

1. At the end of a 2015 film, the widow of a man with this occupation watches a soccer game that is briefly interrupted by gunshot noise. In a scene from another film, a woman with this occupation intones “there’s more to life than a little money” before driving past a plaid-clad statue. A blazing orange sunset provides the background of a shot from a 2015 film in which a woman with this job joins soldiers as they enter a tunnel. In a film, a woman with this job learns that Linda Cooks is neither dead nor the wife of (*) Mike Yanagita, after which she returns to a car dealership to hear “we haven’t had any vehicles go missing.” That woman with this job shoots Gaear Grimsrud (“GAY-ar GRIM-sud”) after seeing him put the body of Carl, played by Steve Buscemi, in a woodchipper. For 10 points, give this job of Marge Gunderson in *Fargo*.

ANSWER: police [or policeman or police woman or police chief or FBI agents or SWAT team members or DEA agents or sheriffs or cops; prompt on agent or law enforcement] (The other film is *Sicario*.)

<Other Art: Film, WA>

2. Bill V. Mullen argued that this text served as both a “blueprint” and a “blank check” for a group that sold it to Berkeley students to fund armaments, an idea developed by Huey Newton and Bobby Seale. This text, which was required reading for the Black Panthers, also inspired the name of I Wor Kuen’s (“ee wore kyoons”) “Serve the People” program. This text’s nominal author wrote its story of “The Foolish Old Man who Removed the Mountains,” one of its “Three (*) Constantly Read Articles.” In many “big character posters,” workers and soldiers are shown smiling and holding this text high in the air. This text forms the basis of its nominal author’s namesake “Thought,” which was spread throughout the country by the fanatical Red Guards who carried it. For 10 points, name this text composed of Mao Zedong’s sayings.

ANSWER: Little Red Book [or Quotations from Chairman Mao *Tse-tung* or Máo Zhǔxí Yǔlù]

<World History, EL>

3. Banks, Susskind, and Peskin claimed to have found a paradox in a paper arguing that either locality or this result cannot hold due to quantum decoherence. A direct consequence of assuming this result in astrophysics is the *vis-viva* (“viss-VEE-vuh”) equation. This result can be proven using the Euler–Lagrange equations by setting the partial derivative of the Lagrangian with respect to time equal to zero; similarly, it results from time (*) translation symmetry by Noether’s (“NUR-tuh’s”) theorem. In classical mechanics, this result does not hold for friction, but does hold for all forces for which the path taken does not affect the total work done, such as gravity. For 10 points, give this principle which states that a quantity with “kinetic” and “potential” forms cannot be created or destroyed.

ANSWER: conservation of energy [or energy conservation; accept equivalents indicating that energy is conserved; accept mass-energy conservation or energy-momentum conservation before “Euler–Lagrange” and prompt thereafter; do not accept or prompt on “conservation of momentum” alone]

<Physics, WA>

4. After running away from Walker, Pearl comments that “things in [this state] sometimes present the odor of cat piss” while holding her baby and pounding gin and tonics in a bar in Joy Williams’s *The Changeling*. In a play set in this US state, the owner of a factory shoots and kills the lector as he reads the dueling scene from *Anna Karenina*. In a novel set in this state, the daughter of Leafy compares bees (*) pollinating a pear tree to love, though her idealistic image is ruined by her tepid marriage to Logan Killicks. During a hurricane in that novel set in this state, a rabid dog bites Tea Cake as he attempts to save Janie from drowning. For 10 points, name this setting of *Anna in the Tropics* and *Their Eyes Were Watching God*.

ANSWER: Florida

<Misc. Lit, JC>

5. Many Chinese people who had performed this action were targeted by a misleading “confession program” in the 1950s, as profiled in Mae Ngai’s book *Impossible Subjects*. People who had performed this action were airlifted from Midway in a program implemented by Joseph Swing and Herbert Brownell under Dwight Eisenhower. People who had performed this action could demonstrate “good moral character” and benefit from the Simpson–Mazzoli Act of 1986, which was one precedent for a bill drafted in (*) 2013 by Chuck Schumer and other members of the “Gang of Eight.” People who had performed this action could not be distinguished from proper participants in the *bracero* program, leading to many civil rights violations in Operation Wetback. For 10 points, identify this action in which one moves to the US without requisite documentation.

