

1. **This empire began a regional tradition by imposing a 25 percent tax on all crops, which could be circumvented if a village paid a sixth of its product in collective tax; however, artisans from *shreni* guilds were tax-exempt. An adviser to this empire distinguished righteous, greedy, and diabolic motivations for conquest in a treatise that, according to Max Weber, made Machiavelli's *The Prince* look "harmless" by comparison. This empire's collapse opened the door for Demetrius I to invade and seize (*) Gandhara thanks to the weakness of its successor, the Shunga Empire. The founder of this empire implemented policies that his advisor Chanakya recommended in the *Arthashastra*. A number of rock edicts lay out the nonviolent philosophy of a Buddhist ruler of, for 10 points, what empire whose rulers included Chandragupta and Ashoka?**

ANSWER: **Mauryan** Empire [or **Maurya**s or **Mauryan** dynasty, etc.]

<World History, WA>

2. **An international, all-female ensemble of so-called "divas" was assembled to perform this genre by Cindy Shea. This musical genre is based on a style whose measures alternate between 3/4 ("three-four") and 6/8 ("six-eight") time, which is a type of *son* ("sohn"). Men sing songs in this genre to their lovers in the Plaza Garibaldi in many *charro* movies. A famous ensemble of performers in this folk genre was assembled by (*) Gaspar Vargas. States that claim to be the home of this genre include Colima, Nayarit, and Michoacán ("meech-wah-KAHN"). Bands that play this genre of music often play a song whose refrain says "Sing and don't cry" or "Canta y no llores" ("KAHN-tah ee no YOH-res"), as well as "The Cockroach" or "La Cucaracha." For 10 points, name this genre of music played by bands of sombrero-wearing performers in Mexico.**

ANSWER: **mariachi** music [prompt on son music or son jalisciense before "son"]

<Other Art: Misc Auditory, WA>

3. **An n-heterocyclic carbene replaced one of the two ligands ("LIG-unds") containing this element in the second-generation Grubbs catalyst. Four atoms of this element are present in a homoleptic catalyst used in several cross-coupling reactions. In the asymmetric hydrogenation pioneered by Noyori et al., two atoms of this element in a chiral bidentate ligand bind to ruthenium. Three L-type ligands containing this element bind to rhodium in a catalyst for olefin hydrogenation named after Geoffrey (*) Wilkinson. This element is at the center of salts that form an ylide ("ILL-id") used in the Wittig reaction; those salts feature this element bound to three phenyl groups. This element bonds in a tetrahedral structure in its white allotrope, while its red allotrope is amorphous. For 10 points, name this element whose chemical symbol is P.**

ANSWER: **phosphorus** [or **P**]

<Chemistry, AK>

4. **In one novel, a man of this ethnicity sells silkworm cocoons in a high mountain home village and later marries his sister aboard a ship while immigrating to America. A man of this ethnicity contrasts his belief that "Buddha is the void" with the thrill-seeking philosophy of his friend, the title character of the novel. Two immigrants of this ethnicity are the grandparents of a boy who is born with female sex traits and has both a female identity and a male one; that boy, named (*) Cal, appears in Jeffrey Eugenides's *Middlesex*. The narrator of a novel titled for a man of this ethnicity seduces a widow who is later publicly beheaded and stays in a hotel owned by Madame Hortense. In that novel, the title character of this ethnicity founds a lignite mine with the narrator. For 10 points, give this ethnicity of Zorba in a novel by Nikos Kazantzakis.**

ANSWER: **Greek** [or **Greek**-American; accept any answer that indicates someone is "from **Greece**"]

<Long Fiction, JC>

5. Edmund Husserl's *Prolegomena* rejects attempts to ground philosophy in this discipline as a form of "species relativism." In a book whose title aims to establish a rigorous grounding for this discipline, Franz Brentano defined the concept of "intentionality." In his book on modularity, Jerry Fodor aimed to update a historical "faculty" view named for this discipline. A common-sense view named for this discipline is rejected by eliminative materialism. A book titled for this discipline introduced the term (*) "stream of consciousness" and was written by the author of *Varieties of Religious Experience*. Application of experimental methods to this discipline was pioneered by Wilhelm Wundt ("VOONT"). For 10 points, name this discipline whose "principles" were elucidated by William James, and whose schools include Gestalt ("guh-SHTALT").

