

Spring Novice (April 17th, 2021)

Edited by Ryan Rosenberg, Katherine Lei, Chris Chiego, and Alex Damisch

Written by Alice Jiang, Aryaman Jaiswal, Angela Lin, Albert Zhang, Collin Ace, Cormac Beirne, Chauncey Lo, David Bass, Drew Benner, Douglas Meeker, Ewan Mitchell, Jeremy Cummings, Jakobi Deslouches, Jason Huang, Kevin Thomas, Lalit Maharjan, Minh-Khanh Phung, Nathaniel Hull, Payton Schubel, Raymond Chen, Rudra Ranganathan, Sean Farrell, William Orr, and Will Yaeger

## Packet 8

1. Scattered electrons were measured by a current-measuring “cup” named for this scientist in the Davisson–Germer experiment. Metal elevators are cellular “dead zones” because they act as devices named for this man. This man’s namesake law contains a negative sign due to (\*) Lenz’s law. Changing magnetic flux through a closed conducting loop creates an electromotive force in that loop, according to this scientist’s namesake law of induction. Hollow conductors that block electromagnetic fields from getting inside are known as this scientist’s “cages.” For 10 points, name this scientist who names the SI unit of capacitance.

ANSWER: Michael Faraday

<SB, Science - Physics>

2. The Terahvin (“TAY-ruh-huh-VEEN”) ceremony is sometimes performed thirteen days after these events, which often occur on grounds known as *shmathana*. Three lines, two of which represent Kala and Yama, are drawn at these events. In Hinduism, these events are known as *antyeshti*. During these events, which often take place near rivers, the central participant is given sesame seeds or rice and their (\*) toes are tied together with string. The now-banned practice of *sati*, which took place during these events, involved the self-immolation of a widow. For 10 points, name these events in Hinduism that involve the cremation of a deceased individual on a pyre.

ANSWER: funeral [accept *antyeshti* or *antvesti* prior to mention; accept cremation until mention]

<KT, Beliefs - Religion>

3. In 2008, this team’s running backs Ronnie Brown and Ricky Williams pioneered the extensive use of the Wildcat offense. Before being traded to Arizona, Kenyan Drake scored a game-winning touchdown for this team in a “Miracle” lateral play against New England. This team’s mascot is kidnapped in (\*) *Ace Ventura: Pet Detective*. The first quarterback to throw for 5,000 yards in one season played for this team. Under head coach Don Shula, this team achieved the only perfect season in NFL history in 1972. For 10 points, name this NFL team led by Tua Tagovailoa in South Florida.

ANSWER: Miami Dolphins [accept either underlined part; prompt on the Fins]

<AZ, Pop Culture - Sports>

4. In a short story from this country, a figure observes the “Mountain of Needles” while looking into a pond. In that story from this country, a thief is sent back to hell after a spider’s thread breaks. In a novel from this country, a character gets dates out of pity because of his clubfoot. Many people each give different accounts of a murder in a short story from this country that inspired the plot of the movie (\*) *Rashomon*. The protagonist burns down the Temple of the Golden Pavilion after being instructed to “kill the Buddha” in a novel from this country. For 10 points, name this country home to the authors Ryūnosuke Akutagawa and Yukio Mishima.

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

<WO, Literature - Misc Literature>

5. A series by this artist was painted on the walls of his home, nicknamed the “Deaf Man’s Villa.” This artist depicted bats and owls surrounding a man slumped over on his desk in the etching *The Sleep of Reason Produces Monsters*, part of a series of works by this artist titled *Los Caprichos*. This artist created the series the (\*) *Black Paintings*, which includes a possibly-Rubens-inspired painting of a creepy mythological scene. This artist depicted a firing squad during the Peninsular War in a painting that inspired Picasso’s *Guernica*. For 10 points, name this Spanish artist who painted *Saturn Devouring His Son* and *The Third of May, 1808*.

ANSWER: Francisco de Goya [or Francisco José de Goya y Lucientes]

<DM, Arts - Painting>

6. The type site of the Sintashta culture in this modern-day country contained the oldest known chariots in the world buried alongside sacrificed horses. The trickster raven god Kutkh is the subject of sometimes-mocking legends among native people of this country like the Itelmen and Chukchi. The Valley of Geysers is found on this country’s (\*) Kamchatka Peninsula. The world’s deepest lake, Lake Baikal, and cities like Murmansk and Yekaterinburg are in this country. The Ural Mountains are in, for 10 points, what country, whose capitals have included St. Petersburg and Moscow?

