## 2019 Wayzata Academic Invitational Tournament

Written by Ashwin Halepet, Amogh Kulkarni, Brian Lin, Bryanna Shao, Cece Shao, and Ben Weiner Head edited by Carsten Gehring, with Rob Carson, Geoffrey Chen, Tora Husar, Joe Kammann, and Brian Sachs

Packet 10

## **Tossups**

- 1. A cricket tournament held from 1993 to 2001 between teams representing each British country had this name. Had Fernando Alonso won the Indianapolis 500 in 2019, he would have become the second driver to accomplish this in motorsport after Graham Hill. A Grand Slam is achieved by winning the (\*) Breeders' Cup and also completing the best known feat of this name. In 2012, Miguel Cabrera achieved a feat of this name in baseball, the first since 1967. For 10 points, name this feat completed by Justify in 2018 that occurs when the same horse wins the Kentucky Derby, Preakness Stakes, and Belmont Stakes. ANWER: triple crown [accept Triple Crown of Thoroughbred Racing; accept Triple Crown Tournament; accept Triple Crown of Motorsport] <BW> Ed. JK
- 2. In his youth, this leader partied in the German Quarter, where he met Patrick Gordon and Franz Lefort, who later became his close advisers. After the end of the regency of his sister Sophia, this man apprenticed at a Dutch East India Company shipyard in Amsterdam. This ruler was called the Antichrist by the Old (\*) Believers, who were shocked when this leader personally shaved off the facial hair of some nobles as part of his beard tax. For 10 points, name this ruler whose Grand Embassy around Europe inspired him to push for modernizing reforms, a "great" Russian tsar.

  ANSWER: Peter the Great [or Peter I; or Pyotr I Alexeyvich; prompt on "Peter"; prompt on "Pyotr"; prompt on "Sergeant Pyotr Mikhaylov"] <BL> Ed. TH
- 3. This man names a phenomenon in which a charged particle is repeatedly reflected in a magnetic mirror. This man was the first to hypothesize that the weak force is responsible for beta decay, a theory known as his "interaction." Along with Dirac, this man names the statistics that govern the behavior of (\*) particles with half-integer spin; those particles obey the Pauli exclusion principle and are named for this scientist. For 10 points, name this Italian American scientist who built Chicago Pile No. 1, the first chain-reaction nuclear reactor.

ANSWER: Enrico <u>Fermi</u> [or <u>Fermi</u> acceleration; or <u>Fermi</u> interaction; or <u>Fermi</u>-Dirac statistics; or <u>fermions</u>] <BW> Ed. GC

4. This politician is facing a 2020 challenge from Jamaican immigrant Scherie Murray, who has accused this politician of seeking "celebrity and publicity." This politician, who proposed restricting rent increases as part of the "A Just Society" legislation, unseated (\*) Joe Crowley in 2018. During freshman orientation, this politician participated in a Sunrise Movement sit-in outside Nancy Pelosi's office and raised support for her Green New Deal. For 10 points, name this member of "The Squad," a 30 year-old Democratic representative from New York.

ANSWER: Alexandria Ocasio-Cortez [or AOC; do not accept or prompt on partial answer] <BL> Ed. BS

5. In this country, four girls claimed to see apparitions of the Virgin Mary and Saint Michael at Garabandal. During Holy Week in this country, wooden statues of New Testament figures are paraded in the streets. A religious tradition in this country involves following a trail marked by scallop insignias to honor this country's patron saint; that tradition involves believers following a 100-kilometer trail that ends at the burial site of Saint (\*) James the Greater in Santiago de Compostela. For 10 points, name this predominantly Roman Catholic country that is home to the archdioceses of Seville and Barcelona.