ANSWER: psychology [accept psychologism or *Psychology from an Empirical Standpoint* or faculty psychology or folk psychology; do not accept or prompt on "psychoanalysis"]

<Thought, WA>

6. A pair of brothers born in this city became martyrs after they were shot in 1844 for attempting to lead a mutiny aboard an Austrian ship. Defenders of this city, who were reinforced by the defeated General Pepe, were subjected to the world's first bombing campaign conducted by unmanned balloons. Rebels in this city forced Count Pallfy to grant them a civic guard and release their leader Daniele Manin ("dan-YEH-leh mah-NEEN"). A year-long siege of this city commanded by (*) Joseph Radetzky ended in 1849. As part of the Austrian Empire, the region named for this city was formally united with Lombardy. During the revolutions of 1848, it was the capital of the short-lived Republic of San Marco, named after its patron saint. For 10 points, name this Italian city known for its canals.

ANSWER: Venice [or Venezia]

<Continental post-600 History, WA>

7. A University of Leeds historian with this surname wrote the feminist art history *Vision and Difference*. An artist with this last name was influenced by the Ukrainian artist Janet Sobel and attended a MoMA exhibit on Navajo art with a Jungian psychoanalyst; that visit resulted in the painting *Guardians of the Secret*. Many photos of an artist with this surname working in a T-shirt and jeans were taken by (*) Hans Namuth. Thomas Hart Benton taught that alcoholic artist of this surname, who was the husband of Lee Krasner and incorporated coins and cigarette butts into a painting titled after a line from *The Tempest*. For 10 points, give this surname of a prominent "action painter" who created *Full Fathom Five* and other such works of drip painting.

ANSWER: Pollock [accept Griselda Pollock or Jackson Pollock or Pollock]

<Painting/Sculpture, WA>

8. The exchange student Toyotaro befriends Elise, the title performer of this action, in the first published short story by Mori Ōgai. In a novel titled for this action, the narrator befriends a one-armed poet and a thirteen-year-old with psychic abilities and lives at the Dolphin Hotel. When he visits a hot spring and sees the title performer of this action, Eikichi ("EH-kee-chee") loses his attraction in one of the *Palm-of-the-Hand Stories*. The sequel to *A Wild Sheep Chase* by (*) Haruki Murakami is titled for this action three times. In the *Kojiki* ("koh-jee-kee"), Uzume ("oo-zoo-meh") performs this action to lure Amaterasu from her cave. The three *kanji* in the word *kabuki* refer to singing, skill, and this action, since instances of dramatic action and this action comprise most *kabuki* plays. For 10 points, identify this action that may be performed with fans as a form of entertainment.

ANSWER: dance [or dancing; accept "The Dancing Girl" or "The Dancing Girl of Izu" or Dance Dance Dance or fan dance; anti-prompt on ballet by asking "can you be less specific?"]

<Misc. Lit, WA>

9. In the context of this theory, the Bloch–Nordsieck ("block NORD-zeek") cancellation is used to remove a divergence that inhibits calculation of the S-matrix. Perturbative calculation of the coupling constant in this

theory only exhibits a Landau pole at energy scales far higher than any observed interactions. This theory accurately predicts that the g-factor does not exactly equal two. Dynamical effects in this theory vanish as the (*) fine-structure constant, which is that coupling constant, goes to zero. This theory accurately predicts the value of the anomalous magnetic moment; it also explains vacuum polarization and the self-energy of its gauge boson, the photon, via generation of virtual electron–positron pairs. Schwinger, Feynman, and Tomonaga developed, for 10 points, what field theory that describes the electromagnetic force?

ANSWER: QED [or quantum electrodynamics; prompt on partial answer; prompt on quantum field theory or QFT; do not accept or prompt on “QCD” or “quantum mechanics”]
<Physics, WA>

10. Teucer came to this region to seek the prophetess Theonoe (“THEE-uh-NO-ee”) after his exile from Salamis. Phrasios told a king of this region that he had to sacrifice a victim every year to avert famine. After being imprisoned, Heracles killed that king of this region, Busiris. A future king of this region named Epaphus was born after his mother was restored to human form. This region itself named for a man whose sons were killed by the (*) Danaids, and who also was child of Io. By several accounts, Helen of Troy spent the entire Trojan War in this non-Ionian region. Proteus reveals the fates of Agamemnon, Ajax the Lesser and Odysseus to Menelaus in this region. A goddess from this region named Memphis was the child of a *potamos*, or river, named Nilus. For 10 points, name this region where Greeks adapted the cult of Isis.

