**ACF Regionals 2018**

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**Packet by the Editors (1)**

Tossups

1. A composer who spent most of his adult life working in this modern-day country wrote a piece based on the words *lascia fare mi* (“LAH-shah FAH-reh MEE”) using the *soggetto cavato* (“so-JET-oh kah-VAH-toh”) technique. Another composer who worked in this country set many of his hundreds of poems, such as those from his collection *Remedy of Ill Fortune*, to music and wrote a double hocket titled “David.” While abroad, a composer who mostly worked in this country wrote a mass titled for “Duke Hercules,” referring to his patron Ercole d’Este (“AIR-ko-lay DESS-tay”). A song from this country, “The Armed Man,” is the *cantus firmus* for many masses. Styles called *ars antica* and *ars nova* flourished in a school named for one of this country’s churches. Noble courts in this country provided the main patronage of a loosely defined “school” of composers from Flanders. For 10 points, name this country home to the Notre Dame school.

ANSWER: **France** [or any historical incarnation of **France** e.g. Kingdom of **France** or Royaume de **France**; accept **Franco**-Flemish school]

<Music>

2. A group of houses nicknamed for their resemblance to these structures was designed by Polish architect Zvi Hecker after the Six-Day War in East Jerusalem’s Ramot Polin (“rah-MOAT po-LEEN”). Designs for these structures nicknamed “Kenyan” and “Tanzanian” place removable bars on their roofs from which their occupants can continue construction. Basic examples of these structures that incorporate overturned baskets are called *skep*s. Tombs in the Hellenic world known as *tholoi* are usually named for these structures in English. L. L. Langstroth’s design for these structures uses several removable frames. Special compartments in these structures store royal jelly. The builders of these structures are called *deseret* by Mormons, who use them to symbolize industry on the state seal of Utah. For 10 points, name these structures filled with hexagonal honeycombs.

ANSWER: bee**hive**s

<Other Academic>

3. These tools can be managed by meta-strategies such as Tabu search, which forbids them from returning to recently-visited areas of the state space. An *a priori* one of these tools is combined with an automatically-updating set of “pheromone” trails in ant colony optimization. The BLAST algorithm uses one of these tools to match a DNA sequence to a library of known sequences. These tools are called “admissible” if they never exceed the target value. An extension of Dijkstra’s (“DIKE-stra’s”) algorithm solves the single-pair shortest path problem by using one of these tools to estimate the remaining distance to the destination. Virus scanners detect characteristic behavior of previously unknown malware using these tools, which are also employed in the A-star search algorithm. For 10 points, name these tools that rapidly estimate an approximate solution to a problem.

ANSWER: **heuristic**s [or **heuristic** algorithms; prompt on approximate algorithms; prompt on algorithms]

<Other Science (Computer Science)>

4. A journey to one of these locations is explained through a parable in which a man encounters a river of water flowing north and a river of fire flowing south and crosses on a narrow white path. An inhabitant of one of these places is venerated in acts of worship directed towards a *gohonzon* (“go-hone-zone”). A simple criterion for entering these places is found in the Primal Vow, or 18th vow, found in a “longer” text on which Shandao authored a set of commentaries; Hōnen later proselytized (“PROSS-lit-tized”) that doctrine across Japan. Sukhavati (“SOO-kuh-VUH-tee”) is an example of these places where, according to some traditions, one may be reborn simply by performing *nembutsu*, or reciting the name of Amitabha (“ah-mee-TAH-buh”). For 10 points, name this kind of afterlife where a *bodhisattva* may live in some Mahayana traditions.

ANSWER: **Pure Land** [or **Pure Abode** or **Pure Realm** or **jìngtǔ** or **buddha-field** or **buddha-land** or **buddhakṣetra**; accept **Western Paradise**s; prompt on paradise or afterlife; do not accept or prompt on “underworld”]

<Religion>

5. *Two answers required*. These two countries cemented an alliance when one handed over an “Eastern Railway” beginning at the city of Chita to the other. These countries provided the main international backing for the opposing sides in the Ogaden War and the rival militant groups ZANU and ZAPU. The leader of one of these countries said the other engaged in “social imperialism” as part of his Three Worlds Theory. Border tensions between these countries were heightened by demands that one of them give back territories that were gained a century earlier under the Treaty of Aigun and other “unequal treaties,” as well as by Turkic separatism. Deteriorating relations between these countries worsened when Albania under Enver Hoxha (“HO-jah”) became a client of one of them in 1961, and culminated in their political “split” in the 1960s. For 10 points, what two Communist countries were led by Nikita Khrushchev and Mao Zedong?

