

2022 SHOW-ME

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Packet 10

1. **After woodwinds, this instrument picks up the fugato “The Cuckoo Sat on the Fence” in a concerto based on folk tales. This instrument represents the title character of a work based on its composer’s scrapped Rob Roy Overture that ends with an “orgy of bandits.” Works like *Der Schwanendreher* [der sch-VAHN-en-dare-ur] were composed for this instrument by Paul (*) Hindemith. This instrument is principal in Hector Berlioz’s *Harold in Italy*. This is the smaller of two instruments whose lowest string is tuned to C with its other string tuned to G, D, and A. Players of this string instrument read music in alto clef. For 10 points, name this string instrument pitched between a violin and a cello.**

ANSWER: **viola**

<Auditory Fine Arts — Joy An> [Ed. Ganon Evans]

1. Answer the following about the French Revolutionary Calendar, for 10 points each:

[H] Holidays celebrating Talent and Labor after the end of Fructidor were named for this umbrella term for lower-class French revolutionaries who wore trousers instead of bourgeois knee-britches.

ANSWER: **sans-culottes** [accept **sanculottides**]

[M] This summer month of the calendar names an event in which the Directory usurped the power of the Committee of Public Safety and Maximilien Robespierre, thus ending the Reign of Terror.

ANSWER: **Thermidor** [accept the **Thermidorian** Reaction]

[E] The decimalized calendar was introduced to weaken the power of the Catholic Church by replacing this other calendar, the most widely used today. This calendar named for a pope replaced the Julian calendar.

ANSWER: **Gregorian** calendar

<European History — Ganon Evans> [Ed. Louis Li]

2. **A compound with this many carbons names the ability for fuel to withstand compression in an engine. There are this number of hydrogen atoms in a cyclobutane [sye-kloh-BYOO-tayn] molecule. An alkane [AL-kayn] with this many carbon atoms represents a fuel’s resistance to knocking with its namesake “rating.” The standard allotrope of sulfur consists of (*) rings containing this number of atoms. A beryllium isotope with this mass number is formed by combining two alpha particles. This integer value is the atomic number of oxygen. For 10 points, give this number of valence electrons in a noble gas atom, which has a full octet.**

ANSWER: **eight** [prompt on **octane** rating or full **octet**]

<Chemistry — June Yin> [Ed.]

2. Along the Loango Coast of the Kongo Kingdom, “scepter-slates” called *lusumu* made of this material were used by elders for storytelling. For 10 points each:

[E] Name this material used to create Chinese puzzle balls. This material is harvested from the tusks of elephants.

ANSWER: (elephant) **ivory**

[H] An ivory head of Queen Esigie was one of the thousands of artworks looted from this African kingdom in the 1800s. Brass plates depicting obas of this kingdom make up its namesake “bronzes” at the British Museum.

ANSWER: **Benin** [accept **Benin** bronzes]

[M] An ivory *yakshi* depicting Lakshmi was discovered at this site in 1938. Darius III retreats from the Battle of Issus in the Alexander Mosaic found at this site’s House of the Faun.

ANSWER: **Pompeii**

<Visual Fine Arts — Ganon Evans> [Ed. Gabe Forrest]

3. **After surviving a serious wound, this man was said to be blessed with “baraka” and promoted by his king. The terrorist group ETA emerged when this leader reduced autonomy in “traitor regions.” Economists associated with Opus Dei focused on autarky under this leader, who rose through the military during the (*) Rif War and took political control when a plane crash killed Jose Sanjurjo. Juan Carlos I dismantled this leader’s government, which was filled with members of his Falange Party. The German Condor Legion supported this leader of the Nationalists in a 1937 civil war against Republicans. For 10 points, name this fascist dictator of Spain.**

ANSWER: Francisco **Franco** (Bahamonde)

<European History — Ganon Evans> [Ed. Louis Li]

3. The results of this task can be classified by the definiteness of the Hessian matrix. For 10 points each:

[M] Name this task, which can be performed in single-variable calculus by setting the derivative of a function to 0 to search for critical points. In multivariable calculus, this task can be performed by examining the gradient.

