



2023 PACE NSC

**Edited by David Bass, Jordan Brownstein, Jaimie Carlson, Ganon Evans, Athena Kern, Joseph Krol,
Young Lee, Adam Silverman, Chandler West
Head Editor Ganon Evans**

Round 05 - Tossups

1. This character “dread[s] being awakened from the happiest dream” after her love interest, whom she had repeatedly called a “friend” moments before, confesses his feelings. Per the advice of the apothecary Mr. Perry, this character’s hypochondriac father avoids parties. This character’s gibe at a woman who says more than “three dull things” is criticized by “one of the few people who could see faults” in her, whom she eventually marries. This resident of (*) Hartfield disastrously dissuades her friend from marrying a farmer in favor of Mr. Elton. Frank Churchill pretends to be in love with this character, who tries and fails to matchmake Harriet Smith. Mr. Knightley eventually marries, for 10 points, what title character of an 1815 Jane Austen novel?

ANSWER: **Emma** Woodhouse [prompt on **Woodhouse**]

<Yingzhi Nyang, Literature - British - Long Fiction> ~25349~ <Editor: Jaimie Carlson>

2. This country is home to the contemporary vocal ensemble Roomful of Teeth. Jeff Myers won a competition started by a musician from this country who gathered 27 encore pieces from modern composers. Movements like “Chaconni” and “1726” appear in a 2010 violin concerto from this country, home to the composer of *Partita for 8 Voices*. This country is home to the composer of *blue cathedral*, Jennifer (*) Higdon. It’s not Austria, but the conductor Marin Alsop is from this country, as is a conductor who composed the musical *On the Town* and organized a televised series of Young People’s Concerts with one of this country’s Big Five orchestras. For 10 points, name this home country of musicians like Hilary Hahn and conductors like Leonard Bernstein.

ANSWER: **United States** of America [or the **USA**; accept **America**]

<Ethan Ashbrook, Fine Arts - Music - Recent> ~25730~ <Editor: Young Lee>

3. A tongue-in-cheek paper from Carl Sagan et al. notes that a spacecraft named for this scientist observed signs “strongly suggestive of life on Earth.” That spacecraft named for this scientist was troubled by the failed deployment of a high-gain antenna and passed 951 Gaspra in the first-ever asteroid flyby. A group of objects named for this scientist will be studied by the Juice mission and includes an object characterized by its many (*) lineae (“LIN-ee-AY”), which result from tidal heating. This scientist developed a device with a convergent objective lens and a divergent eyepiece lens, allowing him to discover Callisto. For 10 points, name this astronomer who names the four largest moons of Jupiter.

ANSWER: **Galileo** Galilei [or Galileo **Galilei** or Galileo di Vincenzo Bonaulti de **Galilei**; accept **Galilean** moons] (The paper by Sagan et al. is “A search for life on Earth from the Galileo spacecraft.” The object with many lineae is Europa, one of the Galilean moons.)

<Michael Bentley, Science - Astronomy> ~17106~ <Editor: David Bass>

4. This figure descended to Halima's foster children and split open a boy's chest to wash his heart with water from a golden tray. In a namesake passage, this figure says that the Hour shall be when a slave gives birth to her mistress. In that passage, a companion answers this figure's questions "What is faith?" and "What is *ihsan* ("ih-saan")?" This figure appears as a "perfectly formed man" and blows into the neck of (*) Maryam. Though he does not ride it, this figure summons the heavenly steed Buraq ("burr-AWK") for the Night Journey. This figure commands "Read!" to an illiterate man before revealing the first verses to the Clot Surah in the Cave of Hira. For 10 points, name this angel who revealed the Quran.

ANSWER: Jibril [or Gabriel]

<Ganon Evans, RMP - Islam> ~25453~ <Editor: Athena Kern>

5. *Description acceptable.* A man most famous for this activity deceived a young Minik Wallace and seized much of the Cape York meteorite in 1894. An Italian pilot best-known for helping with this activity was blamed for the death of 17 companions and was the pilot of the *Norge* ("nor-gah") dirigible. A Nobel Prize-winning zoologist who first gained fame with this activity founded an International Office for Refugees and lends his name to the (*) Nansen Passport. A man in the "heroic" era of this activity was celebrated for rescuing men stranded on Elephant Island after the *Endurance* was destroyed, a story recounted in his memoir *South*. In 1911, a milestone in this activity was achieved by a Norwegian named Roald Amundsen. For 10 points, name this field of men like Ernest Shackleton.

ANSWER: polar exploration [accept answers like exploring the Arctic or the North Pole or reaching the poles; after the first sentence, accept answers such as exploring the Antarctic or the South Pole or crossing Antarctica; prompt on exploration or geography or geology by asking "in what location?"] (The person in the first clue was Robert Peary. The pilot was Umberto Nobile.)

<Michael Bentley, History - Cross, Historiography, and Miscellaneous> ~23080~ <Editor: Michael Bentley>

6. The speaker of a poem meets one of these animals which sets its "traps / In the midst of dreams" and is a "Prince" named Berserk. In another poem, the shadow of one of these animals crosses "barbaric glass" and traces an "indecipherable cause." A "bronze rain . . . marks the death of summer" in a poem which is an "Invective Against" these animals. The speaker knows "noble accents / and lucid, inescapable rhythms" in a poem titled for these animals which compares the "beauty of (*) inflections" and "innuendoes." In that poem, the "thin men of Haddam" do not notice these animals. The eye of one of these animals is the only moving thing "Among twenty snowy mountains" in a poem titled for them. For 10 points, Wallace Stevens wrote about "Thirteen Ways of Looking" at what animals?

