

Detroit Country Day Academic Regular Tournament

Packet 12

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1: An allegory from this country describes the founders of three religions tasting vinegar, with only one of them responding positively. After being denied entry into a monastery in this country, a “blue-eyed barbarian” monk spent nine years staring at a wall before accepting any disciples. In this country, candy is given as a bribe to win the favor of the (*) Kitchen God. Bodhidharma [“BO-dee-DAR-mah”] introduced Chan Buddhism into this country. This country’s government has been accused of harvesting the organs of Falun Gong members. For 10 points, Laozi taught “non-action,” or *wu wei*, in what country where Daoism began?

ANSWER: China <Religion, Suh>

1: This sculpture was the first work of art commissioned by the General Services Administration’s ‘Percent for Art’ program. For 10 points each,

[10] Name this sculpture which stands in front of the Kluczynski Federal Building in Chicago’s Federal Plaza. This sculpture was painted using its artist’s namesake red color.

ANSWER: Flamingo

[10] *Flamingo* is a stabile, which is contrasted with these kinetic sculptures consisting of moving elements suspended by wire.

ANSWER: mobiles

[10] This American sculptor is known for sculpting *Flamingo* as well as many mobiles.

ANSWER: Alexander Calder <Visual Fine Arts, Sun>

2: In 2007, 1 million year old human footprints were found in this country’s Margalla Hills. This country’s Potohar Plateau is bounded to the east by the Jhelum River. The former Omani colony of Gwadar is located in this country. This country’s most populous city is the capital of (*) Sindh Province, while its second-most populous city, Lahore, is the capital of Punjab Province. The city of Peshawar lies in this country at the Eastern end of the Khyber Pass near this country’s border with Afghanistan. Karachi is the largest city in, for 10 points, what country whose capital is Islamabad?

ANSWER: Islamic Republic of Pakistan <World Geography, Gayden>

2: These objects can be described by Jones polynomials. For 10 points each:

[10] Name these mathematical objects. These constructs are embeddings of a circle in three-dimensional space, and the simplest non-trivial one is the trefoil.

ANSWER: knots

[10] In 2020, Lisa Piccirillo proved that a knot named for this man is not a slice of a higher-dimensional knot. This English mathematician also invented a cellular automaton, his “Game of Life.”

ANSWER: John Horton Conway

[10] Topologically, knots can be considered one-dimensional examples of these three-dimensional shapes. The surface area of this shape is given by the formula $4\pi r^2$ [“four pi r squared”].

ANSWER: **spheres** <Math, Sun>

3: A character in this play remarks that “everyone oughta see a country where they don’t talk in English.” The observation that women, unlike men, are naturally good is made by a baseball captain in this play, which is traditionally performed almost entirely without props. In this play’s third act, the central female character recognizes the milkman (*) Howie Newsome during a flashback to her 12th Birthday, and asks, “Do any human beings ever realize life while they live it?” Emily Webb and George Gibbs are married by the Stage Manager in this play. For 10 points, name this play set in Grover’s Corners by Thornton Wilder.

ANSWER: **Our Town** <US Literature, Gayden>

3: For 10 points each, answer the following about Lester Pearson. For 10 points each,

[10] Pearson won the 1957 Nobel Peace Prize for his role in resolving this crisis. This crisis started after Gamal Abdel Nasser nationalized an Anglo-French company that controlled a key waterway.

ANSWER: **Suez** Crisis

[10] Pearson famously told this French President that “Canadians do not need to be liberated” in response to this man’s “Vive le Quebec Libre” speech at Expo 67. This man led the Free French during World War II.

ANSWER: Charles André Joseph Marie **de Gaulle**

[10] Pearson was dubbed one of the “three wise men” of this international entity, which he helped found. Hastings Ismay was its first leader.

ANSWER: **North Atlantic Treaty Organization** <World History, Gayden, Ed.>

4: Fowler-Nordheim tunneling occurs in regions with high values of this quantity. The polarization density is equal to the electric permittivity of free space times the electric susceptibility times this quantity. The Poynting vector is equal to this quantity crossed with the H-field, and the magnitude of this quantity is equal to the (*) negative gradient of potential. This quantity can cause changes in the index of refraction in the Kerr effect, and this quantity is zero inside conductors. It is equal to the electrostatic force exerted on a test charge. For 10 points, name this vector field generated by charged objects, symbolized big E.

