



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 04 - Tossups

1. This city's king Iphitos instituted a policy that fined Spartans for sacking Lepreum. A boy in this city whose parents were still alive would use golden scissors to cut olive branches for a *kotinos*. The Spartan princess Kyniska gained fame for horses she provided to a *tethrippon* held in this city. An artwork in this city was repeatedly rubbed with olive oil due to the Altis Grove's marshiness. Phidias was apocryphally (*) murdered after completing that chryselephantine ("criss-el-uh-FAN-teen") statue in this city. 100 oxen were sacrificed at this city's massive Temple of Zeus during events that were revived in the 1890s by Baron Pierre de Coubertin. For 10 points, name this Peloponnesian city that, with Delphi, hosted part of the Panhellenic Games every four years.

ANSWER: **Olympia** [or Archaia **Olympia**; accept the Statue of Zeus at **Olympia**; prompt on **Elis** before "completing a statue" by asking "What city under Elis's control?"; reject "Olympics" or "Olympus"]
<Ganon Evans, History - European - Classical> ~25772~ <Editor: Michael Bentley>

2. Robert Benchley emceed radio performances by a bandleader who played this instrument backed only by a string quartet and rhythm section on "Interlude in B-Flat." After Chick Webb, a bandleader who played this instrument recorded a hit version of Edgar Sampson's "Stompin' at the Savoy." That bandleader who played this instrument performed "Sensation Rag" at a landmark concert highlighting jazz's evolution since the Dixieland days and popularized a song originally by (*) Louis Prima. A tom-tom solo by Gene Krupa opened performances of "Sing, Sing, Sing" by a bandleader who played this instrument and recorded the live album *The Famous 1938 Carnegie Hall Jazz Concert*. For 10 points, name this woodwind instrument played by the "King of Swing," Benny Goodman.

ANSWER: **clarinet**
<Michael Bentley, Fine Arts - Jazz> ~25007~ <Editor: Young Lee>

3. Ferroin is used as this species in the Belousov–Zhabotinsky reaction. Calcein ("CAL-see-in") and eriochromes ("AIR-ee-oh-chromes") are used as these species in trace metal analysis because they are worse chelators ("KEY-laters") than EDTA. Chemists use natural anthocyanins as these species. Volumetric analysis adds these chemicals at conventionally imprecise volumes like "two drops." By forming a charge-transfer complex, starch acts as this species when (*) iodine and thiosulfate react. These chemicals first undergo a reaction at the endpoint, just past the equivalence point, to form a chromophore. A mixture of these molecules like methyl red and phenolphthalein ("FEEN-ol-FAY-leen") is impregnated into paper strips to test a solution's pH. For 10 points, name these chemicals that change color in a titration.

ANSWER: **indicator** solution [or pH **indicator**; or acid-base **indicator**; or redox **indicator**; or complexometric **indicator**; prompt on molecular **dyes**; prompt on **tests** or pH **tests** or redox **tests**]
<Adam Silverman, Science - Chemistry> ~24928~ <Editor: Adam Silverman>

4. This denomination hosted a controversial 1883 banquet serving shellfish amongst its community in Cincinnati, Ohio. The Pittsburgh Platform of this denomination was championed by Isaac Meyer Wise. This denomination's Gates of Prayer book stresses a concept translated as "repair of the world." This denomination's ideologist Abraham Geiger favored the idea of a messianic age in favor of a personal messiah. (*) Reconstructionists and this denomination practice patrilineal descent and perform the Bat Mitzvah ceremony for girls as part of a relaxed view on halakhic principles. For 10 points, name this most populous branch of Judaism in the United States that contrasts with Orthodox and Conservative strains because of their progressive views.

ANSWER: **Reform** Judaism [accept **Liberal** Judaism; accept **Reform** Movement; accept **Progressive** Judaism before read; prompt on Judaism or Jews before "Jewish"; reject "Reformed Judaism"]
<Athena Kern, RMP - Jewish Practice> ~25952~ <Editor: Ganon Evans>

5. A poem about this war declares "Autumn is desolation in the plot" and is set in a place where "the brute curiosity of an angel's stare / turns you . . . to stone." In a poem set during this war, an old woman leans out of an attic and shouts "Shoot, if you must, this old gray head, / but spare your country's flag." The line "row after row with strict impunity" opens an Allen (*) Tate ode to fallen soldiers in this war that inspired a student's poem that describes how "savage servility / slides by on grease." A monument to this war "sticks like a fishbone / in the city's throat" in a poem that describes "St. Gaudens' shaking" relief in the Boston Common. For 10 points, name this war that inspired Robert Lowell's "For the Union Dead."