ANSWER: Egypt [or Aegyptus or Aigyptos]
<Mythology, RRP>

11. Females with mild symptoms from an MeCP2 mutation can be diagnosed with “[this disorder] associated with Rett syndrome.” A six-stage, high-intensity treatment method for this disorder, developed by Ole Løvaas (“OO-luh LO-voss”) at UCLA, involves 40 hours of discrete trial training a week. A form of ABA called early intensive behavioral intervention is considered the “gold standard” for treating this disorder. (*) “Stimming” or “stereotypic” behaviors are most commonly observed in individuals with this disorder; examples include repeating sounds, rocking, and hand-flapping. Individuals with this disorder often have problems initiating and responding to non-verbal cues for joint attention. For 10 points, name this disorder characterized by restricted, fixated interests and social deficits, whose DSM 5-introduced “spectrum” subsumes Asperger syndrome.

ANSWER: autism spectrum disorder [or ASD; accept autism associated with Rett syndrome; prompt on Aspergers or Asperger syndrome before “Asperger”]
<Social Science: Psychology, JL>

12. A material culture named for these objects made sickle-shaped marks that are interpreted as numerals, was succeeded by the Halstatt (“HALL-shtott”) culture, and thrived in Central Europe until the mid-8th century BC. Romans placed these objects in niches inside of buildings whose name comes from the Latin word for “dove.” They’re not for holding wine or oil, but the elaborate Derveni *krater* was used as one of these objects. The use of *lekythoi* and (*) *amphorae* as cinerary (“SIN-er-AIR-ee”) examples of these objects declined as inhumation became more common. The mid-17th-century discovery of several of these objects in Norfolk inspired an essay by Sir Thomas Browne. These objects, which are common grave goods, are displayed in a columbarium. For 10 points, identify these vessels that hold funerary ashes.

ANSWER: urns [accept burial urns; prompt on vases or pottery or amphorae or krater or jars; accept Urnfield Culture or Hydriotaphia, Urn Burial] (The word for “dove” is *columba*, so *columbarium* means “dovecote.”)
<Archaeology, WA>

13. While “semi-dry” forms of this technique are quicker, larger molecular weights might call for its fully “wet” form. This technique can be combined with an immunoprecipitation assay to assess intermolecular interactions. TBST is used to wash the results of this technique since it reduces background noise. The

Bradford or Lowry assay is typically used to quantify the amount of material needed in this technique. (*)

Bovine serum albumin is used as a blocking agent in this technique in place of a nonfat dry milk due to its lack of specificity. A common step in this technique is to use an electric current to transfer the contents of an SDS-PAGE gel to a nitrocellulose or PVDF membrane. Immunoblots are also known as, for 10 points, what laboratory technique used for detecting proteins?

ANSWER: **Western blot** [accept **immunoblots** until read]

<Biology, RRP>

14. In Debussy's *Nocturnes*, these instruments are omitted from the *Nuages* ("noo-AHZH") movement, but in the central 2/4-time section of *Fêtes* ("fet"), three of them play the muted theme accompanied by harps and pizzicato strings. Modern performances of Wagner's Ring Cycle typically do not use the fanciful "bass" variety of this instrument. In a popular orchestration, this instrument plays the notes [read slowly] "G, F, B-flat" to begin the first instance of a recurring movement that alternates between 5/4 ("five-four") and 6/4 ("six-four") time. One of them plays (*) offstage in Respighi's *Pines of Rome*. Ravel has this instrument lead the first "Promenade" of *Pictures at an Exhibition*. It plays a solo at the beginning of Mahler's Symphony No. 5, and the rising notes C G C in the "sunrise" theme of Richard Strauss's *Also Sprach Zarathustra*. For 10 points, name this relative of the cornet, a high brass instrument with three valves.

ANSWER: **trumpet** [accept any **trumpet** in a specific pitch, such as B-flat **trumpet**]

<Classical Music/Opera, WA>

15. A temple carved out of a giant megalith that is named after one of these locations is a main highlight of the Ellora Caves. Pilgrims chant "Jai Mata Di" while travelling to the Vaishno Devi temple located at one of these locations. The temple of Kedarnath at one of these locations holds an idol of Adi Shankara ("uh-dee SHAN-kur"), who is thought to have died there. In Jainism, Rishabha achieved *moksha* near one of these locations. Traditionally, Hindus believe that a specific one of these features is (*) circled daily by the god Surya and lies at the center of the universe; that one of these is the model for Angkor Wat. Shiva and his family are said to reside at one of these features named Kailash, located in modern-day Tibet. For 10 points, name these geographic features, including Meru, whose many sacred examples lie in the Himalayas.