ANSWER: **optimization** [or finding **minima** OR **maxima**; accept any adjectives like local or global in front of **minima** OR **maxima**; accept finding **extrema**]

[E] Gradient descent is a common algorithm for optimization in this field. Computer models in this field are often trained by minimizing a loss function, leading to better accuracy in tasks like imitating human behavior.

ANSWER: **artificial intelligence** [or **AI**; or **machine learning**; or **ML**; accept **neural net**works]

[H] A tricky situation in gradient descent is getting trapped in one of these points that have zero gradient but are *not* local minima, as they are concave up in some directions and concave down in others, forming a namesake shape.

ANSWER: **saddle** points

<Math — Joy An> [Ed.]

4. **In a story from this country, a grasshopper is offered to children playing with colorful lanterns. A character from this country realizes that a beautiful drum player is 14 when she emerges naked from a bathhouse in a “Palm-of-the-Hand” story. The sinner Kandata tries to escape Hell’s Pool of Blood in “The Spider’s Thread,” a story from this country. A servant steals the clothes of a woman who makes money by (*) stealing corpses’ hair in this country. A criminal, priest, and woodcutter give differing accounts of a murder in, for 10 points, what country, the setting of “In a Grove” and “Rashomon” by Ryūnosuke [ryoo-NOHS-kay] Akutagawa?**

ANSWER: **Japan** [or **Nihon**-koku or **Nippon**-koku]

<Mixed Literature — Andrew Gao> [Ed. Joel Miles]

4. To lessen human impact on the environment, this architect proposed a set of self-sustaining floating cities known as Cloud Nine. For 10 points each:

[M] Name this architect, a proponent of geodesic [jee-uh-DESS-ik] domes, who lends his name to a 60-carbon molecule.

ANSWER: Buckminster **Fuller** [accept **buckminsterfullerene**]

[E] Geodesic domes use triangles that can easily distribute this quantity in architecture. This quantity refers to the force on a material, while strain is the deformation of that material.

ANSWER: **stress**

[H] Fuller's ideas inspired the first enclosed geodesic dome called the Climatron, which was built for this city's botanical garden. Dankmar Adler and Louis Sullivan designed a terracotta-adorned skyscraper in this city.

ANSWER: **St. Louis**, Missouri (The skyscraper is the Wainwright Building.)

<Other Fine Arts — June Yin> [Ed. Ganon Evans]

5. **An artist from this city painted a self-portrait with a Chinese Lantern Plant and a *Portrait of Wally*; that artist was mentored in this city by the painter of the rejected murals *Philosophy, Medicine and Jurisprudence*. The magazine *Ver Sacrum* was published in this home city of Egon Schiele [SHEE-luh]. An artist from this city used his signature material in a portrait of (*) Adele Bloch-Bauer, and showed a blanket with black and white squares covering a man as he performs the title action in a painting that uses abundant gold leaf, titled *The Kiss*.** For 10 points, name this city, the home of Gustav Klimt and an eponymous Secession of Austrian artists.

ANSWER: **Vienna** [accept **Vienna** Secession]

<Visual Fine Arts — Braden Booth> [Ed. Gabe Forrest]

5. In this poem, the speaker apologizes that “Man’s dominion / Has broken Nature’s social union.” For 10 points each:

[H] Name this poem, which tells the title figure, “thou art no thy-lane, / In proving foresight may be vain” when things “Gang aft agley.”

ANSWER: “**To A Mouse**”

[M] This author of “To A Mouse” compared his “Luve” to “the melody... sweetly played in tune” in the poem “A Red, Red Rose.”

ANSWER: Robert **Burns**

[E] Burns also wrote this poem, which asks, “Should old acquaintance be forgot” and is usually sung at the stroke of midnight on New Year's Eve.

ANSWER: “**Auld Lang Syne**” [“old long sign”]

<Poetry — Rachel Ezrielev> [Ed. Joel Miles]

6. **One work by this poet describes “potent oblivion dwell[ing]” on his lover’s lips. Another work by this poet describes his lover “like the stab of a knife, enter[ing] my plaintive heart.” In one work by this poet of “Lethe” [LEE-thee] and “The Vampire,” the narrator asks the “wisest and fairest of the Angels” to “take pity on my long misery!” This poet of “The (*) Litanies of Satan” calls Ennui [on-WEE] the filthiest of all vices in one work. That work by this poet opens by describing “folly, error, sin, [and] avarice” before calling the title figure a “hypocrite” in his “To the Reader.”** For 10 points, name this French poet of the collection *Les Fleurs du Mal*.