ANSWER: **electric field** [accept **E-field**, accept **E**, do not accept or prompt on “little e”, accept **electric** after “vector field” is read] <Physics, Sun>

4: This author wrote about English Professor David Lurie’s downfall after an affair with Melane Isaacs in his novel *Disgrace*. For 10 points each,

[10] Name this South African-born author who also wrote *The Life and Times of Michael K*. He was the 2003 Nobel Laureate in Literature.

ANSWER: J(ohn) M(axwell) **Coetzee**

[10] In this 1980 Coetzee novel, the Magistrate begins to question the colonialism of “The Empire.” He is later tortured by soldiers of the Third Bureau, a special forces unit led by Colonel Joll.

ANSWER: **Waiting for the Barbarians**

[10] Coetzee’s *Waiting for the Barbarians* was inspired by an identically titled poem by Constantin Cavafy, a writer in this language. Cavafy’s poem *Ithaca* was inspired by an epic poem in this language, *The Odyssey*.

ANSWER: **Greek** <World Literature, Liu>

5: This author once described Samuel McClure as a “will of the wisp” after he missed a train. She’s not Nellie Bly, but this author became a frequent Sanatorium visitor following the success of her biography of Abraham Lincoln. This author’s father was put out of business by the illegal South Improvement Company scheme, and her most famous work led a company to be (*) broken up into Esso, Socony, and 32 other “Baby Standards”; that work included a description of an elusive “Ledger A” belonging to John Rockefeller. For ten points, name this muckraker journalist and author of *The History of the Standard Oil Company*.

ANSWER: Ida Minerva **Tarbell** <US History, CGH>

5: Selected music from this ballet was reduced into its composer's opus 75, *Ten Pieces for Piano*. For 10 points each,

[10] Name this ballet. A strong pulsating brass beat accompanies a dramatic string melody in the "Dance of the Knights", which appears in this ballet.

ANSWER: ***Romeo and Juliet***

[10] *Romeo and Juliet* is a ballet by this Russian composer, who also composed a work meant to teach children about instruments titled *Peter and the Wolf*.

ANSWER: Sergei **Prokofiev**

[10] The evil witch Fata Morgana puts the title curse on the Prince after he laughs at her clumsiness in this opera by Prokofiev based on a Carlo Gozzi play.

ANSWER: *The **Love for Three Oranges*** [accept *The **Love of the Three Oranges*** or ***L'Amour des trois oranges***]
<Auditory Fine Arts, Sun>

6: In this novel, two characters peek through a window and see a pair of children crying after arguing over a small puppy. The narrator of this novel is accused of stealing a lantern by Joseph, who later sets the dogs loose upon him. That narrator of this novel later dreams of a ghost's arm reaching through a window after he reads a series of (*) diary entries. In this novel, Hindley's wife Frances dies while giving birth to Hareton. The maid Nelly Dean narrates much of this novel to Mr. Lockwood, who rents a room at Thrushcross Grange. For 10 points, name this novel about Cathy Earnshaw and her relationship with Heathcliff by Emily Bronte.

ANSWER: ***Wuthering Heights*** <British Literature, Sun>

6: This equation was independently developed by American physicist Robert Goddard in 1912. For 10 points each, [10] Name this equation, which states that the maximum change in velocity is equal to the effective exhaust velocity times the natural log of the mass ratio.

ANSWER: Tsiolkovsky **rocket** equation [accept classical **rocket** equation or ideal **rocket** equation]

[10] A rocket can accelerate forward by expelling part of its mass backward with high velocity, a result of the conservation of this quantity, which applies to both elastic and inelastic collisions.

ANSWER: linear **momentum** [do not accept or prompt on angular momentum]

[10] Since a rocket's mass changes during flight, it cannot be modeled by the statement force equals mass times acceleration, which is the second of this man's three laws of motion.

