2023 PACE NSC
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Head Editor Ganon Evans

Finals 2 - Tossups

1. In a novella, a man from this family writes a letter of recommendation for a mysterious doctor who refuses to treat soldiers and eventually lives with Meme (“MAY-may”). That member of this family, who refuses to let people within a ten-foot chalk circle around him, is foiled in a suicide attempt when a doctor puts an iodine marker on a part of his chest with no vital organs. A man from this family repeatedly remakes the same 25 gold fish and loses 32 consecutive (*) rebellions while leading Liberal forces. Amaranta is a sibling of a man from this family who stands before a firing squad while recalling the time his father took him to discover ice. For 10 points, what family in *One Hundred Years of Solitude* includes Colonel Aureliano (“OW-rell-ee-AH-no”)?
ANSWER: **Buendía** (“bwen-DEE-ah”) family [accept Colonel Aureliano **Buendía**] (The lead-in is from *Leaf Storm*.)
<Joseph Krol, Literature - World and Miscellaneous> ~25102~ <Editor: Joseph Krol>

2. This film's final scene of men waving and throwing their hats is freeze-framed in a 2022 Radu Jude film that explores what happened in Romania after this film's conclusion. A classic scene from this film is parodied in a sequence involving a vacuum cleaner in Terry Gilliam's *Brazil*. A still of a weeping nurse from this film inspired a Francis Bacon painting. This film was commissioned on the success of the director's earlier film, (*) *Strike*. A man without legs flees during an iconic "intellectual montage" in Act IV of this film, a scene that also shows a baby carriage tottering down the Odessa Steps. For 10 points, name this classic film of Soviet cinema directed by Sergei Eisenstein that dramatizes a mutiny on the title vessel.
ANSWER: _**Battleship Potemkin**_ [or _**Battleship Potyomkin**_] (Jude's film is titled *The Potemkinists*.)
<Michael Bentley, Fine Arts - Film> ~25057~ <Editor: Young Lee>

3. Conventionally, the first biosensor was one of these devices invented by Leland Clark to measure dissolved oxygen. Three of these devices are used to detect trace heavy metals in an experiment that sweeps between plating and stripping them. Concentrated potassium chloride is used to store a glass pen-shaped type of these devices that is used to measure pH. Chemists today prefer silver-silver chloride to mercury as the standard (*) reference for these devices. In shorthand notation, double pipes separate the solid components of these devices from their dissolved ions. Half-reactions occur at the surface of these devices. For 10 points, name these devices found in the reservoirs of a galvanic cell or at the ends of a battery, which can be anodes or cathodes.
ANSWER: **electrode**s [accept **anode**s or **cathode**s until they are read; prompt on galvanic cells or voltaic cells or electrolytic cells or batteries; prompt on pH probes or pH meters until "pH" is read; prompt on cells]
<Adam Silverman, Science - Chemistry> ~25687~ <Editor: Adam Silverman>

4. A forensic analysis of Terry Strubbe's audio recordings of this event commissioned by the *Plain Dealer* disputed that its pivotal "13 seconds" were spontaneous. Long Island native Jeffrey Glenn Miller was honored following this event by New York mayor John Lindsay, but angry construction workers marched to City Hall and forced the flag to full-staff during the Hard Hat Riot. In the leadup to this event, someone put up a sign asking, "Why is the (*) ROTC building still standing?" This event took place during a protest against the invasion of Cambodia. Mary Ann Vecchio agonizes over a dead body in an iconic photo of this 1970 event. For 10 points, name this incident where the National Guard killed four anti-war protestors at an Ohio university.
ANSWER: **Kent State** Massacre [or **Kent State** shootings; or **Kent State** killings; or **May 4** massacre]
<Michael Bentley, History - American - 1945+> ~25008~ <Editor: Michael Bentley>

5. Pyotr Tchaikovsky dedicated a work titled for "scherzo" and this genre to his lover Iosif Kotek, and also dedicated a different work in this genre, the last in his *Six Pieces*, to Emma Genton. After the introduction to a work in this genre, two French horns play the rising phrase (read slowly) "D, D, F-sharp, A, long A" before the flutes respond with two As down to two F-sharps. Maurice Ravel and Franz Schubert both composed a set of (*) "noble and sentimental" works in this genre. A dog chasing its tail inspired Frédéric Chopin to write a work in this genre that was not actually supposed to be played in a minute. The Ländler is a predecessor to this genre, which comes in a "Viennese" style. *The Blue Danube* is an example of, for 10 points, what genre of 3/4 dance?
ANSWER: **waltz**es [or **valse**; accept *Valse-Scherzo* or *Valses* Nobles et Sentimentales or *Noble and Sentimental Waltzes* or *Minute Waltz* or Viennese **waltz**]
<Benjamin Chapman, Fine Arts - Music - Romantic> ~25747~ <Editor: Young Lee>

