

2020 Matt Cvijanovich Memorial Tournament:

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Packet 11

1. In an attempt to seduce this god, Minthe was caught by this god's wife and turned into a garden mint. Zeus struck down Asclepius due to complaints from this god. An alternate name for this Greek god means (*) "giver of wealth" since precious metals were usually found near his domain. Winter was caused by Demeter's sadness while her child was with this god. This god, who possesses a helm of invisibility, abducted Persephone to become his bride with the use of pomegranate seeds. For 10 points, name this owner of Cerberus who is the Greek god of the underworld.

ANSWER: **Hades** [do NOT accept or prompt on "Pluto"] <Lalit Maharjan>/<ed. EC>

1. One enzyme involved in this pathway has its Gla and Kringle domains cleaved by a complex of factor Xa and factor V. For 10 points each:

[10] Name this process where platelets aggregate to prevent blood loss.

ANSWER: **coagulation** [accept **clotting** or **thrombosis**]

[10] That enzyme, thrombin, begins coagulation by acting as a serine protease and converting fibrinogen into insoluble strands of this protein. This protein forms cross links with platelets to form a plug.

ANSWER: **fibrin** [accept **factor Ia**; do not accept or prompt on "factor I"]

[10] One form of this disease caused by a deficiency in factor IX results in interference of the coagulation cascade causing easy bruising and bleeding.

ANSWER: **hemophilia** [accept **hemophilia B** or **Christmas disease**] <Stefan Calin>/<ed. SC>

2. One of these devices called JWST features a sunshield covered in Kapton and 18 gold covered hexagonal segments. Schmidt corrector plates are used in a catadioptric type of these devices that uses a Cassegrain reflector. Hyperbolic (*) mirrors in these devices can serve to reduce spherical and chromatic aberration. One of these devices named for Lyman Spitzer discovered exoplanets in the TRAPPIST-1 system and complements one named for Edwin Hubble. For 10 points, name these optical devices which are used to magnify distant objects.

ANSWER: **telescopes** [accept the Hubble Space **Telescope**] <Stefan Calin>/<ed. SC>

2. In the 2018 FIFA World Cup, Croatia lost 4-2 to this country's national team in the finals. For 10 points each:

[10] Name this country where during regular seasons Kylian Mbappé and Neymar can be found playing for the club Paris Saint-Germain.

ANSWER: **France** [or **French** Republic; or République **Française**]

[10] During the 2018 finals, a video assistant referee awarded an own goal against this Croatian forward who retired in 2020 from the Qatar Stars League team Al-Duhail.

ANSWER: Mario **Mandžukić** ["MAN-jew-kitch"]

[10] This nation was criticized for selecting Chechnya as the base for their squad in the 2018 World Cup, during which the dictator Ramzan Kadyrov met Mohamed Salah, a star striker for this nation's team.

ANSWER: Arab Republic of **Egypt** <Ameya Singh>/<ed. Ganon Evans>

3. Ola Rotimi adapted a story about this character to a Nigerian setting in the novel *The Gods Are Not to Blame*. This character interprets a thunderstorm as a sign to limp to a sacred grove of the Furies. This character was named after his swollen feet after being found on (*) Mount Cithaeron.

Raised by King Polybus, this character, who died "at Colonus," gets into a confrontation with Laius before solving the riddle of the Sphinx. This man's children include Ismene and Antigone. For 10 points, name this mythical king of Thebes, who killed his father and married his mother in a Sophocles play.

ANSWER: **Oedipus** [accept **Oedipus Rex** or **Oedipus at Colonus**] <Eric Chang>/<ed. WG>

3. This architect designed the Galaxy Soho Tower and the Heydar Aliyev Cultural Center located in Baku, Azerbaijan. For 10 points each:

[10] Name this Iraqi-British architect known for using futuristic designs in many of her works such as the "starfish" Daxing Airport in Beijing. She designed the 2012 London Olympics Aquatics Center.

ANSWER: (Dame) Zaha Mohammad **Hadid**

[10] Hadid was the first woman to win this "Nobel Prize" of architecture. Its other winners include I.M. Pei, Frank Gehry, and most recently Yvonne Farrell and Shelley McNamara.

ANSWER: **Pritzker** Architecture Prize

[10] Hadid designed one of these buildings which used a "double pebble" design. Another example of these buildings is one with white concrete shells that overlooks Bennelong Point in Sydney by Jorn Utzon.