ANSWER: **Soviet Union** AND People’s Republic of **China** [accept equivalents for either country such as **USSR** for “Soviet Union” and **PRC** for “China”; accept **Russia** for Soviet Union; do not accept or prompt on “Republic of China” for “China”]

<Other History>

6. These substances are tested in 96-well plates in the MIMIC (“mimic”) system. Plasmids containing transcription termination and polyadenylation signals derived from bovine growth hormone are designed to act as the “DNA” variety of this substance. A protein carrier covalently linked to the polysaccharide PRP makes up Hib (“hib”), an example of the “conjugate” variety of the “subunit” type of these substances. Aluminum salts are commonly added as “adjuvants” to augment the potency of “inactivated” examples of these substances, which are slightly safer than their “live attenuated” counterparts. An organomercury preservative called thiomersal was removed from one of these preparations known as TDaP (“T-dap”). For 10 points, name these preparations that confer immunity to diseases like hepatitis B and polio by presenting the body with weaker versions of their causative viruses.

ANSWER: **vaccine**s [or DNA **vaccine**s; or subunit **vaccine**s; or killed **vaccine**s; or inactivated **vaccine**s; or live **vaccine**s; or attenuated **vaccine**s; or **toxoid**s; or diptheria **vaccine**s; or tetanus **vaccine**s; anti-prompt (ask “can you be less specific?”) on TDaP, DTP, DPT, DTwP, DT, or TD]

<Biology>

7. The protagonist of a novel by this author calls her newborn daughter “a bomb to blow up smugness” at the climax of a speech that she delivers in frustration at the lukewarm response to her proposal for a Community Day. This author wrote that “every compulsion is put upon writers to become safe, polite, obedient, and sterile” in a letter declining the Pulitzer Prize for his novel whose protagonist travels around a Caribbean island, giving away a bacteriophage to cure an outbreak of the plague. This author raised early awareness for the civil rights movement with his novel about a banker based on NAACP leader Walter White, who discovers that he is one-sixty-fourth black. This author of *Kingsblood Royal* wrote a novel about Carol Kennicott’s efforts at reforming the town of Gopher Prairie. For 10 points, name this American author who popularized the term “Main Street” with his novel of that title.

ANSWER: Sinclair **Lewis**

<Long Fiction>

8. Historians interpret an inscription commemorating this man’s appointment as a juror as evidence that he, like Augustine, was born in Hippo. This writer described how an island became known as the “old goat’s garden” because a creepy old man there trained boys to crawl between his legs. His account of an expulsion of the Jews from Rome refers to their taking up the customs of “Chrestus,” who may be Christ. This man’s purported affair with Vibia Sabina led to his dismissal as Hadrian’s secretary. This historian’s major work records anecdotes such as a ruler declaring “Dear me, I think I am becoming a god” before his demise and how the builder of the Domus Aurea played the fiddle while Rome burned to the ground; that work mostly covers the 1st centuries BC and AD. For 10 points, name this Roman historian who collected twelve biographies of emperors in *The Lives of the Caesars*.

ANSWER: Gaius **Suetonius** Tranquillus

<Old Euro/NE History>

9. Alfred Kazin called this poem a “hymn to pure being” in the introduction to the “Portable” version of its author’s work. The first draft of this poem, which contained an extra stanza describing “horrid ribs” that “dare / steep / in the well of sanguine woe,” appears in Dante Gabriel Rossetti’s transcription of its author’s notebook. In *The Visionary Company*, Harold Bloom writes that the speaker of this poem becomes more sure of the answer as he asks each of its fourteen rhetorical questions, which include: “when thy heart began to beat, / What dread hand? & what dread feet?” and “what the hammer? What the chain? / In what furnace was thy brain?” Northrop Frye took the title of his study of this poem’s author from its rhyme-breaking lines: “What immortal hand or eye, / Could frame thy fearful symmetry?” For 10 points, name this poem about an animal “burning bright,” by William Blake.

