TAILS: TAG Academic Introductory Level Set 2020-2021

Edited by Alistair Gray. Written by Jonathan Farner, Jaik Havlick, Georgia Leakey, Ketan Pamurthy, Akhil Peddikuppa, Jonathan Singer, Andrew Volney, Cooper Wilk, and Jisoo Yoo

Packet 2

1. CCG repeats on the FMR1 portion of one of these structures can cause it to become "fragile." Lyonization of one of these structures can inactivate it and form a Barr body. Having an extra one of these structures might result in Klinefelter's syndrome or (*) Down syndrome, which is also known as trisomy 21. For ten points, name these structures that carry genetic information, examples of which include X and Y kinds.

ANSWER: **chromosomes** [accept X **chromosome** or **chromosome** 21; accept Y **chromosome** after mention] <Biology - Pamurthy>

- 1. In this game, new players are hailed as "chief" by in-game villagers. For ten points each.
- [E] Name this mobile game where a player upgrades their Town Hall to go on raids and collect gold and elixir. In this game, players can join in-game groups and wage war on one another.

ANSWER: <u>Clash of Clans</u> [prompt on <u>CoC</u>]

[M] This company that created Clash of Clans also created another similarly-named game where players defend towers in real time using collectable "cards," called Clash Royale.

ANSWER: Supercell

[H] The app face for Clash of Class features this signature yellow-haired Supercell troop. This troop is also featured in Clash Royale and has a similarly named hero called the "king."

ANSWER: **Barbarian** < Popular Culture - Havlick>

2. Beyonce helped popularize a diet consisting solely of lemon juice, cayenne pepper, water, and this substance. An inability to break down leucine and valine causes a condition in which urine smells like this substance. Quebec produces seventy percent of the world's output of this substance, which is produced by extracting xylem (*) sap from certain trees. For 10 points, name this sugary substance often drizzled on pancakes or waffles.

ANSWER: maple **syrup** <Other Academic - Pamurthy>

- 2. This element has the highest electron affinity of any element, and is commonly used in cleaning products. For ten points each:
- [E] Name this element commonly used in pools and in bleach due to its disinfectant properties. This element has the chemical symbol Cl.

ANSWER: chlorine

[M] Chlorine belongs to this only group of the periodic table to have elements in all three phases of matter at room temperature, which lies directly to the left of the noble gases on the periodic table.

ANSWER: halogens

[H] Fluorine, another halogen, has the highest value for this quantity of any element. This quantity measures the tendency of an atom to attract a pair of electrons and is measured on the Pauling scale.

ANSWER: electronegativity

<Chemistry - Farner>

3. A king of this city died after losing to Epaminondas at the Battle of Leuctra (LEWK-truh). The agoge (AH-goh-gay) system of this city trained children for the military and was invented by Lycurgus. Another king of this city was defeated in battle after a shepherd led the Persian army around the pass at (*)

Thermopylae. For ten points, what rival of Athens was home to the famous 300 and was known for its warrior culture?

ANSWER: Sparta

<Ancient History - Havlick>

- 3. This city is the most populous in the unofficial Front Range megaregion, but is the smallest US city to have teams in all four major professional sports. For ten points each,
- [M] Name this city, which is nicknamed "the Mile-High City" due its elevation exactly a mile above sea level.

ANSWER: **Denver**

[E] Denver is the capital of this state, where the Front Range is mostly located and which, on average, has the highest altitude among US states.

ANSWER: Colorado

[H] The Front Range forms part of this boundary that runs down the Americas, which separates water that flows towards the Pacific from water that flows towards the Atlantic.

ANSWER: the <u>Continental Divide</u> [or the <u>Continental Divide</u> of the Americas or the <u>Great Divide</u>] <US Geography - Gray>

4. This mountain range is home to silver mines at Potosi and also contains Salar de Uyuni, which is the world's largest salt flat. This mountain range was created by the Nazca plate, and its southern terminus is in Tierra Del Fuego. The (*) Incan Empire was centered in this mountain range. For ten points, what longest mountain range in the world runs along the Pacific coast of South America?

ANSWER: **Andes** Mountains <World Geography - Havlick>

- 4. At this figure's funeral, her personal trainer Bryant Johnson did three push-ups in front of her casket. For ten points each:
- [M] Name this recently deceased justice who was nominated by Bill Clinton in 1993. This first Jewish woman to serve in her position died on the eve of Rosh Hashanah on September 18, 2020.