ANSWER: Russian Federation [or Rossiya; or Rossiyskaya Federatsiya]

<MP, The World - Geography>

7. One of the oldest still-used systems for carrying out this process is the *qanat*. The “central pivot” variety of this process has grown in popularity since the end of World War II. Irresponsible development of this process caused ecological disaster in the Iraqi Central Marshes and in the (\*) Aral Sea. Ancient Mediterranean societies made use of the Archimedean screw to facilitate this process, which supplanted rain-fed agriculture in the Indus River Valley in the 5th millennium BCE. For 10 points, name this process in which water is artificially diverted to assist in crop production.

ANSWER: irrigation [prompt on diverting water with “for what purpose?”; prompt on agriculture before mention]

<CB, Social Science - Other Social Science>

8. This mathematician proved Thales’s theorem in his most famous treatise. An extended version of this mathematician’s algorithm finds coefficients of Bézout’s (“bay-ZOO’s”) identity in addition to the greatest common factor. This mathematician proved that there are infinitely many prime numbers. A set of five statements by this mathematician includes the claim “all right angles are congruent” and the (\*) parallel postulate. This mathematician constructed a space in which the sum of a triangle’s angles equal 180 degrees in his *Elements*. For 10 points, name this ancient Greek mathematician often dubbed the “father of geometry.”

ANSWER: Euclid of Alexandria

<LM, Science - Other Science - Math>

9. This dynasty was opposed by the Way of the Five Pecks of Rice and sponsored the explorations of Zhang Qian (“jong ch’yen”). Sima Qian (“suh-mah ch’yen”) wrote the *Records of the Grand Historian* during this dynasty, which expanded under Emperor Wu. Near the end of this dynasty, the Battle of Red Cliffs was won by a coalition led by Liu Bei (“l’yoh bay”), and the rule of this dynasty was temporarily interrupted by (\*) Wang Mang (“wong mong”) of the Xin (“shin”) Dynasty. Liu Bang (“l’yoh bong”) founded this dynasty, which faced the Yellow Turban Rebellion and established the northern branch of the Silk Road. Preceded by the Qin (“chin”) Dynasty, for 10 points, name this dynasty that also names China’s largest ethnic group.

ANSWER: Han Dynasty [or Han Chao]

<MP, History - World History>

10. **The speaker of a poem from this country works the same “in July as in January,” and offers a gift to both his friend and his cruelest enemy. An author from this country wrote the poem “Cultivo una rosa blanca” and died (\*) fighting for independence from Spain at the Battle of Ocho Rios. The speaker of a poem from this country mentions being from “where the palms grow.” The line “Yo soy un hombre sincero” begins a song from this country that was adapted from the poetry collection *Versos sencillos*. For 10 points, name this country, whose poet José Martí wrote the folk song “Guantanamera.”**

ANSWER: Cuba

<EM, Literature - Poetry>

11. **Dances in the second movement *Divertissement* of this ballet are named for chocolate, coffee, and tea. Three flutes play the melody of this ballet’s Dance of the Reed Flutes. One dance in this ballet is named for the *prima ballerina*, who is represented by the (\*) celesta. Pizzicato strings alternate with a high flute melody in this ballet’s Chinese dance, which is followed by the Trepak Russian dance. Two of this ballet’s several waltzes are named for snowflakes and flowers. For 10 points, the Dance of the Sugar Plum Fairy appears in what Tchaikovsky ballet often performed around Christmas?**

ANSWER: *The Nutcracker*

<JC, Arts - Music>

12. **During an election in this decade, Virginian electors refused to vote for Richard Mentor Johnson because he had been in an interracial relationship, and the opposition party ran four different candidates against the incumbent party. The Specie Circular led to a financial crisis in this decade that was exacerbated by the policies of (\*) “pet banks.” During the president’s second term, a political cartoon from this decade depicted him as a despot in full regalia stepping on the Constitution. That president vetoed a bill during this decade to recharter the Nicholas Biddle-led Second Bank of the US. The Whig Party began during this decade. For 10 points, name this decade in which Andrew Jackson was reelected.**

ANSWER: 1830s [prompt on '30s]

<NH, History - American History>

13. **A section of an opera titled for this character repeatedly contrasts the loud descending half notes “F-sharp, D, B, A” with quiet staccato flute notes. This title figure sings the aria “Rosa del ciel” in an opera that is often considered to be the oldest opera still performed today, written by Claudio Monteverdi. The “Infernal Galop,” which is now associated with the (\*) can-can, originated in a Jacques Offenbach opera that follows this figure attempting to save his wife in the underworld. For 10 points, name this musician from Greek mythology who is often depicted in operas trying to rescue his wife Eurydice.**