ANSWER: Charles **Baudelaire** [bohhd-LAIR]

<Poetry — Joy An> [Ed. Joel Miles]

6. This family's heiress Patty was brainwashed by the Symbionese Liberation Army into committing multiple bank robberies. For 10 points each:

[M] Name this family that owned the *New York Journal* and included a man who told Frederic Remington "You furnish the pictures and I'll furnish the war" about Cuban independence and inspired *Citizen Kane*.

ANSWER: **Hearst** [accept Patty **Hearst**; accept William Randolph **Hearst**]

[E] This rival of William Randolph Hearst owned the *New York World*. This man names a series of annual awards given to newspapers and books through Columbia University.

ANSWER: Joseph **Pulitzer** [accept the **Pulitzer** Prize]

[H] Hearst's newspapers often referred to this governor of Cuba as "The Butcher" in articles which exaggerated his cruelty. This man tried to put down Cuban rebellions by resettling civilian populations in Spanish forts.

ANSWER: Valeriano **Weyler** [accept Butcher **Weyler**]

<American History — Ganon Evans> [Ed. Louis Li]

7. **A chair depicting one of these creatures commemorates a visit to Zennor in Cornwall by a *ceasg* [keask]. Alexander the Great's sister Thessalonike transformed into one of these creatures. A monkey's head was attached to the mummified body of a child to create one of these creatures in a P. T. Barnum hoax. One of these creatures refuses to kill a Danish prince with a dagger from the Sea Witch in a fairy tale by (*) Hans Christian Andersen. Christopher Columbus likely saw a manatee and not one of these creatures, myths of which were inspired by the Sirens. For 10 points, name these creatures with the torso of a human and a fishtail.**

ANSWER: **merfolk** [or **merpeople**; accept **mermaids**; accept **mermen**; prompt on water spirits; prompt on nixies]

<Mythology — Ganon Evans> [Ed.]

7. Directly before one of these actions, one man said he prided himself as a "man of faith" after being caught saying a slur on air. For ten points each:

[H] Name this action. An object relating to the 62nd of these actions by one player in 2022 has an estimated value of two million dollars.

ANSWER: hitting a **home run** [accept equivalents like getting a **home run**, hitting an **HR**, or hitting a ball **out of the ballpark**; prompt on a hit, run, or score]

[M] Nick Castellanos, who became infamous for his poorly-timed home runs, currently plays for this MLB team. This team, which plays from Citizens Bank Park, defeated the Padres for the National League title in 2022.

ANSWER: **Philadelphia Phillies** [accept either underlined portion]

[E] After winning the NLCS, the Phillies lost this best-of-seven championship series to the Houston Astros. The Astros may have used signals like banging on a trash can to influence the outcome of one of these series in 2017.

ANSWER: **World Series** [or **Fall Classic**]

<Popular Culture — Connor Lee> [Ed. Ganon Evans]

8. **People of this ethnicity recorded riddles in the Zuyua language in the Book of Chilam Balam. The activist Rigoberta Menchú supports people of this ethnicity through the Winaq party. Women like Lady Six Sky could hold the title of Ajaw amongst people of this ethnicity, who constructed a city that contains the El Caracol observatory and a temple whose shadow resembles a (*) serpent at equinoxes. Pakal the Great ruled a city-state of people of this ethnicity, whose society collapsed around 900 CE possibly because of droughts affecting cenotes [sih-NOH-tees]. Tikal and Chichen Itza were cities built by, for 10 points, what people located in the Yucatan Peninsula?**

ANSWER: **Mayan** [accept **K'iche** Maya; accept Yucatec **Maya**; prompt on Guatemalans]

<World History — Ganon Evans> [Ed. Louis Li]

8. In a Zadie Smith novel titled for this color, the narrator disagrees with greeting cards that say “everybody deserves love.” For 10 points each:

[M] Name this color that titles another novel about the part-wolf and part-dog son of Kiche and One Eye, who fights Lip-Lip.