6. Americans of this ethnicity benefited from Pat McCarran's "Sheepherder Laws." A city in these people's homeland was transformed by a 1997 project that now names an "effect" for turning around any industrial city with postmodern architecture. These people's rights to popular assemblies were guaranteed by the *fors*, which were abolished after the Carlist Wars. People of this ethnicity were the first Europeans to exploit the (*) cod fisheries of Newfoundland. A group seeking secession for this ethnic group, ETA, carried out terrorist campaigns following the death of Francisco Franco. For 10 points, name these people who speak a language isolate and whose homeland is in the Pyrenees.
ANSWER: **Basque**s [or **Vasco** or **Vascongado** or **Euskaldunak** or **Euskotarak**; reject "Spanish" or "Spaniards"]
<Michael Bentley, History - Cross, Historiography, and Miscellaneous> ~25737~ <Editor: Michael Bentley>

7. They're not societies, but these groups were first systematically defined in a 1928 essay by Karl Mannheim that ties their development to the "tempo of change." William Strauss and Neil Howe devised a theory of these groups in which four of them represent a cyclical "saeculum." The imprint hypothesis highlights the role of historical events in defining these groups. The most studied example of trauma shared between these groups is Holocaust survivors, as researched in (*) epigenetics. Slang and technological development can contribute to namesake "gaps" between these groups. Pew Research Center uses 1997 as the cutoff for one of these groups because they have little to no memory of 9/11. For 10 points, name these groups of people born around the same time, such as Millennials and Zoomers.
ANSWER: **generation**s [or **generation**al cohorts or **age cohort**s or **birth cohort**s; accept **generation**al gaps or **generation**al trauma; prompt on cohorts]
<Quynh Phung, Social Science - Sociology> ~25428~ <Editor: Athena Kern>

8. The Frenet–Serret formulas calculate derivatives taken with respect to this quantity. Elliptic integrals were developed to calculate this quantity for ellipses. This quantity is approximated as the sum of the distances between adjacent values in a partition of the domain and may equal the supremum of all such rectifications. A function "parameterized (*) by" this quantity has a tangent vector whose magnitude is uniformly one and whose derivative equals the curvature. In Cartesian coordinates, the differential of this quantity equals the square root of dx squared plus dy squared and is denoted ds when performing a line integral. For 10 points, name this quantity equal to the distance between two points along a section of a curve.
ANSWER: **arc length** [accept the **length** of a **curve** or **distance** along a **curve**; prompt on s or length or perimeter or ellipse; prompt on distance before read]
<Kevin Wang, Science - Math> ~24139~ <Editor: David Bass>

9. This play's author defended its lack of footlights in an essay that cites its protagonist as having a "weak and degenerate brain." This play's author described its protagonist as a "man-hating half-woman" in a Darwinism-inspired literary manifesto published as this play's preface. In this play, which is set on Midsummer's Eve, a pair of boots left on the stage represent its protagonist's absent father, the (*) Count. While planning a move to Lake Como to start a hotel, this play's protagonist allows the decapitation of her pet canary. At its end, this play's protagonist is handed a razor as a way out from revealing her relationship with the valet Jean **("zhahn")**. For 10 points, an upper-class woman titles what play by August Strindberg?
ANSWER: *__Miss Julie__* [or *__Fröken Julie__*]
<Joseph Krol, Literature - European - Drama> ~25028~ <Editor: Joseph Krol>

10. Chasles's **("shawls")** theorem gives that every rigid body displacement is equivalent to a displacement named for these devices. Robert Ball employed six-dimensional vectors named for these devices in his framework of their mechanics. The Burgers vector is parallel to the dislocation line of a type of crystal dislocation named for these devices. These devices name a line that is simultaneously a body's (*) axis of rotation and path of translational motion. The movement of these devices is restricted by self-locking. "Two pi times radius over length" gives the ideal mechanical advantage of these devices. These devices consist of an inclined plane wrapped around a cylinder. For 10 points, name these simple machines that can be driven by drills.
ANSWER: **screw** [accept **screw** displacement or **screw** theory or **screw** dislocation or **screw** axis; prompt on **bolt**s after "self-locking" is read with "What simple machine do bolts feature?"]
<Lalit Maharjan, Science - Physics> ~25504~ <Editor: David Bass>

11. *Description acceptable.* Prior to this event, the future Duchess of Albemarle had a portentous dream about a dung heap. Following this event, Edward Whalley fled to New Haven Colony because he was not protected by the Indemnity and Oblivion Act. Oak Apple Day is celebrated on the anniversary of this event. This event was set in place when George Monck agreed to assist a man who promised a degree of religious toleration in the Declaration of (*) Breda. After coming to power in this event, a man known as the Merry Monarch ordered a posthumous execution of Henry Ireton and other regicides. The Long Parliament dissolved itself during this 1660 event. For 10 points, name this event that ended the Cromwellian Protectorate of England.
ANSWER: the **Restoration** of Charles II to the throne of England, Scotland and Ireland [accept answers like the Stuart **Restoration**; accept anything involving King **Charles II returning** to the throne of England, Scotland and Ireland; accept **end of the Interregnum**; accept or **end of the Protectorate** before the end; prompt on the end of the English Civil War]
<Michael Bentley, History - European - 1500-1900> ~24809~ <Editor: Michael Bentley>