ANSWER: **opera house** [accept Guangzhou **Opera House** or the Sydney **Opera House**] <Shohom Chakraborty>/<ed. EC>

4. Lines on a Pourbaix diagram correspond to values calculated by this equation. The Butler-Volmer equation is an extension of this equation at non-equilibrium conditions, while the GHK equation incorporates the identity of the ions. The formation of hydrogen gas from a platinum (*) electrode caused by the reduction of protons serves as a standard in this equation. A constant in this equation is roughly equal to 96,500 coulombs per mole and is named for Faraday. For 10 points, name this equation which gives the Gibbs free energy of an electrochemical cell.

ANSWER: **Nernst** equation <Pratyush Jaishanker>/<ed. SC>

4. One of these buildings in Xi'an ["*she-ahn*"] was constructed during the Ming dynasty, and is known for its Phoenix Pavilion. For 10 points each:

[10] Name these buildings. One of these buildings named for a Lighthouse is located in Guangzhou ["*gooahn-joh*"], and was constructed by Sa'ad bin Abi Waqqas ["*sah-had ih-been ah-bee wah-kaas*"].

ANSWER: **mosques** [accept, but otherwise do not reveal Chinese **mosques**]

[10] The Great Mosque of Xi'an and the Huaisheng ["*hoowhy-shung*"] Mosque are located in this modern day country. The presence of Muslims in this country increased during the Yuan ["*yooen*"] Dynasty under Kublai Khan.

ANSWER: **China** [accept **People's Republic of China** or **Zhongguo**]

[10] Many steles at the Great Mosque of Xi'an contain this form of art which is performed by Yu Youren and Wang Xizhi ["*she-jeer*"], with "grass" and "slender gold" styles. The *bismillah* is a common motif in the Islamic style of this artform.

ANSWER: **calligraphy** <Religion> <Vishal Kanigicherla>/<ed. KP>

5. A country under this system was boycotted from sporting events under the Gleneagles Agreement. This system began after Hendrik Verwoerd passed the Land Acts, which created communities called bantustans. The "I Am Prepared to Die" speech at the (*) Rivonia Trial denounced this system. After protesters against this system were killed during the Sharpeville, the Spear of the Nation formed as a military wing of the African National Congress. F.W. de Klerk and Nelson Mandela won the Nobel Peace Prize for ending, for 10 points, what policy of racial segregation which existed in South Africa?

ANSWER: **apartheid** <Shohom Chakraborty>/<ed. GE>

5. Early users of a language in this country would indicate location by physically rotating their bodies. For 10 points each:

[10] Name this country, where linguist Judy Kegl studied a unique sign language developed amongst deaf students at the Villa Libertad school in 1980.

ANSWER: **Nicaragua** [accept **Nicaraguan** sign language]

[10] Rotational representation in Nicaraguan sign language has been used as evidence for a 'hypothesis' named for Edward Sapir and this other linguist, who posited that one's language influences their worldview.

ANSWER: Benjamin Lee **Whorf**

[10] NSL also provided support for the idea of a language acquisition device in the brain, operating under a universal grammar, as proposed by this MIT linguist who wrote *Syntactic Structures*.

ANSWER: Noam **Chomsky** <Ganon Evans>/<ed. AD>

6. This character is described as an "ungodly, god-like man," and this character blesses a lightning struck weapon "in the name of the devil." A mystic prophesizes that this character will die from hemp. This character is "shot out the boat" after he shouts "from hell's heart I stab at thee!" before rope from his (*) harpoon wraps around his neck. This character nails a gold doubloon to a mast and heads a crew manned by Starbuck and the harpooner Queequeg. Ishmael meets, for 10 points, what peg-legged captain of the Pequod obsessed with the title whale in Herman Melville's *Moby Dick*?

ANSWER: Captain **Ahab** <Ganon Evans>/<ed. WG>

6. Rulers of this empire would sleep in different rooms of the Topkapi Palace every night to avoid assassinations. For 10 points each:

[10] Name this empire, whose sultans would receive the sword of its first holder, Osman I. Other famous rulers of this empire include Mehmed the Conqueror and Suleiman the Magnificent.