ANSWER: birds [or blackbirds; or peacocks; or swans; accept "Anecdote of the Prince of Peacocks" or "Thirteen Ways of Looking at a Blackbird" or "Invective Against Swans"; reject other specific types of birds]

<Yingzhi Nyang, Literature - American - Poetry> ~26020~ <Editor: Chandler West>

7. Depictions of these things containing thousand-spoke wheels were inspired by the Buddha's second discourse. According to legend, King Vaḷagambā ("VUH-luh-gum-bah") discovered one of these things that is surrounded by jewels. Examples of these things from Acahualinca ("ah-kah-hwah-LEEN-kah") in Nicaragua and Laetoli south of the Olduvai Gorge are preserved in volcanic ash. In the *Ramayana*, Ravana lives atop a mountain whose peak has one of these things left by Shiva, the Buddha, or Adam and is called Sri (*) Pada. Ichnites are fossils that contain these things in trackways and depict their ridge patterns. Because of wet cement trails, these things from celebrities are less common outside of Grauman's Chinese Theater than similar ones from hands. For 10 points, individual productions of greenhouse gases are called a "carbon" example of what things?

ANSWER: footprints [accept footsteps; accept shoeprints; accept pada or buddhapada or Sri Pada until "Sri Pada"; accept digital footprint; accept paw print or hoof print; prompt on foot or feet; prompt on steps; prompt on prints; prompt on tracks or trace]

<Ganon Evans, Other - Other Academic and General Knowledge> ~26105~ <Editor: Ganon Evans>

8. Ricky Greenwald encouraged people experiencing this phenomenon to imagine “movies” in progressive counting. This phenomenon arises from views of the world being benevolent and meaningful being disrupted in Ronnie Janoff-Bulman’s shattered assumptions theory. Francine Shapiro instructed people with this phenomenon to wiggle their hands or perform (*) rapid eye movements. Bessel van der Kolk’s book *The Body Keeps the Score* describes how this (emphasize) *psychological* phenomenon causes a disorder whose sufferers compartmentalize and exhibit a “thousand yard stare.” Alternate identities in dissociative identity disorder are defenses against this phenomenon in childhood. For 10 points, triggers bring up what psychological response to a negative event that is the “T” in PTSD?

ANSWER: **trauma** [accept word forms such as being **traumatized**; accept mental **trauma** or psych**trauma**; accept **trauma** triggers, **trauma** stimulus, **trauma** stressor, **trauma** response or **trauma** reminder; accept **traumatic** coupling; prompt on stress with “from what?”; prompt on PTSD or post-traumatic stress disorder before read with “What general psychological phenomenon is it caused by?”; prompt on mental disorders or mental illness]

<Ganon Evans, Social Science - Psychology> ~26025~ <Editor: Athena Kern>

9. People with this occupation called the “Shorn Ones” painted half their head blue and half yellow. People with this occupation wore layers of quilted cotton soaked in brine, known as *ichcahuipilli* (“ick-kah-hwee-pee-lee”), and used flat, wooden objects embedded with obsidian pieces, known as *macuahuitl* (“mah-kwah-hwee-tl”). Two groups of people with this occupation distinguished themselves by wearing either eagle feathers or a (*) jaguar skin. People of this occupation participated in ritual “flowery” events that partly served to train them. Aztec people of this occupation used *atlatls* to harry Hernán Cortés’s men during “La Noche Triste.” For 10 points, name this occupation in Aztec society that provided sacrificial victims in the form of war captives.

ANSWER: Aztec **soldiers** [or **yaotl**; accept equivalents like Aztec **warriors** or **fighters**; accept jaguar or eagle **warriors**]

<Lalit Maharjan, History - World - Latin American> ~24970~ <Editor: Jordan Brownstein>

10. Petroleum engineers plot the log of this quantity against “one over Fahrenheit temperature” to form a straight line on a Cox chart. Cavitation occurs in a vacuum pump when the static head falls below this value. In formulas, an asterisk or the superscript “sat” (“sat”) specifies this quantity, which multiplies mole fraction x to give the fugacity of an ideal solution. Replacing K in the van’t Hoff equation with this quantity gives the (*) Clausius–Clapeyron equation. This quantity is a colligative (“coh-LIGG-uh-tive”) property for mixtures of volatile solvents according to Raoult’s (“ROWT’S”) law. This quantity increases from 3 to 101.3 kilopascals when water is heated from room temperature to 100 degrees Celsius. For 10 points, name this pressure of the gas in equilibrium with a liquid.