ANSWER: American **Civil War** [or the United States **Civil War**; accept any answer involving a war between the **Confederate** States of America and the **Union**; accept **Confederacy** in place of Confederate States]
<Ganon Evans, Literature - American - Poetry> ~26152~ <Editor: Chandler West>

6. Peter Paul Rubens depicted this male figure seated in front of a horse in a painting whose fauna was done by Jan Brueghel the Elder. A parrot appears above this figure who holds a mountain ash branch on the left-side of an engraving by Albrecht Dürer. This figure covers his face while walking below a pink-robed angel in a fresco from the Brancacci Chapel by (*) Massaccio. Twelve people float to the right of this figure in a red cloth resembling a human brain in a fresco painted by an artist who likely stood on scaffolding instead of lying on his back. This figure reclines on a green hill and extends his hand towards a nearby finger on the ceiling of the Sistine Chapel. For 10 points, Michelangelo depicted God reaching out to create what first man?

ANSWER: **Adam** [accept *The Creation of Adam*]
<Ganon Evans, Fine Arts - Painting - European to 1600> ~25759~ <Editor: Chandler West>

7. This process is induced in the germarium of *Drosophila* by the Bag-of-marbles protein, since it only occurs far from the cap cells' niche. Flow cytometry detects cell surface markers called "clusters" of this process. In Waddington's analogy to a ball rolling down a hill, this process pushes an HSC down either the myeloid or lymphoid lineage. This process can be reversed by reprogramming Sox2 and Oct4, two of the (*) Yamanaka factors. Progenitor cells undergo this process or self-renewal. Totipotent cells in the morula undergo this process when they become pluripotent cells in the blastula, which then further undergoes this process to form the three germ layers. For 10 points, name this process by which stem cells mature and specialize.

ANSWER: cellular **differentiation** [or **differentiating**; or clusters of **differentiation**; accept **differentiation** of specific cell types, like white blood cell **differentiation**; prompt on CD; prompt on specialization or maturation until either of those words is read; prompt on losing stemness or losing potency; prompt on cell division or mitosis; reject "meiosis"]
<Adam Silverman, Science - Biology> ~25702~ <Editor: Adam Silverman>

8. One measure of the health of this sector of the economy uses a Composite 10 index consisting of data points such as BOXR and MIXR. An important metric tracking this sector of the economy was developed by economists Karl Case and Robert Shiller. The “median multiple” is a measure of affordability in this economic sector. Postwar government subsidies to this sector of the economy were capitalized on by William (*) Levitt. A decline in this sector of the economy forced Freddie Mac into conservatorship. The rise of financial products such as MBSes and collateralized debt obligations contributed to a bubble in this sector of the economy that burst in 2007. For 10 points, name this sector of the economy where “flipping” property helped begin the subprime mortgage crisis.

ANSWER: **housing** [or **real estate**; prompt on property before mention; prompt on mortgages or loans before mention with “In what sector of the economy?”]

<Michael Bentley, Social Science - Economics> ~24977~ <Editor: Ganon Evans>

9. This non-title character hesitates to kill a “radiantly beautiful” woman until hearing a “soul wail.” Telegrams sent to Amsterdam for this character suddenly change from “good spirits” to “terrible change for the worse.” This “MD, D.Ph., D.Lit., etc., etc.” places a wafer of sacramental bread that burns a scar into a woman’s forehead, leading him to hypnotize her. This man figures out the identity of the “bloofer lady” attacking children, and figures out why another character has shipped boxes of (*) earth. This friend of John Seward and Quincy Morris treats Lucy Westenra by hanging garlic around her room. For 10 points, name this Dutch professor from *Dracula*, often depicted in spin-offs as a vampire hunter.

ANSWER: Abraham Van **Helsing**

<Lalit Maharjan, Literature - British - Long Fiction> ~25447~ <Editor: Jaimie Carlson>

10. The leaking of documents from this conflict led to the resignation of Anneli Jäätteenmäki (“AHN-el YAH-ten-mah-key”), Finland’s first female prime minister. A 45-minute claim in the September Dossier justifying this war was “sexed up” to be scarier. The Assassins’ Gate was an entry point to a protected zone established in this conflict. Frederick Kagan’s “Choosing Victory” plan for this conflict was the origin of the (*) Troop Surge. The Chilcot Inquiry questioned a Prime Minister’s invocation of a “special relationship” as a pretext for joining this war. In the leadup to this war, a vial that could hold anthrax was presented to the UN by Colin Powell. Tony Blair’s government participated in, for 10 points, what American-led conflict that toppled Saddam Hussein?

ANSWER: **Iraq** War [or Operation **Iraqi Freedom**; accept anything referring to the war in **Iraq** or US invasion of **Iraq** or US occupation of **Iraq**; accept Second **Iraq** War; accept **Second Gulf** War or **Gulf War II**; prompt on War on Terror; reject just “Gulf War”]

<Lalit Maharjan, History - Cross, Historiography, and Miscellaneous> ~25208~ <Editor: Michael Bentley>

11. A predecessor to AlphaDev is a DeepMind AI system for discovering new algorithms for this task. The omega bound associated with this task has gradually decreased by approximately 0.004 since 1990 due to galactic algorithms that generalize the Coppersmith–Winograd algorithm with the laser method. The first algorithm to perform this task with asymptotic runtime better than big O of n (*) cubed was developed by Volker Strassen. This operation reverses L·U decomposition by acting on “lower” and “upper” objects. For 2D arrays with dimensions “m by n” and “n by p,” this common operation returns a 2D array with dimension “m by p.” For 10 points, name this associative non-commutative operation that yields the product of two matrices.