ANSWER: **Ottoman** Empire [accept the **Ottoman** Turks; do not accept or prompt on Turkey alone]

[10] Topkapi Palace's name literally translates to the "Gate" of these objects. The Hungarian engineer Orban created at least twelve of these objects which brought down the walls of Constantinople during Mehmed the Conqueror's successful 1453 siege.

ANSWER: **cannons** [accept synonyms such as **artillery**; accept the Great Turkish **Bombard**]

[10] Orban constructed the Great Turkish Bombards in this pre-Constantinople capital of the Ottoman Empire located in Thrace. The legendary Ottoman architect Mimar Sinan considered his greatest construction to be the Selimiye Mosque in this city.

ANSWER: **Edirne** [prompt on **Adrianople**] <Ganon Evans>

7. **Ruff and Framer claim that one of these features in the Atacama Desert is the closest environmental analog to Mars on Earth; that one of these features is El Tatio. The Kamchatka Peninsula is home to a "Valley" of these features. Strokkur is one of these features located in the Haukadalur Valley near another one of these features, which are named for the Icelandic verb (*) "to gush." One of these features has a cycle between 45 minutes to two hours, and is located within Yellowstone National Park. For 10 points, name these erupting hot springs such as Old Faithful.**

ANSWER: **geysers** [prompt on hot **springs**; prompt on **geothermal** sites] <Ganon Evans>

7. For 10 points each, answer some questions about counting:

[10] Name this unary operator on a number n that gives you how many ways n distinct objects can be arranged. It is equal to the product of all numbers from 1 to n .

ANSWER: **factorial**

[10] Factorials are also used to calculate this operation which gives the number of ways to pick k indistinguishable elements from a set of n elements. Operations of this type make up Pascal's triangle.

ANSWER: **choose** function [accept **combinations**]

[10] The sum of the squares of the elements of the n th row in Pascal's triangle are given by this formula. This formula is also used to find the central binomial coefficient.

ANSWER: **$2n$ choose n** [accept equivalents such as " **$2n$ factorial over n factorial squared**"] <Joshua You>/<ed. SC>

8. **This kingdom's Dark Age rulers were crowned on Moot Hill and were known as "ri Alban." France entered the Auld Alliance with this kingdom. The Declaration of Arbroath was signed by this kingdom's barons. John Knox founded Presbyterianism in this kingdom. At the Battle of Falkirk, Edward (*) Longshanks captured this kingdom's independence leader William Wallace. Robert the Bruce ruled this kingdom which is the home of the Stuart dynasty. For 10 points, name this constituent kingdom of the U.K. north of England whose kings frequently wear kilts.**

ANSWER: **Scotland** <Ganon Evans>

8. This structure connects the city of Sausalito in the Marin Headlands with the former fort of El Presidio. For 10 points each:

[10] Name this structure. Irving F. Morrow developed the color “International Orange” for this Joseph Strauss-designed steel structure.

ANSWER: **Golden Gate** Bridge

[10] The Golden Gate Bridge spans this California city’s namesake “Bay,” which is also home to Alcatraz and Angel Island. The area nicknamed Silicon Valley stretches from this city to San Jose.

ANSWER: **San Francisco** [accept **San Francisco** Bay]

[10] Makoto Hagiwara designed a tea garden in Golden Gate Park and is also credited as the inventor of this food product. Handmade examples of this food are made at a Golden Gate factory.

ANSWER: **fortune cookies** [prompt on **cookies**] <Ganon Evans>/<ed. AD>

9. Fernando Botero painted a couple engaging in this activity in a cafe littered with cigarettes and fruits in one work. A bronze figurine from Mohenjo Daro features a nude performer of this activity wearing 24 bangles on her left arm. In Henri de Toulouse-Lautrec’s first lithographic poster commission, La Goulue performs at the (*) Moulin Rouge while engaging in this activity, and a Spanish Gypsy woman engages in this art form in *El Jaleo*. For 10 points, name this art form characterized by a wax sculpture of a fourteen-year-old ballerina by Edgar Degas.

ANSWER: **dance** [or **dancing**; anti-prompt on more specific answers like **can-can** or **ballet**] <Annie Lin>/<ed. EC>

9. On this island, children are conditioned to avoid wearing jewels as adults, and prisoners are gilded in gold to make that material less appealing to its citizens. For 10 points each:

[10] Name this idealized location visited by Roger Giles, and which Raphael Hythlodoy declared more ideal than any European nation in a 1516 novel.