ANSWER: **vapor pressure** [or **saturation pressure**; or saturation **vapor pressure**; prompt on pressure or P]

<Adam Silverman, Science - Chemistry> ~25278~ <Editor: Adam Silverman>

11. One common design for the interior of this type of building stems from an “Action” plan by Robert Propst. 43 miles of Pyrex glass tubing was used for a curvy one of these buildings in Racine, Wisconsin commissioned by H. F. Johnson from Frank Lloyd Wright. One of these buildings co-designed by Jony Ive and Norman Foster is nicknamed “the spaceship” due to its circular design. In the 1990s, high-status examples of these buildings often had many (*) Aeron chairs from Herman Miller. These buildings, which may stereotypically include a C-suite in one of its corners, sometimes employ hot desking when using an open plan rather than cubicles. For 10 points, name these buildings where white-collar employees work.

ANSWER: **office** buildings [accept corporate **headquarters**; accept Johnson Wax **Headquarters**; accept Apple **Headquarters** or Apple **Offices** or **Apple Park**; prompt on workplaces; prompt on businesses; reject “factories” or “stores”]

<Michael Bentley, Fine Arts - Architecture> ~26005~ <Editor: Young Lee>

12. An urban legend states that a symbol of this god highlights the pineal gland when superimposed over a picture of the brain. The Festival of Victory was held annually to honor this deity at Edfu, which was the second most prominent cult site dedicated to this deity after Nekhen. This god's four children were depicted on (*) canopic jars. Milk was used by Hathor to heal the eye of this deity, which was represented by the protective *wedjat* symbol. This deity painted his wooden boat to look like stone to win a race, resulting in his ascension to the throne of the Egyptian pantheon over his uncle Set. For 10 points, name this falcon-headed sky god, the son of Isis and Osiris.

ANSWER: **Horus** [accept the Eye of **Horus**]

<Shahar Schwartz, RMP - World Mythology> ~25402~ <Editor: Jaimie Carlson>

13. This country's national anthem, "Land of My Fathers," proclaims, "May the language endure for ever," a reference to the "nots" placed around the necks of schoolchildren who dared speak its traditional language. In the 12th century, Prince Madoc ("MAD-ahk") supposedly sailed from this country to present-day Alabama. A man known as the "last" ruler of this country signed the Treaty of Aberconwy ("ah-bear-con-wee") and died at Builth ("bilth"). This country was governed by the Council of the (*) Marches after it was conquered by a king also known as the Hammer of the Scots. A ruler of this country, Llywelyn ap Gruffydd ("loo-WELL-in ap GRI-fith"), was killed in a war against Edward I. For 10 points, name this country whose "Prince" is traditionally the next-in-line to the British throne.

ANSWER: **Wales** [accept **Cymru**; prompt on **United Kingdom**; prompt on **UK**; prompt on Great **Britain**; do not accept "England"]

<Michael Bentley, History - European - Misc> ~22474~ <Editor: Michael Bentley>

14. This story opens "A World in Decay," the first section of Jay Rubin's Penguin Classics translation of 18 of its author's stories. This story's protagonist notices a cricket perched on some "crimson lacquer," and is bothered by a pimple on his cheek while he is told about a woman who pretended to sell dried fish. In this story, a newly-unemployed servant tries to decide between dying or taking up a life of crime before finding an old woman (*) stealing hair from corpses to turn into wigs. This story lent its *title* to a 1950 film about a murdered samurai, whose plot is largely based on its author's other story "In a Grove." For 10 points, the title gate provides the setting for what Ryūnosuke Akutagawa ("ree-oo-noh-SOO-kay ah-COO-ta-GAH-wah") short story that titles a film by Akira Kurosawa?

ANSWER: "**Rashōmon**" [reject "In A Grove"]

<Joseph Krol, Literature - World and Miscellaneous> ~25289~ <Editor: Joseph Krol>

15. Saprophytic species feed on the remains of these organisms. Specialist natural enemies of these organisms stabilize communities containing many species of them in the Janzen–Connell hypothesis. These organisms only reproduce after a disturbance in the most common example of fire-mediated serotiny. The final seres ("sears") and the climax community are dominated by these organisms at the (*) highest stratozone at the end of ecological succession. These organisms form communities called stands. The emergent layer emerges above these organisms, which cannot live north of a line of latitude or above a line of elevation that demarcates the boundary between taiga and tundra. For 10 points, name these terrestrial plants that form the canopy of a forest.

ANSWER: **trees** [or **forests**; accept any specific kinds of **trees**; accept **conifer**s; accept **deciduous** trees; accept **shrubs**; prompt on **vegetation**; prompt on **plants**; prompt on **angiosperms** or **gymnosperms**; prompt on **saplings**; prompt on **seeds**; reject "cacti" or "grasses"]

<Adam Silverman, Science - Biology> ~25243~ <Editor: Adam Silverman>

16. This poet described a boy's sisters tending to his "forehead itching red torments" in his poem "The Lice Searchers." This poet described one of the title things as a "black velvety jacket of brilliant flies" in a poem that a frequent collaborator published in an anthology of "Accursed Poets." This poet listed (read slowly) "A black, E white, I red, U green, O blue" in his sonnet "Vowels." The narrator of a poem by this author "was indifferent to all (*) crews" and "no longer felt [itself] guided by haulers." This poet imagined the title vehicle "going down impassive rivers" in an 1871 poem he wrote aged 16, which was published by his lover Paul Verlaine. For 10 points, name this French poet of "The Drunken Boat" and "A Season in Hell."