ANSWER: Isaac **Newton** <Physics, Sun>

7: A song with this title repeats, "turn and face the strange" before conceding, "I can't trace time." Another song with this title notes, "I'd love to go back to when we played as kids," and that "we ain't ready to see a black President." The chorus of that song with this title goes, "that's just the way it is, things will never be the same." A 2018 song with this title opens, (*) "mmm, baby I don't understand this," and claims, "my heart can't take this damage" before the lament, "girl you're making it hard for me." For 10 points, name this song title used by David Bowie, 2Pac, and XXXTentacion that indicates transformation.

ANSWER: ***Changes*** <Popular Music, Gayden>

7: The Tohono O'Odham tribe's name means "people of the desert". For 10 points each,

[10] The desert being referred to is this one, which is named for the Mexican state whose borderlands with Arizona the Tohono O'Odham inhabit.

ANSWER: **Sonoran** Desert

[10] Pima County derives its name from the Spanish name for the related Akimel O'Odham people. This city, the home of the University of Arizona, is the county seat of Pima County.

ANSWER: **Tucson**

[10] The third group that speaks the O'Odham language, the Hia Ced O'Odham, live along this river that flows from its namesake US state through the Hoover Dam into the Gulf of California.

ANSWER: Colorado River <Geography, Gayden> [Ed. Myers]

8: Genes from the toad *Xenopus laevis* were expressed by this organism in an experiment conducted by Cohen and Boyer. This organism's long term evolution was investigated in an experiment conducted by Richard Lenski. Hershey and Chase proved that DNA is a genetic material in an experiment in which this organism was attacked with (*) T2 bacteriophages, and the lac operon was discovered in this organism by Jacob and Monod. This model organism's O157-H7 strain can cause food poisoning. For 10 points, name this rod shaped coliform bacteria found in the gut.

ANSWER: E. coli or Escherichia coli <Biology, Sun, Ed.>

8: The 2005 book *Freakonomics* written by economist Steven Levitt and journalist Stephen Dubner quickly became a sensation, eventually culminating in a bi-weekly podcast on NPR. For 10 points each:

[10] Levitt, one of *Freakonomics*' coauthors, is an economist at this institution, which names a school of economic thought contrasted with the saltwater school. Milton Friedman once taught at this institution.

ANSWER: The University of Chicago

[10] In *Freakonomics*, Levitt builds off of research he conducted with Donohue relating the legalization of this practice to crime rates. Levitt used the example of a Romanian ban on this practice to argue that its legalization reduced crime.

ANSWER: abortion (prompt on "birth control" or similar answers)

[10] *Freakonomics* has sometimes been criticised as an "amateur" work of this academic field, which focuses on the study of social interactions and structures. Emile Durkheim created *Rules* for its "method."

ANSWER: sociology <Social Science, Liu>

9: A loyalist of this dynasty besieged Fort Zeelandia and established the Kingdom of Tungning. A ruler of this dynasty came to power during the Jingnan campaign and constructed the Porcelain Tower of Nanjing. This dynasty's Emperor Yingzong was captured by Taisun Khan during the (*) Tumu Crisis. This dynasty came to power after winning the decisive battle of Lake Poyang, which cemented Emperor Hongwu as the first ruler of this dynasty. The Muslim eunuch Zheng He went on many treasure voyages during the reign of this dynasty. Emperor Yongle was from, for 10 points, what Chinese dynasty that overthrew the Yuan?

ANSWER: Ming Dynasty <World History, Pavlou, Ed.>

9: This effect can explain why someone can dip a wet finger in molten lead without getting hurt. For 10 points each,

[10] Name this phenomenon in which a liquid produces an insulating vapor layer when it comes close to a sufficiently hot surface. A few drops of water can skitter across a hot pan due to this effect.

ANSWER: Leidenfrost effect

[10] The Leidenfrost effect can also allow you to blow out a mouthful of this substance. This fluid, which boils at 77 kelvin, is frequently used in cryogenics or biological storage.

ANSWER: liquid nitrogen

[10] The insulating vapor layer produced by the Leidenfrost effect further prevents this process in which a liquid turns into a gas.

