or **powders**; prompt on **guns**, **weapons**, **arms**, **cannons**, **artillery**, **mortars**, or **bombards** by asking “enabled by what substance?”]

<European History>

15. This composer’s First Piano Concerto begins with the soloist playing very low menacing B’s, over which the timpani plays its own sequence of crescendoing B’s. For 10 points each:

[10h] Name this composer whose Second Piano Concerto’s slow movement includes an outer *Adagio* for piano, muted strings, and timpani, which is interrupted by a dizzying *Presto* in which the winds join.

ANSWER: Béla **Bartók** [or Béla Viktor János **Bartók**]

[10e] This phenomenon names a style of spooky ambient music in the slow sections of Bartók’s piano concertos. John Field developed a Romantic genre titled for this period.

ANSWER: **night** [accept **night** music; accept **nocturne**; reject “darkness” or equivalent]

[10m] Valery Gergiev directed this orchestra through 2015, including during Yefim Bronfman’s bloody performance of Bartók’s Third Piano Concerto. In 2023, this orchestra’s then-music director Simon Rattle announced his sudden return to Germany.

ANSWER: **London Symphony** Orchestra [or **LSO**; prompt on **London**]

<Classical Music>

16. Binary compounds of these groups form binary acids when mixed with water. For 10 points each:

[10m] Name this group of polyatomic anions named for sharing properties with the typical leaving groups in cross-coupling reactions. Classic examples of these groups are cyanide and isocyanide.

ANSWER: **pseudohalides** [or **pseudohalogens**; reject “halogens” or “halides”]

[10h] All pseudohalides share the symbol X with the halides, but this simplest alkyl sulfonate gets its own pseudoelement symbol. Perfluorinating this group yields triflate.

ANSWER: **mesyl** [or **Ms**; accept **mesylates**]

[10e] Pseudo-rotations typically swap axial and equatorial atoms on molecules with this geometry, like phosphorus pentacyanide.

ANSWER: **trigonal bipyramidal**

<Chemistry>

17. *Two answers required.* Several *sui iuris* (“swee YOO-riss”) churches collectively described by these two adjectives descend from two distinct Ruthenian Uniate churches. For 10 points each:

[10m] What two English adjectives describe 23 particular churches in full communion? They include the Chaldean (“kal-DEE-in”) and Maronite patriarchates and several “Greek” churches that use the Byzantine rite.

ANSWER: **Eastern** AND **Catholic** [accept answers in either order; accept **Oriental** in place of “Eastern”; accept **Catholica** or **Catholicos** in place of “Catholic”; reject “Eastern Orthodox,” “Oriental Orthodox,” “Roman Catholic,” or “Latin Church”] (The term “Uniate” is sometimes considered derogatory.)

[10e] The prefix “Syro-” distinguishes Eastern Catholic Malabar and Malankara churches named for this saint from Oriental Orthodox ones that repudiated Portuguese influence. This apostle supposedly preached in India.

ANSWER: Saint **Thomas** [or **Thomas** the Apostle, Doubling **Thomas**, **T’ōmā**, **Didymus**, or **Didymos**; accept Saint **Thomas** Christians or Mar **Thoma** Nasrani]

[10h] Thomas’s disciple Addai and his own follower Mari name the primary anaphora used in this Eucharist of the Edessan rite, which recalls the ancient *Didache* (“DID-uh-kay”). You may also give the West Syriac equivalent.

ANSWER: Holy **Qurbānā** [or **Qurbānā** Qaddīšā or **Qurbānā** Qandīšā; accept Holy **Qūrōbō**, Holy **Qurbōnō**, **Qūrōbō** Qādīšō, or **Qurbōnō** Qādīšō; accept **qorbān** or **korban**; prompt on holy **offering** or holy **sacrifice**]  
<Religion>

18. Ben Hecht (“hekt”) organized the “We Will Never Die” pageant’s premiere at this site to draw attention to the plight of the Jewish people during World War II. For 10 points each:

[10m] Name this site that hosted several rallies for the American Jewish Congress in 1933. The German-American Bund’s “Pro American Rally” filled this location with swastikas and a massive portrait of George Washington.

ANSWER: **Madison Square Garden** [or **MSG III** (“three”); prompt on the **Garden**; prompt on **New York City**, **NYC**, **Manhattan**, **Hell’s Kitchen**, or **Theater District**; reject “Madison Square” or “Madison Square Park”]

[10h] This Reform rabbi, who declared a boycott of Nazi goods at a Madison Square Garden rally, cofounded the American Jewish Congress. He was the planned recipient of the Riegner (“REEG-ner”) Telegram, which revealed the scope of the Final Solution.

ANSWER: Stephen **Wise** [or Stephen Samuel **Wise**]

[10e] Wise cofounded the Congress with Felix Frankfurter and this first Jewish Supreme Court justice, who names a university outside of Boston.

ANSWER: Louis **Brandeis** (“BRAN-dyce”) [or Louis Dembitz **Brandeis**; accept **Brandeis** University]  
<American History>

19. *Two answers required.* In the so-called “grain argument,” the paper that coined this distinction uses a pink ice cube to suggest that the “homogeneity” of phenomenal properties makes them irreducible. For 10 points each:

[10h] Name these two viewpoints often illustrated with Arthur Eddington’s “two tables.” The 1960 paper that distinguished these viewpoints calls for philosophy to unite them into a “synoptic vision” of “man-in-the-world.”

ANSWER: **scientific** image AND **manifest** image [accept answers in either order]

[10m] The scientific and manifest images were defined by this thinker, who offered a *scientia mensura* principle in “Empiricism and the Philosophy of Mind.”

ANSWER: Wilfrid **Sellars** [or Wilfrid Stalker **Sellars**]

[10e] The cofounder of a journal named for this method, Susan Stebbing, wrote a critique of Eddington’s “two tables” passage. This method names a tradition contrasted with continental philosophy.

ANSWER: **analysis** [accept **analytic** philosophy; accept philosophical **analysis** or conceptual **analysis**]  
<Philosophy>

20. The speaker of a poem titled for this substance says that she will “dine on your delectable marrow” after threatening to “murder you with love.” For 10 points each:

[10e] Name this substance that titles a Carolyn Kizer poem. In *Twelfth Night*, Duke Orsino commands, “If music be [this substance] of love, play on.”

ANSWER: **food** [accept “**Food** of Love”; reject specific types of food]

[10h] Kizer borrows this French poet’s line “The whole green sky is dying” in a villanelle about the Gulf War. One of his poems is called a “sunlit paradigm” that evokes a “wellspring of authority” in a poem by James Merrill.

ANSWER: Paul **Valéry** [or Ambroise Paul Toussaint Jules **Valéry**] (Merrill’s poem is “Lost in Translation.”)

[10m] Kizer’s “Déjeuner sur l’herbe” (“day-zhuh-NAY soor LAIRB”) is a translation of a poem from this non-French language. In another poem, a native speaker of this language is punished for not knowing the difference between “persimmon” and “precision.”

ANSWER: **Chinese** [or **Hànyǔ** or **Zhōngwén**; accept **Mandarin** or **Guānhuà** or **Běifānghuà**] (The second poem is Li-Young Lee’s “Persimmons.”)

<American Literature>