ANSWER: “The **Tyger**”

<Non-Epic Poetry>

10. The Museum Plantin-Moretus contains an extensive portrait collection by this artist, who made prints for the publishing house that it now contains. This artist painted a near-identical copy of Titian’s *The Fall of Man* during a trip to Madrid and partially reproduced Leonardo da Vinci’s lost painting *The Battle of Anghiari* in a drawing at the Louvre. This artist’s contemporaries, like Frans Snyders and Jacob Jordaens (“YAH-cop yor-DANCE”), contributed animals and still-lifes to his paintings. This artist painted the figures in the allegorical *Five Senses* series while his frequent collaborator Jan Brueghel the Elder painted the detailed backgrounds. Anthony van Dyck studied at this artist’s studio in Antwerp, where this artist completed his *Descent from the Cross*. For 10 points, name this Flemish artist who often painted fleshy nude women.

ANSWER: Peter Paul **Rubens**

<Painting/Sculpture>

11. This man was targeted by an assassination plot by Giulio Cybo, a descendant of Pope Innocent VIII, over his failure to provide a sufficient dowry. This man became the first Prince of Melfi after he switched allegiances from Francis I to Charles V. At over eighty years of age, this man defended territory administered by the Bank of Saint George by driving invaders out of Corsica. This man pushed for constitutional reforms that created several ruling clans called *alberghi*. This man, the primary target of the Fieschi conspiracy, was depicted as the god Neptune by Agnolo Bronzino. He successfully took Patras, Tunis, and other Mediterranean ports from pirates, but withdrew from the Battle of Preveza after 3,000 of his men were taken prisoner by Hayreddin Barbarossa, his Ottoman counterpart. For 10 points, name this admiral who led the Genoese navy in the 1500s.

ANSWER: **Andrea Doria** [prompt on Doria]

<European History post-600>

12. This compound is added to a mixture of sulfuric acid, sodium nitrite, and graphite in Hummers’ method. By heating a sample of water with a known amount of sulfuric acid and this compound, a namesake “index” of water quality can be obtained. It doesn't have any halogen atoms, but a solution of this compound is standardized with sodium oxalate in a commonly-performed form of redox titration. Under strongly alkaline conditions, such as with 1-normal NaOH, this compound efficiently converts primary alcohols to carboxylic acids. This compound turns a brown color upon reacting with double or triple bonds in an antiquated test for unsaturation named for Baeyer. Because its metal atom is in a plus-7 oxidation state, this compound is a very powerful oxidizer. For 10 points, identify this intensely pink or purple-colored compound that contains manganese.

ANSWER: potassium **permanganate** [or K**MnO4**]

<Chemistry>

13. In this opera’s prelude, the conductor counts both 4/4 (“four-four”) and 6/4 (“six-four”) time during a transition from the opening passage, which uses triads in A-flat major and C minor to establish several motifs. This opera was called a “stroke of genius in seduction” and denounced for overt Christian themes in a book about the *Case of* its composer by Friedrich Nietzsche. A magician in this opera employs three flower-maidens to seduce warriors, one of whom returns to deliver the “redemption” or “Erlösung” (“air-LUE-zung”) that the chorus sings of in the final scene. Its score uses the Dresden Amen as a motif for the object that names the order to which Gurnemanz (“GOOR-neh-mantz”) belongs. Klingsor’s castle is one setting of this opera, in which the Holy Spear is used to heal the wound of Amfortas. For 10 points, name this Richard Wagner opera whose title knight finds the Holy Grail.