ANSWER: **matrix multiplication** [accept word forms like **multiplying matrices**; prompt on word forms of **multiplication** before “matrices” is read; accept word forms of **multiplication** at the end] (The DeepMind AI system is AlphaTensor.)

<Lalit Maharjan, Science - Computer Science> ~24983~ <Editor: David Bass>

12. One of this author’s characters laments falling in love when “grey-haired” in a story that ends with the statement that “the hardest, the most complicated part was only just beginning.” That character created by this author, who calls women “the lower race,” goes to a provincial town abbreviated “S.” to attend an opening night of *The Geisha*. In a story by this author, the protagonist has an affair with the wife of the official von (*) Dideritz, whom he met in Yalta while she was walking a Pomeranian. While himself in Yalta, this author wrote a play in which the servant Firs is left behind at an estate which is sold to Lopakhin (“loh-PAHK-in”) by Madame Ranevskaya (“rah-nev-SKY-ah”). “The Lady with the Dog” is by, for 10 points, what playwright of *The Cherry Orchard*?

ANSWER: Anton Chekhov [or Anton Pavlovich Chekhov]

<Tora Husar, Literature - European - Short Fiction> ~13593~ <Editor: Joseph Krol>

13. Description acceptable. Eric Bloodaxe’s conversion to one of these beings causes a thunderous sound heard by Bragi. One poem claims these beings’ numbers will “seem too few when the wolf comes.” Vingolf is home to some of these beings, who accompany the gods to the field Vígríðr (“veeg-REER”) after Gjallarhorn is blown. These people drink milk from the goat Heidrun, and eat meat from the resurrecting (*) boar *Sæhrímnir*, alongside the wolves Geri and Freki and their owner. After their death in battle, these people are chosen by shieldmaidens, and then fight every day for sport and return at night to a hall to feast. Valkyries select, for 10 points, what beings who train under Odin’s service until Ragnarok?

ANSWER: einherjar [accept any description of people in Valhalla or humans in Valhalla, accept any description of Odin’s warriors or fighters; prompt on people or humans or warriors or soldiers or Vikings or individuals selected by Valkyries or equivalents with “where are they?”; prompt on dead people / humans / warriors / soldiers / Vikings with “where did they go after they die?”]

<Lalit Maharjan, RMP - World Mythology> ~24929~ <Editor: Jaimie Carlson>

14. Walter Burling smuggled seeds of a variety of this crop into the US inside dolls while on a mission from James Wilkinson to alert the Mexican government about the Burr conspiracy. A series of Charles Minard flow maps illustrates how European markets increasingly imported this good from India in the 1860s. William Thayer worked with the viceroy Sa’id Pasha to promote production of this good in (*) Egypt to relieve a so-called “famine” of it in Lancashire. Beginning in the late 18th century, an upland variety of this crop replaced the delicate Sea Island variety. This was the primary crop blockaded in the Anaconda Plan. For 10 points, what crop was nicknamed “King” for its central role in the economy of the American South?

ANSWER: cotton [accept varieties of cotton such as Petit Gulf cotton or Sea Island cotton]

<Ryan Rosenberg, History - American - Pre-1865> ~26087~ <Editor: Michael Bentley>

15. An *andante* section of this piece scored for strings centers on the crescendoing rising theme “F-sharp, B, C-sharp.” The flute and oboe trade off an E major pentatonic theme in the opening of a section of this piece marked “Allegretto pastorale.” Before killing, the villain in Fritz Lang’s film *M* whistles a theme from this piece. This piece of (*) incidental music includes a mazurka depicting the dance of a Bedouin princess. Bassoons and pizzicato cellos begin a theme from this piece that continuously gets louder and faster and depicts its main character meeting a group of trolls. For 10 points, a Henrik Ibsen play inspired what suite that includes songs like “Morning Mood” and “In the Hall of the Mountain King” by Edvard Grieg?

ANSWER: Peer Gynt Suite No. 1, Op. 46 [or the 1st Peer Gynt Suite; anti-prompt on “The Death of Åse” or “Anitra’s Dance” or “Morning Mood” or “In the Hall of the Mountain King” by asking, “What larger piece is that a part of?”; reject “Peer Gynt Suite No. 2”]

<Ethan Ashbrook, Fine Arts - Music - Romantic> ~25755~ <Editor: Young Lee>

16. This quantity names a type of material modeled by the Edwards–Anderson and Sherrington–Kirkpatrick models. Those materials named for this quantity are represented as a lattice of stochastically-aligned magnetic dipoles and are called this quantity’s “glasses.” Three matrices denoted “sigma-sub-k” that are used to represent this quantity along coordinate axes are named for (*) Wolfgang Pauli (“POW-lee”). This quantity for a particle determines if its exchange is symmetric or antisymmetric. This quantity’s quantization was revealed by how a magnetic field deflected silver atoms in the Stern–Gerlach experiment. Fermions have half-integer values for, for 10 points, what type of quantum intrinsic angular momentum?