ANSWER: Arthur Rimbaud ("ram-BOH") [or Jean Arthur Nicolas Rimbaud]
<Joseph Krol, Literature - European - Poetry> ~25033~ <Editor: Joseph Krol>

17. Lawyers for the defendant in this case argued that a "forcible confiscation" of his reputation had occurred. Five years before this case, Louis Martinet founded a Citizen's Committee to test the constitutionality of the law at its center. A "random thought" on this case by then-law clerk William Rehnquist asserted that the decision in this case "was right and should be reaffirmed." A justice in this case who wrote that "the humblest is the peer of the most powerful" sided with lawyer (*) Albion Tourgée. The "Great Dissenter" John Marshall Harlan argued in this case that "our constitution is color-blind." For 10 points, name this 1896 Supreme Court case stemming from a segregated Louisiana railcar that enshrined the doctrine of "separate but equal."

ANSWER: Plessy v. Ferguson [or *Homer A. Plessy v. John H. Ferguson*]
<Michael Bentley, History - American - 1865-1945> ~23890~ <Editor: Michael Bentley>

18. In 2016, this politician was barricaded in the headquarters of a steelworker's union instead of being arrested for accepting a luxury apartment from the construction company OAS. Upon election, this leader's "mass repeals of decrees" have included stopping the privatization of Correios ("koh-HEY-oos"). Sergio Moro banned this politician from running for office in 2018, as described in a book by Glenn (*) Greenwald. This leader's Workers' Party was hurt in 2018 elections by corruption investigations as part of Operation Car Wash. In opposition to an electoral victory by this politician, on January 8th, 2023, rioters stormed his country's National Congress Building in support of Jair Bolsonaro. For 10 points, name this current president of Brazil.

ANSWER: Luiz Inácio Lula da Silva [accept either underlined]
<Lalit Maharjan, Current Events - World> ~25740~ <Editor: Ganon Evans>

19. The first observation of injection locking was in two of these devices. For these devices, the Airy condition can be approximately satisfied by deadbeat escapements. A classic example of a control system with a cart-pole apparatus involves maintaining the stability of an "inverted" one of these devices. Harmonographs draw Lissajous ("LEASE-ah-zhu") curves from the motion of these devices. (*) Angular velocity is proportional to the sine of latitude in a type of these devices that provided the first evidence of the Earth's rotation. The small angle approximation equates two pi times the square root of length over little g to the period of one of these devices. For 10 points, name these devices that consist of a suspended mass swinging from a fixed point.

ANSWER: pendulums [or pendula; accept Foucault pendulum or inverted pendulum; prompt on any type of watches or grandfather clocks or timepieces with "We're looking for a component of that device."]
<Lalit Maharjan, Science - Physics> ~25017~ <Editor: David Bass>

20. This painting *inspired* a different painting whose fragments were reassembled by Edgar Degas (“day-GAH”) and are currently held by London’s National Gallery. Critics have connected the dimple in the outstretched right palm of this painting’s central figure to the stigmata of Christ. The artist’s print *With or without reason* uses a similar composition to this painting for the men with their backs to the viewer and appeared in the (*) *Disasters of War* series. This companion painting to *The Charge of the Mamelukes* has only one light source from a box lantern near its center. A man standing in a crucifix-like pose is being fired on in, for 10 points, what Francisco Goya painting of French soldiers massacring Spaniards on the title date?

ANSWER: *The **Third of May, 1808*** [or *El **tres de mayo** de 1808 en Madrid*] (The painting in the first sentence is Edouard Manet’s *The Execution of Emperor Maximilian*.)

<Michael Bentley, Fine Arts - Painting - European 1600-1945> ~24262~ <Editor: Chandler West>

21. In devices designed to facilitate this process, normalized beta must be below the Troyon limit of 2.8 to ensure ballooning modes are stable. Exceeding the Kruskal–Shafranov limit of q equals one in devices designed to facilitate this process suppresses kink instabilities. Whether this process can occur continuously is determined with the Lawson criterion. Early systems designed to facilitate this process include the Z-pinch and stellarator. In 2022, the NIF triggered this process’s (*) “inertial confinement” form such that it produced more energy than it took in. Reactors powered by this process could toroidally plasma confine in tokamaks. For 10 points, what process involves the production of heavier elements upon the merging of nuclei?

ANSWER: nuclear **fusion** [accept **fusion** reactor or inertial confinement **fusion**; prompt on plasma confinement until “inertial confinement” with “The plasma is confined to facilitate what process?”]

<Benjamin Chapman, Science - Physics> ~25958~ <Editor: David Bass>

NSC 2023 - Round 05 - Bonuses

1. In *The German Ideology*, Karl Marx argued that “Life is not determined by” this phenomenon, but vice versa. For 10 points each:

[10h] Name this phenomenon that, in Marxist thought, is said to be “false” when it prevents people from recognizing their true socio-economic position.

ANSWER: **consciousness** [or *Bewusstsein*]

[10e] This German thinker coined the term “false consciousness” and co-wrote works like *The German Ideology* and *The Communist Manifesto* with Marx.

ANSWER: Friedrich **Engels**

[10m] The 20th century Marxist György Lukács (“JURJ LOO-kotch”) advanced the concept of “reification” in a book titled for this discipline and “class consciousness.” Marx’s “materialist” approach to this discipline rejects its “great man” theory.