ANSWER: Ruth Bader **Ginsburg** [or **RBG** or the Notorious **RBG**]

[E] Ginsburg served as an associate justice on this highest court in the federal judiciary system in the United States. John Roberts is the current Chief Justice of this national judiciary body.

ANSWER: **Supreme** Court of the United States [accept **SCOTUS**; prompt on <u>court</u>]

[H] Donald Trump nominated this woman as Ginsburg's replacement a week after her death, and she was quickly confirmed, despite the supposed precedent of Merrick Garland that justices were not to be confirmed in an election year.

ANSWER: Amy Coney **Barrett**

<Other Academic - Yoo>

5. In a novel by this author, the title couple owns the Muggle-Wumps and catch the "Dreaded Shrinks" after being glued to the floor of their house. This author of *The Twits* wrote about a nephew of Spiker and Sponge who makes friends with bugs like Miss (*) Spider in *James and the Giant Peach*. Mike Teavee, Augustus Gloop and others get to visit Willy Wonka's workshop in, for ten points, what author's *Charlie and the Chocolate Factory*? ANSWER: Roald Dahl

<Children's Literature - Yoo>

- 5. The region of Mesopotamia was home to some of the first civilizations in the world. For ten points each:
- [E] Mesopotamia was able to sustain large populations due to the ease of this practice. This practice is the cultivation of crops.

ANSWER: **agriculture** [or **farming**]

[H] This Mesopotamian civilization contained the city of Ashur and had rulers like Tigaleth-Pileser and Sennacherib. Its capital, Nineveh (NIN-ih-veh), hosted the largest library in the world at the time, built by Ashurbanipal.

ANSWER: Assyrian Empire

[M] Mesopotamia was known as the Fertile Crescent for the rich soil that the Euphrates (yoo-FRAY-tees) and this other river provided to the region. Baghdad lies on this river.

ANSWER: <u>Tigris</u> River <Ancient History - Havlick>

6. The ancient Greek Odeon of Herodes Atticus Theater was made primarily of this material. A large statue by Daniel Chester French depicting a seated president is made of this material. The Leaning Tower of Pisa is made primarily of this material, which is also the primary material used in the (*) Washington Monument and the US Supreme Court Building. For ten points, what white rock was used to make the Taj Mahal?

ANSWER: marble

<Other Fine Arts - Pamurthy>

6. According to Dante's *Inferno*, this body of water can be found in the fifth circle of hell, where the wrathful fight on its banks and the sullen drown in its currents. For ten points each:

[M] Name this river in the Greek underworld into which Achilles was dipped by Thetis. After the Titanomachy, Zeus decreed that oaths sworn on this river could not be broken.

ANSWER: Stvx

[E] The Greek underworld is sometimes referred to by this name. This is also the name of the Greek god of the underworld who married Persephone after striking a deal with Demeter.

ANSWER: Hades

[H] In the *Iliad*, Zeus claims that this region of the underworld is "as far beneath Hades as heaven is above earth." This deep abyss in the underworld was used as a dungeon for the most wicked of all and as a prison for the titans.

ANSWER: <u>Tartarus</u> < Mythology - Yoo>

7. Langmuir (LANG-myoor) waves are oscillations of electron density in these substances. Tokamaks, which confine these substances using strong toroidal magnets, are used for nuclear fusion research. Touching a "globe" named for these substances will produce a strand of light to your finger. Tesla coils produce (*) arcs of these substances, which also constitute lightning. The interior of the sun consists of, for ten points, what fourth state of matter?

ANSWER: **plasma** <Physics - Pamurthy>

- 7. The narrator of this novel steals food and a file for Abel Magwitch, an escaped convict whom he meets in the village churchyard. For ten points each:
- [H] Name this novel narrated by Pip, who visits the wealthy Miss Havisham at Satis House and falls in love with Estella, her cold and dismissive adoptive daughter.

ANSWER: **Great Expectations**

[M] This English author wrote *Great Expectations*. He also wrote about Ebenezer Scrooge's encounters with the Ghosts of Christmas Past, Christmas Present, and Christmas Yet to Come in his novella *A Christmas Carol*.