ANSWER: **spin** angular momentum [or **spin glasses**; prompt on intrinsic angular momentum; do not accept or prompt on just “momentum”]

<Joseph Krol, Science - Physics> ~23505~ <Editor: David Bass>

17. This thinker introduced the hypothesis that the world and our memories of the past were created five minutes ago. The question “who shaves the barber?” summarizes a puzzle that this thinker used to illustrate a complication of Gottlob Frege’s (“FRAY-guhz”) Basic Law V (“five”). This thinker imagined an undetectable object orbiting between the Earth and Mars in an example intended to shift the burden of proof to theists, his namesake (*) “teapot.” This thinker discovered that the set containing all sets that are not members of themselves causes a paradox for naïve set theory, leading him to use type theory to explain mathematics in his magnum opus. For 10 points, what author of *Why I Am Not a Christian* collaborated with Alfred Whitehead on *Principia Mathematica*?

ANSWER: Bertrand **Russell** [or Bertrand Arthur William **Russell**, 3rd Earl Russell]

<Jordan Brownstein, RMP - Philosophy> ~25005~ <Editor: Jordan Brownstein>

18. *The Economist* dubbed this city the “blob that ate” part of its state due to its urban sprawl, which developed despite being the largest US city without formal zoning laws. I.M. Pei designed this city’s J.P. Morgan Chase Tower with five sides. The largest children’s hospital and the MD Anderson Cancer Center are part of this city’s medical district which borders Brays Bayou. The 26-lane (*) Katy Freeway is a portion of I-10 that serves this city and suburbs like Sugar Land and The Woodlands. Excess pavement in this major city possibly exacerbated the flooding caused by Hurricane Harvey. Interstate 610’s loop around this city includes Rice University but not the Johnson Space Center. For 10 points, name this most populous city in Texas.

ANSWER: **Houston**, Texas

<Lalit Maharjan, Geography - United States> ~25735~ <Editor: Ganon Evans>

19. The “schism edict” is sometimes taken as evidence that this ruler expelled thousands of heretics at the “third council.” According to a “narrative” of this ruler’s early reign, they ordered the execution of 99 of their brothers and put the executioner Girika in charge of an elaborate torture chamber called this ruler’s “hell.” In a series of Prakrit language works classified as either “minor” or “major,” this ruler referred to himself as the (*) “Beloved of the Gods.” This ruler commissioned a statue of four lions to top a column at Sarnath. After witnessing the bloody Kalinga War, this leader championed the concept of *dharma* in a series of inscriptions on pillars and rocks. For 10 points, name this Mauryan emperor who converted to Buddhism.

ANSWER: **Ashoka** the Great

<Andrew McCowan, History - World - Asian> ~25580~ <Editor: Jordan Brownstein>

20. In a story by this author, a woman who names herself after the words “beauty” and “twilight” sells people unique words. That story, “Two Words,” is narrated by the protagonist of a novel by this author, who moves in with the transgender woman Mimí and relates how guerrillas led by Huberto Naranjo (“na-RAN-hoh”) are filmed by the journalist Rolf Carlé (“car-LAY”). In this author’s debut novel, the French count (*) Jean de Saligny (“zhahn duh SAT-in-yee”) reveals a covert relationship between Pedro Tercero (“tur-SAIR-oh”) and Blanca. After rebuilding the hacienda Las Tres Marías in that novel by this author, Esteban marries the clairvoyant woman Clara del Valle (“VIE-ay”). For 10 points, what author of *Eva Luna* wrote about the Trueba (“troo-AY-ba”) family in *The House of the Spirits*?

ANSWER: Isabel **Allende** (“eye-END-ay”) [or Isabel Angélica **Allende** Llona]

<Joseph Krol, Literature - World and Miscellaneous> ~25285~ <Editor: Joseph Krol>

21. One of these events occurs after Wisagatcak is bitten on the butt by a muskrat while trying to catch the Great Beaver. In myths from the Pacific Northwest, the fight of Thunderbird and Whale causes this type of event. In Hopi and Navajo stories, “the entrance into the Fourth World” occurs after people use hollow reeds to escape this type of event. After attempts by a loon and a beaver, a coot dies trying to find dirt after this type of event. (*) Pyrrha and Deucalion survive one of these events, as does Ut-napishtim in another story. A raven, then a dove, are sent out to mark the end of this type of event before a rainbow appears. For 10 points, many cultures share a myth about a Great type of what event, one of which caused the building of Noah’s Ark?

ANSWER: **flood** [prompt on earthquake]

<Jaimie Carlson, RMP - World Mythology> ~26103~ <Editor: Jaimie Carlson>

NSC 2023 - Round 04 - Bonuses

1. This set is the only set whose power set is a singleton. For 10 points each:

[10e] Name this unique set that contains no elements. This set can be denoted with a circle with a slash through it.

ANSWER: **empty** set [or **null** set]

[10m] For finite set X with cardinality n , this expression gives the number of elements in the power set of X because determining each element in the power set involves deciding between inclusion and exclusion of each element in X . Give your answer in terms of n .