12. The *Story of Sanjan* recounts how emissaries of this religion poured sugar into a glass of milk to convince Jadi Rana to welcome them. Muhammad Jinnah's wife, Ruttie Petit, was from a wealthy family of this religion, whose members formed surnames like "Sodawaterwala" and "Rumwala" from the drinks they sold. A crisis caused by the drug diclofenac has threatened this religion's use of hill-top *dakhma*s in Mumbai. This religion's practitioners in India are called (*) Parsis and tend to sacred fires called *atar*s. In contrast to Vedic beliefs about *asuras* and *devas*, this religion abhors *devas* and venerates *ahuras*. Corpses are left to vultures on Towers of Silence by practitioners of, for 10 points, what Persian religion?
ANSWER: **Zoroastrian**ism [or **Mazdayasna**; accept **Parsi**s until read]
<Jordan Brownstein, RMP - Other Religion> ~24030~ <Editor: Jordan Brownstein>

13. One poem's speaker states that an author with this surname "gave me eyes, gave me ears; / And humble cares, and delicate fears." An author with this surname, who wrote about some objects "so gay ever glancing ever changing" in her Grasmere Journal, is addressed as a "dear, dear Sister" in a poem about "steep woods and lofty cliffs" which "impress / Thoughts of more deep seclusion." A poet with this surname notes that (*) "five summers, with the length / Of five long winters" have passed at the beginning of a poem set on the River Wye. That poet with this surname was inspired by his sister Dorothy to describe flowers that are "fluttering and dancing in the breeze." For 10 points, give this surname of a poet who described daffodils in "I Wandered Lonely as a Cloud."
ANSWER: **Wordsworth** [accept William **Wordsworth** or Dorothy Mae Ann **Wordsworth**]
<Yingzhi Nyang, Literature - British - Poetry> ~24777~ <Editor: Jaimie Carlson>

14. *Description acceptable.* The river Ván was created from this event, in which the boulder Gjoll ("gyall") and the stone Thviti ("thuh-vi-tee") was used. Initial attempts at this event saw the use of objects named Leydi and Dromi. In the *Gylfaginning*, High explains to Gangleri that this event took place because the gods did not want to soil a holy place with blood. An object created by the dwarves for this event was made from the (*) "spittle of a bird" and "the roots of a mountain." The necessity of this event became apparent upon witnessing the rapid growth of a son of Loki. Gleipnir was used to complete this event that caused Tyr to lose his right arm after he put his hand in an animal's mouth. For 10 points, name this event in Norse myth in which a massive wolf was restrained.
ANSWER: **binding** of **Fenrir** [accept **restraining** or **chaining** or other synonyms in place of **binding**; accept **Fenris** wolf in place of Fenrir; prompt on incomplete answers that do not mention **Fenrir**; prompt on answers referring to Tyr losing his arm or Fenrir biting Tyr or Tyr being bitten by asking "what action led to that?"]
<Lalit Maharjan, RMP - World Mythology> ~25027~ <Editor: Jaimie Carlson>

15. This city legendarily adopted the leopard as its symbol after a leopard walked around in this city before departing for the mountains. This city's historical site of Afrasiyab contains murals depicting Varkhuman, a Sogdian king. The Zij-i-Sultani star catalog was produced at an observatory in this city built by a sultan who also names a madrasah in its Registan square, (*) Ulugh Beg. A ruler of this city was buried in its Gur-e-Amir mausoleum with his son Shah Rukh. This city was one of the two main Silk Road cities of Transoxiana along with its western neighbor, Bukhara. This city was the capital of a ruler who captured Bayezid the Thunderbolt and built pyramids of skulls. For 10 points, name this capital of Tamurlane located in modern-day Uzbekistan.
ANSWER: **Samarkand** [or **Samarqand**]
<Yingzhi Nyang, History - World - Asian> ~25244~ <Editor: Jordan Brownstein>

16. On a date, a character in this novel plays a record to prove that he is a disc jockey "you prob'ly must have heard of" named Lenny Shepherd. After a blind date gone wrong in this novel, a character throws her new wardrobe off the roof of a hotel. Some characters in this novel are sent a copy of *The Thirty Best Short Stories of the Year* after they all get food poisoning from (*) crabmeat-stuffed avocados. This novel's protagonist meets the simultaneous interpreter Constantine during "the summer they electrocuted the Rosenbergs" while working as an intern at *Ladies' Day Magazine* in New York. Esther Greenwood feels trapped inside the title object in, for 10 points, what only novel by Sylvia Plath?
ANSWER: The **Bell Jar**
<Michael Bentley, Literature - American - Long Fiction> ~25413~ <Editor: Chandler West>

