

**2020 Matt Cvijanovich Memorial Tournament:**

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**Packet 10**

**1. This region is home to the wild Mazaalai bear and the Przewalski [“per-zhuh-val-skee”] horse. Oyu Tolgoi is a massive mining complex in this region, which is where Roy Andrews discovered the first dinosaur eggs in this region’s Nemegt Basin. This homeland of (\*) Bactrian camels is bordered by the Altai and Tian Shan Mountains. The rain shadow of the Himalayas created this region, which is the coldest non-polar desert in the world. For 10 points, name this largest Asian desert found in northern China and southern Mongolia.**

ANSWER: **Gobi** Desert [prompt on Mongolia or northern China] <Ganon Evans>/<ed. AD>

1. This day is symbolically ended by the *havdalah* [haav-dahl-uh], and during it, a blessing is given over loaves of *challah* [hall-uh]. For 10 points each:

[10] Name this day, during which work and long-distance travel are prohibited. This day of rest falls on a Saturday in Judaism.

ANSWER: **Shabbat** [or **Shabbos**; accept **Sabbath**]

[10] To initiate Shabbat, a braided one of these objects is also used alongside a blessing and is sometimes called a *ner havdalah*.

ANSWER: **candles**

[10] To simulate a miracle where one day’s worth of oil lasted for days, *ner Chanukah* [ha-nuh-kuh] are kept lit in these objects which typically hold eight candles along with an extra *shamash* candle placed above the others.

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

**2. Due to this statement, a spot on a wall from a laser fired through a slit will spread out once the slit narrows enough. Motion predicted by this statement prevents absolute zero from ever being truly achieved. This statement links energy and time as conjugate variables. An inequality with the term (\*) “h-bar over 2” is used to describe this principle. This principle is the reason atomic orbitals are described as a “cloud” of probabilities for finding an electron. For 10 points, name this principle that states the more known about a particle’s momentum, the less known about its position.**

ANSWER: Heisenberg’s **uncertainty** principle [prompt on “Heisenberg’s principle” alone] <Lalit Maharjan>/<ed. SC>

2. Answer some questions about title characters of Charles Dickens works, for 10 points each:

[10] While hungry, this title orphan asked “Please sir, I want some more” in a workhouse before later escaping to London and joining a pickpocket gang including Bill Sikes and the Artful Dodger.

ANSWER: **Oliver Twist** [accept either underlined answer for all parts of this bonus]

[10] Believed to be an autobiographical portrayal of Dickens himself, this character marries his true love, Agnes Wickfield, and has an antagonistic relationship with Uriah Heep.

ANSWER: **David Copperfield**

[10] This character saves his friend Smike from the evil Wackford Squeers, who works at the brutal Dotheboys Hall boarding school.

ANSWER: **Nicholas Nickleby** [accept *The Life and Adventures of Nicholas Nickleby*] <Eric Chang>/<ed. WG>

*Note to players: type of character required*

**3. One of these people encounters Ringing Island, on which Master Aedituus [“*ay-di-tus*”] trained birds to behave like the Catholic Church. That one of these people encounters an abbey which lives by the phrase “do what thou wilt” while searching for the Divine Bottle Bacbuc, and had earlier extinguished a city fire by (\*) urinating on Paris. The title characters of François Rabelais’ *Gargantua et Pantagruel* are two of these people, and Don Quixote mistakes windmills for these people. For 10 points, name these people, which in an English fairytale, Jack encounters at the top of a beanstalk?**

ANSWER: **giants** [prompt on Gargantua and Pantagruel before mention with “What type of people are they?”] <Ganon Evans>/<ed. WG>

3. In her book, physicist and Youtuber Sabine Hossenfelder described the current state of physics research as being “lost in” this subject, and that “beauty” was leading it “astray.” For 10 points each:

[10] Name this general academic subject. Branches of this subject used in physics include algebra and calculus.

ANSWER: **mathematics**

[10] The early chapters of Hossenfelder’s book explore the negative results from this accelerator for various speculative theories including supersymmetry. This accelerator at CERN first discovered Higgs boson candidates.

ANSWER: **Large Hadron Collider** [or **LHC**]

[10] Renowned physicist Frank Wilzcek gives a somewhat bleaker view of modern physics in his book but remains overall optimistic in current theories. Wilzcek shared the 2004 Nobel Physics prize for his discoveries in the field of quantum chromodynamics, which describes this fundamental force.