ANSWER: **Utopia**

[10] *Utopia* was written by this English thinker, who is decapitated after violating Henry VIII’s Act of Supremacy in Robert Bolt’s *A Man for All Seasons*.

ANSWER: Sir Thomas **More** [or Saint Thomas **More**]

[10] This author fictionalized Thomas Cromwell’s political war against Thomas More and rise to power in her Booker Prize winning novel *Wolf Hall* and its sequel *Bring Up the Bodies*.

ANSWER: Hillary **Mantel** <Ganon Evans>/<ed. WG>

10. One of this band’s songs spent a record 289 weeks on the UK Top 100. This band described a person who “talks like a gentleman” despite not looking “a thing like Jesus” on a song in the album *Sam’s Town*. A song that appears on this band’s album *Day & Age* asks “are we (*) dancer?” before noting “my sign is vital.” This band’s debut album, *Hot Fuss*, featured the songs “All These Things That I’ve Done,” “Somebody Told Me,” and a song that describes “jealousy, turning saints into the sea.” For 10 points, name this rock band behind the songs “Human” and “Mr. Brightside.”

ANSWER: The **Killers** <Lalit Maharjan>/<ed. GE>

10. Answer the following about terrible housing predicaments in American plays. For 10 points each:

[10] Distraught after losing money he was going to open a liquor store with, Walter almost sells out the Younger family's new home in a white Chicago neighborhood to Karl Lindner in this play by Lorraine Hansberry.

ANSWER: *A Raisin in the Sun*

[10] The slob Oscar Maddison shouts "now its garbage!" after throwing a dish of linguini cooked by his clean-freak apartment mate Felix Ungar from a pool table in this Neil Simon comedy.

ANSWER: *The Odd Couple*

[10] Artists Mark and Roger struggle to stay warm in their East Village apartment in the opening scene of this Jonathan Larson rock musical, a loose adaptation of Giacomo Puccini's *La Bohème*.

ANSWER: *Rent* <Ganon Evans>/<ed. WG>

11. While studying this material, Pablo Jarillo-Herrero at MIT first observed ultra-flat Moiré superlattice minibands that exhibit superconductivity in its twisted bilayer form. This material exhibits an anomalous quantum Hall effect. This material can be synthesized using epitaxy and this material is easily obtained by (*) exfoliating it with scotch tape in a method discovered by Andre Geim and Konstantin Novoselov. Atoms in this material are sp² hybridized and are arranged in a hexagonal lattice. For 10 points, name this material, a single sheet of carbon atoms.

ANSWER: graphene [accept twisted bilayer graphene] <Stefan Calin>/<ed. SC>

11. In a painting of this movement, an abnormally elongated prostitute tilts her head towards the viewer and holds a peacock feather fan. For 10 points each:

[10] Name this 19th-century art style that depicts scenes of Asian and North African culture. The term for this style was coined by Edward Said's [*"sah-EED"*] book titled after it.

ANSWER: Orientalism [accept word forms]

[10] This orientalist created *Scenes from the Massacres of Chios* and *The Death of Sardanapalus*. He is better known for painting a bare-chest woman holding a tri-colored flag in *Liberty Leading the People*.

ANSWER: Ferdinand Victor Eugène Delacroix [*"del-uh-KWAH"*]

[10] This other French artist opposed Delacroix's use of expressive colors and brushwork. Initial critics of this artist's *La Grande Odalisque* attributed the prostitute's inaccurate anatomy to extra vertebrae.

ANSWER: Jean-Auguste-Dominique Ingres <Annie Lin>/<ed. EC>

12. He's not Plato, but this thinker's *Dialogues* were a defence of idealism, which this man accomplished by attacking the materialist alternative. This man's treatise *Analyst* criticized Newton's idea of calculus; this thinker instead argued that motion should be measured relative to the "fixed star" in the essay (*) *De Motu*. A dialogue this philosopher imagined between himself and John Locke coined the phrase "to be is to be perceived." *Three Dialogues Between Hylas and Philonous* was written by, for 10 points, what Irish immaterialist philosopher and Bishop of Cloyne who names a California university?