ANSWER: Kingdom of **Spain** [or Reino de **España**] <BL> Ed. JK

- 6. In this novella, a note on a woodpile is signed illegibly and warns, "Hurry up. Approach cautiously." The main character of this novella is fascinated by a painting of a blindfolded woman carrying a torch. After waiting a month for a shipment of rivets, the main character of this novella discovers a hut surrounded by (\*) staked heads. After a character in this novella dies, that character's fiancée is told that his last words were her name, though his last words were actually "The horror! The horror!" Charles Marlow meets Kurtz in the Congo in, for 10 points, what novella by Joseph Conrad? ANSWER: Heart of Darkness <CS> Ed. JK
- 7. He's not Rodin [roe-don], but this artist depicted two rectangular prism-shaped figures embracing in his version of *The Kiss*. This man responded to controversy over one of his works by arguing that it represented the vain love of mirrors of its subject, Marie Bonaparte; that work by this artist was the phallic (\*) *Princess X*. Marcel Duchamp [doo-SHOM] defended this artist's works when they were classified in the same category as kitchen utensils and taxed by US customs; those abstract works by this artist showed an idealized animal in flight. For 10 points, name this modernist Romanian sculptor of *Bird in Space*.

ANSWER: Constantin Brancusi [bruhn-COOSH] <BL> Ed. TH

8. A form of this technique in which molecules are filtered through a gel is commonly used to determine polymer dispersity and is called the "size-exclusion" form of this technique. The analyte in this technique is removed in a process called elution. Pumps move a highly pressurized liquid in the (\*) "high performance" type of this technique. A glass plate coated with a silica gel stationary phase is used in the "thin layer" form of this technique. For 10 points, name this laboratory technique used to separate molecules by polarity.

ANSWER: <a href="mailto:chromatography">chromatography</a>, high-performance liquid <a href="mailto:chromatography">chromatography</a>, or thin layer <a href="mailto:chromatography">chromatography</a>, prompt on "<a href="mailto:HPLC"</a> or "<a href="mailto:TLC"</a>] <a href="mailto:kBW> Ed. GC">SW> Ed. GC</a>

- 9. The thematic apperception test is used to assess this concept. The Exner system is used to score a test of this concept. This concept is divided into five axes in the "Big Five" model. A test for this concept uses the four basic psychological functions theorized by Carl Jung [young] and returns such results as (\*) ESTJ and INFP. The Rorschach test is used as a projective test of this concept. For 10 points, what concept is tested for by the Myers-Briggs Type Indicator, which measures extroversion and introversion? ANSWER: personality <BS> Ed. GC
- 10. In a novel set in this country, a jar containing Goon Tse Ying's finger is owned by Herbert Badgery. In another novel from this country, Mr. Judd is a guest at Belle Radclyffe's garden party for the unveiling of a statue. *Illywhacker* is set in this country, as is another novel in which (\*) Laura loves the title German explorer, Voss. In this country, an Anglican priest and an heiress meet on a ship before making a bet about moving a glass church in the novel *Oscar and Lucinda*. For 10 points, name this home country of Patrick White and Peter Carey, the setting of outback literature.

  ANSWER: Australia <CS> Ed. JK
- 11. This is the lowest region in which the sign of the lapse rate is negative. Nacreous clouds form in this region at the North and South Poles. The concentration of a molecule found in this region is measured in Dobson units. Like a higher region, due to the absorption of solar ultraviolet radiation, (\*) temperature increases in this region with altitude. A gas found in this region is depleted by chlorofluorocarbons and shields Earth from ultraviolet radiation. The ozone layer is in, for 10 points, what layer of the atmosphere between the troposphere and mesosphere?

  ANSWER: stratosphere [prompt on "ozone layer"] <BW> Ed. GC

12. This dynasty faced the Tumu [too-moo] Crisis when Mongol tribes captured Emperor Yingzong, and the last emperor of this dynasty, Chongzhen, hanged himself on a tree after rebels approached the capital. This dynasty came to power during the Red Turban Rebellion after the Hongwu Emperor won the Battle of Lake Poyang. During this dynasty, the Yongle Emperor began construction of the (\*) Forbidden City and ordered several naval expeditions led by Zheng He. This dynasty's Xuande [shuanduh] Era saw innovations in porcelain production. For 10 points, name this Chinese dynasty that was succeeded by the Qing.