ANSWER: **strong** nuclear force <Lalit Maharjan>/<ed. SC>

**4. Bretschneider's formula can be used to calculate the area of one of these figures and is a generalization of Brahmagupta's formula. A relation between the lengths of the diagonals in cyclic types of these figures to their side lengths can be found using (\*) Ptolemy’s theorem. All of these figures can tile the plane, and one type can be used to approximate integrals according to a namesake rule. One of these figures can have two pairs of adjacent equal length sides and are called kites. For 10 points, name these polygons that include trapezoids and rectangles, both of which have four sides.**

ANSWER: **quadrilaterals** [accept cyclic **quadrilaterals**; antiprompt on “trapezoids”] <Stefan Calin>/<ed. SC>

4. Eminem has collaborated with a variety of artists from all genres of music. For 10 points each:

[10] Eminem collaborated with this artist on the 2000 single “Stan.” This artist performed “Candle in the Wind” for Princess Diana’s funeral, and wrote songs like “Goodbye Yellow Brick Road” and “Tiny Dancer.”

ANSWER: Sir Elton **John** [or Reginald Kenneth **Dwight**]

[10] Eminem’s single “Godzilla” was the first posthumous release of a song featuring this rapper after his accidental overdose in December 2019. This rapper bemoans “I still see your shadows in my room” in his track “Lucid Dreams.”

ANSWER: **Juice Wrld** [“*Juice World*”] [or Jarad Anthony **Higgins**]

[10] In a collaboration with Pink, Eminem raps “you can hold all the cards,” but he will not perform this title action. An unrelated song with this name claims “I’ll keep this world from dragging me down” and “Hey baby, there ain’t no easy way out.”

ANSWER: **Back Down** [accept I Won’t **Back Down**] (The second song is by Tom Petty.)

**5. Handel composed concertos for this instrument as incidental music to his oratorios, such as one referred to as “The Cuckoo and the Nightingale.” Bach’s “Little” Fugue in G minor was originally written for this instrument, and a two movement symphony in C minor by Camille Saint-Saens is named for this instrument. One work for this instrument opens Disney’s (\*) *Fantasia*; that work is Bach’s eerie Toccata and Fugue in D Minor. Players of this instrument use stops to control the airflow through its pipes. For 10 points, name these usually massive keyboard instruments often found in churches.**

ANSWER: pipe **organ** <Shohom Chakraborty>/<ed. KP>

5. Throughout his extensive military career, Julius Caesar crossed his fair share of rivers. For 10 points each:

[10] To cross this river, Caesar and his legions built two enormous wooden bridges in just 10 days. This river formed the eastern boundary of Roman Gaul after Roman defeat at Teutoburg Forest.

ANSWER: **Rhine** River

[10] Although his first invasion was a disaster, Caesar’s second invasion of this island during the Gallic wars was much more successful, going so far as to cross the Thames River and penetrating Middlesex.

ANSWER: **Britain** [or **Brittania**; accept **Albion**]

[10] When the Senate ordered Caesar not to march his army across this river, he did so anyway, leading to the phrase “crossing” this river, meaning taking an action that takes an individual past the point of no return.

ANSWER: **Rubicon** <Lalit Maharjan>/<ed. GE>

**6. While at a villa on Lake Pontchartrain [“*pont-shar-train*”], this character teaches a young girl to sing hymns about New Jerusalem. While this character makes hot rolls, Prue describes losing her child. While learning to write the letter G, this character is traded to Mr. Haley for mortgage forgiveness. This character ties a lock of hair around his neck from a girl he had saved from drowning while traveling to (\*) New Orleans; that girl is Eva St. Clare. This character dies in George Shelby’s arms after Simon Legree orders him beaten. For 10 points, name this slave whose “Cabin” titles a Harriet Beecher Stowe novel.**

ANSWER: Uncle **Tom** <Ganon Evans>/<ed. WG>

6. During this war, the bandit El Sordo and his men are slaughtered after their horses leave snow tracks. For 10 points each:

[10] Name this war, during which Robert Jordan sacrifices his life to destroy a bridge with hand grenade-triggered dynamite in the novel *For Whom the Bell Tolls*.