ANSWER: George Berkeley <Aditya Sivakumar>/<ed. GE>

12. One illustration in this collection depicts the dice-like game of *patolli*, in which three large beans were dropped onto a large cross. For 10 points each:

[10] Name this twelve-book collection compiled by Bernardino de Sahagun which compiles the religious beliefs, language, traditions, and other history of recent Christian converted elite from Tenochtitlan [“*Ten-och-teet-lan*”].

ANSWER: **Florentine Codex** [prompt on partial answers; accept *The Universal History of the Things of New Spain*]

[10] The Florentine Codex chronicles the history of this Mesoamerican civilization, including their *chinampa* floating gardens on Lake Texcoco. Hernan Cortes captured this civilization’s last emperor Montezuma.

ANSWER: **Aztecs**

[10] According to the Florentine Codex, the Aztecs settled Tenochtitlan after seeing this specific image by the banks of Lake Texcoco. The center of the Mexican flag features this image. A description is acceptable.

ANSWER: an **eagle eating a snake** on a cactus [accept answer general answer indicating a **bird eating a snake** or an **eagle having a snake in its mouth**; prompt on just a **bird** and a **snake** with “How are the two interacting?”] <Ganon Evans>

13. During this war, one side occupied ancient pieces of Trajan’s Wall while sieging Silistra. Sir Colin Campbell’s Highlanders formed a “Thin Red Line” during this war’s Battle of Alma, which was followed by a foggy battle at Inkerman. This war’s Siege of (*) Sevastopol saw a disastrous heavy cavalry charge at the Battle of Balaclava. The “lady with a lamp” Florence Nightingale established hospitals for soldiers in this war. For 10 points, name this 1850’s war in which Great Britain, France, and the Ottoman Empire attacked Russia over land disputes on a certain Black Sea peninsula.

ANSWER: **Crimean War** <Aditya Sivakumar>/<ed. GE>

13. Brewster’s formula gives the angle at which light undergoes this process after being reflected. For 10 points each:

[10] Identify this action of allowing light to be directed in only one direction.

ANSWER: **polarization**

[10] Light can be polarized elliptically, circularly, or in this state, meaning it is traveling on a straight axis as exemplified by the function y equals x .

ANSWER: **linear**

[10] The light after it has been polarized is given by this law, which states that the intensity of the light is given by the cosine squared of the angle between the polarizer and analyzer’s axis.

ANSWER: **Malus’ law** <Shohom Chakraborty>/<Ed. SC>

14. In one play by this author, the prostitute Vivie walks out on her pimp mother to be with Frank Gardner. Raina Petkoff calls out for the “chocolate-cream soldier” Bluntschli in another play by this author which is set during the Serbo-Bulgarian War, and takes its title from the first line of Virgil’s *Aeneid*. This author of (*) *Mrs. Warren’s Profession* wrote a play in which Colonel Pickering bets the phonetics professor Henry Higgins to make the Cockney flower girl Eliza Doolittle speak like a duchess. For 10 points, name this Irish playwright of *Arms and the Man* and *Pygmalion*.

ANSWER: George Bernard **Shaw** <Ganon Evans>/<ed. WG>

14. Four of the eight five-member choirs in this composer's motet *Spem in alium* were written to be sung from balconies above the other four in Nonsuch Palace. For 10 points each:

[10] Name this Renaissance English composer who tutored William Byrd. This composer's melody "Why fum'th in fight" was adapted into a *Fantasia* by Ralph ["rafe"] Vaughan Williams.

ANSWER: Thomas **Tallis** [accept *Fantasia on a Theme by Thomas Tallis*]

[10] Vaughan Williams' *Fantasia on a Theme by Thomas Tallis* calls for separation between the main string orchestra and a string quartet, which features this many performers.

ANSWER: **four**

[10] This instrument introduces a countermelody to Tallis' original melody in Vaughan Williams' *Fantasia*. Hector Berlioz's *Harold in Italy* features solos from this instrument, which uses the alto clef.

ANSWER: **viola** <Ganon Evans>/<ed. KP>

15. This man proposed a theodemocratic political system in order to fashion a Kingdom of God which was modeled from the Book of Daniel. Revelations given to this man were consolidated in texts such as the Book of Moses, which was later included in the Pearl of Great Price. In order to work with "Reformed Egyptian," this prophet used previously buried (*) "seeing stones" called Urim and Thummim. During the Second Great Awakening, this man found the Golden Plates; after translating them, they were returned to the angel Moroni. For 10 points, name this founder of the Church of the Latter-Day Saints.