ANSWER: ***Parzival*** [or ***Parsifal***]

<Other Art (Opera)>

14. The narrator of one story notes that while some Americans live in this country because of the income tax, he lives there because his father’s bones lie in a Protestant cemetery. In this country, the narrator of another story is fined for having mud on the license plate of a motorcycle that he and Guy Hickock are riding. William Weaver translated many works of fiction from this country into English. In one story, a woman tries to rescue a cat caught in a rainstorm outside of her hotel in this country. A collection by Henry James is titled for this country’s “Hours,” and in a novella by him, Daisy Miller dies in this country. The title character is killed by an antidote after becoming immune to poisonous plants grown by her father in a story by Nathaniel Hawthorne set in this country. For 10 points, the rise of fascism in what country in the 1920s inspired Hemingway’s story “Che Ti Dice La Patria?”

ANSWER: **Italy** (The first story is John Cheever’s “Boy in Rome.”)

<Short Fiction>

15. An author of one of these works used it to predict the death of his rival Titan Leeds, who actually did die five years later. The anti-slavery poetry of William Cowper (“cooper”) was popularized in America through one of these works created by Benjamin Banneker. A merchant ship that was [emphasize] *renamed* for a character in one of these works was re-outfitted by Louis XVI’s shipyards for war and sunk at the Battle of Flamborough Head. That ship, named for the title character of one of these works, dueled the Serapis while it was commanded by John Paul Jones. One of these works was created yearly by a man who elsewhere used the pseudonym “Silence Dogood.” For 10 points, identify this kind of book, one of which was published by Benjamin Franklin and named for Poor Richard.

ANSWER: **almanac** [accept *Poor Richard’s* ***Almanack***]

<US History>

16. Plutarch relates that this object was found inside a chest by a god who was hunting swine by moonlight. Individual parts of this object corresponded to provinces called *nomes* (“NOH-mees”). A book by Jan Assmann (“AHS-mahn”) about “Death and Salvation” explains how, in the “Great Procession,” this object was ceremonially carried in a barque called the *neshmet*. It doesn’t belong to Jesus, but passion plays featuring this object opened with the procession of “the opener of ways” or Wepwawet. Thanks to an oxyrhynchus (“ox-ee-RINK-us”) fish, every part of this object was located except one, so a golden phallus is created to conceive a hero. After it was placed in a gold coffin and fished up by a goddess, this object was cut into fourteen pieces by a rival and placed in a river. For 10 points, what object’s pieces were scattered in the Nile by Set after a treacherous murder?

ANSWER: the **body** of **Osiris** [or **sarcophagus** of **Osiris**; accept the **penis** of **Osiris** or **phallus** of **Osiris** specifically]

<Mythology>

17. The VIP experiment at Gran Sasso is an attempt to place bounds on this statement, which was confirmed to 1.7 parts in 10-to-the-26 in a 1990 experiment by Eric Ramberg and George Snow. When this statement holds, the two-point correlation function of non-interacting particles has a “hole” at zero separation. This statement also explains why a Slater determinant vanishes when any two of its inputs are equal. The half-integer case of the spin-statistics theorem implies a version of this statement, according to which the wave function of a system of spin-half particles is antisymmetric upon particle exchange. This principle and Hund’s rule explain the *aufbau* (“OWF-bow”) rule for filling atomic orbitals. For 10 points, name this principle of quantum mechanics that forbids two electrons from having identical quantum numbers.

ANSWER: **Pauli** exclusion principle [or **Pauli** principle; prompt on exclusion principle]

<Physics>

18. A former researcher for this thinker, Jane Loevinger, developed the Washington University Sentence Completion Test to test a model based on his theories. This thinker’s concept of personal experimentation during a so-called “moratorium” inspired the work of J. J. Arnett. According to this thinker, individuals who work towards guiding the next generation experience a sense of “generativity,” as opposed to stagnation. James Marcia expanded upon a concept that this thinker argued emerges from a conflict between cohesion and role confusion and explored in works such as *Childhood and Society* and *Young Man Luther*. For 10 points, name this psychologist who theorized the existence of eight stages of psychosocial development and developed the idea of the “identity crisis.”