ANSWER: illegal immigration [or illegal migration or unlawful immigration or equivalents; accept undocumented immigration before “undocumented”; prompt on any answer referring to immigration or immigrating or migrating to the US]

<US History, WA>

6. Walter Benjamin’s *Arcades Project* describes the *flâneur* (“flah-NURR”) as the “botanist of” these things. A 1999 work of participant observation titled for these things examines the everyday life of the bookseller Hakim Hassan and was written by Mitchell Duneier. These things are said to facilitate an art form that is “always replete with new improvisations” according to a passage about the “intricate ballet” that they allow by (*) Jane Jacobs. The creation of shared spaces in urban design often involves lowering their height. The speaker of a children’s poem uses “chalk-white arrows” to navigate to where one of these things ends; that poem is by Shel Silverstein. These structures include frontage and furniture zones and are required to be at least five feet wide by the Americans with Disabilities Act. For 10 points, name these structures that pedestrians use to navigate cities.

ANSWER: sidewalks [or pavement; accept “Where the Sidewalk Ends”; prompt on paths or footpaths or curbs]

<Other/Misc Academic, AK>

7. In 2004, Peter Skærved premiered the full version of a violin concerto by a composer from this country whose original version was cut 14 minutes in length. A piece from this country calls for the performer to play *glissandos* by plucking the piano’s strings to evoke the title instrument. A serialist piece from this country depicts a mythological woman who became a bird after her tongue was cut out. *The Aeolian Harp* and (*) *Philomel* are by composers from this country, which is the birthplace of George Rochberg (“ROCK-burg”). A composer from this country worked with David Tudor on pieces of indeterminate music like *Music of Changes*, and also wrote his *Sonatas and Interludes* for a piano with objects placed on its strings, which he called “prepared.” For 10 points, name this home of Henry Cowell, Milton Babbitt, and John Cage.

ANSWER: United States of America [or USA; or America]

<Classical Music/Opera, WA>

8. Aristotle spends much of Book IV of his *Metaphysics* arguing that these things are impossible. Stanislaw Jaśkowski’s (“stah-NEE-swaff yash-KOFF-skee’s”) development of discursive logic in the 1940s aimed to deal with these statements by rejecting disjunctive syllogism. Arguments premised on these statements are subject to the principle of explosion. They are often notated by a lightning bolt, a pair of swords, or an upside-down (*) T. Identity, this concept, and the excluded middle are described by Aristotle’s three classical laws. This type of statement is the end goal of a *reductio ad absurdum* argument. If a model does [emphasize] *not* contain this type of sentence, then it is called consistent. A tautology is the opposite of, for 10 points, what type of statement exemplified by the utterance “I am both hungry and not hungry”?

ANSWER: contradiction [or a false statement; accept the law of non-contradiction; do not accept or prompt on “lie”]

<Thought, KL>

9. In *E. coli*, RMFs and HPFs trigger a dimerization reaction that inactivates this process. Cycloheximide inhibits a crucial step in this process; that step is normally catalyzed by a GTPase that is coded for by the *fusA* gene. This process is initiated with the formation of the eIF2 complex. Some viruses use IRES (“I-R-E-S”) to trigger the host cell to undergo this process. In most organisms, the amber, ochre, and opal signals end this process. This process starts with the (*) Shine–Dalgarno sequence in prokaryotes, while in eukaryotes it starts at the Kozak consensus sequence. The wobble effect allows for some flexibility in this process since it results in the same outcome. During this process, tRNAs bind to codons at the A site before leaving at the E site of an organelle that is central to it. For 10 points, name this process in which ribosomes synthesize a peptide from an mRNA transcript.

ANSWER: **translation** [prompt on protein synthesis; prompt on translocation of codons]

<Biology, RRP>

10. A section titled for “flaming” examples of these objects ends a novel in which a woman repeatedly enigmatically says “I had a dream,” referring to a vision about becoming one of these objects. The teenage narrator of another novel remarks on the tenacity of one of these objects in saying that it “likes poor people.” Yeong-hye (“yung-heh”) believes that she is one of these objects in a novel by Han Kang (“hahn kahng”). A novel titled for these objects climaxes when Sergeant McShane makes a marriage proposal to (*) Katie, who insists that her piano-playing son Neeley go to high school instead of her more eager daughter. One of these objects “of heaven” appears between several tenements despite the New York milieu, symbolizing the strength of Francie Nolan’s immigrant family. For 10 points, a Betty Smith novel is titled for what sort of object that “grows in Brooklyn?”

ANSWER: **trees** [accept “Flaming **Trees**” or *A **Tree Grows in Brooklyn***; prompt on plants; do not accept or prompt on “vegetables”] (The Han Kang novel is *The Vegetarian*.)