ANSWER: Charles Dickens

[E] Dickens set his novel A Tale of Two Cities in London and this French city. Quasimodo serves as the bellringer for a cathedral in this city in Victor Hugo's The Hunchback of Notre Dame.

ANSWER: **Paris**<Long Fiction - Yoo>

8. During this war, US forces led by Generals Westmoreland and Abrams suffered heavy losses at the Battles of Hamburger Hill and Khe Sanh. During this war, a surprise attack launched on the Lunar New Year dealt a heavy psychological blow to US troops, and was called the (*) Tet Offensive. The Kent State Massacre took place during a student protest of this war. For ten points, name this war fought in a namesake Asian country.

ANSWER: Vietnam War

<US History - Singer>

- 8. This architect designed a tent-like building that looks over Lake Erie in Cleveland, Ohio. For ten points each:
- [H] Name this architect of the John F. Kennedy Presidential Library, the John Hancock Tower, and the Rock and Roll Hall of Fame and Museum, who died in 2019 at the age of 102.

ANSWER: I. M. <u>Pei</u> [or Ieoh Ming <u>Pei</u>]

[M] Pei initially wanted to make the John F. Kennedy Library this three-dimensional shape, a shape which he later used in the design of his Rock and Roll Hall of Fame and for the glass building in front of the Louvre (loov).

ANSWER: square **pyramid**

[E] Pei was originally born in Guangzhou (gwahng-JOH), a city in this Asian country. Pei designed the tower for the Bank of this country in Hong Kong.

ANSWER: China

<Other Fine Arts - Leakey>

9. In an account of this figure's life by Thomas Malory, this figure encounters the Questing Beast drinking from a pool and is approached by King Pellinore, to whom he loses a jousting match. This uncle of Mordred pulled a sword from a (*) stone to claim his throne. For ten points, name this legendary king who led the knights of the Round Table and ruled the Kingdom of Camelot.

ANSWER: King **Arthur** [or **Arthur** Pendragon]

<Mythology - Yoo>

- 9. This organ contains numerous mechanoreceptors, including Pacinian (puh-SIN-ee-an) corpuscles and Merkel nerve endings. For ten points each:
- [E] Name this largest organ of the human body, which also acts as its first line of defense against infection. The epidermis is the outermost of the layers of this organ that covers the body.

ANSWER: skin

[M] This pigment in skin can protect humans from UV radiation and can prevent some of the reactions that lead to skin cancer. Dark skin is generally rich in this pigment, the primary determinant of skin color.

ANSWER: melanin

[H] This protein is a key structural material in the outer layers of skin in many vertebrates. The hard beta forms of this protein are found in bird beaks and claws, while the softer alpha forms are found in humans' hair and nails.

ANSWER: **keratin** <Biology - Pamurthy>

10. In one story, this character saves Helen Stoner from her stepfather's "Speckled Band." This character only refers to Irene Adler as "the woman" after she tricks him in "A Scandal in Bohemia." Professor Moriarty is the archnemesis of this character, who is portrayed by (*) Benedict Cumberbatch in a BBC series. Doctor Watson accompanies, for ten points, what detective created by Sir Arthur Conan Doyle who lives at 221B Baker Street?

ANSWER: Sherlock **Holmes** [or **Sherlock** Holmes]

<Short Fiction - Yoo>

10. In 1890, the US House narrowly voted to award Chicago, rather than New York, hosting rights for one of these events scheduled for 1893. For ten points each:

[M] Name these expositions, where cities showcased new technological achievements from around the globe. Buildings constructed for these events include the Crystal Palace in London and the Seattle Space Needle.

ANSWER: **World's Fair** [or **World Exposition**]

[E] Chicago celebrates its hosting of the 1893 World's Fair with one of four stars on this type of object. Another one of these objects in California depicts a brown bear, in honor of a "Bear Republic" named for one of these objects.

ANSWER: Chicago's **flag** [accept Bear **Flag** Republic or California's **flag**]

[H] Today, the 1893 fair is famous for the activities of H.H. Holmes, a serial killer who owned one of these establishments during the fair. Holmes confessed to booking and killing 27 guests in this type of establishment, giving it the nickname "Murder Castle."