ANSWER: boiling [accept evaporation or vaporization] <Chemistry, Sun>

10: Three churches- one Catholic, one Lutheran, and one Baptist - are depicted on the Great Plains in this artist's *Freedom of Religion: The Three Denominations*. A group of children at Raphael Weill Elementary School are depicted standing for the Pledge of Allegiance in one work by this artist. This artist, who was commissioned by the Works Progress Administration to depict (*) Japanese-American internment at Manzanar,

also worked for the Farm Security Administration, where she photographed Florence Owens Thompson and her children during the Great Depression. For 10 points, name this photographer of *Migrant Mother*.

ANSWER: Dorothea **Lange** <Other Fine Arts, Sun>

10: For 10 points each, answer the following about fire in various myth systems.

[10] In the *Ramayana*, this figure set fire to the city of Lanka using his tail. He brings a healing herb to Lakshmana by moving an entire mountain.

ANSWER: **Hanuman**

[10] In Greek myth, this Titan brought fire to humanity in a fennel stalk. As punishment, he was chained to a rock to be eternally tortured, but was eventually freed by Heracles.

Answer: **Prometheus**

[10] This kami died while giving birth to the fire kami Kagutsuchi. In grief, her husband beheaded Kagutsuchi and split his body into eight pieces that became eight volcanoes.

ANSWER: **Izanami** <Mythology, Siddiqui and Zhou>

11: In one poem, this author argues “it is clear that my lines are charming, witty” in a response to critics who think his “poems are delicate”. This author’s longest poem is an epyllion about Theseus abandoning Ariadne. This author addresses Furius and Aurelius in his invectives and threatens to send three hundred (*)

hendecasyllables to his rival. This author emulated Sappho 31 in a love poem and wrote an elegy for his lover’s sparrow, asking for three hundred thousand kisses in a following work. After the death of his brother, this author wrote “hail and farewell.” For ten points, name this Roman poet who wrote love poems to Lesbia?

ANSWER: **Catullus** <Ancient/Mixed/Other Literature, Cheriyan and Siddiqui>

11: This conflict began when Robert Fitzwalter led the Army of God and Holy Church in a rebellion supported by Louis VIII of France. For 10 points each:

[10] Identify this war that was started by several rebellious landowners. It was ended by the Treaty of Lambeth.

ANSWER: **First Barons’ War** [prompt on **Barons’ War**]

[10] This English King’s incompetent leadership and despotism sparked the revolt of the barons. In the middle of the war, this king, who was nicknamed “Lackland,” died of dysentery in 1216.

ANSWER: King **John**

[10] John’s son Henry III fought the Second Barons’ War and was captured at Lewes. However, this son of Henry defeated the barons at Evesham and released his father. This man would later be known as the “Hammer of the Scots.”

ANSWER: **Edward I** [accept **Edward Longshanks**; prompt on **Edward**] <European History, Liu, Ed.>

12: Thinkers like Jerry Fodor argue that this thing is “multiply realizable” from substrate phenomena. In a book titled for *The Concept of [this thing]*, Gilbert Ryle mocked a theory of it for positing a “ghost in the machine.” In letters to that theory’s creator, Elisabeth of Bohemia also criticized it for not explaining how this thing interacts with other things, leading that theory’s creator to posit the (*) pineal gland as the “seat” of this thing. This thing is perceived as a “clear and distinct” *res cogitans* in *Meditations on First Philosophy*, and modern philosophers ask whether it is identical to the brain. For 10 points, name this thing, the subject of a “dualism” attributed to René Descartes between it and the body.

ANSWER: the **mind** [given the language of the thinkers mentioned, also accept the **soul** or **consciousness** and word forms; accept any answer like “**mental** events” that include word forms of **mental**; accept any of the above **along with the brain** until mentioned but DO NOT prompt on “brain” alone; accept any of the above **in conjunction with the body** or the **physical** but DO NOT accept answers like “the body” or “the physical” alone] <Philosophy, JG> (ed.)

12: Prisoners sing “O Welche Lust” after this character allows them to roam freely, but they soon quiet down in fear of Don Pizarro overhearing. For 10 points each,

[10] Name this character who sings the “Gravedigging Duet” with the prison warden Rocco before saving her husband.