ANSWER: **mountains** [accept **Mount Meru**; do not accept or prompt on "hills"]

<Religion, PC>

16. This play's setting is described as "comfortable and well-ordered if it were not for a number of indestructible contradictions to this state of being." A character in this play says that his sister is the first person to "successfully brainwash" herself and calls her the chair of the Committee on Unending Agitation. A character in this play tells another character to call in sick with the flu because it's a "respectable" disease that (*) "white people get." A man in this play stands on a table while giving a speech with the line "Flaming spear! Hot damn!" that is interrupted by his sister yelling "Ocomogosiay." Its central family is offered money by Mr. Lindner to not move to Clybourne Park, and includes a man who squanders his sister's med school money when Willy Harris runs away with his liquor store investment. For 10 points, the Younger family features in what Lorraine Hansberry play?

ANSWER: *A Raisin in the Sun*

<Drama, EL>

17. The distance from a scene object to the plane made of these things is called the z-value, or depth, in z-buffering used for occlusion culling. An increase in mipmap level results in a fourfold [emphasize] reduction in the number of these things, which are assigned values through interpolation in bilinear filtering. The discrete cosine transform is applied to 8-by-8 matrices containing these things in a compression algorithm created by a joint expert group. Primary (*) rays are projected out through each of these things to render a scene

in ray tracing. The framebuffer is made up of the values assigned to these units, which are averaged in anti-aliasing to reduce the “staircase effect” created by lines of them. Unlike in vector graphics, these units are individually addressed in raster graphics. For 10 points, name these square units, 1920 by 1080 of which form a 1080p image.
ANSWER: pixels [do not accept or prompt on “images” or “digital images” or “pictures” or “photos” or “polygons” or “triangles”]

<Other Science: Computer Science, AK>

18. **These objects are said to have “forgotten their Eastern origin” in a poem which states that they “are everywhere in this my New England.” These objects are repeatedly described by the lines “False blue / white / purple” in that poem by Amy Lowell. A dirge in a poem titled for these objects begins “Come lovely and soothing death / Undulate around the world.” The sixteenth and final section of a poem titled for these objects begins “Passing the visions, passing the night” and states that these objects, a bird, and (*) Venus are “twined with the chant of my soul / There in the fragrant pines and the cedars dusk and dim.” These objects title a poem whose line “the great star early droop’d in the western sky in the night” expresses the same theme as the author’s “O Captain, My Captain.” A Walt Whitman elegy for Abraham Lincoln is titled after, for 10 points, what purple flowers?**

ANSWER: lilacs [accept “Lilacs” or “When Lilacs Last in the Dooryard Bloom’d”; prompt on flowers or plants]
<Non-Epic Poetry, WA>

19. **Lawrence Lessig cites the lawsuit of 12-year-old Brianna LaHara as part of this industry’s efforts to maintain a “Read-Only culture.” In a major case in this industry’s history, the Ninth Circuit found the plaintiff guilty of contributory infringement by facilitating “space-shifting.” In the ’80s, the “Washington Wives” led by Tipper Gore held hearings to regulate this industry, which faced the ASCAP boycott in 1941. After World War II, the 78 standard in this industry was gradually replaced by the (*) 45 and 33½ standards, which were known as Microgroove. In 1998, the PolyGram-MCA merger in this industry created UMG. In the ’90s and 2000s, this industry’s engineers competed in what has been dubbed the “loudness war.” Sales certification in this industry is done by the RIAA. For 10 points, EMI and Decca were labels that historically dominated what industry?**

ANSWER: music industry [or recording industry or music publishing industry or record labels]
<Other/Misc Academic, AK>

20. **A group based in a suburb of this name adopted the motto “no kutts.” A disturbance at a venue named for a man with this surname involved a lesbian gang called the Street Orphans and a hustler group called the Vanguard, and took place in the Tenderloin district. People who were excluded from gay bars gathered at a place of this name in an event credited with starting the US trans rights movement; that (*) 1966 riot took place at a cafeteria of this name. The Piru Street Family was based in a suburb of this name where Dick Dollard became mayor after white flight due to the Watts riots. That California suburb of this name is where the Bloods formed. For 10 points, give this name of a historically black area of Los Angeles that titles an N.W.A. album.**

ANSWER: Compton [accept Compton’s Cafeteria or *Straight Outta Compton*; prompt on Los Angeles]
<US History, EL>

Bonuses

1. Examples of Near Eastern deities that were part-human and part this animal include Atagartis (“at-uh-GAR-tiss”), a local deity from Phoenicia and northern Syria. For 10 points each:

[10] Identify these animals that Enki was commonly represented as having the body of. In Greek mythology, Glaucus ate an herb that made him immortal but caused him to have body parts of one of these animals.

ANSWER: **fish** [prompt on sea creature or similar non-specific answers that indicate water-dwelling creatures; do not accept or prompt on “whale” or “shark”]

[10] Other Near Eastern figures with the bodies of fish include these seven sages from Mesopotamian mythology. These demigods taught humans how to fish, farm, and build cities.