ANSWER: Orpheus [or Orfeo; accept *L’Orfeo*; accept Orpheus in the Underworld; accept Orpheus in Hell; accept Orphée aux enfers]

<CL, Arts - Other Arts - Opera>

14. **This deity’s distinctive Atef crown consists of the Hedjet along with two plumes on either side. Another defining symbol of this deity is the Djed pillar, which represents stability. This deity was the firstborn of Geb and Nut. In one story, this deity’s body was chopped up after death and distributed all over (\*) Egypt. After this deity is murdered by his brother, Set, his sister-wife, Isis, manages to revive him long enough for him to impregnate her, resulting in the birth of his son Horus. For 10 points, name this god who is the lord of the Duat, the Egyptian underworld.**

ANSWER: Osiris

<JH, Beliefs - Mythology>

15. **Cornelius de Wit's godson falls in love with Rosa at one of these places while trying to grow the title flower in the novel *The Black Tulip*. An executioner brands a woman with a *fleur-de-lis* after she leaves his brother in this type of place in *The Three Musketeers*. The first mate of the *Pharaon* ("fa-ra-ON") is sent to one of these places, where (\*) Abbé Faria educates him over eight years. That lover of Mercédès gets revenge on the people who sent him to this type of place, including Villefort and his rival Fernand Mondego. For 10 points, name this type of place where Edmond Dantès was sent to after being framed for treason in *The Count of Monte Cristo*.**

ANSWER: **prisons** [or equivalents like **jails**; prompt on **Buytenhof** or **Loevestein** or **Château d'If** by asking "what kind of place is that?"; prompt on **island** or **fortress**]

<PS, Literature - Long Fiction>

16. **This man's family owns a pet rabbit named Marlon Bundo. This man hosted a talk radio show in the 1990s where he described himself as "Rush Limbaugh on decaf." This man was criticized for his response to a 2014 outbreak of HIV cases in Scott County while serving as governor. In January 2021, this man presided over a joint session of Congress that counted the state-certified (\*) electoral college votes. In 2016, this politician signed a Religious Freedom Restoration Act as Governor of Indiana. A fly sat on this politician's head for two minutes during a debate with Kamala Harris. For 10 points, name this Vice President under Donald Trump.**

ANSWER: Michael Richard **Pence**

<RR, The World - Current Events>

17. **This philosopher lends his name to a style of debate known for its use of *elenchus*. This philosopher asked whether things are pious because God loves them or vice versa in a debate with Euthyphro ("YOO-thiff-ro"). Shortly before his death, this philosopher claimed that "the unexamined life is not worth living" and compared himself to a (\*) gadfly waking up a horse. This philosopher claimed he was wise for knowing that he knew nothing while on trial for corrupting the youth of Athens. A method of argument based on asking questions is named for this philosopher. For 10 points, name this ancient Greek philosopher who was sentenced to death and forced to drink hemlock.**

ANSWER: **Socrates** [accept **Socratic method**]

<SB, Beliefs - Philosophy>

18. **The frequency of an atom's characteristic X-ray is proportional to the square of this quantity according to Moseley's law. The Rydberg formula is generalized by multiplying the Rydberg constant by the square of this quantity. Antonius van den Broek discovered that this quantity corresponds to the nuclear charge of an element, which is equal to this quantity times the (\*) elementary charge. The number of neutrons in an isotope can be found by subtracting this quantity from the atom's mass number. For 10 points, name this quantity, symbolized Z, which is equal to the number of protons in an atom.**

ANSWER: **atomic number** [accept **Z** before mention; accept **number** of **protons** or **proton number** before "number of protons"; do not accept or prompt on "atomic mass number" or "atomic weight"]

<LM+SB, Science - Chemistry>

19. **Demonstrators for this cause protested the failure to pass the Conciliation Bill on Black Friday. A militant proponent of this cause died after running in front of a horse at the Epsom Derby. The Cat and Mouse Act allowed for the early release of imprisoned supporters of this cause who were (\*) hunger striking. This cause was championed in the United Kingdom by the WPSU, which was led by Emmeline Pankhurst and her daughters. In the US, this cause achieved victory with the passage of the 19th Amendment. For 10 points, name this cause that sought to expand the right to vote in the early 20th century.**

ANSWER: **women's suffrage** [or **women's right to vote**; accept equivalents that indicate **women voting**; prompt **right to vote** or **suffrage** by asking "whose right to vote?"]