ANSWER: Joseph **Smith**, Jr. <Vishal Kanigicherla>/<ed. KP>

15. After World War II, this animal spent his days at Edinburgh Zoo, sometimes getting tossed cigars from fellow veterans. For 10 points each:

[10] Name this Syrian Brown Bear who fought with the Polish II Corps and famously carried 100 pound cases of artillery across the battlefield.

ANSWER: **Wojtek** [or **Voytek**]

[10] Wojtek became a commissioned soldier for his efforts moving artillery during the Battle of Monte Cassino, which allowed for the capture of this city by Mark Clark in 1944. The Republic of Salò was established after the fall of this city.

ANSWER: **Rome** [or **Roma**]

[10] The Nazi-puppet government of Salò was ruled by this fascist Italian dictator whose Blackshirts seized power from Victor Emmanuel III during the 1922 March on Rome.

ANSWER: Benito **Mussolini** <Shohom Chakraborty>/<ed. GE>

16. A virtuoso of this instrument founded the Palestine Philharmonic Orchestra and used it to rescue over 1,000 Jews from Nazi Germany. Bronislaw Huberman and Sarah Chang are virtuosos on this instrument. For a social experiment, a virtuoso on this instrument named (*) Joshua Bell performed incognito in a subway station in 2007. The soundtrack for Schindler's List was recorded by an Israeli-American performer of this instrument who plays seated due to polio and uses Menuhin Soil ["swal"] Stradivarius. Itzhak Perlman performs on, for 10 points, what string instrument, the most common in an orchestra?

ANSWER: **violin** <Ganon Evans>/<ed. KP>

16. In one of his documentaries, Michael Moore placed a picture of Kayla Renee Rolland at this man's estate. For 10 points each:

[10] Name this Hollywood actor and political activist who served as president of the NRA from 1998 to 2003. This actor stood in a picket line to protest the filming of his movie *El Cid* in a segregated theater.

ANSWER: Charlton **Heston**

[10] In a speech, Heston raised one of these objects and declared he'd only give it up if it was pried "from my cold, dead hands." The NRA promotes ownership of these objects under the 2nd Amendment.

ANSWER: **guns** [accept synonyms such as **firearms**; prompt on **weapons** or other general terms; accept specific types of **guns** such as **pistols**, **rifles**, or **muskets**]

[10] Heston controversially gave that speech one year after this mass shooting in Aurora, Colorado perpetrated by Eric Harris and Dylan Klebold. The aforementioned Michael Moore documentary is titled "Bowling for" this shooting.

ANSWER: **Columbine** shooting [accept *Bowling for **Columbine***] <Lalit Maharjan>/<ed. GE>

17. **Aplysina red band syndrome affects some members of this phylum which can reproduce using gemmules. A glass variety of these organisms produces a silica scaffolding called the syncytium ["sin-SEE-tee-um"] and is in class Hexactinellida ["hexa-teen-uh-LEED-uh"]. Mineralized particles called spicules produced by amoebocytes produce the skeletal fibers for this phylum. (*) Oscula are the excretory structures in this phylum. Flagellated choanocytes help filter water through the jelly-like mesophyll found in this phylum whose members lack a nervous system. For 10 points, name this phylum of sessile porous invertebrates, also called sponges.**

ANSWER: **porifera** [accept **sponge** before mention] <Bo Chi>/<ed. SC>

17. Lizzie warns Laura to not "peep" at these "glen tramp little" creatures, who sell "evil gifts" in a poem titled for them. For 10 points each:

[10] Name these creatures, who sell orchard fruits with the invitation "come buy, come buy."

ANSWER: **goblins** [accept **Goblin Market**]

[10] The poem "Goblin Market" was written by this author, who claimed "this downhill path is easy, but there's no turning back" in her poem "Amor Mundi."

ANSWER: **Christina Rossetti** [prompt on **Rossetti**, do not accept Dante Gabriel Rossetti]

[10] A Christina Rossetti poem envisions a "queen in opal or in ruby dress" found "hidden just behind those screens" in the "Studio" of a man with this profession. Christina's brother Dante Gabriel had this profession, and was a member of the Pre-Raphaelite Brotherhood.