<Long Fiction, WA>

11. A vine planted on this figure’s grave grows to wrap around a rose tree that grew from his lover’s neighboring grave. In one version of this figure’s death, he strangles his lover after being stabbed with a poisoned lance while playing the harp. In another version of his death, he dies of despair after he learns that an approaching ship does not hold the only doctor who can cure him, since the sails on an approaching ship are black. This character marries a princess of (*) Brittany known as “the white hands” and defeats the knight Morholt. This character is banished to Brittany by his uncle, King Mark of Cornwall, after he falls in love with Mark’s promised queen when they accidentally drink a love potion together. For 10 points, identify this knight of the Round Table whose wife and lover are both named Isolde.

ANSWER: Sir **Tristan** [or **Trystan** or **Tristram** or **Drustanus**]

<Mythology, BB>

12. This language was used to write the poem “Manifesto,” which declares “The poets have come down from Olympus” and is by the author of *Emergency Poems*. A poet who wrote in this language spent most of his life exiled in Paris after being framed for arson and wrote, “There are blows in life so powerful... I don’t know!” in “The Black Heralds.” A poem in this language repeats contradictions, such as “I no longer love her... but maybe I love her” and “I loved her, and sometimes she loved me too.” “A (*) Lamp on Earth” titles the first section of a poetry collection in this language, one of whose other poems declares, “Arise to birth with me, my brother!” This is the language of the poem “Tonight I can write the saddest lines,” which appears with a “Song of Despair.” For 10 points, name this language used to write *Canto General* by Pablo Neruda.

ANSWER: **Spanish** [accept **español**] (The other authors are Nicanor Parra and Cesar Vallejo.)

<Non-Epic Poetry, JC>

13. This biblical figure is the first point after Abraham where Matthew and Luke's genealogies of Jesus differ. Some of the sins committed during the reign of this man's son included putting male prostitutes in their shrines, which led the Egyptians to raid the kingdom. This man purged the general Joab at the beginning of his reign. He was married to a woman called (*) Pharaoh's daughter, as well as Naamah, the father of his heir Rehoboam, and about 700 other wives. This man's birth was the result of his father's only sin: adultery with Bathsheba, which is the reason that this man and not his father constructed the first Temple. For 10 points, identify this wise third king of Israel, the son of King David.

ANSWER: Solomon [or Shlomoh or Jedidiah]

<Religion, BB>

14. In his iconographic reading, Ambrosio de Morales interpreted a central object of this painting as containing "worthless things." As in its artist's *The Temptation of Saint Anthony*, the fire at the right of this painting may be inspired by the burning of Brabant. Figures in this painting include a woman in a pink dress, a man who rests his legs on that dress while playing a lute, a pink-winged (*) angel who looks towards Jesus in heaven at the top, and a winged blue creature that plays a trumpet-like instrument. All of those figures stand atop this painting's title object, which hurtles toward hell as its namesake material is fought over by peasants. For 10 points, name Hieronymus Bosch triptych titled for an agricultural vehicle.

ANSWER: *The Haywain* [or *The Haywain Triptych*]

<Painting/Sculpture, WA>

15. This historian wrote that people "only regard each other as useful objects," in the manner of another author's book *The Ego and Its Own*, in a passage examining St. Giles and other neighborhoods in "great towns." This historian used Wilhelm Zimmerman's data as a source for his monograph *The Peasant War in Germany*. At the request of Paul Lafargue ("luh-FARG"), this historian excerpted three chapters from one of his polemics in a pamphlet that examines "utopian and scientific" forms of the title ideology. This author's book attacking (*) Eugen Dühring ("OY-gen DUE-ring") introduced his idea that the state would "wither away over time." While in Manchester during the 1840s, this dialectical materialist collected statistics about local laborers for his book *The Condition of the Working Class in England*. For 10 points, name this man who, with Karl Marx, co-wrote *The Communist Manifesto*.

ANSWER: Friedrich Engels

<Historiography, WA>

16. This compound is found in structures that exist above the bottom-simulating reflector. A large manmade source of this compound is located in the San Juan Basin near Four Corners. *Deltaproteobacteria* populate a zone in which both sulfate and this compound are depleted, known as the sulfate-[this compound] transition zone. Release of this compound would drive a strong feedback loop according to a "gun hypothesis" named after structures containing it. Structures below the (*) hydrate stability zone are able to contain this compound, and the largest sink of its oxidation in the atmosphere is from hydroxyl radicals. Large amounts of this compound are contained in crystals of ice on the ocean floor known as clathrates. For 10 points, name the third most abundant greenhouse gas, a tetrahedral hydrocarbon.