ANSWER: **apkallu** [or **abgal**]

[10] The epic named for this mythical king of Uruk describes the building of Uruk’s walls by the *apkallu*.

ANSWER: **Gilgamesh** [or **Bilgames**; accept *Epic of Gilgamesh*]

<Mythology, WA>

2. Memos written by Edwin Reischauer to SCAP emphasized the necessity for this leader to speak forthrightly with the people about his human nature. For 10 points each:

[10] Name this leader who later insisted that he did not renounce his own divinity in the Humanity Declaration.

ANSWER: Emperor **Hirohito** [or the **Shōwa** Emperor]

[10] The importance placed on the renunciation of imperial divinity is noted in this 1999 book by John W. Dower that explores the occupation and democratization of Japan after World War II.

ANSWER: ***Embracing Defeat***

[10] The Humanity Declaration laid the foundation for one of these documents written by the occupying Allies to replace the Meiji one. That new example of these documents includes Article 9, which renounces war as a means of settling international disputes.

ANSWER: **constitutions** of Japan [accept Meiji **Constitution** or Japanese **Constitution**]

<World History, WA>

3. At the end of a story by this author, a jilted schoolteacher who is fixated on the movie *Casablanca* pays a street vagrant and cuts him with a knife after the vagrant refuses to accept her charity. For 10 points each:

[10] Name this author who included the story “Love in the Marketplace” in *A Thousand Years of Good Prayers*.

This author explored her recurring themes of depression and the alienation of loss in the 2017 memoir *Dear Friend, From My Life I Write to You in Your Life*.

ANSWER: **Yiyun Li** [accept names in either order; prompt on Li; do not accept or prompt on “Li-Young Lee,” and ask the player to repeat their answer if you can’t hear]

[10] Though they’re more prominent in her novel *The Hundred Secret Senses*, this author tackled the intersection of personal narrative and emotions in her novel about the immigrant experience, *The Joy Luck Club*.

ANSWER: Amy **Tan**

[10] This author catalogued the themes of suicidal depression in his life in *Darkness Visible*. This author wrote about a woman who commits suicide over the guilt of allowing her daughter to die in the Holocaust in *Sophie’s Choice*.

ANSWER: William **Styron**

<Short Fiction, JC>

4. A so-called “time” example of these things cannot be withdrawn throughout its term to maturity. For 10 points each:

[10] Give this term for sums of money placed in a bank. These things are insured by the FDIC in order to prevent the devastating effects of bank runs.

ANSWER: bank **deposits** [accept time **deposits**]

[10] This term refers to deposits denominated in US currency that are held outside of the US and thus not subject to regulation by the Federal Reserve. Despite their name, many of these deposits are held in Caribbean tax havens.

ANSWER: **eurodollars** [do not accept or prompt on “Euro” or “dollars”]

[10] Banks often borrow eurodollars from each other to shore up their reserve requirements overnight; another common method of doing so is borrowing in onshore dollars at the rate of interest known by this name.

ANSWER: **federal funds** rate [accept **federal funds** effective rate or **discount rate**; prompt on **bank rate**]

<Social Science: Economics, WA>

5. Answer the following about the connection of Hebrew words in the Old Testament to Christian practice. For 10 points each:

[10] The word *messiah* comes from the Hebrew word *mashiakh* (“ma-SHEE-ahkh”), meaning a person who has undergone this practice. A form of this practice is described in James 5:14–15 and can precede the administration of a *viaticum*.

ANSWER: **anointing** [or **anointing the sick** or **unction**; anti-prompt on **extreme unction** by asking “can you be less specific?”]

[10] This adjective, which describes a mystery that results from Christ’s death and resurrection and a white candle lit during Easter, comes from the Hebrew word for Passover.

ANSWER: **paschal** (“PASS-cull”)

[10] This four-letter word is often uttered in conclusion following the doxology of the Lord’s Prayer, and is used to indicate affirmation in Christianity in general.

ANSWER: **amen**

<Religion, AK>

6. This ruler planted a large pine forest near the city of Leiria (“lay-REE-uh”) to provide a source of material for shipbuilding. For 10 points each:

[10] Name this European monarch, known as the “farmer king,” who dramatically centralized power in his realm in the 1290s. His wife Isabel, who was born in Aragon, is today venerated as a saint.

ANSWER: **Denis** of Portugal [or **Diniz** of Portugal; accept **Denis I**]

[10] The exploration voyages sponsored by this Portuguese prince made extensive use of caravels built using wood from the forest that Denis planted a century and a half earlier.