<NH, History - European History>

20. A single by this band was nearly pulled for its similarity to Killing Joke's song "Eighties." An album by this band brought mainstream popularity to Meat Puppets with covers of their songs "Plateau" and "Lake of Fire." This band covered "The Man Who Sold The World" and Lead Belly's "Where Did You Sleep Last Night" for a performance on (\*) *MTV Unplugged*. The music video for this band's biggest hit is set at a pep rally where the students start moshing to the song, which begins "Load up on guns, bring your friends." For 10 points, name this grunge band behind "Smells Like Teen Spirit," fronted by Kurt Cobain.

ANSWER: Nirvana

<Ryan, Pop Culture - Pop Music>

21. In their attempts to break a siege, Megarian troops lit a herd of pigs on fire and drove them towards an enemy unit using these animals. Harun al-Rashid gifted Charlemagne one of these animals named Abul-Abbas, which Charlemagne subsequently used in a campaign against the Danes. One of these animals named Surus, used by (\*) Hannibal to cross the Alps, was the only one to survive. For 10 points, name these massive mammals handled by mahouts ("muh-HOWTS") that in some cultures are outfitted with tusk swords for fighting.

ANSWER: war elephants

<JH, History - Ancient History>

22. A character created by this author warns his son that he has committed "strike two" and is "living with a full count" before eventually chasing him out of the house with a baseball bat. Many of this author's plays take place in the Hill District. At the end of one of this author's plays, the pianist Toledo is (\*) stabbed by his bandmate, the cornetist Levee. In another of this author's plays, Cory is prevented from accepting a football scholarship by his father, the garbage truck driver Troy Maxson. For 10 points, name this African-American playwright whose Pittsburgh Cycle of plays includes *Ma Rainey's Black Bottom* and *Fences*.

ANSWER: August Wilson

<RC, Literature - Drama>

23. The DRM paradigm is used to study the effects of semantic association on this process, typically resulting in intrusion errors. In the Atkinson-Shiffrin model of this process, this process has three stages, the first of which is sensory. The results of this process varied based on the use of different verbs, such as "smashed" versus "contacted," in a study carried out by John Palmer and Elizabeth (\*) Loftus. A George Miller paper identifies a "magical number" for this process and argues humans are limited to handling 7 plus-or-minus 2 items in this process's "short-term" variety. For 10 points, name this phenomenon, the mental storage and retrieval of information.

ANSWER: memory [prompt on testimony or testifying by asking "what mental process?"]

<AJJ, Social Science - Psychology>

24. If stored in excessively high glycerol concentrations, enzymes that act on this molecule can exhibit "star activity." This molecule can be extracted using a miniprep kit, and DAPI can be used to stain for this molecule in fluorescence microscopy. This molecule can be visualized using ethidium bromide after being run through an (\*) agarose gel. Cas9 can produce "knockouts" by cleaving this molecule in CRISPR. Denaturing, annealing, and extension steps amplify the amount of this molecule in PCR. For 10 points, what molecule that carries genetic information has a double helix structure?

ANSWER: DNA [or deoxyribonucleic acid; prompt on plasmids by asking "what are plasmids made of?"]

<RC, Science - Biology>

## Bonuses

1. A campaign logo used for both a Senate run and a Presidential race by this candidate was noted for its similarity to the Whataburger logo. For 10 points each:

[10h] Name this former US Representative who said “Hell Yes, We’re Going to Take Your AR-15” to emphasize his stance on gun control at a September 2019 Democratic primary debate.

ANSWER: Robert Francis **O’Rourke** [or **Beto** O’Rourke]

[10m] O’Rourke came within 3 percentage points of defeating this Republican Senator in 2018. In February 2021, this Senator openly advised lawyers for Donald Trump’s legal team before leaving on a family vacation to Cancun.

ANSWER: Ted **Cruz** [or Raphael Edward **Cruz**]

[10e] Both Cruz and O’Rourke represented this state in Congress, where an ice storm in February 2021 led to massive power outages across the Dallas and Houston metropolitan regions.

ANSWER: **Texas**

<EM, The World - Current Events>

2. Following the death of this leader, senior monks visit the holy lake of Lhamo La-tso in the hope that it will provide visions to identify this leader's successor. For 10 points each:

[10m] Name this position, the leader of the Yellow Hat School of Buddhism. The 14th and current holder of this position is Tenzin Gyatso.

ANSWER: **Dalai Lama**

[10e] Since 1959, the Dalai Lama has lived in exile in India after having been forced to evacuate this autonomous region which was his seat of governance. This Himalayan region is the namesake of a sect of Buddhism.

ANSWER: **Tibet**

[10h] This position is the second most important figure in Tibetan Buddhism and is the incarnation of the Amitabha Buddha. The holder of this position was kidnapped by the Chinese government in 1995 and has not been seen since.