ANSWER: methane [or CH₄; accept sulfate-methane transition zone]

<Other Science: Earth, AK>

17. Study of this linguistic feature motivated the autosegmental ("auto-seg-MEN-tal") theory introduced in John Goldsmith's 1976 dissertation. The OCP can induce alternations of this feature such as slip, terracing, and downstep. Haudricourt ("oh-dree-KOOR") showed that this feature evolved from voicing and modality contrasts in Punjabi and the largest Mon-Khmer language. In Bantu languages, consecutive instances of this feature are forbidden by Meeussen's rule, a special case of the (*) Obligatory Contour Principle. "Departing"

and “checked,” which are also called “entering,” are examples of this feature in a language whose words for “scold,” “hemp,” “mother,” and “horse” are distinguished only by this feature. Superscripts in Wade–Giles, and diacritics in pinyin, represent this feature in romanizations of Mandarin Chinese. For 10 points, name this linguistic feature in which meaning is distinguished using pitch.

ANSWER: tone [or tonality or shēngdiào; prompt on pitch or pitch accent; do not accept “intonation”]

<Social Science: Linguistics, KL>

18. When a holder of this position appointed his son David as Bishop of Utrecht, he reignited a war in which the Hooks, who supported Jacqueline of Hainaut (“ay-NO”), fought the Cod faction. A holder of this position enlisted the theologian Jean Petit (“zhawn puh-TEE”) to defend an assassination that he had perpetrated, which triggered the Cabochien (“kah-bohsh-YEN”) revolt. A group led by Bernard VII of Armagnac (“ar-mun-YAHK”) fought holders of this position during a civil war started by the assassination of (*) Louis I of Orléans (“or-lay-AWN”). The Battle of Nancy (“non-SEE”) brought an end to Valois (“val-WAH”) possession of this title, whose holders such as John the Fearless frequently switched sides during the Hundred Years War. For 10 points, give this title held by Philip the Good and Charles the Bold.

ANSWER: Duke of Burgundy [or Dux Burgundiae]

<Continental post-600 History, EL>

19. This story opens as a woman munches on Hot Mix cereal while lamenting that her cousin’s husband fell for “An English girl, half his age.” This story’s protagonist gives up on wearing a robe with her lover when he initially makes no comment, then complains that she’s blocking his view of her legs, and is told “nothing you’ll ever need to worry about” when she asks about a city with a red box around it in *The Economist*. The favorite place of a man in this story is the (*) Mapparium at the Christian Science center. Its protagonist is asked to wear a silver cocktail dress that she bought at Filene’s by a seven year old boy she babysits, and who asks her to quiz him on world capitals. Dev uses a Charles River jog as an excuse to visit and sleep with Miranda in this story. Rohin defines the title word as “loving somebody you don’t know” in, for 10 points, what story by Jhumpa Lahiri?

ANSWER: “Sexy”

<Short Fiction, EL>

20. The results of this technique can be displayed with ORTEP diagrams or on a JCPDS card. Interplanar distance determines the angle of a graphite monochromator in a geometry partially named for Brentano that is used in a form of this technique; in the other form of it, the sample is mounted on a goniometer. Anomalous dispersion and isomorphous replacement can mitigate the fact that this technique’s output gives the amplitude, but not the (*) phase. In this technique, the inverse Fourier transform of structure factors subscripted with Miller indices gives the electron density within a unit cell. This technique’s output is a plot of scattering intensity as a function of the angle 2 theta, a relationship described by Bragg’s law. For 10 points, name this technique that uses high-energy electromagnetic radiation to determine the structure of ordered solids.

ANSWER: X-ray crystallography [or X-ray diffraction; or XRD; or X-ray scattering; accept powder diffraction; prompt on crystallography or diffraction or scattering]

<Chemistry, AK>

Bonuses

1. Extensive research to revive this form of composition was conducted at Solesmes (“saw-LEM”) under the direction of Dom Guéranger (“gay-ron-ZHAY”). For 10 points each:

[10] Name this form of sacred music that was probably invented during the Carolingian era, rather than by its namesake 6th-century pope.

ANSWER: **Gregorian chants** [prompt on partial answer]

[10] Short chants called antiphons are frequently sung during church offices, particularly during the Major Hours of the Liturgy of the Hours. Name either the morning or the evening prayer offices that are Major Hours.

