

## ACF Fall 2018

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Packet by Georgia A, Binghamton, and Michigan State D

### Tossups

1. This location's "Fence of Shame" was torn down by high schoolers during a 1964 riot that is now commemorated on Martyrs' Day. Georges Clemenceau and Gustave Eiffel were implicated in a late 19th-century scandal involving Ferdinand de Lesseps' ["less-SAY'S"] attempt to build a project at this location. Walter Reed's research on yellow fever was used to lower death rates at this location during an undertaking that was enabled by the Hay-Bunau-Varilla treaty. This location was released from American control in 1999 under the terms of the Carter-Torrijos ["tor-REE-hos"] treaty. For 10 points, name this waterway that bisects North America and South America.

ANSWER: the **Panama** Canal [or the **Panama** Canal Zone or the Isthmus of **Panama**]

2. A group of realist artists from this country refused to take an exam in the "revolt of the fourteen." Clement Greenberg's most famous essay contrasts Picasso's "avant-garde" *Woman with a Fan* with the "kitsch" of an artist from this country, who painted *They Did Not Expect Him*. In another painting by that artist, a group of soldiers from this country laugh as they write a letter to Sultan Mehmed IV. *Black Square* and *Red Square* were painted by an artist from this country who used the term "New Realism" to describe his art movement, Suprematism. *Barge Haulers on the Volga* was painted in, for 10 points, what country where Ilya Repin painted Ivan the Terrible clutching his dead son?

ANSWER: **Russia** [or the **USSR**; or the **Soviet Union**]

3. The night before one of these events, a man writes a poem asking "whither have ye winged your way, ye golden days of my young spring?" Vladimir Nabokov's translation of a work describes a man "secretly laughing" at one of these events as he approaches "the moment of revenge." A man earlier compared to Childe Harold arrives late at one of these events that is described in alternating masculine and feminine rhymes. Zaretsky tries to dissuade the title character from participating in one of these events that was caused by his flirting with Olga. Eugene Onegin kills Lensky in, for 10 points, what kind of honorable gunfight?

ANSWER: **duels** [accept word forms; prompt on fight]

4. Replacing a hydrogen in levodopa with a radioactive isotope of this element helps localize adrenal gland tumors in PET ["pet"] scans. Six atoms of this element are found in a compound that is used as a flux for the refining of bauxite called cryolite. Carbon forms its strongest single covalent bond with this element. Non-stick coatings often have a polymer with carbon and this element known as PTFE. Compounds of carbon, chlorine, and this element were banned by the Montreal Protocol due to contributing to ozone depletion. With a value of 3.94 on the Pauling scale, this element has the greatest electronegativity. For 10 points, name this lightest halogen.

ANSWER: **fluorine** [or **F**]

5. One of these creatures lives in a "cottage cheese cottage" in the Marmalade Forest, where he befriends an Albanian boy and learns not to be racist. King John the Presbyter sits on a throne made out of these creatures' bones in Tad Williams' *Memory, Sorrow and Thorn* trilogy. In another series, three of these creatures are kidnapped by Pyat Pree and imprisoned in the House of the Undying. Fighting alongside a Dothraki horde, one of these creatures decimates the combined Tully and Lannister armies at the Battle of the Goldroad. For 10 points, name these flying creatures that are ridden by Daenerys Targaryen in *Game of Thrones*.

ANSWER: **dragons** [the first clue refers to “Albi the Racist **Dragon**” by Flight of the Conchords]

6. This opera’s overture opens with two foreboding D-minor chords played by every instrument except the trombones. The 22nd of Beethoven’s *Diabelli Variations* parodies this opera’s opening aria, in which a character complains how “night and day [he slaves] away” for his master. The protagonist of this opera serenades Zerlina in the aria ““Là ci darem la mano.” In its last scene, the ghost of Il Commendatore shows up at the protagonist’s house to accept his dinner invitation. During this opera’s “Catalogue Aria,” Leporello tells Donna Elvira that his master has seduced 1003 women in Spain alone. For 10 points, name this Mozart opera about a womanizer who is dragged to hell.