ANSWER: **Henry** the Navigator [or **Henrique** o Navegador; accept Infante Dom **Henrique**]

[10] Denis was also known as the “Poet King” due to writing much poetry, much like this maternal grandfather of his, who wrote poetry in Galician. This 13th-century ruler of Castile compiled a namesake set of astronomical tables.

ANSWER: **Alfonso X** [or **Alfonso the Wise** or **Alfonso el Sabio**; prompt on **Alfonso**; prompt on **Alfonsine** tables; do not accept or prompt on “Alfonso the Brave” or “Alfonso el Bravo”]

<Continental post-600 History, NB>

7. An eclipsed conformation increases the amount of this effect, while a staggered conformation decreases it. For 10 points each:

[10] Both cyclopentane and cyclobutane have the ring type of this effect. This effect can cause a molecule to be held in an unfavorable energetic conformation.

ANSWER: **strain** energy [accept ring **strain**]

[10] This cyclic alkane has the least amount of strain of all cyclic molecules. This molecule prefers a chair conformation over its boat conformation.

ANSWER: **cyclohexane** [prompt on **C6H12**]

[10] According to this rule, double bonds cannot be placed at bridgehead carbons because they cannot have sp² hybridization due to strain.

ANSWER: **Bredt**'s rule
<Chemistry, RRP>

8. In Lavinia Fontana's rendition of this scene, Jesus is unusually shown with a straw hat. For 10 points each:
[10] Name this scene also painted by Correggio in which Christ is often depicted with some sort of gardening tool. Titian's early paintings include a version of this scene in which Christ is barely covered with a white cloak.

ANSWER: **Noli me Tangere**

[10] Jesus is usually shown saying "noli me tangere" to this Biblical woman, who is shown "with a smoking flame" in a *chiaroscuro* painting by Georges de la Tour ("zhorz duh la toor").

ANSWER: Mary **Magdalene** [accept *The Penitent Magdalene*; do not accept or prompt on "Mary" or "Virgin Mary" or "Madonna"]

[10] This man used wood for an emaciated-looking *Penitent Magdalene* clasping her hands. This 15th-century sculptor from Florence produced a famous bronze *David*.

ANSWER: **Donatello** [or **Donato** di Niccolò di Betto Bardi]

<Painting/Sculpture, PC>

9. Answer the following about the struggle over the 1959 Shakespeare in the Park Festival, for 10 points each.

[10] This man founded the festival as well as the Public Theater. His promotion of Off-Broadway plays led to his staging of the first Off-Broadway Pulitzer Prize winner, Charles Gordone's *No Place to Be Somebody*.

ANSWER: Joseph **Papp**

[10] This New York City Parks Director opposed the festival because of Papp's testimony before HUAC ("HYOO-ack"). This urban planner, responsible for many of New York City's highways, is the subject of Robert Caro's *The Power Broker*.

ANSWER: Robert **Moses**

[10] After rebuffing Moses, Papp celebrated by having the festival stage this play, "because it was about power." This play's title character asks "et tu, Brute?" after being stabbed by a cabal of Senators.

ANSWER: **Julius Caesar**

<Other/Misc Academic, EL>

10. Name these African-American authors who were greatly influenced by their time in Europe, for 10 points each.

[10] Most of this author's adult life was spent in France, with the later years spent at Saint-Paul-de-Vence. This author's life there inspired a novel about David, who begins an affair with an Italian waiter at a gay bar.

ANSWER: James **Baldwin** (The novel is *Giovanni's Room*.)

[10] This author wrote his existentialist novel *The Outsider* after he moved to Paris in 1946 and became familiar with Jean-Paul Sartre. This author's feud with Baldwin over his novel *Native Son* began in a Paris café.

ANSWER: Richard **Wright**

[10] This author wrote *Dark Princess*, a novel inspired by his experience at the 1911 Universal Races Conference in London in which Matthew Townes moves to Europe and romances the Indian princess Kautilya. This author of the "Black Flame" trilogy also wrote a biography of John Brown.

ANSWER: W. E. B. **Du Bois** [or William Edward Burghardt **Du Bois**]

<Long Fiction, WA>

11. This process names a class of general models that use similar equations to numerical weather prediction models, or NWP, to make predictions of climate parameters over multiple years. For 10 points each:

[10] Identify this climate process. The large-scale "zonal overturning" example of this process can vary substantially from year to year.

ANSWER: atmospheric **circulation** [or air **circulation** or current **circulation** or zonal overturning **circulation** or general **circulation** models]

[10] A key limitation on the accuracy of general circulation models, or GCMs, is that the atmosphere exhibits this form of extreme sensitivity to initial conditions. This behavior is exemplified by the butterfly effect.