ANSWER: **lauds** OR **vespers**

[10] This type of simple medieval polyphonic music builds on the Gregorian chant by doubling the number of melodic lines and performing them at parallel intervals.

ANSWER: **organum** [or parallel **organum**]

<Classical Music/Opera, WA>

2. These orbitals turn in a disrotatory fashion in the thermal conversion of 2,4,6-octatriene (“octa-TRY-een”) to dimethylcyclohexadiene (“di-methyl-cyclo-hexa-diene”). For 10 points each:

[10] Name these orbitals that overlap in the Diels–Alder reaction to form a six-membered ring. These orbitals can be constructed from atomic orbitals and are sometimes denoted by a star to indicate that they are antibonding.

ANSWER: **molecular** orbitals [or **MOs**; or **HOMO**; or **LUMO**; prompt on **orbitals**]

[10] Molecular orbital theory played an important role in the development of these rules that predict certain stereochemical outcomes of pericyclic reactions.

ANSWER: **Woodward–Hoffmann** rules [do not accept or prompt on “Woodward–Fieser rules”]

[10] The Woodward–Hoffmann rules can be used for this class of pericyclic reactions, which are notated with a bracketed order term *i*-comma-*j* that describes where a double bond migrates to and from.

ANSWER: **sigmatropic** reactions

<Chemistry, RRP>

3. In February and October, sunlight casts upon three rock-cut figures in this complex’s inner sanctuary, while the fourth sculpture of Ptah remains in the dark. For 10 points each:

[10] Name this temple complex built under Ramesses II to commemorate his victory at the Battle of Kadesh and his wife Nefertari. Its Great Temple features four large seated statues on its exterior.

ANSWER: **Abu Simbel** temples

[10] Though he spent part of his life as a circus strongman, this Italian archaeologist and tomb robber unearthed the entrance to Abu Simbel in 1817.

ANSWER: Giovanni Battista **Belzoni** [accept the Great **Belzoni**]

[10] In preparation for flooding from the Aswan High Dam, Abu Simbel was relocated to higher ground in 1968 with help from this United Nations agency, which maintains a list of World Heritage Sites.

ANSWER: **UNESCO** [or **United Nations Educational, Scientific and Cultural Organization**]

<Geography, BD>

4. Jerome Powell, who is often known as Gong Guru, founded the Pinnacle Community that cultivated a large amount of this substance. For 10 points each:

[10] Name this substance. According to a tradition that uses this substance in sacraments on Grounation Day, partaking in it is prohibited by representatives of Babylon.

ANSWER: **ganja** [or **marijuana** or **weed** or **cannabis** or **Mary Jane**; prompt on **drugs**]

[10] Ganja is heavily used in this Jamaican religion and social movement that venerates Jah.

ANSWER: **Rastafarianism** [or **Rastafari** movement, etc.]

[10] In these weekly communal meetings held by Rastafarians, people smoke ganja and discuss major ethical, political, and religious issues.

ANSWER: **reasonings**

<Religion, WA>

5. Name these cities that were subjected to brutal Mongol sacks, for 10 points each.

[10] In 1258, Hulagu Khan's army captured this capital city of the Abbasid Caliphate and murdered its last ruler, al-Musta'sim, by rolling him up in a carpet and trampling him with their horses.

ANSWER: **Baghdad**

[10] The city of Zhongdu, which is today found in this city, had all its inhabitants murdered by the Mongols in 1215. The Mongol city of Khanbaliq, known to the Chinese as Dadu, was built where this present-day city is located.

ANSWER: **Beijing**

[10] Writing in the 14th century, Ibn Battuta said that this Central Asian city had not yet recovered from its sack by Genghis Khan in 1220, in which its entire population was driven out. The long-thriving, Tajik-speaking Jewish community of this city in present-day Uzbekistan was visited by Joseph Wolff.

ANSWER: **Bukhara**

<World History, NB>

6. While confined for insanity, Christopher Smart wrote the long poem "Jubilate Agno," which contains a list poem praising one of these animals named Jeoffry. For 10 points each:

[10] Identify these animals. A poem about one of these animals warns, "one false step is ne'er retrieved" and "Not all that tempts your wandering eyes / And heedless hearts, is lawful prize."

ANSWER: **cats** [accept "For I will consider my **Cat** Jeoffry" or "Ode on the Death of a Favourite **Cat** Drowned in a Tub of Goldfishes"]

[10] This December 2017 New Yorker short story and social media phenomenon by Kristen Roupenian describes some atrociously bad sex and the pitfalls and sometimes horrors of modern dating from a female perspective.