17. Although this artist was once credited with painting the *Coronation* altarpiece for the Baroncelli Chapel, most scholars now ascribe the altarpiece to his godson, Taddeo Gaddi. For one commission, this artist lined the lower register of a chapel with monochrome depictions of seven virtues and vices. Angels despair above an inclined rock with a bare tree on top of it in this artist's naturalistic depiction of the *Lamentation*. This artist trained in the workshop of the (*) Byzantine-influenced master Cimabue ("chee-mah-BOO-ay"). This artist included a deep blue ceiling fresco in his paintings for a building originally attached to the palace of Enrico Scrovegni. For 10 points, name this artist of the early Renaissance who painted the Arena Chapel.
ANSWER: **Giotto** ("JAW-toh") [or **Giotto** di Bondone; prompt on di Bondone]
<Michael Bentley, Fine Arts - Painting - European to 1600> ~25987~ <Editor: Chandler West>

18. The first ever film of this place was made after Bill McKinnon's racist killing of a man near a knee-shaped waterhole. Azaria Chamberlain, an infant killed while visiting this place in 1980, inspired a line shouted by Elaine at a party on *Seinfeld*. This place is connected underground to a similar location called the Olgas. In 2020, Pauline Hanson got stuck while climbing this landmark in protest of restrictions around it and the (*) Mutitjulu Waterhole by the Anagu. Almost all traffic to the Yulara Airport south of Alice Springs is tourists flying in to visit this landmark in the Northern Territory. In 1993, this landmark became dual-named for a Chief Secretary and its Aboriginal name. For 10 points, name this red Australian sandstone formation.
ANSWER: **Uluru** [or **Ayers Rock**; or **Uluru / Ayers** Rock; prompt on the Australian Outback; prompt on Northern Territory or Australia before "Hanson"] (The second clue refers to "Dingo Ate My Baby.")
<Michael Bentley, Geography - World> ~24802~ <Editor: Ganon Evans>

19. A philosopher's commentary on works in this language inspired the "rule" that class sizes should not exceed 40 students. The author of *Phaedon* was part of an 18th-century enlightenment named for this language's word for "education." A treatise in this language's script compares assigning properties to the divine to talking about winged underwater elephants in an argument that God can only be described by (*) negative attributes. For undermining holy texts written in this language, a lens-grinder was expelled from his Amsterdam community in 1656. The religion that uses this language is reconciled with Aristotelianism in *The Guide for the Perplexed*. For 10 points, name this language of the religion of Baruch Spinoza and Moses Maimonides.
ANSWER: **Hebrew** [or *Ivrit*]
<Jordan Brownstein, RMP - Philosophy> ~25021~ <Editor: Jordan Brownstein>

20. These compounds activate the most common inducible degron in eukaryotes. Charles Darwin and his son Frances inadvertently postulated the existence of these compounds after an 1880 experiment where they put tin hats atop coleoptiles ("ko-lee-OP-tiles"). Because these acids are neutral outside the cell but an·ionic inside, they can only be transported by efflux pumps down the polar axis. These derivatives of tryptophan cause cell walls to (*) expand in dark or downward-facing tissues. Although they normally inhibit abscission, these compounds also block ethylene production, which is why they act as herbicides in Agent Orange. These compounds promote apical dominance in competition with cytokinins. For 10 points, name these hormones that regulate plant tropisms.
ANSWER: **auxin**s [prompt on plant <u>hormone</u>s until it is read]
<Adam Silverman, Science - Biology> ~25129~ <Editor: Adam Silverman>

21. An employee of this company named Ben Sklaver was arrested during an event where prostitutes were hired as strikebreakers against the Local 25. Employees at this company marched to the Cooper Union, sparking the Uprising of the 20,000 and Clara Lemlich's involvement in a union. A law capping working hours to 54 per week was proposed by Frances Perkins after witnessing an event at this company. Under Russian immigrant owners (*) Isaac Harris and Max Blanck, this company moved to a high-tech loft space in the Asch Building. This company's policy of locking the sweatshop exits increased the number of casualties in a 1911 disaster. For 10 points, 146 garment workers for what New York City clothing company died in a namesake fire?
ANSWER: **Triangle Shirtwaist** Company [or **Triangle Waist** Company; prompt on partial answer]
<Andrew McCowan, History - American - 1865-1945> ~25167~ <Editor: Michael Bentley>

1. AVCOAT ("AV-coat") is applied in a fiberglass honeycomb matrix to form these devices. For 10 points each:
[10h] Name these devices whose "ablative" type lifts the shock layer above the boundary layer. SpaceX spacecrafts use the "phenolic-impregnated carbon ablator" one of these devices.
ANSWER: **heat shield**s [or **thermal protection** systems or ablative **heat shield**s; prompt on shields]
[10e] Heat shields protect spacecraft during this part of a mission in which friction causes excessive heating as the spacecraft descends through the atmosphere.
ANSWER: Earth re**entry** [or atmospheric re**entry**; accept answers indicating the **return to Earth**]
[10m] *Columbia* was destroyed on reentry because its heat shield was damaged by debris from one of these components. Some aircrafts have detachable "drop" examples of these components exemplified by the central orange part of the Space Shuttle launch vehicle.
ANSWER: **fuel tank**s [or external **fuel tank**s or liquid hydrogen **fuel tank**s; prompt on external tanks by asking "what do they hold?"]
<Michael Bentley, Science - Engineering and Miscellaneous> ~20439~ <Editor: David Bass>