ANSWER: ***Don Giovanni***

7. The genome of this species has been studied extensively by the Swedish biologist Svante Pääbo, who coined the term “leaky replacement” to explain its disappearance. The *mother* of an individual nicknamed “Denny” belonged to this species, which interbred with the closely-related Denisovan group. A 2013 biomechanical analysis of this species’s anatomy suggested that, contrary to previous belief, its hyoid bones did not preclude spoken language. The early modern Cro-Magnons eventually superseded these hominids. For 10 points, a German valley lends its name to what prominent browed archaic humans?

ANSWER: **Neanderthals** [or *Homo sapiens neanderthalensis*; prompt on *Homo sapiens*]

8. The protagonist of this novel is told to “ask for Wild Bob” if he’s ever in Cody, Wyoming. When a man in this novel asks “Why me?” his guard responds “Vy anybody?” This novel contains a drawing of a tombstone with the inscription “Everything was beautiful and nothing hurt.” Recurring motifs in this novel include a bird singing “poo-tee-weet” and the statement “so it goes.” The protagonist of this novel is imprisoned with Montana Wildhack in a Tralfamadorian zoo after surviving the firebombing of Dresden. For 10 points, Billy Pilgrim becomes “unstuck in time” in what Kurt Vonnegut novel?

ANSWER: ***Slaughterhouse-Five*** or *The Children’s Crusade: A Duty-Dance with Death*

9. A song traditionally sung on this holiday is structured as a memory game where the line “who knows one” increases to “who knows two” and so on until the singers count to 13. The chorus of another song associated with this holiday repeats a word that means “it would have been enough,” “Dayenu.” A child asks “why is this night different from all other nights?” in the first of this holiday’s Four Questions. Because chametz foods are forbidden during this holiday, worshippers usually eat an unleavened bread called matzah. For 10 points, name this Jewish holiday that commemorates the Exodus from Egypt.

ANSWER: **Passover** [or **Pesach**; or **Pesah**; prompt on *seder* by asking, “What holiday is that a part of?”]

10. This man had his cousin Tiberius Gemellus executed on the pretense of a conspiracy involving cough medicine. Jealousy of a purple cloak may have prompted this ruler to assassinate Ptolemy of Mauretania and annex his state. To spite the late soothsayer Thrasyllus of Mendes, this man constructed a three-mile pontoon bridge to ride his horse across the Bay of Baiae [“BYE-ay”]. After this man was assassinated, the Praetorian Guard supposedly looked behind a curtain for his successor, Claudius. This son of the popular general Germanicus allegedly attempted to appoint his horse Incitatus as consul. For 10 points, name this Roman emperor known by a nickname meaning “little boot.”

ANSWER: **Caligula**

11. In quantum mechanics, the reflection and transmission coefficients are computed by taking the ratios of instances of the “probability” type of this quantity. This quantity is largest near the surface of a conductor due to the skin effect. According to a continuity equation, the rate of change of the charge density is proportional to the divergence of this quantity’s density, which is symbolized  $J$ . The magnetic field generated by this quantity is given by the Biot–Savart Law. This quantity, which multiplies voltage to get power, is equal to voltage divided by resistance according to Ohm’s Law. For 10 points, name this quantity equal to the rate of flow of electric charge and measured in amperes.

ANSWER: **current** [or **I**; accept “**flux**” before conductor is read, but do not accept or prompt on it afterwards]

12. A text by this philosopher states that belief in the Absolute Mind permits a “moral holiday,” and offers contrasting “pluralistic” and “monistic” interpretations of Walt Whitman’s “To You.” Another work by this thinker presents the title concept as a “mediating philosophy” between tough-minded and tender-minded philosophers. This philosopher used the term “cash value” to describe practical reasons for holding certain beliefs. With Charles Peirce [“PURSE”], this man developed a branch of philosophy he called “A New Name for Some Old Ways of Thinking.” For 10 points, name this American philosopher of “The Will to Believe” and *Pragmatism*.