ANSWER: Ming Dynasty [or Da Ming Chao; accept Great Ming Empire] <BL> Ed. TH

- 13. This composer depicted a traveler who bids his lover good night while departing in the first entry in a composition that concludes with a piece about a hurdy-gurdy player. He replaced a violin with a double bass in the ensemble of a chamber piece whose fourth movement is a set of variations on his song "Die (\*) Forelle" [dee for-ELL-uh]. This composer's *Winterreise* [VIN-ter-rye-zuh] is one of the first song cycles. "Erlkönig" [AIRL-kur-nig] and "Death and the Maiden" are among the hundreds of *lieder* [leader], or art songs, by, for 10 points, what composer of the *Trout* Quintet and the *Unfinished* Symphony? ANSWER: Franz Schubert <BS> Ed. RC
- 14. In this play, a character who is going to argue a case in front of the Supreme Court tells the protagonist that his son burned sneakers with the words "University of Virginia" written on them. At Frank's Chop House, a character in this play tells his brother about the theft of a fountain pen. In this play, (\*) Linda is told to stop mending stockings, and she finds a rubber hose in the cellar. A character in this play travels to Boston after failing math class; that character in this play, Biff, cries when he sees his father with The Woman. For 10 points, name this play about Willy Loman, written by Arthur Miller. ANSWER: *Death of a Salesman* <BS> Ed. JK
- 15. The formation of a 7-alpha-hydroxylated derivative of this molecule is the rate limiting step of bile acid synthesis. HMG-CoA [Co-A] reductase inhibitors are used to prevent the synthesis of this molecule by the mevalonate pathway. Statins are drugs that reduce levels of this molecule. The formation of (\*) plaques by this molecule in blood vessels can cause atherosclerosis. This molecule stabilizes the fluidity of the cell membrane. For 10 points, name this molecule whole high-density lipoprotein form is known as the "good" type as opposed to its low-density "bad" type.

  ANSWER: cholesterol <AH> Ed. GC
- 16. An emperor supposedly created one of these objects in Baiae to defy a prediction made by the astrologer Thrasyllus. One of these structures named for Trajan was built by Apollodorus of Damascus near the Iron Gates. Suetonius wrote that Caligula rode his horse across a temporary one of these objects made of (\*) pontoons, and one of these objects collapsed during a retreat of Maxentius's troops. Constantine adopted the chi-rho symbol because of a vision before a battle named for the "Milvian" one of these objects. For 10 points, name these constructs that cross over bodies of water. ANSWER: bridges [accept Battle of Milvian Bridge] < AK> Ed. TH
- 17. This author wrote a letter beginning, "Suffering is one very long moment," which was addressed to Bosie. This author wrote a novel in which the sailor James seeks vengeance on the protagonist for the death of his sister, a Shakespearean actress who calls her lover (\*) "Prince Charming." The title object of that novel by this author of *De Profundis* is made by Basil Hallward. In a play by this author, Jack Worthing and Algernon Moncrieff both pretend to have the same name. For 10 points, name this author of *The Picture of Dorian Gray* and *The Importance of Being Earnest*.

  ANSWER: Oscar Wilde <BS> Ed. JK

18. In this city, the Richard Rodgers-designed Leadenhall Building is known as "the Cheesegrater" due to its wedge shape. Cecil Balmond and Anish Kapoor created a tower surrounded by a red lattice for an Olympic Games in this city. In addition to the ArcelorMittal Orbit Tower, this city is home to skyscrapers known as (\*) the Gherkin and the tallest building in the European Union, the Shard. After a fire burned down a church in this city, a replacement was designed by Christopher Wren. For 10 points, name this city, the site of St. Paul's Cathedral and Queen Elizabeth Olympic Park.

ANSWER: London <CS> Ed. JK

19. Charles Ogle lambasted the "sweet sandy whiskers" of a president in a speech named for this resource. A 16-to-1 ratio for this resource and a cheaper one that was adopted in 1792 was used as a watermark for the presidential campaign poster of a Nebraska politician. That politician decried pressing (\*) "down upon the brow of labor" a "crown of thorns" in a speech criticizing a standard based only on this resource. For 10 points, William Jennings Bryan criticized the standard of what precious metal, whose discovery was the cause of a California "rush"?