2. A Vachel Lindsey poem about this figure imagines him laying in a "four-poster bed" outside Fort Wayne with curtains made of "August Rains." For 10 points each:
[10m] Name this folk hero that Michael Pollan has linked to alcohol because of his opposition to grafting. This figure is frequently depicted with a tin pot.
ANSWER: Johnny **Appleseed** [or John **Chapman**]
[10h] In addition to apples, Appleseed distributed copies of this philosopher's writings. This mystic's 1734 tract *Philosophical and Logical Works* greatly influenced a group called The New Church.
ANSWER: Emanuel **Swedenborg** [or Emanuel **Swedberg**]
[10e] In the 1920s, the FBI tore down Appleseed's Indiana orchard to prevent the distilling of hard cider as part of this ban on alcohol that began with the 18th Amendment.
ANSWER: **Prohibition** [accept **temperance**]
<Michael Bentley, Other - Other Academic and General Knowledge> ~19875~ <Editor: Ganon Evans>

3. This composer used his namesake rhythm of 2 quarter notes followed by 3 quarter note triplets in many of his works. For 10 points each:
[10m] Name this Austrian composer, whose namesake "problem" refers to the contrasting editions of many of his symphonies such as the *Romantic*.
ANSWER: Anton **Bruckner** [accept **Bruckner** rhythm or **Bruckner** problem]
[10e] Upon hearing about the death of Wagner, Bruckner apocryphally added a clash played by this instrument to his Seventh Symphony to represent his grief. In a drum kit, this instrument comes in "crash" and "ride" types.
ANSWER: **cymbal**s [accept crash **cymbal** or ride **cymbal**]
[10h] As he was unable to finish his Ninth Symphony, Bruckner suggested using his setting of this Latin hymn as the final movement. The Eurovision opening theme is the prelude from Charpentier's setting of this hymn.
ANSWER: *Te Deum* ("tay DAY-um") [or *Te Deum* laudamus; or *We praise **thee, O God***]
<Benjamin Chapman, Fine Arts - Music - Romantic> ~20977~ <Editor: Young Lee>

4. This term was used to denote the slaves who became the ancestors of India's Siddi people. For 10 points each:
[10h] Give this Arabic word that Muslim geographers used to name the Swahili Coast. This word also names the slaves from that region who participated in a massive rebellion of Abbasid marsh drainers in 869 CE.
ANSWER: **Zanj** [accept **Zanj**i or **Zangi**l; accept **Zinj** or **Zang** or **Seng**; accept the **Zanj** Rebellion; accept the Bilad al-**Zanj**]
[10m] "Zanj" was an umbrella term for speakers of Swahili and other languages from this family. This language family's speakers spread ironworking across Central Africa in an ancient "Expansion."
ANSWER: **Bantu** [accept **Bantu** migration or **Bantu** expansion]
[10e] Arab traders in the Sea of Zanj often landed on this island and nearby Pemba.This island and its namesake archipelago joined with mainland Tanganyika to form Tanzania.
ANSWER: **Zanzibar**
<Ganon Evans, History - World - African> ~20870~ <Editor: Jordan Brownstein>

5. *Two answers required*. One of these characters awakes to find the other's arm thrown over him "in the most loving and affectionate manner" as if he were that character's wife. For 10 points each:
[10h] Name these two characters, who first meet after one of them decides that a bench is too uncomfortable to sleep on. One of these characters obliges the other's request to stop smoking his pipe in bed because he "ain't insured."
ANSWER: **Ishmael** AND **Queequeg** [accept answers given in either order; reject partial answers]
[10e] This author included the homoerotic symbolism of Ishmael and Queequeg sharing a marriage bed in the opening chapters of his novel *Moby Dick*.
ANSWER: Herman **Melville**
[10m] This other Melville character is described as a "fine specimen" who could have "posed for a statue of Adam before the fall." Captain Vere orders this character's execution after he murders John Claggart, the latter of whom accused him of mutiny.
ANSWER: Billy **Budd** [or **Billy** Budd]
<Ganon Evans, Literature - American - Long Fiction> ~20493~ <Editor: Chandler West>

6. In 2019, Dorothy Mahon discovered that a large hat and expensive wallpaper in a painting of this couple was painted over after one of them was executed for being a tax collector. For 10 points each:
[10h] Name this married couple who appear seated with various glass objects on top of a red tablecloth to their right in a Jacques-Louis David painting.
ANSWER: **Lavoisier**s [accept Antoine-Laurent **Lavoisier** and Marie Anne **Lavoisier**; accept *Portrait of Antoine-Laurent **Lavoisier** and his Wife*; accept *Portrait d'Antoine-Laurent **Lavoisier** et de sa femme*]
[10e] This artist hid the initial to his first name in the belly button of a corpse whose arm is being dissected in another scientifically inspired painting, *The Anatomy Lesson*. This Dutch artist also painted *The Night Watch*.
ANSWER: **Rembrandt** van Rijn
[10m] An astrolabe and quadrant in this painting's upper half symbolizes "heavenly bodies" in contrast with a distorted object in its lower half based on Jean de Dinteville's motto "memento mori."
ANSWER: *The **Ambassadors*** (by Hans Holbein)
<Ganon Evans, Fine Arts - Painting - European 1600-1945> ~19941~ <Editor: Chandler West>