ANSWER: **two to the power of n** [or **n th power of two**]

[10h] This statement suggests that there are no sets with cardinality between that of the natural numbers and their power set. Paul Cohen developed forcing to show that this statement cannot be proven from the ZFC axioms.

ANSWER: **continuum hypothesis** [or **CH**]

<Yingzhi Nyang, Science - Math> ~20696~ <Editor: David Bass>

2. In May 2023, Jordan launched an airstrike in this country that killed the drug kingpin Marai al-Ramthan. For 10 points each:

[10e] Name this Middle Eastern country whose main export is the drug Captagon. It has been ravaged by a civil war that failed to oust Bashar al-Assad.

ANSWER: **Syria** [or the **Syrian Arab Republic**; accept **Sūriyā**]

[10m] Captagon is trafficked onto the global market by this Iran-backed group in Lebanon led by Secretary-General Hassan Nasrallah.

ANSWER: **Hezbollah** [or **Hizbullah**; or **Hizballah**]

[10h] The Assad regime has set up Captagon factories in the homeland of this minority, secretive Shi'a group in Syria that the Assad family belong to.

ANSWER: **Alawites** [or **Alawi**]

<Michael Bentley, Current Events - World> ~20430~ <Editor: Ganon Evans>

3. Ruth E. Carter became the first Black woman to win an Oscar in this field with her Afrofuturist designs for *Black Panther*. For 10 points each:

[10e] Name this field whose Oscar was won by Edith Head eight times. Designers in this field for films like *12 Years a Slave* pay particular attention to the historical accuracy of what actors wear onscreen.

ANSWER: **costumes** [or **costume** design; prompt on **clothes** or **clothing**; prompt on **design**]

[10m] Carter deliberately used bright clothes from sponsor Nike for her costumes for a film by this director. In that film, Radio Raheem carries around a boombox playing "Fight the Power."

ANSWER: Spike **Lee** [or Shelton Jackson **Lee**] (That film is *Do the Right Thing*.)

[10h] Carter worked on a 2000 John Singleton film with this title starring Samuel L. Jackson. The title character wears a brown leather coat in a 1971 Gordon Parks film with this title whose theme was recorded by Isaac Hayes.

ANSWER: **Shaft**

<Michael Bentley, Fine Arts - Miscellaneous> ~20506~ <Editor: Young Lee>

4. In a poem by this author, an “unfortunate lover” is glorified as “betwixt the flames and waves,” thereby becoming the stuff of “story.” For 10 points each:

[10e] Name this poet, who encouraged behaving like “amorous birds of prey” in “To His Coy Mistress.”

ANSWER: Andrew **Marvell**

[10m] In “To His Coy Mistress,” the speaker aims to “devour” this concept instead of languishing in its “slow-chapped power.” The poem also describes this concept’s “wingèd chariot hurrying near.”

ANSWER: **time** [accept “**Time’s** wingèd chariot hurrying near”]

[10h] In a Marvell poem set in one of these places, the “industrious bee / Computes its time as well as we.” In this place, the mind “annihilate[s] all that’s made” in a “delicious solitude.”

ANSWER: **gardens** [accept “The **Garden**”]

<Yingzhi Nyang, Literature - British - Poetry> ~20911~ <Editor: Jaimie Carlson>

5. In 2018, YouTuber ElectroBOOM and Walter Lewin feuded over the nature of this law. For 10 points each:

[10m] Name this law used in mesh circuit analysis that states that the sum of the voltage differences around a closed loop is zero.

ANSWER: **Kirchhoff’s voltage** law [or **Kirchhoff’s second** rule or **Kirchhoff’s loop** rule; prompt on **Kirchhoff’s law** or **Kirchhoff’s rule** or **loop rule**]

[10e] ElectroBOOM criticized Lewin’s experiment that claimed to show that Kirchhoff’s voltage law does not hold in the presence of one of these fields that feature north and south poles.

ANSWER: **magnetic** fields [or **B** fields]

[10h] ElectroBOOM claimed that Lewin’s results were due to incorrect use of oscilloscopes, which plot waveforms that are read by these units, the distances between grid lines. The scale of an oscilloscope screen is given in time per these units versus volts per these units.

ANSWER: **divisions** [or **divs**]

<Lalit Maharjan, Science - Physics> ~20490~ <Editor: David Bass>

6. Answer the following about stinky cryptids, for 10 points each.

[10e] Cryptozoologists debate the relationship between Florida’s Skunk Ape and this ape-like creature from the Pacific Northwest, often conflated with the yeti.

ANSWER: **Bigfoot** [or **Sasquatch**]

[10m] According to legend, a hybrid between a human and this animal snuck onto a San Antonio dance floor but disappeared in a sulfur cloud. A cryptid partially named for these animals was accused of killing animals with puncture wounds in Puerto Rico.

ANSWER: **goats** [or **Goatman**; or **cabros**; or **cabras**; accept the chupacabra]

[10h] Cryptids from this country like the *ani-ani* and *kapre* mask their awful smell by smoking large amounts of ganja. *Aswang* are vampires with tubelike tongues that consume embryos in this country’s folklore.