ANSWER: Erik **Erikson**

<Social Science>

19. Virginia Woolf analyzed the “naked cry” of one character in this play in a 1925 essay titled for “not knowing” this play’s original language. Another character in this play is described as “woman in passionate heart and man in strength of purpose” by a character awaiting a signal of fire. After emerging from a chariot, a character in this play repeats the lament “Woe, woe, woe” and invokes Apollo, after which this play’s chorus criticizes her because Apollo isn’t the god of mourning. After walking across a hand-woven purple carpet, the title character of this play is stabbed to death while taking a bath by his wife so that Aegisthus can assume the throne. This play is the first in a trilogy that also contains *The Libation Bearers* and *The Eumenides*. For 10 points, name this play in which the title king of Mycenae is murdered by Clytemnestra, a work by Aeschylus.

ANSWER: ***Agamemnon***

<Drama>

20. In his *Twenty Verses*, the Buddhist philosopher Vasubandhu uses a crude example of one of these events to argue against the idea that apparent objects do not lead to causal results. The best-known book by Norman Malcolm uses Wittgenstein’s “private language” argument to claim that these events can never be verified as experiences. Aristotle claimed that these events arise from the residual movement of organs, while another philosopher used a story involving one of these events to illustrate the “Transformation of Things.” The example of one of these events providing the experience of sitting in front of a fire is used to argue that we can’t trust our senses at the beginning of Descartes’s *Meditations*. In one story, Zhuangzi (“JWONG-dzuh”) isn’t sure whether he or a butterfly originated one of these events. For 10 points, name these mental events whose “interpretation” titles a book by Sigmund Freud.

ANSWER: **dreams** [accept word forms and more specific examples, such as **waking dreams** and **lucid dreams**; accept **wet dreams**, because that’s what the Vasubandhu anecdote is about]

<Philosophy>

Bonuses

1. Both of these political leaders served at the Battle of Spion Kop in the Boer War – one of them as a medic, the other as a courier. For 10 points each:

[10] Name these two leaders, one of whom insulted the other as a “half-naked fakir.”

ANSWER: Winston **Churchill** AND Mohandas **Gandhi**

[10] This other world leader provided the main Western support for the Quit India movement and encouraged Churchill to cave to some of Gandhi’s demands. As President, he sent Lend-Lease aid to Churchill.

ANSWER: Franklin Delano **Roosevelt** [or **FDR**]

[10] Meanwhile, this other Indian activist was organizing an Indian Legion in Germany intended to liberate India during World War II. He also led the Japanese-backed Indian National Army.

ANSWER: Subhas Chandra **Bose**

<British/CW History>

2. When the entries in these constructs are very large, they can provide a rapidly-converging approximation to the numbers they represent. For 10 points each:

[10] Name this way of writing a real number in the following manner: an integer, plus one over the quantity “another integer, plus one over another integer,” and so on. For some numbers they terminate, while for some they go on forever.

ANSWER: **continued fraction**s [or simple **continued fraction**s; or regular **continued fraction**s; prompt on partial answer]

[10] A number’s continued fraction representation goes on forever if and only if it has this property. Numbers with this property, such as pi and the square root of 2, cannot be written as a quotient of two integers.

ANSWER: **irrational** numbers [or **irrational**ity]

[10] This number’s continued fraction representation consists entirely of ones and converges incredibly slowly, so it is sometimes dubbed the “most irrational” number.

ANSWER: **golden ratio** [or **golden mean**; or **phi**; or “**1 plus the square root of 5**, all **over 2**”; or “**1 plus the square root of 5, divided by 2**”]

<Other Science (Math)>

3. Ann Arnett Ferguson analyzed these places’ treatment of black males in her book *Bad Boys*. For 10 points each:

[10] Name these places where the implementation of zero-tolerance policies and rising use of “resource officers” over the past few decades has resulted in a metaphorical “pipeline” from these institutions to prisons.

ANSWER: American public **school**s [accept **school**-to-prison pipeline]

[10] This thinker examined the disproportionate disciplining of black girls in American schools in *Black Girls Matter*, a 2014 report coauthored with Priscilla Ocen and Jyoti Nanda. She introduced the concept of “intersectionality” to race and gender studies in the late 1980s.

ANSWER: Kimberle Williams **Crenshaw**

[10] This author pointed to the “school-to-prison pipeline” as a key factor in the rise of mass incarceration in her 2010 book *The New Jim Crow*.