ANSWER: **Spanish Civil War** [or Guerra **Civil Española**]

[10] This author reported on the Spanish Civil War for the North American Newspaper Alliance, which provided material for his novel *For Whom the Bell Tolls*. This author also wrote of the “great DiMaggio” and the fisherman Santiago in *The Old Man and the Sea*.

ANSWER: Ernest **Hemingway**

[10] One of these things is frequently used to describe Hemingway’s “theory of omission” of writing which involves simplifying speech down to its basics and leaving more room to reader interpretation.

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

**7. This man negotiated a treaty with Emiliano Chamorro to create a canal through Nicaragua. Early in his political career, this man ran a newspaper called the World-Herald. In one speech, this politician stated “we need Andrew Jackson to stand” and mentions a (\*) “crown of thorns.” This man resigned as Secretary of State after the sinking of the Lusitania, and died six days after he won a case against Clarence Darrow in the Scopes Trial. This man gave his most famous oration in Omaha advocating for free silver. The “Cross of Gold” speech was given by, for 10 points, what Populist Democrat?**

ANSWER: William Jennings **Bryan** <Shohom Chakraborty>/<ed. GE>

7. Johnny Inkslinger accompanies this figure and uses up nine barrels of ink a day recording his logging achievements. For 10 points each:

[10] Name this legendary lumberjack. This figure created Minnesota’s 10,000 Lakes by wandering around with a pet he encountered during the Winter of Blue Snow named Babe the Blue Ox.

ANSWER: Paul **Bunyan**

[10] The dragging of Paul Bunyan’s axe allegedly created this natural landmark. In Hopi mythology, the keeper of death Maasaw resides in this natural landmark, as does the Bigfoot-esque Mogollon Monster.

ANSWER: **Grand Canyon** [or **Ongtupqa**; accept **Wika’ila** or **Bidáá’ Ha’azt’i’ Tsékooh**]

[10] In Paul Bunyan’s camp, Ole the Blacksmith created a massive griddle for the cooking of this food. Fifty men would strap pork rinds to their feet and skate across the griddle to grease it up for when Sourdough Sam cooked this food.

ANSWER: **pancakes** [accept **flapjacks**] <Ganon Evans>/<ed. EC>

**8. A plot to murder this ruler was uncovered in the High Treason Incident. Followers of this ruler adopted the phrase “enrich the country and strengthen the military.” This ruler lifted a ban on Hanafuda playing cards, leading Fusajiro Yamaguchi to produce them. Early in his rule, this ruler abolished the Han system and divided his country into prefectures. This ruler put down the (\*) Satsuma Rebellion, and had the goal of his reign laid out in the Charter Oath. This ruler took power in 1868 after the fall of the Tokugawa shogunate. For 10 points, name this emperor who oversaw a namesake period of rapid modernization in Japan.**

ANSWER: Emperor **Meiji** <Lalit Maharjan>/<ed. GE>

8. This philosopher developed the idea of felicific calculus in an attempt to quantify how much happiness or pain would be received from an action. For 10 points each:

[10] Name this philosopher who developed the “greatest happiness principle.” This thinker’s panopticon is a prison in which prisoners never know if they are being watched or not from a single guard tower.

ANSWER: Jeremy **Bentham**

[10] Bentham and his tutee John Stuart Mill were members of this philosophical school that sought “the greatest good for the greatest number of people.”

ANSWER: **Utilitarianism**

[10] Inspired by Bentham, this philosopher wrote that animals’ suffering was no less than human suffering in his book *Animal Liberation*. This Australian bioethicist’s 2009 book *The Life You Can Save* argues all disposable income should be given to charity.

ANSWER: Peter **Singer** <Aditya Sivakumar>/<ed. GE>

*Note to players: description acceptable*

**9. One of these people relays a story about how he fought a three-headed giant after encountering an Elf Queen, but is stopped when Harry Baily cries “For God's sake, no more of this.” One of these people describes how three Flemish boys poisoned each other while trying to kill Death, and another of these people tells of a (\*) knight who is sent to discover “what women desire most.” The Host offers a free meal at the Tabard Inn for whoever wins a storytelling competition amongst these people. Sir Thopas, the Pardoner, and the Wife of Bath are three of, for 10 points, what group of people traveling to the title shrine of a Geoffrey Chaucer collection?**

ANSWER: the **characters** from the **Canterbury Tales** [both underlined parts required, prompt on **characters** alone with “From what work?”; accept the **pilgrims**, **storytellers**, **travellers**, **villagers**, or any synonym for **characters** from the **Canterbury Tales**; accept **knight**s before “no more of this”, anti-prompt on a specific character by asking “what group do they belong to?”] <Ganon Evans>/<ed. WG>

9. One compound of this color replaced the expensive lapis lazuli based paints used in artworks at the time. For 10 points each:

[10] Name this color whose Prussian variety is a complex ion that consists of six cyanide ions bonded to an iron ion. This color is given to nitrogen in ball and stick chemistry models.