ANSWER: **Panchen Lama**

<KT, Beliefs - Religion>

3. The tenth and eleventh of these pieces are known as “The Clock” and “Drumroll.” For 10 points each:

[10h] Name this set of Haydn’s final twelve symphonies.

ANSWER: **London** symphonies [or **Salomon** symphonies]

[10e] One of Haydn’s best known works is this second London symphony. An apocryphal story tells that Haydn intended this piece’s single fortissimo chord to awaken sleeping audience members.

ANSWER: “**Surprise**” Symphony [or Symphony No. **94** in G major]

[10m] Aside from being known as the “Father of the Symphony,” Haydn was also the father of this chamber genre. “Erdödy” is a set of six works in this genre that include “Sunrise” and “Emperor.”

ANSWER: **string quartet** [prompt on partial answer]

<JC, Arts - Music>

4. The Danforth Report investigated allegations that federal agents intentionally set a fire at the Mt. Carmel complex in this city. For 10 points each:

[10h] Name this city where FBI agents sieged the Branch Davidian compound in 1993.

ANSWER: **Waco**, Texas

[10m] The federal siege in Waco was a flashpoint for this terrorist's anti-government sentiment. Two years later, this man detonated a truck bomb outside the Murrah Federal Building in downtown Oklahoma City.

ANSWER: Timothy **McVeigh**

[10e] Another truck bombing during the 1990s was the attempted bombing of this site in Lower Manhattan by Ramzi Yousef. This site would later be destroyed by two planes during the September 11th hijackings.

ANSWER: **World Trade Center** [accept **Twin Towers**]

<JD, History - American History>

5. On December 31, 2020, Adobe officially ended its support for this software. For 10 points each:

[10e] Name this software superseded by Adobe Animate. Its most prominent use was in creating video games hosted online, often on places like Armor Games and Cool Math Games.

ANSWER: Adobe **Flash** Player [accept Adobe **Flash** Builder, **Flash** Develop, or **Flash** Catalyst]

[10h] This Flash game places the player in charge of a small nation's 100-meter runner in the Olympics, and has the player control his thighs and calves using the namesake keys, which results in an extremely awkward running style.

ANSWER: **QWOP** ("kwop")

[10m] Bennett Foddy, the creator of *QWOP*, also made *Getting Over It*, a game so frustrating this YouTuber literally threw a chair. This man and Ethan Nestor-Darling made one video a day for a year in the *Unus Annus* series.

ANSWER: **Markiplier** [or Mark **Fischbach**]

<SB, Pop Culture - Other Pop Culture>

6. One collection claims that "every" one of these beings "is a terror" and they "would utterly trample their market of solace / bounded by the Church." For 10 points each:

[10e] Name these heavenly beings. The first *Duino Elegy* tells that these winged beings "would often not know whether / they moved among living or dead."

ANSWER: **angels**

[10m] This poet asked "Who, if I cried out, would hear me among the Angelic Orders?" to begin the collection *The Duino Elegies*. His poem "Archaic Torso of Apollo" concludes "You must change your life."

ANSWER: Rainer Maria **Rilke** ("RYE-ner muh-REE-uh RIL-kuh")

[10h] This poet asked "What of the younger angel's left?" in his poem "The Celebrated Woman." Another poem by this poet claims that joy is the "beautiful spark of the gods" and "daughter of Elysium" in his poem "Ode to Joy."

ANSWER: Friedrich von **Schiller**

<PS, Literature - Poetry>

7. James Lind studied how this disease could be prevented by giving British sailors lemon juice. For 10 points each:

[10m] Name this disease caused by vitamin C deficiency. Swollen gums, loose teeth, and bleeding around hair follicles are common symptoms of this disease.

ANSWER: **scurvy** [or **scorbutus**]

[10e] Osteoporosis and rickets can be caused by a lack of this other vitamin. This vitamin is synthesized in human skin by converting 7-dehydrocholesterol with ultraviolet sunlight.

ANSWER: vitamin **D3** [or chole**calciferol**]

[10h] Joseph Goldberger linked this disease with poverty and limited diets in the American South. Conrad Elvehjem ("ELL-vee-yem") discovered that niacin, vitamin B3, cures this disease that causes diarrhea, dermatitis, and dementia.

ANSWER: **pellagra**

<AZ, Science - Biology>

8. A student at this university was nicknamed “John Wayne” for imitating a character from *Cool Hand Luke* during an experiment. For 10 points each:

[10e] Name this university where Phillip Zimbardo conducted a social experiment studying the effects of perceived power in a mock prison in the basement of Jordan Hall.

ANSWER: **Stanford** University [accept **Stanford prison experiment**]

[10m] In this other experiment conducted at Stanford, Walter Mischel studied delayed gratification by offering children a small treat immediately, or two treats if they were willing to wait a further fifteen minutes.