ANSWER: **history** [accept **historical** materialism]

<Jordan Brownstein, RMP - Philosophy> ~20127~ <Editor: Jordan Brownstein>

2. Practitioners of this religion search for a life purpose called a *wampeter* and embrace a circle of like-minded people called a *karass*. For 10 points each:

[10h] Name this religion, whose holy texts take the form of calypso songs. The Tobagonian prophet who names this religion described “thumbing my nose at You Know Who” from Mount McCabe.

ANSWER: **Bokononism**

[10m] Bokonon and the narrator of this novel witness a frozen wasteland from the top of San Lorenzo after Felix Hoenikker’s ice-nine destroys the world.

ANSWER: ***Cat’s Cradle***

[10e] The narrator of *Cat’s Cradle* is a fictionalized version of this author who also depicted himself as Kilgore Trout in books like *Slaughterhouse-Five*.

ANSWER: Kurt **Vonnegut**

<Ganon Evans, Literature - American - Long Fiction> ~20083~ <Editor: Chandler West>

3. Outraged that the British government was sending hundreds of criminals to its American colonies each year, Ben Franklin proposed that the colonists send some of these creatures in return to London. For 10 points each:

[10e] Name these creatures that Franklin also depicted in a print reading, “Join, or Die.”

ANSWER: **snakes** [or rattlesnakes]

[10m] The “Join, or Die” print was made to support this 1754 initiative by Franklin, which called for the creation of a President-General.

ANSWER: **Albany Plan** of Union [accept answers like the plan proposed to the **Albany Congress** or **Albany Convention**]

[10h] A coiled rattlesnake with the motto “Do Not Tread On Me” was used on the flag of a military unit from this state. That same unit from this state fought in a conflict that spawned the Supreme Court case of *Luther v. Borden*.

ANSWER: **Rhode Island** (The conflict was Dorr’s Rebellion.)

<Michael Bentley, History - American - Pre-1865> ~20840~ <Editor: Michael Bentley>

4. The Washoe artist Dat So La Lee championed the *degikup* style of creating these objects with small bases and a wide middle. For 10 points each:

[10e] Name these containers created with reed or willow by Native American weavers. Bamboo was sometimes used to create “wicker” examples of these objects.

ANSWER: **baskets** [or wicker **baskets**; accept **basketry**, **basket** making, or **basket** weaving]

[10h] Navajo artisans use a two-knot or three-dot style in this technique in which fiber is wrapped together then stitched. The Mogollon people created pottery through this technique in which rings of clay are placed atop each other.

ANSWER: **coiling** [or word forms such as **coiled**; accept **coiled** baskets or **coiled** pottery]

[10m] People of this ethnicity use sedge grass to weave *kete* baskets. Gottfried Lindauer’s portraits of people of this ethnicity depict the tattoo art of *tā moko* on their faces.

ANSWER: **Māori** [or **tangata whenua**; prompt on **Polynesians** or **Pacific Islanders**]

<Ganon Evans, Fine Arts - Painting - World> ~21001~ <Editor: Chandler West>

5. Two September 2021 papers from the LHCb collaboration announced the discovery of a particle named for containing two particles with this flavor. For 10 points each:

[10m] Name this particle flavor found in all D mesons. The only positively charged particle in the second generation of matter has this flavor.

ANSWER: **charm** [or **charmed** or **c**] (The discovery is the double-charm tetraquark .)

[10e] The newly discovered particle is a “tetra” one of these particles. The flavors of these matter particles include up, down, charm, and strange.

ANSWER: **quarks** [accept tetra**quarks**; accept up **quarks**, down **quarks**, charm **quarks**, or strange **quarks**]

[10h] This particle, the most common form of charmonium, consists of a charm quark and a charm antiquark. This particle’s name comes from both Burton Richter and Samuel Ting, who discovered it independently.

ANSWER: **J/psi meson** (“J sigh me-zawn”) [or **psion**; prompt on **J/psi**]

<Steven Yuan, Science - Physics> ~20683~ <Editor: David Bass>

6. The tenth and current king of this name promoted his pet poodle Fufu to the rank of air chief marshal. For 10 points each:

[10m] Give this regnal name shared by ten kings of the Chakri dynasty. The fifth king with this regnal name, Chulalongkorn (“choo-lah-long-korn”), ensured the independence of Siam.

ANSWER: **Rama** [accept **Rama V** or **Rama X**]

[10e] Rama V abolished slavery in this southeast Asian country. The military dictator Phibun changed this country’s name from “Siam.”

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

[10h] The Chakri dynasty came to power after its founder Rama I deposed this “Great” Thai king. This king reconquered Ayutthaya from the Burmese, and reunified Siam around the new capital of Thonburi.

ANSWER: **Taksin** the Great [or Somdet Phra Chao **Taksin** Maharat]

<Yingzhi Nyang, History - World - Asian> ~20388~ <Editor: Jordan Brownstein>

7. The eleventh edition of a dictionary in this language is praised for “cutting the language down to the bone” by Syme. For 10 points each:

[10m] Name this language, the source of the words “doubleplusungood,” “thoughtcrime,” and “doublethink.”

ANSWER: **Newspeak**

[10e] This author of “Politics and the English Language” created Newspeak for his novel *Nineteen Eighty-Four*.