ANSWER: **blue** [accept Prussian **blue**]

[10] Prussian blue has six ligands, meaning it will adopt this geometry.

ANSWER: **octahedral**

[10] Complex ions contain these types of bonds. These are two center covalent bonds where both electrons come from one of the atoms.

ANSWER: **coordinate** covalent bond [or **dative** bond] <Michael Eng>/<ed. SC>

**10. After Loki stole Freya's prized necklace Brisingamen, this god battled him in the form of a seal to retrieve the necklace. Gullintanni is an alternate name for this god meaning "one with the golden teeth." This god owns the sword Hofund meaning "Head" as well as the horse Gulltopr. (\*)** Nine mothers gave birth to this god, who is considered the "whitest" of the Aesir. This god will blow on Gjallarhorn to signal the coming of Ragnarok. For 10 points, name this god who uses his sharp senses to guard the rainbow bridge Bifrost into Asgard.

ANSWER: **Heimdall** [accept **Heimdallr** or **Rig**; accept **Gullintanni** before read] <Lalit Maharjan>/<ed. EC>

10. This language family's dialects of Eastern Aztec and Michoacán [*"meek-hwua-caan"*] replaced the common *tl* single consonant with just *t* and *l* consonants respectively. For 10 points each:

[10] Name this language family, the origin of the English loan words of coyote, tomato, and chocolate. This language family's 1.6 million speakers mostly reside in Central Mexico.

ANSWER: **Nahuatl** [accept **Nahuat** or **Nahual**; accept **Uto-Aztecan**; prompt on **Aztec**]

[10] In Mesoamerica, the Mayan language family includes K'iche [*"key-chay"*], which is primarily spoken in this country, home to the ancient Mayan ruins at Tikal.

ANSWER: **Guatemala**

[10] Other Mayan cities such as Chichen Itza can be accessed from the modern city of Cancún on this Mexican peninsula, also home to the Chicxulub [*"cheek-who-lube"*] Crater of dinosaur extinction theory fame.

ANSWER: **Yucatán** Peninsula <Ganon Evans>/<ed. AD>

**11. This element is purified in laser based separation techniques such as SILEX and MLIS though it is most commonly done by gas centrifugation of this element's hexafluoride. Armor plating can be constructed from a depleted form of this element. The powder formed in the intermediate step of processing ores of this element is called (\*) yellowcake.** Neutrons produced from reactions of plutonium or this element are absorbed by control rods. This element's 235 isotope is naturally fissile, making it useful in nuclear reactors. For 10 points, name this radioactive element with chemical symbol U.

ANSWER: **uranium** [accept **U** before mention] <Lalit Maharjan>/<ed. SC>

11. A negative example of one of these economic phenomena is the pollution associated with opening a new factory. For 10 points each:

[10] These things are the side effects of industrial or commercial activity that are not reflected in the cost of the good or service.

ANSWER: **externality** [or **externalities**]

[10] This theorem dictates that in a market with externalities, individuals will undergo private bargaining on their own without the need for government intervention.

ANSWER: **Coase** theorem

[10] A market with a positive externality will have under allocated resources, meaning that this point is below socially optimal. When a market is in this state, there are no pressures acting on the price or quantity of a good.

ANSWER: market **equilibrium** [accept **equilibrium** point] <Michael Eng>/<ed. AD>

**12. One album by this musician included chants from the *Bhagavad Gita* and *The Tibetan Book of the Dead*, featured Pharoah Sanders, and was titled *Om*. Other religiously-inspired works by this man include an album with parts “Psalm” and “Acknowledgement.” During a piano solo, Tommy Flanagan struggled to keep up with this man’s namesake (\*) changes, which are present in “Mr. P.C.” and “Naima,” tracks off his album *Giant Steps*. For 10 points, name this jazz saxophonist of the albums *Blue Train* and *A Love Supreme*, known for his “sheets of sound” improvisational style.**

ANSWER: John **Coltrane** <Eric Chang>

12. One artist from this country was inspired by Henry Fielding to paint *The Gin Lane* and also a portrait of David Garrick posing as King Richard III. For 10 points each:

[10] Name this country where many of William Hogarth’s works are contained within the National Gallery alongside royal portraits of Queen Elizabeth II.