ANSWER: hotel

<World History - Havlick>

11. The intensity of these phenomena is measured by the Fujita scale and the Enhanced Fujita scale, which better accounts for damage caused by them. These phenomena form when a supercell thunderstorm becomes a vortex, and when they occur over water they are called (*) waterspouts. A region across the Great Plains and the Midwest is called the "alley" of these phenomena. For ten points, name these rapidly rotating columns of air. ANSWER: tornados

ANSWER. tornauos

<Other Science - Pamurthy>

- 11. The protagonists of this novel rent Barton Cottage from Sir John Middleton after they are forced to move from Norland Park, the estate on which they grew up. For ten points each:
- [H] Name this novel set in England during the late 18th century. This novel tells the love stories of Elinor and Marianne Dashwood, who represent the two title characteristics.

ANSWER: Sense and Sensibility

[M] A character in this other novel describes a woman as "tolerable, but not handsome enough to tempt me." This novel by the same author of *Sense and Sensibility* is about the romance between Mr. Darcy and Elizabeth Bennet.

ANSWER: **Pride and Prejudice**

[E] Both Sense and Sensibility and Pride and Prejudice were written by this Victorian-era English novelist.

ANSWER: Jane <u>Austen</u> <Long Fiction - Yoo>

12. This ruler, along with his servant Thomas Cromwell, engaged in the dissolution of the monasteries. This ruler executed his chancellor, Thomas More, after More refused to accept this ruler's split from the Catholic Church. This man's only son, Edward VI, was the son of this man's third (*) wife, Jane Seymour. For ten points, what English king had six sorry wives, four of whom were either divorced or beheaded?

ANSWER: **Henry VIII**

<European History - Havlick>

- 12. For ten points each, answer some questions about Will Shortz.
- [H] Shortz is the creator and editor for the section of the New York Times that publishes these puzzles. In a tribute to Shortz, artist Ken Knowlton created a portrait of Shortz using the black and white squares of these puzzles.

ANSWER: **crossword** puzzles

[E] Shortz's favorite crossword was published on Election Day 1996 and had two possible solutions stating either that Bob Dole or this candidate won. This candidate did win, before a scandal in which he cheated on his wife Hillary.

ANSWER: Bill <u>Clinton</u> [or William Jefferson "Bill" <u>Clinton</u>]

[M] In addition to creating puzzles for NPR's *Weekend Edition*, Shortz created the puzzle clues for the movie named for [this superhero] *Forever*. Those clues were left by The Riddler for Val Kilmer's portrayal of this "Caped Crusader".

ANSWER: **Batman** [or Bruce **Wayne**]

<Other Academic - Pamurthy>

13. This artist's upcoming album was named after his deceased mother, and is titled *Donda: With Child.* In 2002, this artist had his jaw wired shut after a near-fatal car crash, but recorded *Through the Wire* regardless. This artist of *Jesus is King* claimed that he made (*) Taylor Swift famous on his album *The Life of Pablo.* Yeezy is the nickname of, for ten points, what rapper and husband of Kim Kardashian?

ANSWER: **Kanye** West [or Kanye **West**; accept **Ye**]

<Popular Culture - Havlick>

- 13. This president directed the removal of Cherokee natives from their homes after signing the Indian Removal Act. For ten points each:
- [E] Name this US President, known as "Old Hickory", who succeeded John Quincy Adams.

ANSWER: Andrew **Jackson**

[H] During Jackson's presidency, his Secretary of War's wife was snubbed socially by a group Washington society women led by the wife of Vice President John C. Calhoun. That woman, whose first name was Peggy, had this last name.

ANSWER: <u>Eaton</u> Affair [accept the Peggy <u>Eaton</u> Affair]

[M] The Peggy Eaton Affair led to the creation of an unofficial group of advisors to Jackson nicknamed the "kitchen" version of this body. In general, this body largely consists of the Secretaries of the executive departments.

ANSWER: cabinet [accept kitchen cabinet]

<US History - Singer>

14. Thomas Young aided in Jean-François Champollion's (sham-POL-ee-on) analysis of this object, which was rediscovered during a Napoleonic campaign. This object celebrates the anniversary of Ptolemy

(TAH-luh-mee) V's coronation in three scripts, including (*) Ancient Greek and Demotic. For ten points, name this rock which was used to interpret Egyptian hieroglyphics, which a brand of language-learning software is named after.