ANSWER: George **Orwell** [or Eric Arthur **Blair**]

[10h] This Newspeak word refers to an individual who has been “vaporized,” or removed from existence, because they were caught perpetrating thoughtcrimes.

ANSWER: **unperson**

<Steven Yuan, Literature - British - Long Fiction> ~20680~ <Editor: Jaimie Carlson>

8. The Lažijada (“lah-ZHEE-ah-TAH”) is a lie-telling competition along the banks of this river, whose old name of Zelenika refers to its rich green color. For 10 points each:

[10h] Name this river that passes through Višegrad (“VEE-shah-grahd”), where it is crossed by the Mehmed Paša Sokolović (“MEH-med PAH-shah soh-KOH-loh-vitch”) Bridge at the center of a 1945 novel.

ANSWER: **Drina** River [accept *The Bridge on the Drina*]

[10e] The Drina separates Serbia and this other country partially named for the southern region of Herzegovina.

ANSWER: **Bosnia** [accept **Bosnia** and Herzegovina]

[10m] The Drina flows through the Sutjeska (“soot-YES-ka”) National Park, a hotspot for a goat-like relative of these animals called the chamois (“sha-mee”). The nyala and impala are species of these animals that have spiral horns and are native to Africa.

ANSWER: **antelopes** [accept goat-**antelopes**; accept **Caprini** or **Caprinae** or **Caprine**; accept **Aepyceros**; prompt on **bovids** or **ungulates** or **artiodactyls** or **ruminants**; prompt on **deer**]

<Ganon Evans, Geography - Europe> ~21217~ <Editor: Ganon Evans>

9. This composer used an arch form in his String Quartet No. 5 and included a (4 + 3 + 2)/8 (“four plus three plus two eight”) time signature commonly used in Bulgarian folk music in its scherzo. For 10 points each:

[10m] Name this composer, who had two bassoons enter playing a minor sixth apart to begin the “Game of Pairs” movement of a concerto.

ANSWER: Béla **Bartók** [or Béla Viktor János **Bartók**; or **Bartók** Béla Viktor János] (The concerto is *Concerto for Orchestra*.)

[10e] Bartók instructed the players to use his namesake “snap” form of this technique in his fourth string quartet. This technique involves players plucking the string.

ANSWER: **pizzicato** (“PITS-ee-CAH-toe”)

[10h] The xylophone plays a rhythm following the Fibonacci sequence to open the third movement of a Bartók piece written for an ensemble that includes this keyboard instrument. This instrument also plays the opening melody (read slowly) “G, E, G, (pause) F-sharp, (pause) D-sharp, (pause) E” in another piece.

ANSWER: **celesta** [or **celeste**; or **bell-piano**]

<Benjamin Chapman, Fine Arts - Music - 1900 to 1970> ~20860~ <Editor: Young Lee>

10. A proposed approach to solar radiation management would thin these clouds by injecting them with bismuth tri-iodide. For 10 points each:

[10e] Name these wispy clouds found at high altitudes which, unlike cumulus clouds, trap more heat than they reflect.

ANSWER: **cirrus** clouds [accept **cirrus** cloud thinning]

[10h] Thinning cirrus clouds would widen this interval of infrared radiation wavelength that transmits through the atmosphere. This interval contains wavelengths between eight and 12 micrometers, between the absorption bands of water and C·O₂.

ANSWER: infrared **window**

[10m] Solar geoengineers are investigating ways to “whiten” lower-altitude marine clouds to increase the Earth’s value for this dimensionless measurement of a surface’s reflectance.

ANSWER: surface **albedo**

<Adam Silverman, Science - Earth> ~20438~ <Editor: David Bass>

11. This author’s frequent translator Mabel Lee translated their story collection *Buying a Fishing Rod for My Grandfather*. For 10 points each:

[10h] Name this author, who won the 2000 Nobel Prize for Literature shortly after the publication of the English translation of their novel about “I,” who is wrongly diagnosed with cancer.

ANSWER: **Gāo Xíngjiàn** (“gao sheeng-J’YAN”) (The novel is *Soul Mountain*.)

[10e] Though he later started using French, Gāo Xíngjiàn was the first winner of the Nobel Prize for Literature to mainly use this language, which was also used by the later Nobel winner Mò Yán.

ANSWER: **Chinese** [or *zhōngwén*; accept Standard **Chinese**; accept **Mandarin** or *hànyǔ*]

[10m] Although she was born in the US, this 1938 Literature Nobel winner grew up in China, which inspired her novel about Wang Lung and O-Lan.

ANSWER: Pearl S. **Buck** [or Pearl Sydenstricker **Buck**; or **Sai** Zhenzhu] (The novel is *The Good Earth*.)

<Joseph Krol, Literature - World and Miscellaneous> ~20370~ <Editor: Joseph Krol>

12. Mu'awiya I's army supposedly sold the remnants of this structure to a Jewish merchant in Edessa, thus fulfilling a dream of Nebuchadnezzar. For 10 points each:

[10h] Name this structure created from reforged bronze swords after a failed siege by Demetrius I. Chares ("CARE-ays") of Lindos built this structure.