ANSWER: The **Philippines** [or Republic of the **Philippines**; accept **Pilipinas**]

<Ganon Evans, RMP - World Mythology> ~20440~ <Editor: Jaimie Carlson>

7. Frederic Madden attacked Antonio Panizzi, a rival keeper of these objects at the British Museum, as being “peasant-born, foreign, [and] scheming.” For 10 points each:

[10m] Name these objects, many of which were sold by Thomas Jefferson to restock a government institution following the burning of Washington DC.

ANSWER: **books** [or **manuscripts** of **codices**] (The books were sold to the Library of Congress.)

[10e] A Black woman named Belle da Costa Greene convinced J. P. Morgan to open his private library in this city as a museum. Two stone lions guard the Beaux-Arts (“boh-ZARR”) main branch of this city’s library on Fifth Avenue.

ANSWER: **New York** City [or **NYC**; accept **Manhattan**]

[10h] Like the Library of Congress, this British library at the University of Oxford receives a copy of every printed book published in the country.

ANSWER: **Bodleian** (“BOD-lee-in”) Library [accept **Bodley** or The **Bod**]

<Michael Bentley, History - Cross, Historiography, and Miscellaneous> ~20261~ <Editor: Michael Bentley>

8. Frieda and Errol have an illicit relationship in this author’s play *Statements After an Arrest Under the Immorality Act*. For 10 points each:

[10m] Name this author who depicted a doomed romance with Ethel Lange (“lang”) in a two-hander play about the lives of the brothers Morris and Zachariah under apartheid.

ANSWER: Athol **Fugard** (The unmentioned play is *Blood Knot*.)

[10e] Around the time *Statements* premiered, Fugard, John Kani, and Wilson Ntshona (“unt-SHO-nah”) co-wrote *The Island*, in which characters perform *Antigone*, a play by this Greek tragedian of *Oedipus Rex*.

ANSWER: **Sophocles**

[10h] Both *Statements* and this other play by Fugard, Kani, and Ntshona premiered in 1972. Its protagonist dictates a letter to his wife before having his picture taken in Styles’ studio.

ANSWER: ***Sizwe Bansi is Dead*** [or ***Sizwe Bansi is Dead***]

<Joseph Krol, Literature - World and Miscellaneous> ~20195~ <Editor: Joseph Krol>

9. All the representatives in Colorado’s legislature took a bribe to vote down legislation of this type for miners. For 10 points each:

[10m] Name this type of law applied to the rail industry in the 1916 Adamson Act. A common slogan in support of these laws called for equal time for work, recreation, and rest.

ANSWER: **eight-hour** workday [or **40 hour week**; prompt on **short-time** law or equivalent answers about laws that **limit the workday**]

[10h] The Colorado eight-hour day law was modeled after one in this state. In the early 20th century, the Smoot Hearings concerned whether a Senator elected from this state would be allowed to take office.

ANSWER: **Utah**

[10e] Albert Parsons co-founded an Eight-Hour League in this city in the 1870s. A decade later, labor activists were massacred in this city’s Haymarket Riot.

ANSWER: **Chicago**

<Michael Bentley, History - American - 1865-1945> ~20805~ <Editor: Michael Bentley>

10. Answer some questions about strange time signatures in modern classical music, for 10 points each.
[10e] Henry Cowell's *Rythmicana* uses the unusual time signature 1/1 in the first two movements, which means every bar is equivalent to one of these notes. These notes are the same length as four-quarter notes.
ANSWER: **whole** notes [accept **semibreve**]
[10h] 1-over-8 and 2 1/2-over-4 ("two-and-a-half-over-four") are some of the time signatures appearing in the "Lord Melbourne" movement of this suite. This band suite by Percy Grainger collects six English folk songs, such as "The Brisk Young Sailor" and "Horkstow Grange."
ANSWER: **Lincolnshire Posy** ("link-uhn-SURE poh-SEE")
[10m] No time signatures appear at all in a Karlheinz Stockhausen piece written for this ensemble that was named for the helicopters the performers play inside. That piece was premiered by one of these ensembles named Kronos.
ANSWER: **string quartet** [prompt on **quartet**]
<Ethan Ashbrook, Fine Arts - Music - 1900 to 1970> ~20544~ <Editor: Young Lee>

11. A Tennessee court hung one of these animals named Big Mary after they ruled that she had murdered a human in 1916. For 10 points each:
[10e] Name these animals whose Asian species helped put up tents at circuses.
ANSWER: **elephants** [accept Asian **elephants** or African forest **elephants**]
[10h] This elephant was framed as "bad" after killing a drunken zookeeper who fed her a cigar. In 1903, Thomas Edison's film studio recorded this elephant's electrocution at Luna Park.
ANSWER: **Topsy**
[10m] In the early 2000s, residents of Assam named several killer elephants after this person. A wedding tape of this person's son Hamza was recovered from a safe house he returned to after the death of Benazir Bhutto.
ANSWER: Osama **bin Laden** [or Usama bin **Laden**; accept Osama bin Mohammed bin Awad bin **Laden**]
<Michael Bentley, Other - Other Academic and General Knowledge> ~20051~ <Editor: Ganon Evans>