7. Answer the following about violence following demographic changes, for 10 points each.

[10h] After this Commonwealth nation elected its first leader of Indian heritage, Mahendra Chaudhry, a nativist faction in this country's military staged a coup led by George Speight in 2000.
ANSWER: **Fiji** [or Republic of **Fiji**]
[10e] An "order" named for this color in Northern Ireland forged alliances with paramilitary groups partly out of fear of being "outbred" by the country's Catholics. This color names the house of King William III.
ANSWER: House of **Orange** [accept **Orangemen** or **Orange** Order]
[10m] This man's successor, Daniel arap Moi, promoted Kalenjin over Luo and Kikuyu officers, prompting a coup. This politician's son was elected president in 2013.
ANSWER: **J**omo **Kenyatta** [accept **Kamau**; prompt on Kenyatta]
<Michael Bentley, History - Cross, Historiography, and Miscellaneous> ~20154~ <Editor: Michael Bentley>

8. These devices are often contrasted with devices that use semiconductors instead of spinning magnetic disks. For 10 points each:
[10m] Name these devices whose use of rapidly rotating platters is gradually being superseded as the dominant form of non-volatile data storage.
ANSWER: **hard** disk drives [or **hard** drives or **HDD**s or **fixed** disks; prompt on disk drives] (HDDs are being superseded by solid-state drives.)
[10h] This data storage virtualization technology can provide redundancy for local storage by combining multiple HDDs into a virtual logical unit. "Levels" of this technology are numbered "0" through "6," with "0" providing striping, but no redundancy or error correction.
ANSWER: **RAID** [or **redundant array of inexpensive disks** or **redundant array of independent disks**]
[10e] Rather than storing data on local servers, many software companies rely on S3 cloud storage from AWS, the "Web Services" subsidiary of this company.
ANSWER: **Amazon**.com, Inc. [accept **Amazon** Web Services, Inc.]
<Michael Bentley, Science - Computer Science> ~20258~ <Editor: David Bass>

9. One of these people compiled rules for the board game Rithmomachia, in which you arrange your pieces in a geometric progression to win. For 10 points each:
[10e] Name these people who produced illuminated manuscripts. They were led by abbots.
ANSWER: **monk**s [accept more specific answers like Benedictine **monk**s on monastic **brother**s or **Benedictines**; prompt on brothers]
[10m] The monk Eadfrith ("ayy-ad-frith") compiled a notable illuminated gospel book in this monastery on an island off the coast of Northumberland. This monastery was raided by the Vikings in 793 CE.
ANSWER: **Lindisfarne** monastery [or **Lindisfarne** Priory or monastery at **Lindisfarne**]
[10h] Monks copied and illuminated manuscripts in these rooms. Scribes working in one of these rooms at Corbie developed a standardized system called Carolingian minuscule.
ANSWER: **scriptorium** [or **scriptoria**]
<Yingzhi Nyang, History - European - Middle Ages> ~19903~ <Editor: Michael Bentley>

10. In one story, the chief of Puna refuses to yield an object used for this activity to a goddess disguised as a woman, which leads to that goddess chasing him into the sea. For 10 points each:
[10h] Name this activity that involves a narrow object made out of *papa*, or lumber. A snow goddess's competition with her rival at this activity led to the creation of Laupāhoehoe ("lauw-pah-ho-AY-ho-AY").
ANSWER: lava **sled**ding [or *he'e **hōlua***; accept **volcano** in place of "lava"; accept **board**ing or **surf**ing in the place of "sledding"]
[10m] That sled race occurred between the snow goddess Poli'ahu and this goddess, who lives in a crater in Kīlauea. This goddess of fire and volcanoes may also appear as a white dog.
ANSWER: **Pele**
[10e] Pele is a goddess in the native religion of this island group whose other deities include Laka, the goddess of the hula dance, and the trickster god Māui.
ANSWER: **Hawai'i** [or **Hawaii**an Islands; prompt on Polynesian Islands]

11. Following a trip to Egypt, this author obsessed over the dancer Kuchuk Hanem, whom he described as "no more than a machine." For 10 points each:
[10e] Name this French author, who began writing *Madame Bovary* shortly after returning from Egypt.
ANSWER: Gustave **Flaubert** ("goo-STAHV floh-BAIR")
[10m] Flaubert's fixation with Kuchuk Hanem is criticized in this Edward Said ("sa-EED") book, which is titled for a Western artistic style that essentializes aspects of Eastern culture.
ANSWER: ***Orientalism***
[10h] Said claims that Kuchuk Hanem is the archetype for the title Carthaginian priestess of this Flaubert novel. Said argued that "sentiments… are repressed entirely" in this novel's depiction of Mâtho's ceremonial death.
ANSWER: ***Salammbô*** ("sah-LAM-boh")