ANSWER: **white** [accept *White Fang*; accept *White Teeth*]

[E] *White Fang* is by this author, who also wrote about John Thornton and the sled dog Buck in *The Call of the Wild*.

ANSWER: Jack **London**

[H] In a credo attributed to London, he writes “I would rather be ashes than [this substance!]” The quote “I will show you fear in a handful of [this substance]” inspired the title of an Evelyn Waugh [EEV-lin WAW] novel about Tony Last.

ANSWER: **dust** (“I will show you fear in a handful of dust” is a quote from *The Waste Land*.)

<Long Fiction — Rachel Ezrielev> [Ed. Joel Miles]

9. **These animals were operant-conditioned to have “superstitious” behaviors in an experiment by B. F. Skinner, who had earlier led a U.S. Navy-sponsored project to use these animals to guide missiles. One of these animals named President Wilson survived with a chest wound and a missing leg after being shot at in World War I. Though they’re not chickens, these were the first (*) birds to be domesticated by humans.** The magnetoreception of these birds allows “homing” breeds of them to navigate back from long distances. For 10 points, name these mail-carrying birds, today often called “rats with wings” due to their presence in cities.

ANSWER: **pigeons** [or *Columba livia domestica*; accept carrier **pigeons** or homing **pigeons** or Project **Pigeon**; prompt on **birds** or **Aves** before mention]

<Other — June Yin> [Ed. Ganon Evans]

9. Pfizer’s [FAI-zur’s] drug Lufotrelvir [loo-FAH-trel-veer] is an antiviral designed to treat COVID-19 by inhibiting one of these enzymes. For 10 points each:

[H] Name these enzymes with a “serine” subtype that break down proteins by catalyzing the hydrolysis [high-DRAH-luh-siss] of peptide bonds.

ANSWER: **proteases** [PROH-tee-ayss-es] [accept serine **proteases**]

[M] Because it is a prodrug, Lufotrelvir contains one of these functional groups that is removed to form its active state. This functional group symbolized P-sub-i is attached to one molecule by a rotor-shaped synthase [SIN-thayss].

ANSWER: **phosphate** [FOSS-fate] group [or PO_4^{3-}] (ATP synthase adds a phosphate to ADP.)

[E] Unlike other Covid drugs, Lufotrelvir must be administered through an IV [I-V] rather than by this method commonly achieved with a pill. A description is acceptable.

ANSWER: **oral ingestion** [or **swallowing**; accept any underlined portion or equivalents thereof]

<Biology — Michael Eng> [Ed. June Yin]

10. **Albert Einstein deduced that experiencing a constant value of this quantity is locally indistinguishable from being in an inertial reference frame. The centripetal [sen-TRIH-pih-tul] form of this quantity equals radius times the square of angular frequency, or alternatively the square of tangential velocity over radius. This quantity’s second time derivative is called (*) snap, while its first time derivative is called jerk. This quantity’s SI unit is the meter per second squared. Force equals the product of mass and this quantity by Newton’s second law. For 10 points, what quantity is the rate of change of an object’s velocity?**

ANSWER: **acceleration** [accept gravitational **acceleration** or centripetal **acceleration**]

<Physics — June Yin> [Ed.]

10. This philosopher believed that objects exist continuously only because God perceives everything. For 10 points each:

[M] Name this Irish philosopher who coined the phrase “to be is to be perceived” in his *Treatise Concerning the Principles of Human Knowledge*. This man also wrote *Three Dialogues Between Hylas and Philonous*.

ANSWER: (Bishop) George **Berkeley** [BARK-lee]

[E] Berkeley’s master argument demonstrates the impossibility of conceiving an unconceived one of these objects. A thought experiment asks if one of these objects that falls in the forest makes a sound if no one is around to hear it.

ANSWER: **trees**

[H] Berkeley’s immaterialism is sometimes described as the subjective form of this philosophical position. This position holds that reality is dependent on the mind.