ANSWER: **chaos** [accept word forms such as **chaotic** behavior]

[10] GCMs exhibit high sensitivity to changes in this dimensionless quantity. The satellites used in NASA's CERES ("see-reez") experiment calculate this quantity for the Earth by using pyranometers to measure values of solar flux.

ANSWER: **albedo** [or surface **albedo**]

<Other Science: Earth, WA>

12. Towards the end of a dialogue, this character is told that true beliefs must be fastened through *anamnesis*, or recollection, in order to satisfy the definition of knowledge. For 10 points each:

[10] Name this student of Gorgias who asks Socrates how it is possible for a man to inquire about a topic of which he is wholly ignorant, a paradox resolved by recollection.

ANSWER: **Meno**

[10] The ontological implications of Plato's doctrine of recollection are discussed in the *Phaedo*, which argues for the immortality of this concept of immaterial being.

ANSWER: the **soul** [or **psyche**]

[10] This dialogue demonstrates a process similar to recollection in which Socrates compares himself to a midwife, helping his students produce ideas already within them. This dialogue grapples with Protagoras's statement that "man is the measure of all things" by postulating an army of philosophers commanded by Homer.

ANSWER: **Theaetetus**

<Thought, AK>

13. This country's poet Julius Slowacki ("YOOL-yoos swo-VAHT-skee") wrote the autobiographical poem "My Testament," which correctly predicted the future fame of the author's work. For 10 points each:

[10] Name this country whose nationalist "Three Bards" include Slowacki, as well as Adam Mickiewicz ("ah-DOM meets-k'YEH-vitch"), who was born shortly after this country's three partitions.

ANSWER: **Poland** [or **Polska**]

[10] The third of the "Three Bards," Zygmunt Krasiński, wrote a poem predicting Polish glory that is set before this time. Traditionally, aubades ("oh-BAHDS") are poems set during this time.

ANSWER: **dawn** [or **sunrise** or **daybreak**; accept "Pre-**Dawn**"; prompt on **morning**; do not accept or prompt on "day"]

[10] This author wrote a poem about two knights named Crapulinski and Waschlapski ("vosh-LOP-skee") who fight the "tyrant Muscovite" for Polish freedom. The line "Their gloom-enveloped eyes are tearless" begins this author's poem about weavers in Silesia ("sigh-LEE-zhuh").

ANSWER: Heinrich **Heine** ("HIGH-nuh") (The epic is *The Silesian Weavers*.)

<Non-Epic Poetry, WA>

14. The namesake of one of these two operators also developed a namesake principle that refines the principle of least action, allowing a system's dynamics to be fully described by a functional of the other operator. For 10 points each:

[10] Name these two operators that are related to each other by a Legendre ("luh-ZHOND") transformation. One of them is central to using the calculus of variations to solving physics problems.

ANSWER: **Lagrangian** AND **Hamiltonian**

[10] The Lagrangian and Hamiltonian are both operators central to namesake formulations of this area of physics. Its "classical" variety studies the influence of forces on macroscopic objects and their motion.

ANSWER: classical **mechanics** [prompt on **classical physics**; do not accept or prompt on "quantum mechanics" or "statistical mechanics"]

[10] In both time-dependent and non-time-dependent Hamiltonian mechanics, the energy of a system is expressed as a function of these two variables. Name both.

ANSWER: **position** AND **momentum** [or generalized **coordinates** AND generalized **momentum**]

<Physics, WA>

15. The binding of PSGL-1 to P-selectin on endothelial cells helps create the rolling adhesion part of this process, which ends with the cell crossing the basement membrane. For 10 points each:

[10] Name this process in which white blood cells pass between the endothelial cells of blood vessels and are sent to the infected or injured tissue.

ANSWER: leukocyte **extravasation** [or **diapedesis**; anti-prompt on **transmigration** by asking “what general process is it a part of?”]

[10] Leukocyte extravasation depends on the action of selectins and integrins, which are cell adhesion molecules that help the cell bind to this structure. This network, which provides structure to tissues and holds cells in place, is made of proteoglycans and other polysaccharides.

ANSWER: **extracellular matrix** [or **ECM**]

[10] Granulocytes only undergo extravasation after monocytes are sent to the site of infection and differentiate into these cells. These cells, named for their large size, primarily absorb pathogens through phagocytosis.

ANSWER: **macrophages**

<Biology, AK>

16. This director’s film *2046* is the last entry in a loosely connected trilogy of romantic films that began with *Days of Being Wild*. For 10 points each:

[10] Name this Fifth Generation director from China who used shots of the ruins of Angkor Wat to end his romantic film *In the Mood for Love*. The stories of two different police officers are followed in his film *Chungking Express*.