ANSWER: Michelle **Alexander**

<Social Science>

4. A 2016 collection of photographs by Joel Meyerowitz showcases over 250 objects painted by this artist. For 10 points each:

[10] Name this artist, the foremost member of the Strapaese (“strah-pah-EH-zeh”) movement, which favored Italian fascism and rural landscapes. He included bottles, vases, and funnels in several paintings titled *Natura Morta*.

ANSWER: Giorgio **Morandi**

[10] *Natura Morta* translates to the name of this painting genre, Morandi’s specialty. Paul Cézanne arranged skulls, apples, and other inanimate objects for his paintings in this genre.

ANSWER: **still life**s

[10] Early in his career, Morandi was influenced by the Metaphysical style that this artist pioneered with Carlo Carrà. Two of this artist’s recurring subjects, bananas and trains, appear in his painting *The Melancholy of Departure*.

ANSWER: Giorgio **de Chirico** (“KEE-ree-ko”)

<Painting/Sculpture>

5. In 1971, Leon Chua noticed a symmetric relationship between the quantities that control the behavior of resistors, capacitors, and inductors, and proposed this device to complete that symmetry. For 10 points each:

[10] Name this non-volatile circuit element that exerts an electrical resistance determined by the history of total charge that has passed through it.

ANSWER: **memristor** [accept **memory resistor**; do not accept or prompt on “memistor”]

[10] The strength, or memristance, of a memristor is given by the slope of the graph of charge versus this quantity, which occupies one corner of Chua’s quadrilateral along with charge, current, and voltage.

ANSWER: **magnetic flux** linkage [prompt on flux linkage; do not accept or prompt on “electric flux (linkage)”]

[10] As is the case for a resistor, the current through a memristor times the voltage across it gives its consumption of this quantity measured in watts.

ANSWER: **power**

<Physics>

6. This artist positioned a Porsche and a meteorite on opposite ends of a balance in a 2013 installation. For 10 points each:

[10] Name this artist who often incorporated cars into his work, including the performance piece *Trans-Fixed*, in which he was crucified onto a Volkswagen Beetle.

ANSWER: Chris **Burden** [or Christopher Lee **Burden**]

[10] Burden often worked in this city, where he gathered 202 street lamps for the installation *Urban Light*. That piece was inspired by Sheila Klein’s earlier collection of lamps along this city’s Santa Monica Boulevard.

ANSWER: **Los Angeles**, California [or **LA**]

[10] Burden used Lego bricks, Lincoln Logs, and thousands of model cars in a kinetic sculpture named for this word. This word also titles a film featuring the inventor Rotwang, who makes a robotic likeness of Maria.

ANSWER: ***Metropolis*** [accept ***Metropolis II***]

<Other Art (Other Visual)>

7. This novel is partly narrated by Hans Vollman, a printer who was crushed to death by a fallen ceiling beam while consummating his marriage. For 10 points each:

[10] Name this 2017 novel in which an American president ventures into the liminal Tibetan Buddhist realm between death and the afterlife to mourn the passing of his eleven-year-old son Willie.

ANSWER: ***Lincoln in the Bardo*** (by George Saunders)

[10] The otherworldly narration of George Saunders’s *Lincoln in the Bardo* was inspired by this Edgar Lee Masters collection narrated by the ghosts of a small town, including Lincoln’s first love Ann Rutledge.

ANSWER: ***Spoon River Anthology***

[10] John Hay recounts one of Lincoln’s routine visits to his son’s crypt in one of the “narratives of empire” by this acerbic American author of *Myra Breckinridge*.

ANSWER: Gore **Vidal** [or Eugene Louis **Vidal**]

<Long Fiction>

8. This city’s St. Mary’s Church is a foremost example of Brick Gothic architecture, which spread through northern Europe in the 12th century. For 10 points each:

[10] Name this city that grew in economic importance through the Old Salt Road, which connected it to Lüneberg. Henry the Lion founded this port city and economic center of the Hanseatic League.