ANSWER: subjective **idealism**

<Philosophy — Joy An> [Ed. Joel Miles]

11. **Because of her many names, the main character of this novel is nicknamed “Alphabet” as a child. One character in this novel exclaims “so this is a marriage!” after watching a bee pollinate a blossom. In the frame story of this novel, Pheoby Watson listens to the townspeople gossip about the main character. That character compares her (*) blossoming sexuality to a pear tree in this novel. After failed marriages with Logan Killicks and Jody Sparks, the main character of this novel runs away from Eatonville with Tea Cake. For 10 points, name this novel about Janie Crawford by Zora Neale Hurston.**

ANSWER: ***Their Eyes Were Watching God***

<Long Fiction — Joy An> [Ed. Joel Miles]

11. Bridge Day, held on the third Saturday of every October, allows BASE jumping from this structure. For 10 points each:

[H] Name this third highest bridge in the United States, spanning over 3,000 feet. This longest single-arch bridge in the Western Hemisphere can be found off Route 19 in West Virginia.

ANSWER: **New River Gorge** Bridge

[E] The New River Gorge Bridge spans over this mountain range located as far south as Alabama and as far north as Newfoundland. The Great Smoky Mountains are a subrange within this larger mountain range.

ANSWER: **Appalachian** Mountains [or **Appalachians**]

[M] Aside from BASE jumping, the New River is also a popular location for this activity, typically taking place in its rapids. Levels in this activity range from 1 to 6 depending on the difficulty of a river.

ANSWER: whitewater **rafting**

<Geography — Vik Wei> [Ed. Ganon Evans]

12. **This object is cleaned with perfume on the first day of Sha’baan. After proclaiming the arrival of the Mahdi, the Qarmatian sect stole this object. A “water spout of mercy” removes rainwater from this object, which currently sits next to a *maqam* covering its creator’s footprint. An enormous cloth called the *kiswah* covers this object and is changed on the Day of Arafah. Visitors (*) walk counterclockwise around this object seven times during *tawaf*. The mihrab in a qibla wall in mosques points towards this object, which Muslims face during prayers. For 10 points, name this black stone building in Mecca that is the holiest site in Islam.**

ANSWER: **Kaaba** [or the **Ka’bah** al-Musharrafah]

<Religion — Ganon Evans> [Ed.]

12. Quadrilateral Mughal *chahar bagh* designs for these locations were based on Persian examples of them that are the root of the word “paradise.” For 10 points each:

[M] Name these locations. One of them used Archimedes’ screw to pump water from the Euphrates and was supposedly built by Nebuchadnezzar II to resemble the Median homeland of his wife Amytis.

ANSWER: **gardens** [accept, but do NOT otherwise reveal, the Hanging **Gardens** of Babylon]

[E] The Hanging Gardens was an ancient wonder in this city home to the Ishtar Gate. “An eye for an eye” appears in Hammurabi’s law code for this city-state.

ANSWER: **Babylon**

[H] An inscribed cylinder considered the first-ever declaration of human rights refers to a Persian garden built under this leader at Pasargadae. This leader defeated Croesus of Lydia and conquered Babylon by diverting the Euphrates.

ANSWER: **Cyrus** the Great

<World History — Ganon Evans> [Ed. Louis Li]

13. The “gargouillades” [gar-goo-YAHD] featured in a solo in this ballet are sometimes replaced with the pas de chat [pah de schaht]. Men perform a fast-paced tarantella in the “trepak” dance in this ballet. A scene of children emerging from under their mother’s dress to dance appears in this ballet whose stage performance was standardized in 1954 by George (*) Balanchine. Dances by Chinese tea, Spanish chocolate, and other desserts appear near the end of this ballet in which the main character throws her slipper at the Rat King. The “Dance of the Sugar Plum Fairy” is an excerpt from, for 10 points, what ballet in which Clara falls in love with the title toy, by Tchaikovsky?

ANSWER: *The Nutcracker* [or *Shchelkunchik*]

<Other Fine Arts — Vik Wei> [Ed. Ganon Evans]

13. You are reading the Nutrition Facts label of a carton of whole milk. For 10 points each:

[M] You see that the milk contains five grams of these fully hydrogenated [high-DRAH-juh-nay-tud] compounds, which have linear chains and no double bonds.