ANSWER: **Fidelio** [accept **Leonore**]

[10] In *Fidelio*, Marzelline, Leonore, Rocco, and Fidelio sing “Mir ist so Wunderbar”, a quartet of this form. Pieces in this form involve a main melody being introduced at regular intervals.

ANSWER: **canon** [Accept **canon** quartet, anti-prompt on **round**]

[10] *Fidelio* is the only opera by this composer, whose other works include the “Eroica” symphony and the “Moonlight” Sonata.

ANSWER: Ludwig van **Beethoven** <Other Fine Arts, Siddiqui>

13: Due to grammatical ambiguity, Khentkaus may have held this position. Manetho lists the possibly ahistorical Nitocris as another holder of this position. After one holder of this position was interred in KV20, her name was erased from monuments. The namesake of two “needles” in London was the last independent holder of this position alongside her infant son (*) Caesarion. At the end of the Amarna period, Nefertiti likely held this position following the death of Akhenaten. For ten points, give this position held by Hatshepsut, Cleopatra, and other rulers of ancient Egypt.

ANSWER: **Pharaoh** [or **Queen of Egypt**; accept **King of Egypt**, although the mentioned leaders were all female; accept partial answers indicating only a **monarch** after “Egypt,” but prompt before] <Ancient History, CGH>

13: H.E. Scudder, the editor of the Atlantic Monthly, refused to publish this short story because “[he] could not forgive himself if [he] [makes] others as miserable as [he] made [himself]”. For 10 points each,

[10] Name this short story. The husband of this story’s narrator threatens to send her to the physician Weir Mitchell, who actually treated this short story’s author with the rest cure.

ANSWER: “The **Yellow Wallpaper**”

[10] This author wrote “The Yellow Wallpaper.” She also wrote about Jeff, Van, and Terry discovering an all-female society in *Herland*.

ANSWER: Charlotte Perkins **Gilman** (or “Charlotte Perkins **Stetson**”)

[10] Gilman’s text *Women and Economics* is considered a leading text of this philosophical and social movement. In the text, Gilman advocates for the economic independence and specialization of women.

ANSWER: **feminism** <US Literature, Liu, Sun, and Siddiqui>

14: One piano work by this composer begins with the left hand slowly descending chromatically from B to G while the right hand enters with [read slowly] “grace note low A, high A, down to C”. That work is from a collection by this composer that opens with an “Arietta” whose melody he later repurposed as a waltz for the “Remembrances” last movement. An flourish based on a falling minor second and major third opens this composer’s (*) piano concerto in A minor, which starts off with a timpani roll. This composer of *Lyric Pieces* also composed a work with movements titled “The Death of Ase” and “Morning Mood”. For 10 points, name this composer who included “In the Hall of the Mountain King” in his *Peer Gynt* suite.

ANSWER: Edvard **Grieg** <Auditory Fine Arts, Sun>

14: In females, this process results in the formation of three polar bodies and one ovum. For 10 points each,

[10] Name this process of cell division contrasted with mitosis.

ANSWER: **meiosis**

[10] In this stage of meiosis, paired homologous chromosomes align along the center of the cell. Note: Number is required.

ANSWER: **metaphase I** [Accept any answer indicating the **first metaphase**; prompt on just **metaphase**]

[10] These protein complexes bring together homologous chromosomes, allowing for crossing over to occur. This complex forms during the zygotene stage of prophase I [one] and disappears after the pachytene stage.

ANSWER: synaptonemal complex [or SC] <Biology, Siddiqui>

15: In one novel in this language, the title polyglot discovers his pederastic attraction to young Arab boys while on a honeymoon in Tunis. In addition to *The Immoralist*, another novel written in this language describes a scene where an actor playing Orpheus collapses in the town of Oran. In that novel, the collection of thousands of dead rats causes the titular disaster and Dr. Bernard (*) Rieux's wife dies in *The Plague*.

Another novel in this language begins with the statement that "Maman died today," and the titular character later shoots "The Arab" on a beach. For 10 points, what language was used by writers such as Andre Gide and Albert Camus?

ANSWER: French [or Français] <European Literature, Liu>

15: The city of Sonoma was captured before the formation of this polity. For 10 points each,

[10] Name this polity, whose first and only leader was William B. Ide.