ANSWER: gold [accept Gold Spoon Oration; accept Cross of Gold Speech] <AK> Ed. TH

20. In a myth from this place, a fire goddess's presence at a sledding contest results in the peak of this place's tallest mountain getting covered with snow. A figure in this place's myth system used his sister's hair to lasso the sun and force it to grant long summer days and short winter days. A god from this place whose name means "hog man" flees to the ocean when he thinks his lover is consumed by (\*) lava. A trickster son of Hina pulled up the islands of this place with his magical fish hook. For 10 points, Maui gives his name to an island from which US state?

ANSWER: <u>Hawaii</u>an Islands [accept specific Hawaiian islands like <u>Oahu</u>, <u>Maui</u>, etc; accept <u>Polynesia</u>; prompt on <u>Pacific</u> islands with "what specific island group?"] <AH> Ed. TH

<u>Tiebreaker</u>: The coats of these structures are formed by two integuments, which themselves are formed from the testa and the segment. A triploid tissue found in these structures is formed through double fertilization. The number of leaves in these structures differentiates (\*) monocots and eudicots. Endosperm is nutrient-rich tissue found in these structures. Gibberellins promote the germination of these structures. For 10 points, name these plant embryos surrounded by a protective coating. ANSWER: seeds <BW> Ed. GC

## **Bonuses**

1. James Barron fought a duel with Stephen Decatur after Decatur criticized Barron's participation in this event. For 10 points each:

[10] Name this 1807 event in which a British warship attacked an American frigate and impressed American sailors off the coast of Virginia.

ANSWER: USS *Chesapeake*-HMS *Leopard* affair [prompt on partial answers]

[10] This president claimed that "never since the Battle of Lexington have I seen this country in such a state of exasperation" after the *Chesapeake-Leopard* affair, which occurred during this third president's tenure.

ANSWER: Thomas **Jefferson** 

[10] In response to the *Chesapeake-Leopard* Affair, Jefferson passed this legislation to disincentivize further impressment. This act was mocked in a political cartoon that features a snapping turtle and a man yelling, "Oh! this cursed Ograbme."

ANSWER: Embargo Act of 1807 < AK > Ed. TH

2. This religion was popularized by Gerald Gardner in 1954 and is duotheistic. For 10 points each:

[10] Name this neopagan religion whose members gather in covens.

ANSWER: Wiccan [prompt on "witchcraft"]

[10] This symbol is popular among Wiccans. This symbol can represent either the elements or the human body and has been used in Christianity to represent the wounds of Christ.

ANSWER: **pentagram** [accept **pentangle**; accept **pentalpha**]

[10] Along with the Moon Goddess, Wicca people worship a god with this physical characteristic, who is associated with wilderness.

ANSWER: **horned** [accept clear equivalents] <AH> Ed. JK

3. The ballet *Cinderella* unusually has the male dancers who play the ugly stepsisters perform this technique for comedic purposes. For 10 points each:

[10] Name this technique used by female dancers for a weightless effect. The namesake shoes used in this technique are made from a shank and box, which allows dancers to balance on the tips on their toes.

ANSWER: en pointe

[10] One of the most difficult skills for ballerinas is this type of "whipped" turn that is performed en pointe. The lead ballerina performs 32 of these specific turns during the codas of many ballets.

ANSWER: **fouetté**s [fwee-tay]

[10] Preparatory work for fouettés, such as building the strength to hold one's leg at 90 degrees, is done with the help of this horizontal support structure found in ballet classrooms. Warm-up exercises like pliés [plee-ays] are done with one or both hands resting on this structure.

ANSWER: barre <CS> Ed. TH

4. In this work, the "Feast of the Family" is held in honor of family. For 10 points each:

[10] Name this work that takes place on the mythical island of Bensalem. Characters in this work include the governor of the House of Strangers and Joabin the Jew.

ANSWER: The New Atlantis

[10] This philosophical author of *The New Atlantis* also penned the *Novum Organum* and *The Advancement of Learning*.

ANSWER: Sir Francis Bacon, 1st Viscount St. Albans

[10] Francis Bacon's Novum Organum proposes a "method" for this discipline.