ANSWER: **saturated fats** [accept **saturated fatty acids**; prompt on partial answers]

[E] You notice the milk is fortified with this vitamin that the body requires to absorb calcium. This vitamin can be synthesized by human skin.

ANSWER: vitamin **D** [or **calciferol**]

[H] You also notice the milk is fortified with DHA, one of these unsaturated fatty acids that have a double bond three atoms away from the terminal methyl group.

ANSWER: **omega-3** fatty acids

<Chemistry — June Yin> [Ed.]

14. In this region, weapons such as the Armalite may have been smuggled using money from NORAIID. The escalation of the dirty protests led to a hunger striker in this region’s Maze prison winning an election before dying the next month. Militants from this region bombed buildings such as the Baltic Exchange, the Old Bailey, and the Grand (*) Brighton Hotel. 26 people were shot in this region’s city of Derry on Bloody Sunday. In this region, the Troubles were ended by the Good Friday Agreement. For 10 points, name this region of the U.K. with its capital at Belfast.

ANSWER: **Northern Ireland** [prompt on U.K. or United Kingdom before “U.K.” with “What constituent country?”; reject “(Great) Britain”; prompt on “Ireland”]

<European History — Nathan Nicholas> [Ed. Louis Li]

14. The nationalist Fahmy is killed in a demonstration by British soldiers in this novel. For 10 points each:
[H] Name this novel in which Amina visits the Al-Husayn Mosque, but is punished because she didn't get permission from her husband, the patriarch of the al-Jawad family.

ANSWER: Palace Walk

[M] *Palace Walk* is the first novel of this author's *Cairo Trilogy*. This Egyptian author also wrote *Midaq Alley*.

ANSWER: Naguib Mahfouz [or Naguib Mahfouz Abdelaziz Ibrahim Ahmed Al-Basha]

[E] Mahfouz wrote a sequel to this collection titled for it "and Days." In this collection, Scheherazade [shuh-HAIR-uh-zodd] tells the stories of Sinbad and Ali Baba to delay her execution.

ANSWER: Arabian Nights [or *The One Thousand and One Nights* or *The One Thousand and One Arabian Nights* or *Kitab alf laylah wa-laylah*; accept Arabian Nights and Days]

<Long Fiction — Andrew Gao> [Ed. Joel Miles]

15. In archaea [ar-KEE-uh], this structure may consist of methano•chon•droitin or pseudo•murein. Formation of this structure is inhibited by cephalo•sporins and penicillins. In plants, plasmodesmata offer a path through this structure, which is held together by pectins. Whether this structure can hold onto a crystal violet stain is used to classify (*) bacteria as Gram-positive or Gram-negative. In bacteria, this structure lies below the starch capsule and consists of peptido•glycan, while in fungi, this structure is instead made of chitin [KAI-tin]. For 10 points, name this rigid outer layer of a cell, which in plants consists of cellulose.

ANSWER: cell wall

<Biology — June Yin> [Ed.]

15. A pianist from this country premiered *Must the Devil Have All the Good Tunes?* in one of her signature eye-catching outfits. For 10 points each:

[H] Name this country also home to a pianist known for his manic mannerisms while playing, who was inspired by the Tom and Jerry episode *The Cat Concerto* to take up piano.

ANSWER: China [or People's Republic of China or Zhongguo or Zhonghua Renmin Gongheguo; do not accept or prompt on "Republic of China"]

[M] This composer of *Must the Devil Have All the Good Tunes?* gave it the marking "Gritty, funky, but in Strict Tempo; Twitchy, Bot-like." This composer's operas include *Nixon in China* and *Doctor Atomic*.

ANSWER: John Adams

[E] This city's Philharmonic, directed by the Venezuelan composer Gustavo Dudamel, premiered *Must the Devil Have All the Good Tunes?* at the Walt Disney Concert Hall.