12. This property of a polycrystalline material is increased by applying strain at cold temperatures to introduce defects; analogously, it decreases when steel is tempered. For 10 points each:
[10e] Name this property which is nebulously quantified using the Mohs scale.
ANSWER: **hard**ness [reject synonyms]
[10m] Cold annealing increases hardness but decreases this measurement of a metal's plasticity. Materials that have this property are not brittle and can be easily drawn out in one dimension by rearranging their defects.
ANSWER: **ductility** [or **ductile**; reject "malleable" or "malleability"]
[10h] Work hardening creates defects at the boundary between these regions of a polycrystalline material. The size of these internally ordered regions determines the strength of an alloy.
ANSWER: **grain**s [or **grain** size; or **grain** boundaries]

13. The "Act of Reliefe ("relief")" in this colony mandated that married women suspected of treason could receive twenty lashes. For 10 points each:
[10e] Name this colony where Christina Campbell's tavern was the favorite seafood spot of native son George Washington.
ANSWER: Colonial **Virginia** [or the **Virginia** Colony]
[10m] The "Act of Reliefe" targeted people like Lydia Cheesman who fomented this uprising in which indentured servants and slaves rose up and torched Jamestown in 1676.
ANSWER: **Bacon**'s Rebellion [or Nathaniel **Bacon**'s Rebellion or **Bacon**'s Revolt]
[10h] Williamsburg was home to a woman with this profession named Catherine Blaikley. In the early 20th century, increasingly strict registration and health laws reduced the "granny" type of this job.
ANSWER: **midwife** [or **midwive**s; or **midwife**ry; accept **obstetric**s or **birth attendant**s; accept granny **midwives**; accept descriptions like assisting **childbirth** or **delivering babie**s; prompt on nurse; reject "doctor"]

14. Answer the following about the Macedonian author Goce Smilevski ("GOH-t'zeh smih-LEV-ski"), for 10 points each.
[10e] Smilevski wrote a novel in which Adolfina Freud experiences "the forgetting" after dying at one of these places. Elie Wiesel is liberated from one of these places in the novella *Night*.
ANSWER: **concentration camp**s [or **death camp**s or **extermination camp**s or *__Konzentrationslager__*; accept **Auschwitz**; accept **Buchenwald**; prompt on camps]
[10h] In a novel titled for the "Return of Words," Smilevski attempts to find letters written by this abbess instead of invented "greasepaint" made up by her correspondent, whose castration was ordered by Fulbert.
ANSWER: **Héloïse** ("ay-loh-EEZ") [accept **Eloisa**] (Her correspondent was Peter Abelard.)
[10m] A Smilevski short story describes the death of Hermann Broch, an author from this modern-day country. An author from this country, Thomas Bernhard, mocked the "literary coffeehouses" of its capital.
ANSWER: **Austria** [or Republic of **Austria** or Republik **Österreich**; prompt on Austria-Hungary or Austro-Hungarian Empire or Österreichisch-Ungarische Monarchie]
<Ganon Evans, Literature - European - Long Fiction> ~20523~ <Editor: Joseph Krol>

15. Upon hearing a warning from Jonah, a king of this city instructs its inhabitants to not eat or drink and covers himself with sackcloth. For 10 points each:
[10m] Name this city, which God instructs Jonah to go to so he can preach against its wicked inhabitants. Instead, Jonah flees from God and goes to Tarshish.
ANSWER: **Nineveh**
[10e] On his way to Tarshish, Jonah is thrown overboard by his shipmates and spends three days and three nights in the belly of this kind of creature.
ANSWER: **whale** [or **fish**; or *__dag gadol__*]
[10h] God justifies his concern for the people of Nineveh to Jonah by stating that they cannot tell the difference between these two things.
ANSWER: **hand**s [accept their left and their right **hand**s; accept equivalents indicating their two **hand**s; prompt on left and right; prompt on directions; accept **right** and **wrong**]
<Benjamin Chapman, RMP - Hebrew Bible> ~20446~ <Editor: Athena Kern>

16. Alex Cleeremans posited a "radical" thesis of this process to explain how a 44-year-old French man lived normally despite losing 90 percent of his brain to hydrocephalus. For 10 points each:
[10m] Name this ability of neurons and neural networks to re-organize or grow in response to stimuli.
ANSWER: brain **plasticity** [or neuro**plasticity**; or neural **plasticity**]
[10h] Cortical remapping through neuroplasticity is a possible explanation for this condition that V. S. Ramachandran introduced a mirror box to treat.
ANSWER: **phantom limb** syndrome [or **phantom pain**]
[10e] In children with this condition, touch is mapped to the V1 area of the occipital lobe, which may help in the reading of Braille.
ANSWER: **blind**ness [accept word forms such as being **blind**; prompt on visual impairment; prompt on descriptions such as having trouble seeing]
<Ganon Evans, Social Science - Psychology> ~20811~ <Editor: Ganon Evans>