ANSWER: **Colossus** of **Rhodes** [accept the Statue of **Helios** at **Rhodes**; prompt on the **Colossus** or Statue of **Helios**]

[10m] After an earthquake, the Rhodians rejected the offer of a ruler of this name to repair the Colossus. A member of the Diadochi with this name stole Alexander the Great's body and interred it in Alexandria.

ANSWER: **Ptolemy** [accept **Ptolemy** I; accept **Ptolemy** III; accept **Ptolemaïos** Sôtér]

[10e] The Ptolemaic dynasty controlled this other Wonder of the Ancient World, which was the tallest man-made structure for over three millennia. This structure was built for Old Kingdom pharaoh Khufu.

ANSWER: **Great Pyramid** of Giza [or **Great Pyramid** of Khufu or **Great Pyramid** of Cheops; prompt on **Khufu's Pyramid** or **Cheops's Pyramid**; prompt on **pyramid**]

<Ganon Evans, History - European - Classical> ~19989~ <Editor: Michael Bentley>

13. This poet wrote "I keep in mind that magic moment" to open a love poem addressed to Anna Kern. For 10 points each:

[10e] Name this Russian poet, who left that poem on a piece of paper in a copy of his long poem *Eugene Onegin* ("oh-NAY-jin").

ANSWER: Alexander **Pushkin** [or Alexander Sergeyevich **Pushkin**]

[10m] At age 15, Pushkin wrote a poem lamenting both the end of summer and a lost love with this first name. In *War and Peace*, a woman with this first name eventually marries Pierre Bezukhov after he leaves Princess Hélène.

ANSWER: **Natasha** [or **Natalya**; accept **Natasha** Ilyinichna Rostova or **Natalya** Ilyinichna Rostova]

[10h] Pushkin's death, which resulted from accusations that his wife had taken a lover, inspired this author's poem *Death of the Poet*. A novel by this author himself depicts a deadly duel between Gruzhnitsky and Pechorin.

ANSWER: Mikhail **Lermontov** ("LAIR-mon-tov") [or Mikhail Yuryevich **Lermontov**] (The unmentioned novel is *A Hero of Our Time*.)

<Joseph Krol, Literature - European - Poetry> ~20114~ <Editor: Joseph Krol>

14. Answer the following about the father of slapstick comedy, Fred Karno, for 10 points each.

[10e] In music hall routines, Karno popularized a gag in which a creamy variety of this food was slapped or thrown onto someone's face.

ANSWER: **pie** [accept specific types of pie such as a custard **pie**; accept **pieing**; accept **pie-in-the-face**]

[10h] This duo, one of whom was an understudy of Karno, threw over 3,000 pies in a scene from the film *The Battle of the Century*. "The Cuckoo Song" introduced this bowler hat-wearing duo.

ANSWER: Stan **Laurel** AND Oliver **Hardy** [accept Arthur Stanley **Jefferson** for "Laurel"; accept Norvell **Hardy** or Ollie **Hardy** for "Hardy"; prompt on **Stan** and **Ollie**]

[10m] A British comedy club named for these animals emerged from burned WWII airmen singing the satirical song "Fred Karno's Army." A *sirvinti* ("seer-veen-tee") performs mock bullfights with these small animals before they are served in dishes like *cuy chactado* ("kwee chak-tah-doh") in the Andes.

ANSWER: **guinea pigs** [accept the **Guinea Pig** Club; or **cavy**; reject "pigs"]

<Ganon Evans, Other - Other Academic and General Knowledge> ~20339~ <Editor: Ganon Evans>

15. Stephen C. Johnson created a “portable” compiler for this language at Bell Labs. For 10 points each:
[10e] Name this language created by Dennis Ritchie at Bell Labs. An object-oriented successor to this language appends “plus plus” to its name.

ANSWER: C [accept Portable C Compiler]

[10h] Object-oriented programming can be emulated in C with these features that, like classes, allow any number of user-specified member variables to be accessed via a single pointer.

ANSWER: structs

[10m] C lacks garbage collection, so programmers must eventually perform this action on variables declared via pointers with the “free” function. In C++, a function named for this action is roughly the opposite of “new.”

ANSWER: deallocation [accept word forms; accept word forms of delete or destruction; accept object destruction]

<Lalit Maharjan, Science - Computer Science> ~20437~ <Editor: David Bass>

16. In one koan, the Sixth Patriarch of this religion, Huinéng (“h’WAY-nung”), interrupts a debate over whether a flag or the wind is moving. For 10 points each:

[10e] Name this branch of Mahayana Buddhism that emphasizes meditation and *satori*, or enlightenment.

Dōgen introduced this Buddhism school to Japan.

ANSWER: Zen Buddhism [or Chan Buddhism]

[10h] Huinéng achieved enlightenment after hearing this sutra, a dialogue between Subhuti (“soo-BOO-tee”) and the Buddha that compares life to “a flickering lamp, a phantom, and a dream.” The oldest surviving printed book is a copy of this sutra.

ANSWER: Diamond Sutra [or Jingang Jing]

[10m] The Platform Sutra contains Huinéng’s stanzas comparing the mind to this object. The Diamond Throne sits below this object, where Mara attempted to break the Buddha’s seven weeks of meditation.