ANSWER: **"Cat Person"**

[10] This author's "Poem (As the Cat)" misplaces a metrical foot while describing a cat tripping over a flowerpot. This author's other poems include the weirdly Twitter-memed "This is Just to Say" and "The Red Wheelbarrow."

ANSWER: William Carlos **Williams**

<Misc. Lit, JC>

7. Hare Krishna founder Prabhupada ("PRUH-boo-pod") wrote a work titled for the "teachings of" this woman in praise of her spiritual devotion. For 10 points each:

[10] Name this woman who obtained a mantra from the sage Durvasa to have children with several gods. She famously begged Karna to spare her other children during a war.

ANSWER: **Kunti**

[10] Because Kunti summoned this sun god out of curiosity, this god restored her virginity after giving her Karna. Madri cleverly used the mantra to have the Pandava twins with this god's sons, the Ashvins.

ANSWER: **Surya**

[10] Kunti was forced to stay at the Kaurava camp with her brother-in-law, King Dhritarashtra, who had this disability. In the *Odyssey*, Polyphemus claims that a man called "nobody" has inflicted this disability upon him.

ANSWER: **blindness** [accept equivalents such as being **blind** or **lack of sight**]

<Mythology, PC>

8. The adjectival form of this word was used to describe a form of ethnography that focuses on "textually-mediated social organization," as defined by Dorothy Smith. For 10 points each:

[10] Identify these things that are commonly divided into “total” and “social” examples in anthropological studies, using terms introduced in sociology by Erving Goffman.

ANSWER: institutions [accept institutional ethnography or total/social institutions]

[10] This approach to anthropology pioneered by Claude Lévi-Strauss argues that social institutions reflect deep elements common across human societies.

ANSWER: structuralism [or structuralist anthropology; do not accept or prompt on “post-structuralism”]

[10] Mary Douglas’s book *How Institutions Think* applies a structuralist approach to argue that institutions “confer” this concept of self-definition. In psychology, Erik Erikson said that it could experience a “crisis.”

ANSWER: identity [accept identity crisis]

<Social Science: Anthropology, WA>

9. This work argues that its subject correlates more with non-Euclidean geometry than Euclidean geometry; thus, it would be helpful to understand some Riemannian theorems. For 10 points each:

[10] Name this essay which asserts that “the future does not belong to them” in discussing an unorthodox art movement. Its authors, Albert Gleizes (“glez”) and Jean Metzinger, began collaborating after the Salon d’Automne (“doh-TUM”).

ANSWER: *Du “Cubisme”* [or *On Cubism*]

[10] Metzinger and Gleizes argued that to understand this artist “is to foresee Cubism.” Matisse and Picasso remarked that this Post-Impressionist painter of *The Large Bathers* was “the father of us all.”

ANSWER: Paul Cézanne

[10] Louis Vauxcelles (“voh-SELL”) originally referred to Metzinger as an artist of the divisionist style, which was primarily developed by this other artist. In the years before his death, this artist adopted the neo-Impressionist style in paintings such as *Le Chahut* (“luh shah-OO”) and *The Circus*.

ANSWER: Georges Seurat

<Painting/Sculpture, PC>

10. A city known by this name developed substantial industry along the river Akerselva (“AH-kush-EL-vah”), allowing it to eclipse Bergen as the largest city within its modern-day country. For 10 points each:

[10] Give this name used by a certain city from 1632, when it was rebuilt near the Akershus (“AH-kush-HOOSE”) fortress after a fire and renamed in honor of a member of the House of Oldenburg. This name was changed in 1925.

ANSWER: Christiania [or Kristiania; do not accept or prompt on “Oslo”]

[10] Christiania was a name used by this present-day Norwegian capital city.

ANSWER: Oslo

[10] Oslo was founded by this Norwegian king and former member of the Varangian Guard. This king died on an expedition to support the rebellious English earl Tostig against his brother.

ANSWER: Harald Hardrada [or Harald III; prompt on Harald]

<Continental post-600 History, WA>

11. A poem of the genre named for this rhetorical device by Lawrence Ferlinghetti claims that “Nearby there must be / a jeweled tree” and ends with the lines “She / Will not open / He / Is not the one.” For 10 points each:

[10] Identify this extended rhetorical device whose first known use in ancient Greek poetry occurs during a conversation between Thetis and “the artist-god.”