ANSWER: Great **Britain** [accept **United Kingdom** or the **U.K.**; accept **England**]

[10] This satirical series of paintings by William Hogarth includes paintings such as *The Toilette* and *The Tête à Tête*. Despite its similar moral sentiment, it was not as well-received as *A Rake’s Progress*.

ANSWER: **Marriage A-la-Mode**

[10] Hogarth made a self portrait with this animal, which he describes as containing an S-shaped line of beauty. Other National Gallery paintings with this animal portrayed include Gainsborough’s *Mr and Mrs Andrews* as well as *The Arnolfini Wedding*.

ANSWER: **dogs** [accept **pug**] <Shohom Chakraborty>/<ed. EC>

**13. Charles VII successfully besieged English occupiers held up in this specific location, which the mysterious “Man in the Iron Mask” died in. The July Column now stands at this location commemorating a revolt that overthrew the Bourbon king Charles X. The Marquis de Sade was left this location during a riot sparked by but the dismissal of Jacques (\*) Necker as finance minister. This location’s commander Bernard-Rene de Launay was dragged out of it when its seven inmates were freed on July 14, 1789. For 10 points, name this fortress that was stormed at the beginning of the French Revolution.**

ANSWER: **Bastille** [accept **Bastille Day**] <Lalit Maharjan>

13. In 1654, this woman abdicated her throne to become a Catholic and was taken in by Pope Alexander VII. For 10 points each:

[10] Name this woman, who attracted scholars like Blaise Pascal and Menasseh ben Israel to turn her capital into the “Athens of the North.” Rene Descartes died while a tutor in this woman’s court.

ANSWER: Queen **Kristina** Vasa

[10] Kristina was the daughter of this “Lion of the North,” who led Protestant forces to victory at the Battle of Breitenfeld. Because of thick smoke, this leader accidentally died at the Thirty Years’ War Battle of Leutzen.

ANSWER: **Gustavus Adolphus** Vasa [accept **Gustav II** Adolf Vasa; prompt on **Gustavus**]

[10] Both Kristina and Gustavus Adolphus were monarchs of this Scandinavian country, who lost the Great Northern War after being defeated by Peter the Great at Poltava. The Kalmar Union consisted of this country, Norway, and Denmark.

ANSWER: Kingdom of **Sweden** [accept the **Swedish** Empire] <Ganon Evans>

**14. It’s not in Saudia Arabia, but Abraham’s near sacrifice of Isaac is presumed to have occurred in this location. One Yom Kippur prayer ends with the L’shanah Haba’ah, meaning “Next Year in” this city. One structure in this city was originally built on Mount Moriah, and contained the Holy of Holies and the (\*) Ark of the Covenant. Remains in this city are sometimes called the Western Wall or Wailing Wall, and are located on the Temple Mount. For 10 points, name this city that is sometimes referred to as Zion, holy to many Abrahamic religions and the disputed Israeli capital.**

ANSWER: **Jerusalem** [anti prompt on **Temple Mount**] <Religion> <Vishal Kanigicherla>/<ed. KP>

14. The Gershgorin circle theorem provides a bound for these values. For 10 points each:

[10] Identify these scalars, commonly denoted as lambda, which provide a solution to the equation “ $A v$  equals lambda  $v$ ,” where  $v$  is an eigenvector.

ANSWER: **eigenvalues**

[10] The QR algorithm for computing eigenvalues decomposes one of these structures using the Gram-Schmidt process. These structures are rectangular arrays of numbers with columns and rows.

ANSWER: **matrix** [or **matrices**]

[10] The Gram-Schmidt process is used to introduce this property and normality to a set of vectors and it creates a matrix with this property and an upper triangular in the QR algorithm.