ANSWER: William **James**

13. A 2017 novel by an author from this country contrasts the architect Tilo with the transgender woman Anjum, who is forced to move into a graveyard. In a short story, two immigrants from this country “weep for the things they now knew” after a power outage forces them to discuss their stillborn child. This home of the author of *The Ministry of Utmost Happiness* is the setting of a novel in which the Orangedrink Lemondrink man abuses a boy during a showing of *The Sound of Music*. The incestuous twins Estha and Rahel live in this country in *The God of Small Things*. For 10 points, name this home country of Kiran Desai and Arundhati Roy.

ANSWER: **India** [the short story described in the second line is Jhumpa Lahiri’s “A Temporary Matter”]

14. It didn’t occur in Russia, but this event was the subject of an international relief effort led by Fridtjof Nansen and Vidkun Quisling. The planners of this event were assassinated by Dashnak in Operation Nemesis. During this event, the inhabitants of Musa Dagh withstood a fifty-three-day siege. This event was authorized by the Tehcir Law and began on Red Sunday. The victims of this event were forced to march through the Syrian Desert to Deis-ez-Zor. Discussion of this event is a prosecutable offense under Article 301 of the Turkish Penal Code. For 10 points, name this event in which a Christian minority was systematically exterminated by the Ottomans.

ANSWER: the **Armenian Genocide** [or the **Armenian Holocaust**; prompt on World War I]

15. This thinker’s concept of a psychosocial moratorium, in which adolescents freely experiment to find their place, influenced psychologist James Marcia. Virtues are contrasted with maladaptations and malignancies in his best-known theory, which he described as the epigenetic principle. This thinker is credited with pioneering the field of psychohistory in books like *Gandhi’s Truth* and *Young Man Luther*. He theorized that geriatrics either find integrity or despair, whereas adolescents struggle between identity and role confusion. The term “identity crisis” was introduced by, for 10 points, what psychologist who developed an eight-stage model of psychosocial development?

ANSWER: Erik **Erikson**

16. A.C. Bradley's assertion that this character has a dead son was mocked by L.C. Knights in an essay titled for this character. One of this character's monologues is the source of the expression "milk of human kindness." This character urges a man to "screw [his] courage to the sticking place," and admits that she would have "dash'd the brains out" of an infant in order to keep a promise. While sleepwalking, this character tries to wash her hands and mutters "out, damned spot!" She encourages the Thane of Cawdor to murder and overthrow King Duncan. For 10 points, name this woman who becomes Queen of Scotland in a William Shakespeare play.

ANSWER: **Lady Macbeth** [accept **Macbeth** until the end of the first sentence, do not accept or prompt afterward]

17. During the festival of Toxcatl, a human sacrifice would play one of these musical instruments while dressed as Tezcatlipoca. This instrument is associated with a hunchbacked trickster god who uses his detachable phallus to impregnate women. Kokopelli is usually depicted holding one of these instruments, as is Marsyas, who was flayed for claiming he could play this instrument better than Apollo played his lyre. This instrument is associated with a god who chased Syrinx until she turned into a reed, which he then used to build one of these instruments. For 10 points, name this wind instrument played by the satyr Pan.

ANSWER: **flutes** [or **reed flutes** or **pan flutes** or **pan pipes** or **aulos**]

18. Jamb statues depicting kings and queens are carved into the entrance of one of these buildings. Two of these buildings are contrasted in a Henry Adams book subtitled *A Study of Thirteenth-Century Unity*. The name of the Rayonnant style derives from the use of stone tracery to construct "radiating" windows for these buildings. These buildings were divided into sections like the ambulatory, the transept, and the nave. Flying buttresses allowed these buildings to accommodate large, intricate stained-glass windows. For 10 points, tall spires and pointed arches are characteristic of the Gothic style used to construct what buildings, such as Chartres and Notre-Dame?