17. This musician formed a group called Dinner Party with Terrace Martin, Robert Glasper, and 9th Wonder in 2020. For 10 points each:
[10h] Name this musician who wrote the six-movement suite *Harmony of Difference* to explore counterpoint. This jazz saxophonist made an album in 2015 called *The Epic*.
ANSWER: Kamasi **Washington**
[10e] Acquiring the disc for Kamasi Washington's EP "The Choice" requires cutting through the packaging on his album titled *"Heaven and [this place]."* Maurice White co-founded a jazz and funk-inspired band named for "[this place], Wind, and Fire."
ANSWER: **Earth** [accept *Heaven and __Earth__*; accept **Earth**, Wind, and Fire]

[10m] Track 6 of Kamasi Washington's *The Epic* is "The Rhythm Changes," whose title indicates its chords come from the 32-bar form of a song by this composer with lyrics by his brother called "I Got Rhythm."
ANSWER: George **Gershwin** [or Jacob **Gershwine**]
<Ganon Evans, Fine Arts - Jazz> ~20597~ <Editor: Young Lee>

18. MSCI, a rating agency for this type of investment, mandates that companies follow the standards of the Sustainability Accounting Standards Board. For 10 points each:
[10m] Name this conscious approach to investing and running companies known by a three-letter acronym. Ratings in this approach punish high pollution but reward strong community involvement.
ANSWER: **ESG** [or **Environmental, Social, and Governance**]
[10h] Wirecard, a financial firm based in this country and listed on its DAX index, notoriously received very high ESG governance scores before the 2019 exposure of accounting fraud.
ANSWER: **Germany** [or Federal Republic of **Germany** or **Deutschland**]
[10e] This governor prohibited state pension funds from factoring in "social, political, or ideological interests" into investments. This governor of Florida has feuded with Disney over a bill nicknamed "Don't Say Gay."
ANSWER: Ron **DeSantis** [or Ronald Dion **DeSantis**]
<Michael Bentley, Current Events - World> ~20153~ <Editor: Ganon Evans>

19. Answer the following about ways that cells propagate signals faster than molecular diffusion, for 10 points each.
[10e] In neurons, slow chemical signals are converted into fast electrical currents to propel down these long myelin-insulated wires that synapse with dendrites.
ANSWER: **axon**s
[10m] To amplify and accelerate signal transduction, cells cascade protein phosphorylation by using this compound as a high-energy phosphate donor. G proteins hydrolyze this compound in molecular switches.
ANSWER: **GTP** [or **guanosine triphosphate**; reject "guanosine" or "guanine" or "guanine triphosphate" or "GDP" or "guanosine diphosphate"]
[10h] These proteins increase the diffusion rate by co-localizing enzymes in a pathway to a smaller part of the cell. Huntingtin acts as one of these proteins for DNA repair.
ANSWER: protein **scaffold**s [or **scaffold**ing proteins]
<Adam Silverman, Science - Biology> ~20894~ <Editor: Adam Silverman>

20. A short story by this author ends with Billy Weaver drinking tea that tasted "faintly of bitter almonds," implying that the title character has been killing and taxiderming attractive young men. For 10 points each:
[10e] Name this author of macabre short stories like "The Landlady" and "Skin." This author's dark humor is better known from his children's books like *Matilda* and *Charlie and the Chocolate Factory*.
ANSWER: Roald **Dahl**
[10h] In a Dahl short story named for one of these objects, a woman uses one of these objects to kill her husband after he leaves her, then tricks police into destroying the evidence.
ANSWER: a leg of **lamb** [accept "**Lamb** to the Slaughter"; prompt on leg or dinner or meat or bone or food]
[10m] Dahl's short story "A Piece of Cake" fictionalizes his time in this occupation. Like Dahl, the protagonist of *The English Patient* with this job ends up stranded in the desert.
ANSWER: **pilot** [accept **RAF** pilot; prompt on soldier]
<Jaimie Carlson, Literature - British - Short Fiction> ~20941~ <Editor: Jaimie Carlson>

21. Two of these figures have one body with four separate faces, and eight of them are born after two siblings walk around a "heavenly august pillar" to face each other. For 10 points each:

[10m] Name these places, whose personifications were born before later children like the fire god Kagu-tsuchi. Some of these places were created when two siblings dipped a jeweled spear into the waters.

ANSWER: **island**s of **Japan** [or **Oyashima**; prompt on Japan with "What features?"; prompt on islands]

[10e] This creator deity gave birth to the islands of Japan with her similarly-named husband Izanagi.

ANSWER: **Izanami**

[10h] Before giving birth to the islands, Izanami spoke before her husband, causing her to give birth to this "leech-child." Fishermen often pray to this "laughing god" of luck.

ANSWER: **Hiruko** [or **Ebisu**]

<Jaimie Carlson, RMP - World Mythology> ~21228~ <Editor: Jaimie Carlson>