ANSWER: **orthogonality** [accept **orthonormality**] <Stefan Calin>/<ed. SC>

**15. In a 1998 film, this character repeatedly tries to revive his petrified companion, prompting an antagonist to realize “it is what you do with the gift of life that matters.” After a miming creature tells this character to “shove it,” he jumps at it only to hit an actual invisible wall. In that 2019 film, this character works with Tim Goodman to find his father and stop a plan to fuse (\*) humans with another species in Ryme City. Mewtwo helps this character’s owner swap bodies with him after a car accident. For 10 points, Ryan Reynolds voices what detective and partner of Ash Ketchum in Pokémon?**

ANSWER: **Pikachu** [accept *Detective* **Pikachu**] <Lalit Maharjan>/<ed. SP>



15. In 1352, Ibn Battuta recorded how mosques and houses in the mining town of Taghaza were built from blocks of this substance. For 10 points each:

[10] Name this substance, which along with gold, was the main export of the Wagadu and Mali trade empires. The value of this substance increased one hundredfold when it was shipped into the rainforests of Africa.

ANSWER: salt [accept sodium chloride]

[10] The spread of camels outside of Arabia allowed for Muslim merchants to ship salt and gold across this massive desert of North Africa. Kanem Bornu was the largest source of slaves around Lake Chad in this desert.

ANSWER: Sahara Desert

[10] During the 70 day journey across the Sahara, many merchants would stop at the abandoned oases of the Garamantes civilization in Fezzan, an ancient region of this modern day country along with Cyrenaica.

ANSWER: Libya <Ganon Evans>

**16. The NAACP sued this state after over 100,000 inactive voters were deemed ineligible by Secretary of State Brad Raffensperger. A dashcam captured Greg and Travis McMichael shooting a resident of this state over allegedly trespassing in construction housing. Erika Shields, the police chief of this state's largest city, resigned after (\*) Rayshard Brooks was shot in a Wendy's parking lot in this state. While jogging in this state, Ahmaud Arbery was shot in February 2020. For 10 points, name this state where Stacey Abrams has criticized Governor Brian Kemp for voter suppression in Atlanta.**

ANSWER: Georgia <Ganon Evans>/<ed. AD>

16. This play includes the sections "Millennium Approaches" and "Perestroika," and its main character is visited by the ghost of Ethel Rosenberg. For 10 points each:

[10] Name this Tony Kushner play in which Roy Cohn is told "the Great work begins" while dying.

ANSWER: Angels in America: A Gay Fantasia on National Themes

[10] Angels in America is set during the 1980's epidemic of this disease. *San Francisco Chronicle* writer Randy Shilts' book *And the Band Played On* chronicles the early discovery and reaction to this disease.

ANSWER: AIDS [or Acquired Immune Deficiency Syndrome; or HIV/AIDS; prompt on HIV or Human Immunodeficiency Virus]

[10] This author argued that society's sidelining of homosexuals and drug users exacerbated the AIDS crisis in her book *AIDS and its Metaphors*. This author described a "love of the unnatural: of artifice and exaggeration" in her "Notes on 'Camp.'"

ANSWER: Susan Sontag <Lalit Maharjan/GE>/<ed. WG>

**17. It's not by Joan Miro, but a work by this artist features a ladder floating in the sky between the Pedernal Mountains and a half moon. During her later career, this artist of *Ladder to the Moon* also painted a large work depicting her observation of clouds while flying in an airplane called (\*) *Sky Above Clouds IV*. This artist contributed to the Precisionism movement in her portrayal of the *Radiator Building* illuminated by its windows in the dark New York night. For 10 points, name this artist known for featuring themes of flowers and animal skulls in much of her works.**

ANSWER: Georgia O'Keeffe <Annie Lin>/<ed. EC>

17. A deficiency of and sensitivity to this hormone can cause diabetes insipidus which results in frequent urination. For 10 points each:

[10] Name this hormone, released by the posterior pituitary gland to help the kidneys reabsorb water.

ANSWER: **antidiuretic hormone** [or **ADH**; accept arginine **vasopressin** or **AVP**]

[10] When vasopressin is present in the blood, aquaporins are inserted into the cells of the collecting ducts in these functional units of the kidney.

ANSWER: **nephron**

[10] Vasopressin's effects are often directly countered by atrial natriuretic peptide which prevents reabsorption of this element in the nephrons. This element has the symbol Na.