ANSWER: ekphrasis [accept ekphrastic poetry] (The Ferlinghetti poem is “Short Story on a Painting by Gustav Klimt,” which is about *The Kiss*.)

[10] Book 18 of the *Iliad* features an ekphrasis depicting weddings and the ocean on this object. W. H. Auden wrote an ekphrastic poem on this object that imagines barbed wire fences and repeats “She looked over his shoulder.”

ANSWER: **shield** of **Achilles** [accept “The **Shield of Achilles**” or anything indicating it’s **Achilles’ shield**; prompt on answers about the **armor** of **Achilles** or **hoplon** of **Achilles** that don’t indicate that it’s the shield specifically; accept **aspis** in place of “shield”; prompt on partial answers]

[10] The ekphrastic poem “Ode on a Grecian Urn” was written by this Romantic poet of “Ode to a Nightingale.”

ANSWER: John **Keats**

<Non-Epic Poetry, JC>

12. According to Hilbert’s basis theorem, all polynomial rings over rings with this property still preserve this property. For 10 points each:

[10] Name this property of a ring such that its ascending chain of ideals will eventually stabilize.

ANSWER: **Noetherian** (“nur-TAIR-ee-in”) [accept **Noetherian** ring]

[10] Because every example of these rings only has two ideals, the empty ideals and the whole ring, all of these commutative algebraic structures are examples of Noetherian rings. The ring of integers do not form one of these structures because non-zero integers do not have multiplicative inverses in the ring.

ANSWER: **fields**

[10] Unlike the integers, this set of numbers, often denoted with a boldface Q, forms a field. This set of numbers contains all numbers that can be written as a quotient of two integers.

ANSWER: **rational** numbers [or **rationals**]

<Other Science: Math, PC>

13. The protagonist of the novel *The Carnal Prayer Mat*, Weiyangsheng (“way-yong-shung”), is a man with this occupation who has a magician splice strips of a dog’s penis onto his own to enhance its power. For 10 points each:

[10] Give this occupation that *The Carnal Prayer Mat* is alternately titled for a “midnight” example of. A loosely structured comic novel by Wu Jingzi (“woo jing-dzuh”) follows several people of this occupation.

ANSWER: **scholars** [accept *The **Scholars*** or *The Midnight **Scholar*** or **literati** or **shi**; prompt on **intellectuals** or **academics**]

[10] Novels satirizing scholars, such as those of the “talent and beauty” genre, became popular during this final ruling Chinese dynasty. Writers such as Lu Xun (“loo shwun”) wrote in the aftermath of this dynasty’s collapse in the 1910s.

ANSWER: **Qing** dynasty [or **Manchu** dynasty]

[10] This novel’s characters include Xiao Rang (“sh’yao rong”), whose nickname is “Sacred Handed Scholar.” Pearl Buck made a bad translation of this novel under the title *All Men Are Brothers*.

ANSWER: **Water Margin** [or **Outlaws of the Marsh** or *The **Marshes** of Mount **Liang*** or **Shuǐhǔ Zhuàn**]

<Long Fiction, WA>

14. Hans Sloane’s donation of his collection was critical to the founding of this museum. For 10 points each:

[10] Name this museum that is currently home to the remains from Sutton Hoo and the Oxus Treasure.

ANSWER: **British** Museum

[10] Sutton Hoo is believed to contain the remains of Raedwald, a king of this member of the Heptarchy. This kingdom was conquered by Mercia (“MUR-shuh”) in the 8th century CE.

ANSWER: **East Anglia** [or **East Angles**]

[10] Many of the most important artifacts at Sutton Hoo were found inside one of these objects. Vikings employed “long” examples of these objects to reach Britain.

ANSWER: **ship** [or **boat**; accept **longship** or **longboat** or **ship burial** or **boat grave**]

<British/CW History, NB>

15. Members of one species in this genus undergo autogamy during starvation, in which several of their micronuclei disintegrate before cell fusion. For 10 points each:

[10] Name this genus of eukaryotes. Its *aurelia* species contains endosymbiotic bacteria known as kappa particles that produce a toxin that kills other nearby members of this genus.

ANSWER: Paramecium [accept Paramecium aurelia]

[10] Two answers required. According to endosymbiotic theory, these two organelles arose from prokaryotes living in the cytoplasm of eukaryotes. One of them is the site of the electron transport chain, while the other carries out the Calvin cycle.