ANSWER: Gothic **cathedrals** [or **chapels**; or **churches**]

19. The order of a finite field is always one of these numbers raised to a positive integer. The Green-Tao theorem states that arbitrarily long arithmetic sequences can be found in the sequence containing these numbers. For any integer  $a$  and one of these numbers  $n$ ,  $a$  to the  $n$  is congruent to  $a$  modulo  $n$  by Fermat's little theorem. The Goldbach conjecture claims that any even number greater than two can be expressed as the sum of two of these numbers. According to the fundamental theorem of arithmetic, any integer greater than 1 can be expressed as a product of these numbers. For 10 points, name these numbers whose only divisors are one and themselves.

ANSWER: **prime** numbers [or **primes**]

20. According to legend, the leader of a Native American tribe from this state rejected a treaty proposal by stabbing it with a knife. Two British citizens, Robert Ambrister and James Arbuthnot, were executed for arming this state's Indians. Billy Bowlegs was shot under a flag of truce in this state after he refused to sign the Treaty of Payne's Landing. The territory that became this state was ceded to the United States in the Adams-Onis Treaty. Under Osceola, a tribe waged a guerilla war by hiding out in this state's swampy Everglades region. For 10 points, name this state where the US fought three wars with the Seminoles.

ANSWER: **Florida**

Tiebreaker. This country's top general resigned after a housewife named Alejandrina Cox goaded him into shooting her car. This country built a national network of telex machines to manage its economy under Project Cybersyn. This country, which received a shipment of weapons in the Cuban Packages scandal, angered American mining companies by nationalizing the El Teniente copper mine. The "Caravan of Death" murdered dissidents in this country after the head of the Popular Unity Party shot himself in La Moneda Palace. For 10 points, name this country where Salvador Allende was overthrown by Augusto Pinochet.

ANSWER: **Chile**

## Bonuses

1. A work in this genre describes onions as “a joy to women.” For 10 points each:

[10] Name this genre of over ninety works collected in the Exeter Book. A work in this genre named for Leiden begins with the line: “The wet ground, incredibly cold, first produced me from its innards.”

ANSWER: **riddles**

[10] The Exeter Book riddles were written in this medieval language. Other works written in this language include the *Dream of the Rood* and *Beowulf*.

ANSWER: **Old English** [prompt on English; do not accept or prompt on Middle English]

[10] Most Old English poems, including *Beowulf* and the Exeter riddles, use this poetic device in lieu of rhyme. Like sibilance, this literary technique is a special form of consonance.

ANSWER: **alliteration**

2. This man was the last survivor of the Nephites. For 10 points each:

[10] Name this prophet who abridged the Book of Ether [EE-ther]. This prophet shares his name with a captain of the Nephites who raised a banner called the “title of liberty” to rally his people.

ANSWER: **Moroni** [or Captain **Moroni**]

[10] Moroni’s writings are found in this religious text that includes writings from Enos and Nephi. Moroni supposedly buried the first version of this religious text on Cumorah Hill in New York.

ANSWER: ***Book of Mormon***

[10] This founder of Mormonism used “seer stones” to translate the *Book of Mormon* into English. Brigham Young took over leadership of the Mormon Church after this man’s death.

ANSWER: Joseph **Smith** Jr.

3. This property was first posited to explain the unusually long lifespan of the lambda baryon. For 10 points each:

[10] Name this quantum number proposed by Gell-Mann and Keiss. This property, which is conserved by the strong and electromagnetic interactions but not the weak interaction, is symbolized S.

ANSWER: **strangeness**

[10] Strangeness also names a flavor of one of these elementary particles, three of which make up hadrons. These particles have fractional charges and come in flavors such as up, down, and charm.