ANSWER: **Lübeck**

[10] The Hanseatic League’s westernmost *kontor*, or trading post, was the Steelyard in this trading hub on the Thames. Hanseatic merchants rebuilt the structure that lent its name to this city’s ward of Bishopsgate.

ANSWER: **London**

[10] Even before the Hanseatic League’s inception, this city on the island of Gotland was a major Baltic trading hub. After capturing this city from the Hansa, the Victual Brothers used it as a base for conducting piracy.

ANSWER: **Visby**

<European History post-600>

9. This philosopher’s theory of the nonverbal symbolism of music was elaborated in books like *Feeling and Form*. For 10 points each:

[10] Name this philosopher who wrote the 1942 book *Philosophy in a New Key*.

ANSWER: Susanne **Langer**

[10] Langer was a student of this thinker, who argued that “actual occasions” constitute the universe and developed a “philosophy of organism” in his book *Process and Reality*.

ANSWER: Alfred North **Whitehead**

[10] Along with Bertrand Russell, Whitehead co-authored this 1913 book on symbolic logic, whose “formally undecidable propositions” inspired Kurt Gödel’s (“GUR-tle’s”) “incompleteness theorem.”

ANSWER: ***Principia Mathematica***

<Philosophy>

10. This country’s 18th-century writers produced works of protest literature such as *The Unseemly Silverpiped Swingers* and *Twin Arts Threshing Device* to decry the influence of neo-Confucianism. For 10 points each:

[10] Name this country in which the 1791 Kansei Reforms instituted censorship of political satire and books that discussed the “floating world,” or *ukiyo*, culture of the pleasure district in its capital of Edo.

ANSWER: **Japan** [or **Nippon**]

[10] Many of the authors censored by the Kansei Reforms, such as Santō Kyōden and Jippensha Ikku, were contributors to the comic book-style genre of *kibyōshi* (“keeb-YO-shee”), which was characterized by book covers of this color.

ANSWER: **yellow** (*Kibyōshi* literally means “yellow cover.”)

[10] Jippensha Ikku wrote the picaresque novel *Hizakurige* (“hee-zah-KOO-reen-geh”), whose protagonists journey between Edo and Kyoto on the Tōkaidō road, which this woodblock artist depicted in a series of 53 prints.

ANSWER: Utagawa **Hiroshige** (“hee-roh-SHEEN-geh”)

<Miscellaneous Lit>

11. Despite inserting a mutation that led to cancer in two patients, the Moloney murine leukemia type of these viruses successfully treated X-SCID with a 90-percent success rate in a landmark clinical trial. For 10 points each:

[10] Name these viruses, such as HIV, that reverse transcribe their RNA genome into DNA.

ANSWER: **retro**viruses

[10] Human endogenous retroviruses, along with LINEs and SINEs, make up a plurality of the “retro” variety of these sequences.

ANSWER: **transposon**s [or **transposable element**s; or **TE**s; or **jumping gene**s]

[10] HIV belongs to this specific genus of retroviruses, which has the unique ability to integrate into both dividing and nondividing cells, making them attractive gene therapy vectors.

ANSWER: **lentivirus** [or **lentiviral**]

<Biology>

12. This language’s word *Tōllān* (“TOLL-lawn”), meaning “among the reeds,” is used to describe a mythical homeland, but could refer to past civilizations. For 10 points each:

[10] Name this language spoken by the people who built the Templo Mayor.

ANSWER: **Nahua**tl [or Classical **Nahua**tl; prompt on Aztec or Aztecan languages]

[10] In the traditions of Nahua peoples, the Aztecs are the “people from” this other legendary homeland, which is often located in the southern US. Its name means “Place of Herons.”

ANSWER: **Aztlan**

[10] The Aztecs were guided to their new home by Huitzilopochtli, who told them to settle where one of these birds landed on a cactus. Another of these birds watches the world atop Yggdrasil with a hawk between its eyes.

ANSWER: **eagle**s [accept any kind of **eagle**]

<Mythology>

13. To avoid creating a “peril to national safety,” more than 11,000 members of this occupation were given orders under the terms of the Taft–Hartley Act, but only 1,300 obeyed. For 10 points each:

[10] Name this occupation of thousands of PATCO members who were given a lifetime ban on civil service, which was lifted by Bill Clinton in 1993. Drew Lewis organized a contingency plan to replace them.