ANSWER: bodhi tree [or the mahabodhi tree; or the bo tree; or ficus religiosa; prompt on descriptions such as the tree under which the Buddha gained enlightenment; prompt on tree]

<Ganon Evans, RMP - Buddhism> ~20874~ <Editor: Athena Kern>

17. When asked to describe what the second act of this ballet was about, its choreographer supposedly said, “it’s about twenty minutes.” For 10 points each:

[10h] Name this plotless ballet set to music by Gabriel Fauré, Igor Stravinsky, and Pyotr Tchaikovsky that portrays the historical development of ballet.

ANSWER: Jewels [or Emeralds, Rubies, and Diamonds]

[10e] *Jewels* was choreographed by the Georgian George Balanchine, who studied ballet in this country home to the Mariinsky and Bolshoi Theaters before he moved and co-founded the New York City Ballet.

ANSWER: Russia [or Russian Federation; accept Rossiya or Rossiyskaya Federatsiya; accept Soviet Union, USSR, or equivalents]

[10m] Balanchine’s restaging of this ballet premiered with Osage (“oh-SAJ”) dancer Maria Tallchief in the title role. In this ballet, the title figure performs an “Infernal Dance” to protect Prince Ivan.

ANSWER: *The Firebird* [or *Zhar-ptitsa*; or *L’Oiseau de feu*]

<Tora Husar, Fine Arts - Ballet/Dance> ~20827~ <Editor: Young Lee>

18. EDTA detaches adherent cells from a culture plate by chelating (“KEE-late-ing”) metals required by these proteins. For 10 points each:

[10h] Name these transmembrane proteins that attach cells to the extracellular matrix. They are named as ordered pairs of their alpha and beta chains, such as “alpha-one, beta-one.”

ANSWER: **integrins**

[10m] *Two answers required.* EDTA chelates these two divalent metals required by integrins. One is a cofactor in chlorophyll, and the other is a second messenger in cells.

ANSWER: **calcium** AND **magnesium** [or **Ca²⁺** AND **Mg²⁺**; accept “++” in place of “2+”; prompt on partial answer]

[10e] *In vitro*, EDTA detaches integrins from this major structural protein, the main component of the extracellular matrix and the most common protein found in connective tissue.

ANSWER: **collagen**

<Adam Silverman, Science - Biology> ~20884~ <Editor: Adam Silverman>

19. Answer the following about Pope Paul IV’s restrictions on Jews, for 10 points each.

[10e] Jews in the Papal States were forced to wear a hat of this color. It’s not black, but the Nazis forced Jews to wear a star of this color on a badge.

ANSWER: **yellow** [accept **gold**]

[10m] Paul believed that this “French disease” was a Jewish plot. In the 16th century, the Italian surgeon Gaspare Tagiacozi supposedly invented an operation to replace noses lost by sufferers of this disease. Give its modern name.

ANSWER: **syphilis**

[10h] Paul’s bull *Cum nimis absurdum* restricted Jews to a trade named for these items and bones. In the UK, low-status workers would gather this material for recycling at “shoddy” factories.

ANSWER: **rags** [accept **rag**-and-bone man; prompt on used **cloth** or old **clothes** or **junk** or **wool**]

<Michael Bentley, History - Cross, Historiography, and Miscellaneous> ~20839~ <Editor: Michael Bentley>

20. Daphnis, a man with this profession, is blinded for being unfaithful and falls off a cliff, where a spring emerges and he is taken to heaven. For 10 points each:

[10h] Name this profession. Most of the characters in Virgil’s *Eclogues*, like Corydon, have this profession, whose patron is Pan.

ANSWER: **shepherd** [prompt on **farmer**]

[10m] The shepherd Endymion is made to forever perform this action on Mount Latmus, where he is watched by the moon goddess Selene. Gates of horn and ivory are outside the residence of a god of this action.

ANSWER: **sleeping** [or **dreaming**]

[10e] A depiction of this Greek god as a shepherd is inspired by a tale where he saved a city from a plague by running around its walls carrying a lamb. This father of Daphnis wears winged sandals and carries a caduceus.

ANSWER: **Hermes** [reject “Mercury”]

<Jaimie Carlson, RMP - Greco-Roman Mythology> ~20948~ <Editor: Jaimie Carlson>

21. According to Ibn Battuta, the houses of the city of Taoudenni were blocks of this material covered with camel skins. For 10 points each:

[10e] Name this mineral traded for gold in West Africa because of its food flavoring and preservation abilities.

ANSWER: table **salt** [accept **sodium chloride** or **NaCl**]

[10h] This empire dominated the Saharan salt trade in the 900s CE thanks to its control of the Taghaza mines. Al-Bakri visited this empire's capital of Koumbi Saleh, which was located in modern-day Mauritania.

ANSWER: **Ghana** Empire [or **Wagadou**; or **Ankar**]

[10m] Ghana's salt trade was inherited by the Sosso empire, whose king Sumunguru ("soo-muhn-GOO-roo") was defeated by this ruler with a poisoned arrow. An oral epic named for this ruler relates how he became the first Mansa of the Mali empire.

ANSWER: **Sundiata** Keita [or **Sunjata**; or **Sonjara**; or **Manding** Diara; or **Sogolon** Djata; or **Nare Maghan**; or Sogo Sogo **Simbon** Salaba; prompt on **Keita**]

<Ganon Evans, History - World - African> ~20396~ <Editor: Jordan Brownstein>