ANSWER: **quarks**

[10] Strangeness production is a common technique for identifying certain forms of a plasma formed by quarks and these other particles. These particles mediate the strong force between quarks.

ANSWER: **gluons**

4. Children who spoke this language in school were whipped with a stick called “the Not.” For 10 points each:

[10] Name this language that David Lloyd George spoke at home as a child. Plaid Cymru (“PLIED CUM-ree”) advocates preserving this language by teaching it in schools.

ANSWER: **Welsh**

[10] Wales underwent this process after a 1997 referendum, which enabled the creation of a Welsh Assembly separate from Parliament. Through this process, Scotland and Northern Ireland have been granted independent legislatures while still retaining their seats in Parliament.

ANSWER: **devolution** [accept word forms like **devolving**; accept **devo** max; accept maximum **devolution**; do not accept or prompt on “federalism”]

[10] In 2016, 52% of Welsh voters supported the Brexit campaign, which has initiated Great Britain’s departure from this continental organization.

ANSWER: **European Union** [or **EU**]

5. In response to an 1846 whaling scene by this artist, the *Almanack of the Month* made a caricature of him using a mop and bucket to paint. For 10 points each:

[10] Name this “Painter of Light” whose landscapes were championed by John Ruskin. He lends his name to the U.K.’s foremost contemporary art prize, which has controversially been awarded to Tracey Emin and Damien Hirst.

ANSWER: Joseph Mallord William **Turner**

[10] A Turner painting depicts *The Fighting Temeraire* about to be “broken up” after this battle. Edwin Landseer sculpted 4 lions surrounding a monument in the center of a square named for this battle in London.

ANSWER: Battle of **Trafalgar**

[10] In his will, Turner gifted the National Gallery two paintings on the condition they were hung next to two landscapes by this French Baroque artist. This man’s *Embarkation of the Queen of Sheba* inspired Turner’s *Dido Building Carthage*.

ANSWER: Claude **Lorrain**

6. Lisander is cursed to the “hell of impotence” in this writer’s poem “The Disappointment.” For 10 points each:

[10] Name this Restoration-era female author of *Oroonoko*. In her play *The Rover*, Willmore falls in love with the convent-bound Hellena.

ANSWER: Aphra **Behn**

[10] Aphra Behn’s translation of the *Heroides* was included in this writer’s collection of Ovid’s epistles. This author of *Absalom and Achitophel* mocked the “true blue Protestant poet” Thomas Shadwell in *Mac Flecknoe*.

ANSWER: John **Dryden**

[10] Some scholars contend that Behn’s novel *Oroonoko: A Royal Slave* argues for this social cause. Harriet Beecher Stowe argued for this cause in her Civil War era novel *Uncle Tom’s Cabin*.

ANSWER: **abolition** of slavery [or **abolitionism**; accept descriptive answers like **ending slavery** or **ending the slave trade**]

7. This book argues that democratic governance is inherently a form of slavery in its section “The Tale of the Slave.” For 10 points each:

[10] Name this work of political philosophy that critiques hedonism and utilitarianism with the experience machine thought experiment. This book uses the Wilt Chamberlain argument to refute the difference principle.

ANSWER: ***Anarchy, State, and Utopia***

[10] Robert Nozick’s *Anarchy, State, and Utopia* was written as a rebuttal to a John Rawls book titled *A Theory* of this concept. Rawls used a social contract argument to create a theory equating this concept with fairness.

ANSWER: **justice** [or ***A Theory of Justice***]

[10] Another Nozick work, *Philosophical Explanations*, argues for a four-part “tracking” theory of this concept. Plato defined this concept as “justified true belief.”

ANSWER: **knowledge**

8. These proteins can be described by the “lock and key” model, which explains how they can be subject to competitive inhibition. For 10 points each:

[10] Name these biological catalysts, examples of which include lactase and helicase.