ANSWER: **Rosetta** Stone <World History - Pamurthy>

- 14. Kirkwood gaps are areas of this region which are predictably sparse. For ten points each:
- [M] Name this region of space where Ceres and Vesta are found. This region of small rocky bodies separates the inner and outer solar systems and is found between the fourth and fifth planets from the sun.

ANSWER: asteroid belt [accept main asteroid belt or main belt]

[E] Trojans are asteroids that share this planet's orbit around the sun. The asteroid belt is located between Mars and this gas giant, the largest planet in the solar system.

ANSWER: Jupiter

[H] This region of Jupiter's atmosphere is actually an anticyclonic storm that is shrinking, but is still larger than the size of the Earth. Its color is thought to come from reactions of ammonium hydrosulfide and UV radiation.

ANSWER: **Great Red Spot** <Other Science - Pamurthy>

15. The house shown in this painting was inspired by the Dibble House in Eldon, Iowa. A red barn to the right and a green window to the left frame this painting's two central figures. One of those figures wears a colonial print apron and was modeled on the artist's sister, while the other was modeled on the artist's (*) dentist. For ten points, name this painting by Grant Wood that shows a woman and a pitchfork-holding man.

ANSWER: <u>American Gothic</u> <Visual Fine Arts - Leakey>

- 15. This character is buried between two lime trees after his death. For 10 points each:
- [H] Name this title character of an epistolary novel who commits suicide after writing a letter requesting two pistols from his friend Albert. This character suffers from depression due to his unrequited love for Charlotte.

ANSWER: Werther [accept Young Werther; accept The Sorrows of Young Werther]

[E] *The Sorrows of Young Werther* was written by Wolfgang von Goethe (GUH-tuh), who primarily wrote in this language. Friedrich Schiller (SHILL-er) wrote "Ode to Joy" and *Wilhelm Tell* in this European language.

ANSWER: **German** [accept **Deutsch**]

[M] This two-part play by Goethe describes a bet between a demon and God over whether the title character can be corrupted. Mephistopheles (meh-fis-TOF-uh-lees) strikes a deal with the title character of this play in return for his soul.

ANSWER: *Faust* [do not accept or prompt on "Doctor Faustus"] <Mixed Literature - Yoo>

16. During this period, the Nevadan orogeny began to create the Sierra Nevada mountains and Pangaea (PAN-jee-uh) broke up. This second period of the Mesozoic era featured two extinction events, one of which was the Tithonian event. This period was dominated by large, herbivorous dinosaurs like (*) Diplodocus. For ten points, name this geologic period between the Triassic and Cretaceous that names a "park" in a Steven Spielberg movie.

ANSWER: <u>Jurassic</u> period <Other Science - Pamurthy>

16. In 2002, this country granted independence to the smaller country of East Timor, which it had invaded in 1975. For ten points each.

[E] Name this Islamic Southeast Asian country that has its capital on the island of Java and experiences many earthquakes on its island of Sumatra.

ANSWER: **Indonesia** [or Republic of **Indonesia** or Republik **Indonesia**]

[H] This island and Sumatra are the original homes of the orangutan. Kalimantan is the Indonesian portion of this island, which is also split between two other countries, Brunei and Malaysia.

ANSWER: Borneo

[M] Though this city, Indonesia's capital, is rapidly sinking into the Java Sea, it remains the nation's largest. Some models predict that 95% of this city could be submerged by 2050, a result of the swampy terrain of the region and rising sea levels.

ANSWER: Jakarta

<World Geography - Havlick>

17. This work begins by invoking the Muse Calliope (kuh-LYE-uh-pee) to sing of one character's rage. The funeral games of Patroclus are at the end of this work between the death and burial of Hector. This epic is about a war that started when Paris abducted (*) Menelaus's (meh-neh-LAY-us) wife, the most beautiful woman in the world. Achilles helps siege Troy in revenge for the abduction of Helen in, for ten points, what epic poem by Homer about the Trojan War?

ANSWER: The **Iliad** [accept **Song of Illion**; accept **Song of Illium**] <Long Fiction - Yoo>

17. This country distanced itself from the Soviet Union during the Informbiro Period. For ten points each:

[M] Name this country that broke up in 1992. It was led from 1953 to 1980 by Josip Tito, who led its resistance to fascism during the Second World War.