ANSWER: mitochondria AND chloroplasts

[10] This is the term given to the most recent common ancestor of all humans based on mitochondrial DNA, which is inherited matrilineally.

ANSWER: Mitochondrial Eve

<Biology, AK>

16. Kurt Vonnegut's older brother, Bernard Vonnegut, demonstrated a successful method of accomplishing this result using silver iodide, which may have inspired plot elements in *Cat's Cradle*. For 10 points each:

[10] Identify this result that was the goal of the historical practice of pluviculture.

ANSWER: making it rain [or rainmaking; accept any answer about bringing rain or precipitation; accept creating floods, but do not accept or prompt on answers referring to just "rivers"; prompt on creating water; prompt on cloud seeding by asking "what does the cloud seeding result in?"]

[10] In a ridiculous disaster, this city's council hired Charles Hatfield in 1915 to engage in pluviculture; the council then sued Hatfield after dams on the nearby Otay and Sweetwater Rivers broke, causing over twenty deaths in the resulting flooding.

ANSWER: San Diego

[10] Farmers in this country traditionally participate in a "Cat Parade" in order to bring rain. This country's major river is the Chao Phraya ("chow PRY-uh"), which irrigates agriculture in its heartland.

ANSWER: Thailand [or Kingdom of Thailand; or Ratcha-anachak Thai]

<Other/Misc Academic, WA>

17. In 1801, this man refused to pay 225,000 dollars in tribute to the Pasha of Tripoli. For 10 points each:

[10] Name this chief executive whose decision not to pay tribute to North Africans led to the First Barbary War.

ANSWER: Thomas Jefferson

[10] During the war, this American frigate ran aground and was captured by residents of Tripoli, who installed her as a gun battery. In a daring raid, Lieutenant Stephen Decatur destroyed this vessel to deny her use by the enemy.

ANSWER: USS Philadelphia

[10] Later in the war, American forces marched from Alexandria to capture this city in the Cyrenaica ("see-reh-NAY-ih-kuh") region of modern-day Libya, marking a turning point in the war.

ANSWER: Derna [accept Battle of Derne]

<US History, NB>

18. When one of these artworks is made of colored sand, it is typically destroyed after creation. For 10 points each:

[10] Identify these artworks that are often shown on wall paintings called *thangkas* ("TAHNG-kuhs").

ANSWER: mandalas

[10] *Thangkas* are typically made of either cotton or this other material, which was originally cultivated in China from worms that thrived on mulberry trees.

ANSWER: silk

[10] Mandala patterns on *thangkas* are often made using this needlework technique, in which pieces of fabric in patterns and shapes are sewn on to a larger piece of background material.

ANSWER: appliqué [do not accept or prompt on "embroidery"]

<Other Art: Misc Visual, WA>

19. In 2015, hydrogen sulfide was discovered to undergo the transition to this behavior around 203 kelvins, making it the most extreme known example of the “high temperature” form of this behavior. For 10 points each:

[10] Identify this behavior in which a material has an electrical resistance of zero.

ANSWER: **superconductivity** [accept word forms such as **superconducting** materials or **superconductors**]

[10] Evidence for the BCS theory of superconductivity includes the fact that the transition temperature exhibits an inversely proportional relationship to this quantity, which would not be the case if superconductivity were mediated by free electrons.

ANSWER: **mass** of the isotope of the conducting material [or **isotopic mass**; prompt on **isotope effect**]

[10] The existence of isotope effects is also evidence for the core mechanism of BCS theory, the formation of Cooper pairs, which occurs due to coupling between electrons and these things. These things are named in analogy to the quantum of light, and they also obey Bose–Einstein statistics.

ANSWER: **phonons** [prompt on **bosons**; do not accept or prompt on “photons”]

<Physics, WA>

20. This character hides a number of macaroons in her pocket when her husband enters the room and asks “Is my little squirrel bustling about?” For 10 points each:

[10] Name this character who forges her father’s signature in order to obtain a loan to fund a trip to Italy.

ANSWER: **Nora** Helmer

[10] Nora leaves her husband Torvald and their children in this Norwegian author’s play *A Doll’s House*.

ANSWER: Henrik **Ibsen**

[10] Though Ibsen is often considered an early feminist playwright, Adrienne Rich used this Ibsen play as a prime example of how male artists use women in an essay of the same title. In this play, a man refuses to consummate his relationship with his wife for fear of ruining his masterpiece, titled *Resurrection*.

ANSWER: **When We Dead Awaken** [or **Når vi døde vågner**]

<Drama, WA>