ANSWER: **Wong Kar-Wai** [accept names in either order]

[10] Wong’s directorial debut, *As Tears Go By*, is a film about triads that is often compared to this director’s film *Mean Streets*. This Italian-American’s other crime films include *Goodfellas* and *Taxi Driver*.

ANSWER: Martin **Scorsese**

[10] This Wong film, considered a landmark gay movie of the 1990s, focuses on a same-sex couple played by Tony Leung and Leslie Cheung who dream of seeing the Iguazú Falls together in Argentina.

ANSWER: **Happy Together** [or **Chūnguāng zhàxiè** or **Ceon gwong za sit**]

<Other Art: Film, WA>

17. Identify these references from T. S. Eliot’s *The Waste Land*, for 10 points each.

[10] “The Burial of the Dead” quotes the preface to this poetry collection by Charles Baudelaire with the phrase “You! hypocrite lecteur!”

ANSWER: *The **Flowers of Evil*** [or *Les **fleurs du mal***]

[10] “The Fire Sermon” section of *The Waste Land* shares its name with one of this man’s speeches. A German novel titled for this man mirrors his life as the protagonist becomes a merchant, then a ferryman.

ANSWER: The **Buddha** [or **Siddhartha** Gautama; or Siddhartha **Gautama**]

[10] *The Waste Land* quotes the alternate title of this play followed by the line “Datta. Dayadhvam. Damyata.” In Orhan Pamuk’s *Snow*, Sunay Zaim uses the city of Kars as the setting of his adaptation of this play.

ANSWER: *The **Spanish Tragedy***, or, *Hieronymo’s Mad Againe*

<Misc. Lit, WA>

18. Inmates at this prison who protested its conditions by slitting their Achilles tendons in 1952 became known as the Heel String Gang. For 10 points each:

[10] Name this notoriously violent prison. It takes its common nickname from the plantation that was once on the same land, which in turn derived its name from the modern-day country where most of its slaves came from.

ANSWER: **Louisiana State** Penitentiary [or **Angola** Prison; or The **Farm**; prompt on **Alcatraz of the South**]

[10] While at Angola, Kirksey Nix, a leader of a so-called “mafia” in this state, defrauded gay men through fake ads in the Lonely Hearts Scam. Klansman Byron De La Beckwith murdered Medgar Evers in this state.

ANSWER: **Mississippi** [prompt on **MS**]

[10] Louisiana was a notorious early user of convict leasing, which was made possible by a caveat in this amendment that allowed slavery as punishment for a crime. Otherwise, this amendment abolished slavery.

ANSWER: **Thirteenth** Amendment to the US Constitution [or Amendment **13**]

<US History, EL>

19. Swiss musicologist Marcel Cellier (“sell-YAY”) brought attention to the “open-throated” singing styles of folk music from this country, which often has asymmetrical time signatures. For 10 points each:

[10] Name this country whose State Television Female Vocal Choir worked with Cellier on that project. Six dances written in rhythms from this country appear at the end of Volume VI (“six”) of *Mikrokosmos*.

ANSWER: **Bulgaria** [or Republic of **Bulgaria**; or Kingdom of **Bulgaria**]

[10] This Hungarian composer and pioneering musicologist created *Mikrokosmos*, *Romanian Folk Dances*, and *Concerto for Orchestra*, which uses his characteristic eerie “night music” style.

ANSWER: Béla **Bartók** [accept names in either order]

[10] This Hungarian composed a *Concerto for Orchestra* partially inspired by the Hungarian folk material that he collected in six volumes. In 1945, Hungary’s government implemented the pedagogical method named for this composer of *Háry János* (“HA-ree YAH-nohsh”).

ANSWER: Zoltán **Kodály** (“KOH-dye”) [accept names in either order]

<Classical Music/Opera, NB>

20. This region became a hotbed of nonconformism in the 18th century, most notably manifested in the Methodist revival here led by Howell Harris, among others. For 10 points each:

[10] Name this region where William Morgan produced a vernacular translation of the Bible.

ANSWER: **Wales** [or **Cymru**; accept any specific region within Wales]

[10] The Welsh Methodist revival undermined the influence of this established church of Great Britain, which had already lost substantial ground in Wales in the aftermath of the English Civil War.

ANSWER: **Anglican** Church [or **Church of England**]

[10] This adjective describes preachers such as George Whitfield who moved from city to city during religious revival movements like the Methodist one in Wales and the First Great Awakening in America. Methodist examples of these kinds of preachers were called “circuit riders.”

ANSWER: **itinerant** preachers [prompt on **traveling** preachers]

<British/CW History, WA>