ANSWER: science [or scientific method] Ed. GC

5. This disease is divided into community-acquired and hospital-acquired forms. For 10 points each:

[10] Name this disease that causes the inflammation of alveoli.

ANSWER: pneumonia

[10] A common causative agent of pneumonia is the pneumoniae member of this gram-positive genus of spherical bacteria. A different species in this genus causes a namesake disease characterized by a sore throat.

ANSWER: <u>Streptococcus</u> [accept <u>Streptococcus</u> pneumoniae; prompt on "strep" or "strep throat"]

[10] Another type of bacterial pneumonia is this disease caused by a bacterium that contaminates water tanks and is passed through air-conditioning. This disease is named after its location of first appearance, which was a 1976 outbreak in Philadelphia, Pennsylvania.

ANSWER: Legionnaire disease [or Legionnaires' disease; or Legionella pneumophila] <AH> Ed. GC

6. A colorized version of this show's Christmas episode first aired in 2013, attracting an audience of 8.7 million. For 10 points each:

[10] Name this 1950s sitcom starring Lucille Ball. A famous scene depicts the title character attempting to wrap chocolates as they quickly move by on a conveyor belt.

ANSWER: I Love Lucy

[10] Lucille Ball's real-life pregnancy was written into the show; however, CBS insisted that the word "pregnant" not be spoken on television, forcing the show to use this word instead.

ANSWER: expecting [or spectin']

[10] This Cuban American actor starred opposite Ball as Ricky Ricardo and was married to her in real life throughout the show's run. He and Ball later divorced within a year of the show's completion.

ANSWER: Desi Arnaz [or Desiderio Alberto Arnaz y de Acha III] <BW> Ed. JK

7. This type of musical composition opens with a section called the exposition, in which one voice states the subject and is then "answered" by other voices. For 10 points each:

[10] Name this type of work that uses imitative counterpoint in a less strict fashion than the similar canon. Fourteen of them appear in an unfinished work published in 1751 titled for the "art" of them.

ANSWER: **fugue** [accept *The Art of Fugue* or *Die Kunst der Fuge*]

[10] *The Art of Fugue* is by this Baroque composer, who also wrote a spooky D minor piece for organ that pairs a toccata and a fugue.

ANSWER: Johann Sebastian Bach [or J. S. Bach]

[10] Bach included two ricercars [REE-chur-CARS], an early type of fugue, in this collection of works based on a theme given to him by the Prussian king Frederick the Great.

ANSWER: The Musical Offering [or Musikalisches Opfer or Das Musikalische Opfer] <CS> Ed. RC

8. This god was worshipped in Faiyum, which was later renamed Crocodilopolis in his honor. For 10 points each:

[10] Name this Egyptian crocodile god who invented fishing nets. This god retrieved the hands of Horus after Isis cut them off and threw them into a river.

ANSWER: Sobek [or Sebek; or Sochet; or Sobki; or Suchos]

[10] The "House of the Crocodile" at a temple at Kom Ombo is dedicated to Sobek, this goddess, and their son, Khonsu. Sekhmet transformed into this cow goddess when she was given some blood-red beer. ANSWER: **Hathor** 

[10] Sobek is sometimes associated with Ra, the Egyptian god of this object. Every night, Ra travels on a boat representing this object that carries him east, where this object rises every morning.

ANSWER: sun <BS> Ed. TH

9. For a dipole, this quantity falls off with the third power of distance. For 10 points each:

[10] Name this vector field whose strength is measured in newtons per coulomb.

ANSWER: **electric** field [or **E**-field]

[10] The electric field through a surface can be calculated using Gauss's law, which states that the electric flux through a surface is equal to the enclosed charge divided by this quantity.

ANSWER: **permittivity of free space** [or **vacuum permittivity**; accept **epsilon-naught**; prompt on "epsilon"; prompt on "permittivity"]

[10] Gauss's law is one of the four fundamental equations of electromagnetism named after this Scottish scientist.

ANSWER: James Clerk Maxwell < BW > Ed. GC

10. This man led the first expedition to navigate the Northwest Passage by boat from 1903 to 1906. For 10 points each:

[10] Name this Norwegian man who led the first expedition to the South Pole in 1911 and later visited the North Pole in 1926.