12. Protists named for having these structures separate DNA into micro-nuclei, which carry the germline but do not express genes, and macro-nuclei, which do the opposite. For 10 points each:
[10m] Name these structures that grow out of basal bodies on the surface of many eukaryotic cells. They lend their name to the group of protists that includes *Paramecium*.
ANSWER: **cilia** [or **ciliate** protists; or **Ciliophora**; reject "hairs"]
[10e] Ciliates contrast with protists that move around by thrashing these long whip-like organelles.
ANSWER: **flagella** [or **flagellum**]
[10h] Whereas flagellated animal cells use a single posterior flagellum, protists in this model genus have two anterior flagella. Species in this photosynthetic genus of pond-dwelling protists have the simplest eyes found in nature.
ANSWER: **Euglena** [or **euglenids**]
<Vikshar Athreya, Science - Biology> ~19237~ <Editor: Adam Silverman>

13. This politician fell to his knees in repentance in front of Nathan Rapoport's Warsaw Ghetto Uprising memorial. For 10 points each:

[10m] Name this leader of the SDP who secured a 1970 agreement with Poland recognizing the Oder–Neisse Line as the official border. This chancellor launched the *Ostpolitik* policy.

ANSWER: Willy **Brandt** [or Herbert Ernst Karl **Frahm**]

[10e] Brandt eventually resigned as chancellor after his aide Gunter Guillaume (“gee-YOHN”) was revealed to secretly be an agent for this Communist country’s secret police, the Stasi.

ANSWER: **East Germany** [or **German Democratic Republic**; or **GDR**; or **DDR**; or **Deutsche Demokratische Republik**; prompt on **Germany**]

[10h] In 1969, Brandt visited this NATO country to meet with President Sunay. West Germany’s “economic miracle” was partly driven by the “guestworkers” from this country, especially after its 1960 and 1971 coups.

ANSWER: **Turkey** [or Republic of **Turkey**; or **Türkiye**]

<Michael Bentley, History - European - 1900+> ~20893~ <Editor: Michael Bentley>

14. The wooden sections of this altarpiece were carved by Nikolaus Hagenauer. For 10 points each:

[10m] Name this altarpiece created for the Monastery of St. Anthony by Matthias Grünewald. The sickly, emaciated Christ on the front of this altarpiece references the ergotism of patients who viewed it.

ANSWER: **Isenheim Altarpiece**

[10e] The Georg Schafer collection in Coburg includes Grünewald’s painting of this scene. Leonardo’s version of this scene differs by seating Jesus and all of his apostles on one side of the table.

ANSWER: **The Last Supper** [or **Il Cenacolo**]

[10h] Philipp Melancthon grouped Grünewald with Dürer and this third artist as being the greatest artists of his time. This fast-working Saxon painted portraits of Martin Luther and *The Stag Hunt of Frederick the Wise*.

ANSWER: Lucas **Cranach** the Elder [or Lucas **Muller**]

<Michael Bentley, Fine Arts - Painting - European to 1600> ~18864~ <Editor: Chandler West>

15. Answer the following about the *Purusharthas* (“POO-roo-SHAR-thus”), which are Hinduism’s four “aims” of life, for 10 points each.

[10e] The aim of *moksha* (“MOKE-shuh”) involves escaping this process. Accumulating good karma affects this process in the cycle of *samsara*.

ANSWER: **reincarnation** [or **rebirth**; or *punar**bhava***; or *punab**bhava***; prompt on **birth**]

[10h] This aim is the accumulation of wealth and property. Because this aim also applies to good governance and economics, it names a treatise by the Mauryan statesman Kautilya (“KOH-til-yuh”).

ANSWER: **artha** (“ARR-tha”) [accept **arthashastra**]

[10m] The philosopher Vātsyāyana argued that this aim of pleasure was compatible with a moral life in a sutra known in the West for its discussion of intimacy and romance.

ANSWER: **kama**

<Sudheer Potru, RMP - Hinduism> ~20724~ <Editor: Athena Kern>

16. After being dunked in the water, a character claims to see one of these animals, which prompts another character to grab her foot and kiss it. For 10 points each:

[10m] Name these aquatic animals that supposedly swim into holes and get fat off of a certain fruit. These animals title a short story that ends with Seymour Glass abruptly committing suicide.

ANSWER: **bananafish** [accept “A Perfect Day for **Bananafish**”; prompt on **fish** alone]

[10e] Seymour Glass appears in the short story “A Perfect Day for Bananafish,” part of this author’s *Nine Stories*. He also wrote *The Catcher in the Rye*.

ANSWER: J. D. **Salinger** [or Jerome David **Salinger**]

[10h] *Nine Stories* also contains this story, in which Eloise Wengler gets drunk with an old friend from college. The title of this story refers to a memory of Eloise spraining her ankle.