ANSWER: **sodium** <Aditya Sivakumar>/<ed. SC>

**18. Statues of a holder of this title used iris to represent her eye loss from ophthalmic infection. A woman of this position funded voyages that brought frankincense and myrrh from the land of Punt, and later had her statues and monuments damaged by her son. Another woman with this position supposedly presented herself in a rolled up carpet to (\*) Julius Caesar, and was the last of the Ptolemaic dynasty. That woman with this position killed herself after losing the battle of Actium with her lover Mark Antony. For 10 points, name this position held by Hatsephut and Cleopatra as ruler of ancient Egypt.**

ANSWER: **pharaoh** [prompt on queen; prompt on ruler or ruler of Egypt before mentioned, prompt on king even though all the clues refer to women] <Lalit Maharjan>/<ed. GE>

18. The *gong kebyar* variety of this ensemble performs on the five tone *pelog* scale and features interlocking rhythms called *kotekan*. For 10 points each:

[10] Name this gong-heavy ensemble common in Java and Bali. Music from this ensemble frequently accompanies shadow puppet theater shows.

ANSWER: **gamelan**

[10] Performers on the island of Sunda mimic the sound of a pigeon using a *suling*, which is a bamboo one of these instruments in a gamelan ensemble. This reedless woodwind is larger than a piccolo.

ANSWER: **flute** [prompt on pipes]

[10] This composer incorporated gamelan rhythms into his piano composition *Gnossiennes* ["no-see-en"]. A set of piano compositions by this composer evoke Greek athletes exercising and are his *Gymnopédies*.

ANSWER: Erik **Satie** <Ganon Evans>/<ed. KP>

**19. In a parody of this poem, its writer is described telling a girl that "things are bad / All over, etc., etc." with a geographical feature "crumbling away behind them." That work by Anthony Hecht parodies this poem's declaration "Ah, love, let us be true / To one another!" In *Fahrenheit 451*, Guy Montag reads this poem to Mildred that describes how (\*) "Sophocles long ago / Heard it on the Aegean" and opens with the line "the sea is calm tonight." For 10 points, name this poem that ends by describing "where ignorant armies clash by night" written by Matthew Arnold.**

ANSWER: "**Dover Beach**" [accept "**Dover Bitch**" until "*Fahrenheit 451*" is read] <Eric Chang>/<ed. WG>

19. An Academy Award winning film adaption of a novel by this author is centered around the title thief who doesn't realize a baby is in the backseat of a car he steals. For 10 points each:

[10] Name this author of *Tsotsi*, who opened another work with Sam and Willie practicing their ballroom dance for a major competition before discussing various men "of magnitude."

ANSWER: Athol **Fugard** or [Harold Athold Lannigan **Fugard**]

[10] Fugard's "*Master Harold*"...*and the Boys* is set in this country. Stephen Kumalo travels to Johannesburg in Alan Paton's *Cry, the Beloved Country*, which is set in this country.

ANSWER: **South Africa**

[10] This other South African author's novels includes *The Conservationist* and *Burger's Daughter*. A woman runs towards a helicopter at the end of this author's novel *July's People*.

ANSWER: Nadine **Gordimer** <Eric Chang>/<ed. WG>

**20. This condition is characterized by an increase in PDGF ["P-D-G-F"] and loss of E-cadherin. Knudsen's two hit hypothesis associates one type of this disease with loss of heterozygosity and mutation in Rb ["R-B"]. Li-Fraumeni syndrome greatly increases the chance of this condition because of a mutation in the (\*) p53 gene. A triple negative form of this condition lacks estrogen, progesterone, and HER2 ["HER-two"] receptors. Mutations in genes controlling apoptosis are present in this condition, which causes the spread of cells via lymphatics or blood in metastasis. For 10 points, name this disease characterized by malicious tumors.**

ANSWER: **cancer** [accept **retinoblastoma**; accept breast **cancer**] <Bo Chi>/<ed. SC>

20. Captain Robert F. Stockton's attempt to impress his guests quite literally backfired. For 10 points each:

[10] Name this 1844 event where six high-ranking federal officials, including two cabinet members, were killed when the large rail gun Peacemaker exploded on a navy warship.

ANSWER: *USS **Princeton*** explosion [accept clear equivalents mentioning the *USS **Princeton***]

[10] This tenth president of the United States was luckily several decks below when the explosion occurred. Whigs nicknamed this president "His Ascendency" after he succeeded William Henry Harrison.

ANSWER: John **Tyler**

[10] The Peacemaker was being fired as part of a salute to Mount Vernon, the historic home of this first President of the United States.

ANSWER: George **Washington** <Lalit Maharjan>/<ed. GE>