ANSWER: Roald Engelbregt Gravning **Amundsen** 

[10] By reaching the South Pole first in 1911, Amundsen traveled the farthest inland into this continent in the southern hemisphere.

ANSWER: Antarctica

[10] Amundsen beat this British explorer and leader of the *Discovery* and *Nimrod* expeditions to the South Pole. He also led an expedition whose ship, the *Endurance*, became trapped in ice off the Antarctic coast. ANSWER: Sir Ernest Henry **Shackleton** <BW> Ed. TH

11. The title of this painting is drawn from John Keats's poem "O Solitude!," which celebrates "nature's observatory." For 10 points each:

[10] Name this painting in which William Cullen Bryant stands with an artist on a ledge in the Catskill Mountains. It was painted by Asher Durand.

ANSWER: Kindred Spirits

[10] *Kindred Spirits* was gifted to Bryant after he delivered a eulogy for Thomas Cole, the founder of this American art school. Artists from this movement painted landscapes of American scenery like Niagara Falls and the valley of this movement's namesake river.

ANSWER: **Hudson** River School

[10] Cole painted this four-part allegorical series whose last painting, *Old Age*, shows an old man on a golden boat looking up toward an angel who points toward the heavens.

ANSWER: The Voyage of Life <BS> Ed. TH

12. This poem is the subject of J. R. R. Tolkien's "The Monsters and the Critics." For 10 points each:

[10] Name this Old English epic in which the title character helps Hrothgar defend his mead hall Heorot. ANSWER: *Beowulf* 

[10] This character kills Aeschere [ash-HAIR-uh], causing Beowulf to fight her with the sword Hrunting. This character's son was killed by Beowulf when the son's arm was ripped off.

ANSWER: **Grendel's mother** [do not accept or prompt on "Grendel"]

[10] This Irish writer translated *Beowulf*. His poem "Digging" appears in his collection *Death of a Naturalist*.

ANSWER: Seamus **Heaney** <BS> Ed. JK

13. For 10 points each, answer the following about computer scientists.

[10] This man's work helped crack the code of the Enigma machine, and his namesake test gives a guideline for how convincing an AI can be.

ANSWER: Alan Mathison Turing

[10] This woman names a different AI test and is considered the first computer programmer, having worked with Charles Babbage's Analytical Engine.

ANSWER: Augusta Ada King, Countess of **Lovelace** [or Ada **Lovelace**]

[10] This computer scientist created an algorithm that fails on graphs with negative edge weights, unlike the Bellman-Ford algorithm. He also introduced the concept of semaphores.

ANSWER: Edsger Wybe <u>Dijkstra</u> [deek-struh] <AH> Ed. GC

14. These people were known as neodamodes when freed. For 10 points each:

[10] Name these ancient slaves of a certain Greek city-state. These people aided the Messenians in the Third Messenian War.

ANSWER: <u>helot</u>s [or <u>heilot</u>es; prompt on "<u>servants</u>" or "<u>slaves</u>"]

[10] The helots were the slaves of this militaristic Greek city-state, which was defeated by Thebes at the Battle of Leuctra. This city-state was rumored to abandon weak babies on Mount Taygetus.

ANSWER: **Sparta** [accept **Lacedaemon** or **Lakedaimōn**]

[10] To determine their mettle, Spartan babies would be bathed in this substance. At symposia, the leader of the symposium would decide how much to dilute this drink, and partygoers would wear myrtle garlands to ward off symptoms from this drink.

ANSWER: wine [prompt on "alcohol"] <AK> Ed. TH

15. This state's nicknames include the "Yellowhammer State." For 10 points each:

[10] Name this southern state whose capital is Montgomery and largest city is Birmingham.

ANSWER: Alabama

[10] This city in southern Alabama was founded as the capital of French Louisiana. This third-most-populous city in Alabama is the largest city on the Gulf of Mexico between New Orleans and Florida. ANSWER: **Mobile** 

[10] This national forest is located in the northeast of Alabama. It is near a city of the same name that is home to a superspeedway with the longest oval in NASCAR, allowing for the highest top speeds.