ANSWER: **enzymes**

[10] The lock and key model competes with this other model of enzyme-substrate activity, which posits that the active site of an enzyme will change shape to accommodate the correct substrate.

ANSWER: **induced-fit** model

[10] An enzyme subject to competitive inhibition will have the same maximum rate of catalysis as an uninhibited enzyme according to this model of kinetics, which can be visualized with a Lineweaver-Burk plot.

ANSWER: **Michaelis-Menten** kinetics [or **Michaelis-Menten** model]

9. A polity ruled by members of this ethnic group stationed tax-collecting *basqaqs* in cities like Vladimir. For 10 points each:

[10] Name this ethnic group whose Golden Horde extracted tribute from Russia for over two hundred years.

ANSWER: **Mongols** [or **Tatars**]

[10] Ivan III, a Grand Prince of this city, freed Russians from the “Tatar Yoke” of the Golden Horde at the Great Stand on the Ugra River. Ivan invited Italian architects to renovate Russia’s most famous kremlin in this city, its capital.

ANSWER: **Moscow** [or **Muscovy**]

[10] Ivan the Terrible constructed St. Basil’s Cathedral in Moscow to commemorate the capture of this city, the capital of a splinter khanate of the Golden Horde.

ANSWER: **Kazan**

10. A piece by this composer was intended to serve as the overture to a choral setting of poems by Joseph Autran. For 10 points each:

[10] Name this composer of *Les préludes* and inventor of the “symphonic poem” genre. This composer’s travels through Switzerland and Italy were depicted in his piece *Années de pèlerinage* [“ah-NEE deh peh-luh-ree-nagh”]

ANSWER: Franz **Liszt**

[10] Liszt was born in this country and wrote a set of 19 piano pieces called this country’s *Rhapsodies*.

ANSWER: **Hungary** [or **Magyarország**; accept **Hungarian**]

[10] This collection of three piano pieces by Liszt adapts poems by Ludwig Uhland and Ferdinand Freiligrath. The third piece in this set opens with right hand arpeggios over the melody [READ SLOWLY]: C–C–C [pause], short-C–C, short-C–D-flat, short-C–C, low-F.

ANSWER: **Liebesträume** [or **Love Dream** or **Dreams of Love**]

11. Before entering this location, the speaker notes “As new trees are renewed when they bring forth new boughs, I was pure and prepared to climb unto the stars.” For 10 points each:

[10] Name this location where the protagonist travels through nine spheres to reach Empyrean, where he encounters a giant rose and witnesses St. Bernard make a prayer to Mary.

ANSWER: **paradise** [or **heaven**; or **Paradiso**]

[10] Beatrice leads Dante Alighieri through paradise because this man, his previous guide, was a “virtuous pagan” and cannot enter heaven. He wrote the *Aeneid*.

ANSWER: **Virgil** [or Publius **Vergilius** Maro]

[10] In Canto III of the *Inferno*, Virgil leads Dante through this structure, which is inscribed with the message “abandon all hope, ye who enter here.”

ANSWER: the **Gate of Hell** [prompt on descriptive answers like “the **entrance to Hell**”]

12. This desert's Nemegt Basin is nicknamed "Valley of the Dragons" due to the high number of dinosaur fossils discovered there. For 10 points each:

[10] Name this large Asian desert, located in northern China and southern Mongolia, where paleontologists have discovered many fossilized dinosaur eggs. According to legend, it is the home of an intestine-shaped "death worm."

ANSWER: **Gobi** Desert

[10] While the Mongolian death worm is, sadly, fictional, the endangered wild Bactrian species of this animal is in fact native to the Gobi.

ANSWER: **camel** [or wild Bactrian **camel**]

[10] This Russian explorer became the first westerner to observe the wild Bactrian camel on one of his many Central Asian expeditions. He also discovered horse and gazelle species native to Central Asia, both of which are now named for him.