ANSWER: Stanford **marshmallow** experiment [or Stanford **marshmallow** test]

[10h] The longest-running longitudinal study in psychology was started at Stanford by Lewis Terman to study people with high values of this trait. Terman also created the modern form of an assessment of this trait.

ANSWER: **intelligence** (The assessment is the Stanford-Binet intelligence test.)

<CB, Social Science - Psychology>

9. This religious tradition distinguishes between two forms of philosophical inquiry: *kalam*, or “speech,” and *falsafa*, or “philosophy.” For 10 points each:

[10e] Name this religion whose philosophers included Avicenna and Averroes (“ah-VAIR-oh-eez”). Philosophers in this religious tradition often turn to the Quran as inspiration for their ideas.

ANSWER: **Islam** [or word forms; accept **Muslim** religion]

[10m] Avicenna’s “Proof of the Truthful” argued for this position. Thomas Aquinas collected five proofs of this position in one book, and St. Anselm originated the “ontological argument” for this philosophical position.

ANSWER: the **existence** of **God** [accept anything indicating **God exists**; accept **theism**; do not accept or prompt on “the omnipotence of God”]

[10h] The Illuminationist school of Islamic thought drew from this school that began with Plotinus (“plot-TIE-nus”) in the 3rd century and was named for an earlier thinker. Islamic philosophers adapted this school’s first principle, “the One.”

ANSWER: **Neoplatonism** [or **Neoplatonic** thought]

<CA, Beliefs - Philosophy>

10. After the Battle of Plataea, this city-state formed an alliance intended as a counterweight to the Achaemenid (“uh-KEE-muh-nid”) Empire. For 10 points each:

[10e] Name this ancient Greek city-state that led the Delian League against the Sparta-led Peloponnesian League in the Peloponnesian War.

ANSWER: **Athens**

[10m] This Athenian statesman moved the league’s treasury from the island of Delos to Athens and led Athens during the early part of the Peloponnesian War.

ANSWER: **Pericles**

[10h] The Delian League was defeated by the Spartan admiral Lysander at this deciding naval battle of the Peloponnesian War.

ANSWER: Battle of **Aegospotami**

<JH, History - Ancient History>

11. In a novel by this author, Zwelinzima rebukes the title character for not knowing his real name before condemning how she uses her father's legacy. For 10 points each:

[10m] Name this Nobel laureate, the author of *Burger's Daughter*. In another novel by this author, Bam builds a water tank and shoots two warthogs before Daniel joins the revolution and steals his gun.

ANSWER: Nadine **Gordimer**

[10h] Maureen offends this friend of Daniel's while attempting to give him the keys to the bakkie. This former servant helps the Smales family flee a civil war in Gordimer's novel named for his people.

ANSWER: **July** [accept *July's People*]

[10e] *July's People* was originally banned in this country, Gordimer's home, for its sympathetic depiction of black Africans overthrowing the apartheid government.

ANSWER: **South Africa**

<PS, Literature - Long Fiction>

12. Answer the following about the 2020 Nobel Prize in Physics, for 10 points each.

[10e] Roger Penrose won half of the prize money for proving that these objects result from general relativity. Particles that enter these objects' event horizons cannot exit, so these objects emit no light.

ANSWER: **black holes**

[10h] Reinhard Genzel and Andrea Ghez won the other half of the prize money for studying the A-star region named for this constellation, which likely contains the supermassive black hole at the center of the Milky Way.

ANSWER: **Sagittarius** [or **Sgr**; accept **Sagittarius A-star**]

[10m] Genzel and Ghez concluded that the supermassive black hole is about four million times more massive than this object. The Chandrasekhar limit, which is the maximum stable mass of a white dwarf star, is about 1.4 times the mass of this object.

ANSWER: the **Sun** [or **Sol**; accept **solar masses**]

<DB, Science - Other Science - Astronomy>

13. A character in this TV show wears a flamboyant bubblegum-pink tulle ("tool") dress during a psychiatric assessment. For 10 points each:

[10h] Name this show in which an assassin murders with weapons including hairpins, toxic perfume, and a tuning fork. This show's title character is recruited to MI6 after correctly identifying the assassin as a woman.

ANSWER: ***Killing Eve***

[10m] This actress won a Best Actress Golden Globe for her portrayal of Eve Polastri at a ceremony that she co-hosted with Andy Samberg. In her acceptance speech, she thanked her parents in Korean.

ANSWER: Sandra Miju **Oh**

[10e] Oh portrayed Dr. Cristina Yang, who is left at the altar by one of her bosses and divorces another, on this long-running medical drama named after a textbook.