ANSWER: “**Uncle Wiggily in Connecticut**”

<Steven Yuan, Literature - American - Short Fiction> ~20679~ <Editor: Chandler West>

17. Answer the following about the “mother of behavior therapy,” Mary Cover Jones, for 10 points each.
[10e] Jones’s “Little Peter” experiment helped inspire the concept of desensitization, which was used to treat these mental disorders that involve excessive fear towards an object or event.

ANSWER: **phobias**

[10m] By associating a fear-inducing animal with positive stimulants, the “Little Peter” experiment aimed to reverse this psychologist’s “experiment” which induced a phobia in a single infant subject who possibly had hydrocephalus.

ANSWER: John Broadus **Watson**

[10h] Jones conducted a study of this type called the Oakland Growth Study. Two parallel studies of this type contrasted Harvard graduates with people from disadvantaged Boston neighborhoods.

ANSWER: **longitudinal** study [or **longitudinal** survey; prompt on panel study; prompt on observational study]
<Yingzhi Nyang, Social Science - Psychology> ~20890~ <Editor: Athena Kern>

18. This organization’s paramilitary offshoot was called the Special Apparatus. For 10 points each:

[10h] Name this organization whose female offshoot was led by Zainab al-Ghazal. A failed assassination in 1954 led to a crackdown on this organization during which Sayyid Qutb was tortured and executed.

ANSWER: **Muslim Brotherhood** [or Society of the **Muslim Brothers**; or al-**Ikhwān al-Muslimūn**]

[10e] Gamal Nasser suppressed the Muslim Brotherhood during his rule of this Arab country.

ANSWER: **Egypt** [or Arab Republic of **Egypt**; or **Misr**]

[10m] The Brotherhood supported the army officials who formed this anti-British nationalist group. This group’s coup on January 25th, 1952 replaced King Farouk with Mohamed Naguib.

ANSWER: **Free Officers** Movement [or Association of **Free Officers**]

<Michael Bentley, History - World - Middle Eastern> ~19035~ <Editor: Jordan Brownstein>

19. This author’s work *Paradox on the Comedian* inspired the term “staircase wit” for when one thinks of a witty comeback too late. For 10 points each:

[10m] Name this novelist of *Rameau’s* (“rahm-OWE’s”) *Nephew*, who co-edited the *Encyclopédie* (“on-see-cloh-PAY-dee”) with Jean le Rond d’Alembert (“zhahn luh rohn DAHL-om-bair”).

ANSWER: Denis **Diderot** (“DEE-duh-roh”)

[10h] In a Diderot novel, the valet Jacques tells his master about this philosophy, which he illustrates by recounting the death of his brother in a real-life earthquake.

ANSWER: **fatalism** [or **fatalist** philosophy; or **fatalisme** or **fataliste**; accept *Jacques the **Fatalist** and his Master* or *Jacques le **fataliste** et son maître*]

[10e] Other 18th-century French novels that philosophically interpreted that earthquake include this Voltaire novel, in which Dr. Pangloss tells the title character to look at the earthquake optimistically.

ANSWER: **Candide** [or **Candide** *ou, l’Optimisme*]

<Joseph Krol, Literature - European - Long Fiction> ~20117~ <Editor: Joseph Krol>

20. Purified proteins are often stored in solutions containing Tris (“triss”), an inert example of this type of base. For 10 points each:

[10e] Name this type of acids and bases that include ammonia and acetic acid. Buffers contain this type of acid or base that only partly ionizes.

ANSWER: **weak** acids or bases [or word forms like **weakly** ionizing]

[10m] For long-term storage, protein buffers also usually include this three-carbon alcohol as a cryoprotectant. Three fatty acids are attached to this backbone molecule in a common type of fat.

ANSWER: **glycerol** [or **glycerine**; or 1,2,3-**propanetriol**]

[10h] Salts of this inorganic ion are so toxic that they are often added to protein stocks as antimicrobial agents. Organic compounds containing this ion are much safer; they click onto alkynes in the key reaction of bioorthogonal chemistry.

ANSWER: **azides** [or sodium **azide**; or **N₃⁻**]

<Jonathen Settle, Science - Chemistry> ~19207~ <Editor: Adam Silverman>

21. This collection inspired a project by David Herd that described the stories of refugees stuck in British immigration detention. For 10 points each:

[10e] Name this collection whose stories like “The Knight’s Tale” and “The Miller’s Tale” inspired Herd’s stories like “The Lorry Driver’s Tale” and “The Smuggled Person’s Tale.”

ANSWER: *The **Canterbury Tales***

[10h] In the #28for28 (“hashtag 28 for 28”) project, this author read “The Arriver’s Tale.” The gardener Mzee Hamdani comforts Yusuf, who realizes he is a slave owned by Uncle Aziz in this author’s novel *Paradise*.

ANSWER: Abdulrazak **Gurnah**

[10m] Jeremy Irons narrated this section of the #28for28 project. Chaucer described April “[piercing] the drought of March to the root” in this section in which the Host proposes a contest at the Tabard Inn.

ANSWER: **prologue** [accept the General **Prologue**; prompt on introduction or first part]

<Ganon Evans, Literature - British - Short Fiction> ~21467~ <Editor: Ganon Evans>