ANSWER: Los Angeles [or L.A.; accept the Los Angeles Philharmonic]

<Auditory Fine Arts — Vincent Wang> [Ed. Ganon Evans]

16. Juan Romero was pictured shaking the hand of the target of an assassination in one of these locations. A 1964 case regarding Congress's power under the Commerce Clause concerned discriminatory actions taken by one of these locations. Following the 1968 California Democratic primary, Sirhan Sirhan shot (*) Robert F. Kennedy in one of these locations. An activist was killed at one of these locations a day after supporting striking sanitation workers in the "I've Been to the Mountaintop" speech. James Earl Ray killed Martin Luther King Jr. in one of these locations in Memphis. For 10 points, name this type of building exemplified by the Washington Hilton.

ANSWER: hotels [accept motels; accept the Lorraine Motel; Ambassador Hotel; or Heart of Atlanta Motel]

<American History — Andrew Gao> [Ed. Louis Li]

16. The leadup to one of these holidays in the Bahá'í faith is marked by a nineteen-day fast. For 10 points each:
[M] Name these holidays. The shofar is blown 100 times in the Jewish occurrence of this holiday, which also includes eating apples dipped in honey and throwing bread into water.

ANSWER: **New Years** [accept **Bahá'í Naw-Rúz**; accept **Rosh Hashanah**]

[H] Haft Sin tables, children banging on pots asking for candy, and jumping over bonfires are a few ways that the Iranian diaspora celebrates this Persian New Year on the spring equinox.

ANSWER: **Nowruz**

[E] The Hebrew calendar is based on the phases of this celestial object, which also gives the date for the Chinese New Year.

ANSWER: the **Moon** [or **yueliang**]

<Religion — Aatreya Bhattacharyya> [Ed. Ganon Evans]

17. **An oft-criticized parliamentary building in this country designed by Enric Miralles [un-REEK mee-RALL-uss] is located at the foot of Calton Hill. An athletic competition most often held in this country features events like the caber toss. In this country's largest city, the "Old Firm" rivalry is contested at Ibrox Stadium on the banks of the River (*) Clyde. This country's town of St. Andrews may have been the home of the first golf course. The tartan fabric pattern is often associated with a traditional garment worn by clans in this country's Highlands. For 10 points, name this constituent country of the United Kingdom where kilts are worn in Edinburgh.**

ANSWER: **Scotland** [accept **Scottish** Highlands; prompt on **U.K.** or **United Kingdom** before "United Kingdom"; prompt on **Britain**; reject "England" or "Great Britain"] (The athletic competition is the Highland Games.)

<Geography — Joel Miles> [Ed. Ganon Evans]

17. Manuela Saenz was nicknamed the "Liberator of the Liberator" for foiling an assassination attempt on this man. For 10 points each:

[E] Name this man who Saenz served as an archivist. This leader governed Gran Colombia after freeing many South American countries from colonial rule.

ANSWER: Simón **Bolívar**

[H] Manuela Saenz was born in what is now this modern-day country. Forces led by Antonio José de Sucre defeated Spanish royalists at the battle of Pichincha in what is now this modern-day country.

ANSWER: **Ecuador** [or Republic of **Ecuador**; or República del **Ecuador**]

[M] Saenz was eventually exiled to this island where during Bolívar's own exile, he wrote a letter advocating for a united Latin America. Queen Nanny led the first of the Maroon Wars on this British colony.

ANSWER: **Jamaica** [accept the Letter from **Jamaica**]

<World History — Donal Ryan> [Ed. Louis Li]

18. **The first "wild" one of these things contains a poem with the phrase "SEND IN THE CLONER!". The United States may have used one of these things to sabotage nuclear centrifuges in Iran. A fake news report of a European storm helped create "zombies" for one of these programs. A website for one of these programs consists of three (*) black-and-white smiley faces and the text "You are an idiot!" and is considered a "trojan" one of these programs. Modern versions of these programs may ask for bitcoin after encrypting files. For 10 points, name these programs which include the ILOVEYOU computer worm and ransomware.**

ANSWER: **malware** [or **malicious software**; or computer **viruses**; accept computer **worms** before "worm"; accept **trojans** before "trojan"]

<Computer Science — Connor Lee> [Ed. Jason Xu]

18. This author wrote about a teenager who gains perfect memory after a horse riding accident in his story “Funes the Memorious.” For 10 points each:

[M] Name this author who wrote about Carlos Daneri, who writes mediocre poetry using a special property of his cellar. Another work by this author features “Purifiers” who seek out the “Crimson Hexagon.”