ANSWER: ***Grey's Anatomy***

<AJJ, Pop Culture - Movies/TV>

14. People in this country created large, freestanding crosses with intricate interlace patterns called high crosses. For 10 points each:

[10h] Name this country. The Newgrange monument in this country contains a massive Neolithic passage tomb decorated with rock art and a “roof box” that is aligned so that the sun shines into the tomb at the winter solstice.

ANSWER: **Ireland** [or **Eire**]

[10m] Another aspect of art in medieval Ireland was the decoration of these objects in a process called “illumination.” A famous illuminated one of these objects was stored in the Abbey of Kells.

ANSWER: **manuscripts** [accept **books** or **Bibles** or **New Testaments**]

[10e] The monks who created the Book of Kells used an oxidized form of this metal as green pigment. The oxidation of this metal is also what gives the Statue of Liberty its green color.

ANSWER: **copper** [or **Cu**]

<SF, Fine Arts - Sculpture>

15. In the Verneuil (“vair-NUH-ee”) method, fine powder is melted over a flame of oxygen and hydrogen in order to synthesize varieties of this mineral such as padparadscha (“POD-par-ODD-shuh”). For 10 points each:

[10m] Name this mineral with a Mohs hardness of 9. Because of its hardness, it may be used as an abrasive.

ANSWER: **corundum** [prompt on **sapphire** or **ruby**]

[10e] Corundum primarily consists of this element’s oxide. This low-density metal is found in aircraft, cans, and foil.

ANSWER: **aluminum** [accept **Al**]

[10h] Aluminum oxide is most often smelted into aluminum through the Hall–Héroult process, in which this technique is carried out with a solution of molten cryolite and aluminum fluoride.

ANSWER: **electrolysis**

<SF, Science - Chemistry>

16. In this novel, scientists split a fertilized egg into genetically identical embryos in the Bokanovsky Process. For 10 points each:

[10e] Name this Aldous Huxley novel in which babies are conditioned with “sleep learning” in hatcheries. In this novel, Bernard Marx and Lenina Crowne meet John the Savage in a reservation in New Mexico.

ANSWER: **Brave New World**

[10m] In *Brave New World*, residents of London in the World State consume this hallucinogenic drug. John the Savage’s mother dies after overdosing on this drug in *Brave New World*.

ANSWER: **soma**

[10h] In the World State, years are demarcated as “after” this man. Bernard Marx attends a celebration of a holiday named after this man, whose surname he invokes as a swear word.

ANSWER: Henry **Ford**

<WO, Literature - Long Fiction>

17. An early form of this theory forms the basis of a 1795 essay by Immanuel Kant. For 10 points each:

[10h] Name this theory of international relations, sometimes contrasted with a similar “capitalist” theory. The Kargil War is a heavily-debated exception to this theory.

ANSWER: **democratic peace** theory [accept answers indicating **democracies are less likely to go to war** with each other]

[10e] Proponents of democratic peace theory point to this international organization’s role in peace between democracies after 1992. It remains to be seen if Brexit will now cause a resurgence of the Hundred Years’ War.

ANSWER: **European Union** [or **EU**]

[10m] The study of democratic peace theory generally falls under this school of international relations theory, which focuses on international cooperation and institutions. It is typically contrasted with the realist school.

ANSWER: IR **liberalism** [accept **neoliberalism**]

<CB, Social Science - Other Social Science>

18. Answer the following about economic bubbles in early modern Europe, for 10 points each.

[10m] The first recorded speculative bubble was in the market for these flowers. The prices of these flowers skyrocketed during the Dutch Golden Age in a bubble referred to as these flowers’ “mania.”

ANSWER: **tulips** [accept **Tulipmania**]

[10e] Another early bubble affected a French joint-stock trading company named for this river. The French explorer Robert de la Salle travelled south down this river to claim the area of Louisiana for France.

ANSWER: **Mississippi** River

[10h] An economic bubble affecting this other joint-stock company was dealt with by First Lord of the Treasury Robert Walpole. Walpole became the first British Prime Minister after the collapse of this company’s bubble.

ANSWER: **South Sea** Company

<NH, History - European History>

19. Gallium nitride crystals are the most common materials used in LEDs of this color. For 10 points each:

[10h] Name this color. Shuji Nakamura won the 2014 Nobel Prize in Physics for his work in developing LEDs of this color.

ANSWER: **blue** [accept, but DO NOT REVEAL, **violet**]

[10m] At wavelengths near 400 nanometers, blue lasers can trigger this phenomenon in certain chemicals. This phenomenon is more commonly triggered by blacklight, causing chemicals to glow in the dark.