ANSWER: Bear Flag Republic [or California Republic; prompt on California]

[10] After he arrived in Sonoma, this "Pathfinder" gave his support for the Bear Flag Republic. He would later lose to James Buchanan in 1856 as the first Republican Presidential candidate.

ANSWER: John Charles Frémont

[10] The Bear Flag Revolt took place 2 years before this event, which started when Samuel Brannan discovered the namesake precious metal at Sutter's Mill. Levi Strauss may have started selling Jeans during this event.

ANSWER: California Gold Rush [or the Gold Rush of 1849; prompt on Gold Rush] <US History, Gayden, Ed.>

16: The Fingers of God effect leads to deviations from a law named after this scientist. The radial component of baryon acoustic oscillation is equal to a quantity named for this scientist. That quantity equal to the time derivative of the scale factor over the scale factor was first measured by Georges Lemaître. Galaxies are classified into (*) elliptical and spiral using this scientist's namesake "tuning fork" diagram, and his namesake law states that galaxies are receding from the Earth at speeds proportional to their distances. For 10 points, name this American astronomer, who also names a space telescope launched into low Earth orbit in 1990.

ANSWER: Edwin Hubble <Other Science, Sun>

16: In one work, this character declares that "to speak the broken English is an enormous asset." For 10 points each, [10] Identify this character, a friend of Sir Charles Cartwright, who appears prominently in the novel *Three Act Tragedy*. He often uses his "little grey cells" to great effect.

ANSWER: Hercule Poirot (accept either underlined portion)

[10] Hercule Poirot reveals that he knows Dr. James Sheppard committed the title crime in this novel. This novel is written as Sheppard's personal account, and its epilogue is revealed to be his suicide note.

ANSWER: *The Murder of Roger Ackroyd*

[10] This British Dame created the character of Hercule Poirot and wrote *The Murder of Roger Ackroyd*. She also wrote *The Mousetrap*, *And Then There Were None*, and *The Murder on the Orient Express*.

ANSWER: Agatha Christie <British Literature, Liu>

17: In 2020, a statue of Edward Colston was thrown into a river because of his role in this practice. In *Somerset v. Stuart*, Lord Mansfield ruled against this practice in England and Wales but left its status abroad ambiguous. William Wilberforce famously campaigned against this practice whose horrors were described by Olaudah Equiano. The Royal Navy's West (*) Africa Squadron helped suppress this practice after an 1807 law abolished a key part of this practice. For 10 points, name this practice that involved the trafficking of Africans in the triangular trade across the Atlantic Ocean?

ANSWER: **slavery** [accept **slave** trade; accept descriptions that include **slave**] <European History, Liu, Ed.>

17: This case's decision found that a Georgia employer had acted in violation of Title VII of the Civil Rights Act of 1964. For 10 points each,

[10] Name this 2020 Supreme Court case, whose plaintiff, a child welfare coordinator, who the court ruled had been discriminated against based on his participation in a gay recreational softball league.

ANSWER: *Gerald Lynn **Bostock** v. Clayton County, Georgia*

[10] The majority opinion in *Bostock* was written by this conservative justice. He was appointed by President Trump to replace the late Justice Antonin Scalia in 2017.

ANSWER: Neil McGill **Gorsuch**

[10] This justice dissented with Justice Alito, claiming the court was revising Title VII to "better reflect the current values of society." He was accused of sexual harassment by Anita Hill.

ANSWER: Clarence **Thomas** <Current Events, Gayden, Ed.>

18: This artist executed a self portrait of a jug in the form of a head. This artist's time in Pont Aven inspired a painting in which two men wrestle in a red landscape while women in white shawls watch. This artist painted his girlfriend lying face down in (*) *Spirit of the Dead Watching*, and another work by this artist is meant to be read from right to left to answer the three title questions and depicts Polynesian people getting progressively older. For 10 points, name this French painter who painted *Where do we come from? What are We? Where are we going?* during his extensive time in Tahiti.

ANSWER: Paul **Gauguin** <Visual Fine Arts, Sun>

18: In one play, a manager realizes that this character is missing from a scene in which she is needed since it is being enacted in this character's dress shop.