ANSWER: Jorge Luis **Borges** [HOR-hay loo-EES BOR-hays] (The stories mentioned are “The Aleph” and “The Library of Babel.”)

[H] In this Borges story, a fictionalized version of Borges is given a coin which starts to take over all of his thoughts until it becomes the only thing he can think about.

ANSWER: “The **Zahir**”

[E] Borges set both “The Zahir” and “The Aleph” in this home country of his. In another Borges story, the protagonist leaves the title “Book of Sand” in this country’s National Library in Buenos Aires.

ANSWER: **Argentina** [or **Argentine** Republic or República **Argentina**]

<Mixed Literature — Fred Garvey> [Ed. Joel Miles]

19. **At the beginning of this play, a cobbler jokes that he is a “mender of bad soles.” A character in this play pauses in the middle of a speech because “[his] heart is in the coffin there.” A character in this play declares that “cowards die many times before their death” and refuses a crown three times, each time with increasing reluctance. A speech in this play asks (*) “Friends, Romans, Countrymen, lend me your ears.” The title character of this play is told to “beware the Ides of March.” For 10 points, name this Shakespeare play whose title character exclaims “Et tu, Brute?” after being stabbed by members of the Senate.**

ANSWER: *The Tragedy of **Julius Caesar***

<Drama — Joy An> [Ed. Joel Miles]

19. You are an astrobiologist searching for other planets with life. For 10 points each:

[E] You may first note an exoplanet’s placement in this zone around its star, which is neither too hot nor too cold for liquid water. This zone is often named for a fairy tale girl who chooses to eat porridge that is “just right.”

ANSWER: **Goldilocks** zone [or circumstellar **habitable** zone or **CHZ**]

[H] A risk to life for Goldilocks zone planets is this quality, which means that the planet and its star have achieved synchronous rotation. Eyeball planets have this quality also possessed by Pluto and Charon.

ANSWER: **tidal locking** [or **gravitational locking**; or **tidally locked**; or **gravitationally locked**]

[M] Despite an exoplanet’s tidal locking, you still have faith that life could persist on this strip of land between the hot and cold sides of the planet. It shares its name with a layer of the ocean that lies above the midnight zone.

ANSWER: **twilight** zone [accept **terminator** zone]

<Astronomy — Connor Lee> [Ed. June Yin]

20. **Anel Keys limited 36 conscientious objectors from performing this action in a University of Minnesota experiment. Rats with lesions on their ventromedial hypothalamus were unable to stop performing this activity. The hormone ghrelin motivates people to engage in this activity. Higher SAT scores were exhibited by participants in a Walter (*) Mischel study who waited to perform this activity for 15 minutes in a test of delayed gratification. People can be prevented from performing this activity by body image disturbance. For 10 points, name this activity which titles a class of disorders that includes bulimia and anorexia.**

ANSWER: **eating** food [or synonyms such as **consuming food**; accept **eating** disorders; accept specific answers such as **eating** marshmallows] (The first clue references the Minnesota Starvation Experiment.)

<Social Science — Ganon Evans> [Ed.]

20. A 2022 lawsuit against a cryptocurrency with this name alleged it was a “pump-and-dump” scheme since its value rose 510 percent after a disputed NASCAR sponsorship. For 10 points each:

[E] At an October 2021 race at Talladega Speedway, a reporter attempting to speak over a crowd coined a pejorative phrase for Joe Biden, “Let’s Go [what name]”?

ANSWER: **Brandon** [accept Let’s Go **Brandon**; accept Joe **Brandon**; prompt on LGB]

[M] This governor signed an anti-vaccine mandate bill in the city of Brandon. The aftermath of this governor’s ‘Don’t Say Gay’ bill led to him revoking Disney World’s special taxing district.

ANSWER: Ron **DeSantis**

[H] Mark Kelly sponsored the unrelated Brandon Act to expand mental health resources to these people. Jon Stewart was a longtime activist for the 2022 PACT Act, which expanded healthcare to these people affected by burn pits.

ANSWER: **veterans** [accept **soldiers**; accept synonyms such as **troops**]

<Current Events — Ganon Evans> [Ed. Connor Lee]