ANSWER: **fluorescence** [prompt on **luminescence**; do not accept or prompt on “phosphorescence”]

[10e] Blacklight is light from the A subtype of this part of the electromagnetic spectrum, whose wavelengths are shorter than the visible range. The sun is a source of the B and C subtypes of this region of the spectrum, which can cause skin cancer.

ANSWER: **ultraviolet** [or **UV** A/B/C]

<SB, Science - Physics>

20. This general retreated from the Yellow River to lure Yuan Shao before defeating him in the Battle of Guandu. For 10 points each:

[10h] Name this warlord. His conquests during the end of the eastern Han dynasty led to the establishment of the state of Wei during the Three Kingdoms period.

ANSWER: **Cao Cao** (“tsao tsao”) [or **Cao Mengde**]

[10e] While preparing to fight Cao Cao, Zhuge Liang (“joo-guh l’yong”) was apocryphally tasked with collecting 100,000 of these projectiles in 10 days. English longbowmen effectively used these projectiles to win the Battle of Agincourt.

ANSWER: **arrows**

[10m] Cao Cao is noted for his effective use of these troops in battle. The core of the Mongol army was made up of this type of soldier.

ANSWER: **cavalry** [or **mounted** troops; accept anything that indicates soldiers on **horses**]

<JH, History - World History>

21. This author’s great grandfather, Abram Petrovich Gannibal, was an African slave who was sold to the court of Peter the Great and became a military engineer. For 10 points each:

[10h] Name this author who attempted to document the life of his ancestor in the unfinished book *The Moor of Peter the Great*. This author also created a character who rejects Tatyana in his namesake “sermon.”

ANSWER: Alexander **Pushkin**

[10m] In this verse novel by Alexander Pushkin, the title “superfluous man” kills the poet Vladimir Lensky in a duel.

ANSWER: **Eugene Onegin** [or **Yevgeniy Onegin**]

[10e] Alexander Pushkin was a writer from this language’s “Golden Age.” Bazarov shoots Pavel in the leg during a duel in the novel *Fathers and Sons*, which was written in this language by Ivan Turgenev.

ANSWER: **Russian**

<WO, Literature - Misc Literature>

22. Palo Duro Canyon, the second-largest canyon in the United States, is found in this region of Texas. For 10 points each:

[10m] Name this region of Texas that contains the city of Amarillo. It borders a similarly-named region in Oklahoma.

ANSWER: Texas **panhandle**

[10e] The Texas panhandle was the site of the JA and XIT ranches that raised this kind of livestock and participated in namesake “drives” along trails to stockyards on railroad lines.

ANSWER: **cattle** [accept **cows** or **bulls**; accept **beef** or **longhorn** cattle]

[10h] This river rises in the Texas panhandle and forms part of Texas’s border with Oklahoma. It shares this name with another river that forms the border between North Dakota and Minnesota.

ANSWER: **Red** River

<MP, The World - Geography>

23. Answer the following about real-life historical figures represented in operas, for 10 points each.

[10h] An opera that begins with the “Chorus of Exiled Palestinians” and concerns the 1985 hijacking of the *Achille Lauro* (“ah-KEE-lay LAO-roh”) cruise ship is titled for “The Death of” this wheelchair-bound Jewish-American.

ANSWER: Leon **Klinghoffer** [accept *The Death of Klinghoffer*]

[10e] Before writing *The Death of Klinghoffer*, American composer John Adams wrote an opera about this American President’s 1972 diplomatic trip to China.

ANSWER: Richard (Milhous) **Nixon** [accept *Nixon in China*]

[10m] Collaborating with Robert Wilson, this American minimalist composer considered Charlie Chaplin or Adolf Hitler for a historical opera before settling on a scientist and creating *Einstein on the Beach*.

ANSWER: Philip **Glass**

<CL, Arts - Other Arts - Opera>

24. This princess gives birth to the twins Lava and Kusha at the ashram of the sage Valmiki. For 10 points each:

[10h] Name this princess who receives a signet ring from Hanuman after he discovers her in the Ashok Vatika in Lanka. Ravana kidnaps this princess when her husband is hunting a golden deer.

ANSWER: **Sita**

[10m] Sita, Hanuman, and Ravana appear in this Indian epic about a prince of Ayodhya (“uh-YODE-yah”).

ANSWER: **Ramayana**

[10e] Rama, the protagonist of the *Ramayana*, is the seventh avatar of this god. Krishna is another avatar of this god, who is the preserver deity in the Hindu *Trimurti*.

ANSWER: **Vishnu**

<RR, Beliefs - Mythology>