ANSWER: Talladega National Forest <BW> Ed. BS

16. This type of animal partially titles a book about the childhood of a girl named Maya. For 10 points each:

[10] Name this type of animal. In a poem named for this type of animal, it "sings with a fearful trill of things unknown" and is contrasted with a free animal that "leaps on the back of the wind" and "dares to claim the sky."

ANSWER: caged bird [accept "I Know Why the Caged Bird Sings"; prompt on "bird"]

[10] This African American poet of "I Know Why the Caged Bird Sings" declared, "You may trod me in the very dirt, but still, like dust, I'll rise," in another poem.

ANSWER: Maya Angelou

[10] Angelou read her poem "On the Pulse of Morning" at one of these events. Robert Frost recited, "The land was ours before we were the land's," at one of these events when reading his poem "The Gift Outright."

ANSWER: presidential inauguration [prompt on "inauguration"] <CS> Ed. JK

- 17. Marcia and Robert Ascher discovered that the information on these devices was often numeric and used a base-10 system. For 10 points each:
- [10] Name these devices that were made of string and were commonly used for keeping census records or for monitoring taxes. The information on these devices was stored using knots.

ANSWER: **quipu**s [kee-poo] [or **khipu**s; or **talking knot**s]

[10] Quipus were prominently used by this civilization, whose final ruler, Atahualpa, was killed by Francisco Pizarro.

ANSWER: Incan Empire [or Tawantinsuyu]

[10] The Inca used quipus to record inventory in their *qollqa* [kol-kuh] storehouses, many of which were found on the outer limits of this Incan capital. This city's Coricancha was a massive temple honoring the sun god Inti and other important deities.

ANSWER: Cuzco [or Cusco] <AK> Ed. TH

- 18. This play ends with characters arguing whether a scene is a "pretense" or "reality," and the Director complains that he has "lost a whole day." For 10 points each:
- [10] Name this Italian metatheatrical play that describes an acting rehearsal interrupted by several strangers. In this play, the Father, claiming to have forgotten the Stepdaughter's identity, tries to seduce her.

ANSWER: <u>Six Characters in Search of an Author</u> [or <u>Sei personaggi in cerca d'autore</u>]

[10] This playwright wrote *Six Characters in Search of an Author*. Prior to the arrival of the six characters in that play, the acting company is rehearsing this author's fictional play *Mixing It Up*.

ANSWER: Luigi **Pirandello** 

[10] In *Six Characters in Search of an Author*, the Boy shoots himself after seeing the Child die in this specific manner. In *The Mill on the Floss*, Maggie and Tom Tulliver die in this manner.

ANSWER: drowning [accept equivalents; prompt on "dying in a flood"] <BL> Ed. JK

- 19. Scales used to measure this quantity include one created by Linus Pauling. For 10 points each:
- [10] Name this quantity that describes the tendency of an atom to attract an electron. Fluorine traditionally holds the highest value for it on the periodic table.

ANSWER: electronegativity

[10] Robert Mulliken's values for electronegativity are the average of first ionization energy and this other quantity. It is defined as the amount of energy released when adding an electron to a neutral gaseous atom.

ANSWER: electron affinity

[10] This element has an electron affinity of 349 kilojoules per mole, making it the highest of any element. ANSWER: <a href="mailto:chlorine">chlorine</a> [or <a href="mailto:cll">CI</a>] <BW> Ed. GC

- 20. In this play, Sir Andrew laments, "I was adored once too." For 10 points each:
- [10] Name this Shakespeare comedy in which Viola cross-dresses as Cesario, only to be sought after by Olivia.

ANSWER: Twelfth Night, or What You Will

[10] Viola eventually ends up marrying this man. He begins the play by stating, "If music be the food of love, play on."

ANSWER: Duke Orsino

[10] *Twelfth Night* ends with a song that includes the line "hey, ho, the wind and the rain" sung by Feste, who has this profession. Other Shakespearean characters with this profession include Touchstone and Trinculo.

ANSWER: jester [accept fool or clown] <BW> Ed. JK