ANSWER: **artist** [accept synonyms such as a **painter**; accept "The **Artist's Studio**"] <Ganon Evans>/<ed. WG>

18. **Outside of London and Paris, this specific location is where the third of Cleopatra's Needles can be found. This location was saved from decline in the 1980s by a "conservancy" that renovated areas like the Great Lawn and Duck Pond. Donald Trump wrote (*) "Bring back the death penalty. Bring back our police!" in a full-page ad created in response to a crime committed in this location; that crime involved five black boys who were falsely accused of assaulting Trisha Meili. This location's North Woods and North Meadow lie near Upper Manhattan. For 10 points, name this New York City park.**

ANSWER: **Central Park** [prompt on **New York City** or **NYC** before mention; prompt on **Manhattan** before mention] <Lalit Maharjan>/<ed. GE>

18. A diary of one of these people describes the title character as he thinks old Confucian texts say “Eat People!” and worries that society is full of cannibals. For 10 points each:

[10] Name this type of person described by Lu Xun [*“loo shwin”*]. Another famous diary by this type of person in which the title character imagines talking dogs is written by the author of “The Nose.”

ANSWER: **madman** [accept “A **Madman’s Diary**” or “**Diary of a Madman**”]

[10] “Diary of a Madman” was written by this Russian dramatist who also describes Akaky Akakievich getting scolded by a prominent person in “The Overcoat.”

ANSWER: Nikolai Vasilievich **Gogol**

[10] Another famous diary was written by this young Jewish girl hiding from Nazis in Amsterdam during the Holocaust. Entries in her diary are addressed to Kitty while living in the Secret Annex.

ANSWER: Anne **Frank** [or Annelies Marie **Frank**] <Eric Chang>/<ed. WG>

19. David Orr wrote an analysis of this poem titled for what “Almost Everyone Gets Wrong About” this poem. The speaker of this poem remarks “I shall be telling this with a sigh; somewhere ages and ages hence” when he encounters a location “bent in the undergrowth” and “in leaves, no step had trodden (*) black.” The speaker of this poem exclaims “I kept the first for another day!” upon making a decision “that has made all the difference.” Upon encountering “two diverged in a wood,” the speaker “took the one less traveled by” in, for 10 points, what Robert Frost poem?

ANSWER: “**The Road Not Taken**” [do not accept or prompt on The Road Less Traveled] <Ganon Evans>/<ed. WG>

19. These entities are present in carbonyls and imines between carbon and oxygen and carbon and nitrogen, respectively. For 10 points each:

[10] These entities explain the sp² hybridization at two centers and are responsible for the geometric isomerism in alkenes.

ANSWER: **double bond**

[10] Alkenes can undergo addition reactions which create an intermediate of this type governed by Markovnikov’s rule. These ions have a positive charge and contrast to anions.

ANSWER: **carbocation**

[10] Electrophilic addition on an allylic system is in competition with halogenation via a mechanism involving these species. The chemistry of these species is notated with a fish hook arrow.

ANSWER: free **radical** <Michael Eng>/<ed. SC>

20. In October 2020, this country’s President dismissed a corruption investigation into the construction firm Odebrecht and joked that the COVID-19 vaccine could turn people into alligators. Guido Mantega arranged for ethanol subsidies in this country. In January 2020, this country charged (*) Glenn Greenwald for leaking government emails to the Intercept. Sérgio Moro is currently leading Operation Car Wash in this country, which exposed bribery over the state oil company Petrobras by politicians like Lula de Silva. For 10 points, name this South American country led by President Jair Bolsonaro.

ANSWER: Federative Republic of **Brazil** <Ganon Evans>

20. After the death of this figure, Cynus of Liguria mourned by the river Eridanos and was turned into a swan out of pity by the gods. For 10 points each:

[10] Name this boy who lost control of his father's chariot after flying too close to the Earth and scorching Africa, forcing Zeus to strike him down with a lightning bolt.

ANSWER: **Phaethon**

[10] Phaethon was the son of the Oceanid Clymene and this solar deity, whose role is also sometimes shared with Apollo.

ANSWER: **Helios**

[10] This daughter of Helios turned Scylla into a monster out of jealousy and transformed Odysseus' men into pigs but not Odysseus, who was immune due to the moly he was given by Hermes.

ANSWER: **Circe** <Lalit Maharjan>/<ed. EC>