For 10 points each,

[10] Name this character who is summoned by hanging coats and hats on racks since she follows the "articles of her trade."

ANSWER: Madame **Pace**

[10] Madame Pace appears in this play in which a rehearsal of *Mixing it Up* is interrupted by the title figures. The final scene of this play features The Child drowning in a fountain.

ANSWER: ***Six Characters in Search of an Author***

[10] This Italian playwright of *Henry IV* wrote *Six Characters in Search of an Author*.

ANSWER: Luigi **Pirandello** <European Literature, Siddiqui>

19: In one type of this technique, lectin beads bind certain alpha-D sugars, and a different version of it might employ Proteins A and/or G to purify monoclonal antibodies. Another type of this technique is the most common method for determining the polydispersity index for polymers. This technique, which has (*) affinity and size-exclusion variants, characterizes substances by their retention factor. In a common demonstration of its paper variant, ink, the mobile phase, moves through paper, the stationary phase. For 10 points, name this technique named for the colors that might result from separating mixtures.

ANSWER: **Chromatography** [accept any more specific form, such as "lectin affinity chromatography" or "paper chromatography"] <Chemistry, Siddiqui>

19: Youtuber DisguisedToast is known for his "huge brain" plays in this game. For 10 points each,

[10] Name this online multiplayer social deduction game released by InnerSloth, where up to ten players can play on the Skeld, Mira HQ, or Polus.

ANSWER: **Among Us**

[10] Players of Among Us are split into crewmates and players with this role. Players with this role can either sabotage, vent, or kill, and their goal is to eliminate all the crewmates.

ANSWER: **Impostors**

[10] During the Game Awards 2020, Innersloth announced this new *Among Us* map due to release in early 2021. Players will be able to choose the room that they spawn in after meetings in this map, and the Gap Room on this map contains ladders and a moving platform.

ANSWER: The **Airship** <Popular Culture, Sun>

20: A candidate for this position responded to attacks with an ad featuring the disposal of dog feces. Doug Collins lost a primary for this position to a candidate who compared herself to Attila the Hun. It's not the President, but Gabriel Sterling alleged that another holder of this office from a neighboring state violated election laws in a conversation with Brad Raffensperger. Following (*) runoff elections for this office in January 2021, this position is currently held by Jon Ossoff and Raphael Warnock. For 10 points, name this legislative-branch position whose 100 holders make up the upper chamber of the United States Congress.

ANSWER: United States **Senator** [accept specifics like "**Senator** from Georgia" or "**Senator** from South Carolina"] <Current Events, CGH>

20: For 10 points each, answer the following about "Bird-Men" in ancient American societies.

[10] The "Bird-Man Burial" was a major find in this ancient city. This city's Mound 34 contains the only known remains of a Mississippian copper workshop.

ANSWER: **Cahokia** [accept **Cahokia** Mounds]

[10] The title of Bird-Man in this society was given to the first person to find a sooty tern egg. These people used the Rongorongo script, and several of their famous monolithic statues wear hat-like Pukao.

ANSWER: **Rapa Nui** [accept **Easter Islanders**]

[10] The Great Pyramid of Cholula in this country remained a major cult center of the feathered deity Quetzalcoatl even after its invasion by Hernan Cortez. Other ancient sites in this modern-day country include Teotihuacan and Chichen Itza.

ANSWER: **Mexico** [or **United Mexican States**, or **Estados Unidos Mexicanos**] <Ancient/Other History, CGH>

Tiebreaker: **Strasburger cells are found in some organisms in this group. Many organisms in this group have archegonia present in the mature gametophyte. In the coralloid roots of some members of this clade, cyanobacteria assist in nitrogen fixation. Organisms in this clade typically possess tracheids instead of (*) vessel elements, and the four remaining living phyla of this clade include gnetophyta and cycadophyta. Conifers and ginkgo are members of this group, whose name literally means "naked seed". For 10 points, name this group of plants contrasted with the angiosperms.**

ANSWER: **Gymnosperms** [Prompt on **Conifers** and **Cycads** before phyla; anti-prompt on **plants** before mention] <Biology, Sun>