ANSWER: Nikolay **Przhevalsky** [preh-shah-VAL-skee]

13. Josiah Whitney derided this man as an "ignoramus" and a "mere shepherd." For 10 points each:

[10] Name this Scottish-American whose advocacy in *The Century Magazine* helped lead to the creation of Yosemite National Park. This naturalist founded the Sierra Club.

ANSWER: John **Muir**

[10] Muir was a friend of this conservationist President who signed the Antiquities Act and established the U.S. Forest Service. This "Bull Moose" candidate challenged William Howard Taft for the presidency in 1912.

ANSWER: **Theodore Roosevelt** [or **TR**; or **Teddy Roosevelt**; prompt on **Roosevelt**]

[10] One cause of the Roosevelt's split from the Republican Party was Taft's firing of this U.S. Forest Service Chief. John Muir feuded with this conservationist over the damming of the Hetch Hetchy Valley.

ANSWER: Gifford **Pinchot**

14. As penitence for killing his wife and children, this man had to perform twelve labors in the service of King Eurystheus. For 10 points each:

[10] Name this ancient Greek hero who slew the Nemean Lion and captured Cerberus.

ANSWER: **Heracles** [or **Hercules**]

[10] During Heracles' fifth labor, he cleaned the stables of Augeas by diverting two of these things named Alpheus and Peneus. Achelous, the father of the Sirens, was a god of these geographical features.

ANSWER: **ivers** [or **streams**; prompt on bodies of **water**]

[10] Heracles defeated the river god Achelous in a wrestling contest for the hand of this woman. This wife of Heracles accidentally kills him by giving him Nessus' poisoned tunic.

ANSWER: **Deianira**

15. These galaxies are distinguished from elliptical and irregular galaxies. For 10 points each:

[10] The Milky Way is a "barred" example of what type of galaxy?

ANSWER: **spiral** galaxy [or barred **spiral** galaxy]

[10] This quantity is the power radiated by a galaxy or other astronomical object. The "solar" value of this quantity equals 3.828 times 10<sup>28</sup> watts.

ANSWER: **luminosity** [or solar **luminosity**]

[10] This relation named for two astronomers gives the angular velocity of a spiral galaxy in terms of its luminosity, and can therefore be used to calculate distances to astronomical bodies.

ANSWER: **Tully-Fisher** relation [prompt on **TFR**]



16. This character saves up money earned from working for a jeweller to buy a moving picture machine for his best friend. For 10 points each:

[10] Name this long time companion of Spiros Antonopoulos. After Antonopoulos is confined to an asylum, this man, who is both deaf and mute, visits him until he dies.

ANSWER: **John Singer** [accept either underlined part]

[10] John Singer appears in *The Heart is a Lonely Hunter*, a novel by this author of *The Ballad of the Sad Cafe*.

ANSWER: Carson **McCullers**

[10] Carson McCullers accused this writer of *To Kill a Mockingbird* of “poaching on [her] literary preserves.” Her only other novel, *Go Set a Watchman*, was controversially released in 2016.

ANSWER: Harper **Lee**

17. [Moderator note: *Make sure to read the lead-in to the following bonus (“Answer the following questions!”) forcefully, exaggerating the exclamation point.*]

Answer the following questions! For 10 points each:

[10] A sentence like “Answer the following questions!” has the imperative form of this grammatical feature, which also can be declarative or interrogative. It is often paired with tense and aspect.

ANSWER: **mood**

[10] This other mood is often used to express hypotheticals or wishes, as seen in the use of the verb “were” in the statement “I wish this question were over.”

ANSWER: **subjunctive** mood

[10] This family of languages, once merged with Baltic languages, largely lacks a subjunctive mood. It underwent a series of three “palatalizations,” and is divided into West, East, and South branches.