ANSWER: Socialist Federal Republic of **Yugoslavia**

[E] After a 1941 coup d'etat (koo dey-TAH), Yugoslavia was invaded by this military alliance. This group of countries, which included Germany, Japan, and Italy, fought against the Allies in World War II.

ANSWER: Axis Powers [accept Rome-Berlin-Tokyo Axis]

[H] During World War II, Yugoslav resistance forces consisted of the Yugoslav Partisans and the Chetniks, nationalists from this country. Slobodan Milosevic led this country during the Kosovo War.

ANSWER: Republic of <u>Serbia</u> <European History - Havlick>

18. The founder of this school of thought believed that the "rectification of names" would solve social disorder. The Classic of Poetry and the Book of Changes are two of this school's Five Classics. In this school, the virtue of respect for one's parents, ancestors, and societal hierarchies is called (*) filial piety. For ten points, name this school of thought named for its founder, a philosopher from ancient China.

ANSWER: **Confucianism** [accept **Ruism**]

<Religion - Yoo>

- 18. This book contains only one equation because its author believed that every equation would cut its readership by half. For ten points each:
- [H] Name this book whose chapters include *The Origin and Fate of the Universe* and *Space and Time*. This book was written after its author was diagnosed with ALS.

ANSWER: A **Brief History of Time**: From the Big Bang to Black Holes

[E] A Brief History of Time contains two chapters on these astronomical objects. These regions of space have a gravitational pull so strong that not even light can escape from their event horizons.

ANSWER: black holes

[M] The movie *The Theory of Everything* depicts the life of this author of *A Brief History of Time*. A type of radiation named for this physicist is given off by black holes and causes them to lose mass.

ANSWER: Stephen William **Hawking**

<Physics - Pamurthy>

19. In this state, a thin layer of melting ice allows some stones to "sail" across the surface of Racetrack Playa. A national park in this state contains the Bridalveil Fall vista and was advocated for by John Muir's (myurzz) Sierra Club. In that national park in this state, Glacier Point gives views of (*) El Capitan and Half Dome. For ten points, name this state which contains Death Valley and Yosemite (yoh-SEM-ih-tee).

ANSWER: <u>California</u> <US Geography - Gray>

- 19. After its 1876 premiere in Vienna, this composer's First Symphony was dubbed "Beethoven's Tenth." For ten points each,
- [H] Name this composer. Other works by this composer include *Hungarian Dances* and *A German Requiem*.

ANSWER: Johannes **Brahms**

[E] Brahms wrote one of these pieces titled *Wiegenlied* for Bertha Faber's son. These pieces are sung to children to put them to sleep.

ANSWER: **lullaby** [accept **cradle song**]

[M] Brahms's Opus 39 is a set of 16 of these dances. *The Beautiful Blue Danube* is a dance in this Austrian style, usually in 3/4 time.

ANSWER: waltz

<Auditory Fine Arts - Pamurthy>

20. The Patio process uses mercury amalgams to extract this element, which is the most conductive metal. A compound of this element and iodine is used to seed clouds and develop photographs. This precious metal was associated with the moon in alchemy. Sulfides cause (*) tarnish to form on, for ten points, what element whose chemical symbol is Ag, which is often made into second-place awards?

ANSWER: silver

<Chemistry - Pamurthy>

- 20. Jesus first recited these phrases as a part of a period of preaching in Galilee shortly after he was baptised. For ten points each:
- [H] Name these blessings, the first of which is "Blessed are the poor in spirit, for theirs is the Kingdom of Heaven." These proverb-like proclamations were first recounted in the Sermon on the Mount.

ANSWER: **Beatitudes**

[E] The Beatitudes and the Sermon on the Mount are first mentioned in Matthew, which is one of these Biblical books. Matthew, Mark, Luke, and John are the four canonical books of this kind, whose name translates to "good news".

ANSWER: gospels

[M] The Sermon on the Mount also serves as the first mention of this prayer in the Bible. This prayer begins "Our father in heaven, hallowed be your name."

ANSWER: Lord's Prayer [prompt on Our Father or Pater Noster]

<Religion - Pamurthy>