ANSWER: **Slavic** languages

18. In the poem “Silver Lining,” Carol Ann Duffy describes how the flight cancellations of this year enabled her to hear “the music silence summons, that Shakespeare heard.” For 10 points each:

[10] Name this year in which an eruption of Eyjafjallajökull [“AY-ah-FEE-ut-la-YEH-kee-tull”] volcano created a giant ash cloud over Europe, grounding all flights on the continent from late April to early May.

ANSWER: **2010**

[10] Eyjafjallajökull is located in the Suðurland region of this country. During the 2010 flight disruptions, many tourists were unable to fly out of Keflavik International Airport, which serves this country’s capital city, Reykjavik.

ANSWER: **Iceland**

[10] Due to the flight cancellations, many world leaders were unable to attend the 2010 funeral of Lech Kaczynski [“LEKH kuh-CHIN-skee”], the president of this country, who had died in a plane crash unrelated to the volcanic ash cloud.

ANSWER: **Poland**

19. Paul McCandless, founder of the jazz group Oregon, plays this instrument in addition to the clarinet and English horn. For 10 points each:

[10] Name this double-reed instrument. Classical orchestras tune to a middle A played by this instrument.

ANSWER: **oboe**

[10] Marshall Allen played oboe in “The Arkestra” of experimental artist Sun Ra, who played this instrument. Jazz fusion bandleader Herbie Hancock played the electric Rhodes variety of this instrument on his album *Head Hunters*.

ANSWER: **piano**

[10] Romeo Penque and Harold Feldman played oboe on this album, which features the Gil Evans-written tracks “Saeta” and “Solea,” as well as a jazz rendition of the Adagio movement of the *Concierto de Aranjuez*.

ANSWER: ***Sketches of Spain*** (by Miles Davis)

20. Types of this element named for Raney and Urishibara are used as catalysts. For 10 points each:

[10] Name this transition metal. In the Sabatier reaction, this element catalyzes the conversion of carbon dioxide to form methane.

ANSWER: **nickel** [or **Ni**]

[10] The nickel-catalyzed Sabatier reaction is an example of these kinds of reactions, which involve adding a namesake element. This kind of reaction can also be facilitated by a palladium-on-carbon catalyst.

ANSWER: **hydrogenations** [prompt on, but do not reveal, “reduction(s)”]

[10] The Mond process reacts impure nickel with this compound to create nickel carbonyl. This colorless, odorless gas contains two triply-bonded atoms and can be deadly to humans.

ANSWER: **carbon monoxide** [or **CO**]

Tiebreaker. A poem in this collection describes how a “Moving Finger writes, and, having writ, moves on.” For 10 points each:

[10] Name this set of Persian quatrains by Omar Khayyam. It was translated into English by Edward Fitzgerald.

ANSWER: ***Rubaiyat of Omar Khayyam***

[10] This Persian poet of the *Masnawi*, or *Spiritual Couplets*, frequently wrote about his love for his spiritual teacher, Shams-e-Tabrizi.

ANSWER: Jalaluddin **Rumi**

[10] In the best-known work of the Persian poet Farid ud-Din Attar, a *Conference* of these animals crosses seven valleys to visit the Simorgh. They aren’t snakes, but Sinbad the Sailor encounters a mythical one of these animals in a valley that is covered in diamonds.

ANSWER: **birds** [or **Roc**; accept more specific types of bird like **eagles**]

EXTRA

In 1843, William Rowan Hamilton carved the formula “ $i$  squared equals  $j$  squared equals  $k$  squared equals  $ijk$  equals  $-1$ ” onto Brougham Bridge. For 10 points each:

[10] That formula represents the relationships between what four-dimensional complex numbers?

ANSWER: **quaternions**

[10] In the multiplication of quaternions, the order of the multiplicands matters; thus, quaternion multiplication lacks this property.

ANSWER: **commutative** property [or **commutativity**]

[10] Because quaternion multiplication is not commutative, the multiplication group of the quaternions lacks this property named after a Norwegian mathematician.

ANSWER: **abelian** [or **abelian** group]