ANSWER: **air traffic control**lers [prompt on less specific answers such as government employees; do not accept or prompt on “airline employees” or “airmen” as the controllers were not employed by the airlines themselves]

[10] This President broke the PATCO strike by firing most of the nation’s air traffic controllers, despite receiving PATCO’s support in the 1980 presidential election the year before.

ANSWER: Ronald **Reagan**

[10] PATCO formed in 1962 when the federal government began hiring more controllers, two years after a New York City collision between a United plane and a plane from this now-defunct airline acquired by American in 2001.

ANSWER: **TWA** [or **Trans World America**]

<US History>

14. This composer was commissioned by clarinetist Ferdinand Troyer to compose his Octet in F for an ensemble led by violinist Ignaz Schuppanzigh (“SHOO-pont-sick”). For 10 points each:

[10] Name this composer. Schuppanzigh is also the dedicatee of a string quartet by this composer titled “Rosamunde.”

ANSWER: Franz **Schubert**

[10] This many of Franz Schubert’s string quartets are numbered; the last of the numbered ones is a G major piece whose first movement is in triple meter. In Beethoven’s quartet of this number, the phrase *Neue Kraft fühlend* (“NOY-uh KRAFT FUEL-int”) or “feeling new strength” indicates a faster tempo in the third of five movements.

ANSWER: **fifteen** [or **15**; or String Quartet No. **15**]

[10] Schubert’s most popular quartet is based on a song about this character’s encounter with a maiden. Medieval personifications of this character leading a dance inspired Camille Saint-Saëns’s *Danse macabre*.

ANSWER: **Death** [or the **Grim Reaper**; accept “**Death and the Maiden**” or “Der **Tod und das Mädchen**”]

<Music>

15. Name the following about China’s One Belt, One Road initiative, for 10 points each.

[10] The project, hailed as a “new Silk Road,” was announced in 2013 by this current President of China.

ANSWER: **Xi** Jinping

[10] The initiative’s “Early Harvest” scheme will expand this country’s hydroelectric grid and upgrade its Tarbela Dam. The port of Gwadar is part of a Chinese “economic corridor” running through this country.

ANSWER: **Pakistan** [or Islamic Republic of **Pakistan**]

[10] This politician once mentioned One Belt, One Road 48 times in a single speech, presumably to avoid addressing issues that led to the so-called Umbrella Revolution against him. He stepped down in June 2017.

ANSWER: C. Y. **Leung** [or **Leung** Chun-ying]

<Current Events>

16. Ptitsyn (“p’TEET-sin”) compares this action to the Japanese custom of avenging an insult by committing hara-kiri in front of the insulter. For 10 points each:

[10] Name this climactic action at the end of Book I of an 1869 novel, which a woman perpetrates at her own dinner party to mock the avarice of her suitor Ganya.

ANSWER: Nastasya Filippovna tossing 100,000 **ruble**s into her **fire**place in *The Idiot* [accept any answers that convey that she’s **burn**ing **money**; or **burn**ing a marriage **offer**]

[10] The spiteful fallen woman Nastasya Filippovna attracts the epileptic Prince Myshkin in *The Idiot*, a novel by this author of *Crime and Punishment*.

ANSWER: Fyodor **Dostoevsky** [or Fyodor Mikhailovich **Dostoyevsky**]

[10] After successfully courting her with the hundred thousand rubles, this evil merchant becomes intensely jealous of the attention Nastasya showers on Myshkin, so he beats her and eventually stabs her through the heart.

ANSWER: Parfyon Semyonovich **Rogozhin**

<Long Fiction>

17. Among the New Martyrs designated by this church include a royal family who were murdered under what is now the Church on Blood. For 10 points each:

[10] Name this church that still claims sole legitimate authority over many believers in nations that are part of the Commonwealth of Independent States.

ANSWER: **Russian** Orthodox Church [or **Moscow Patriarchate**; accept **Rússkaya** pravoslávnaya tsérkov or **Moskóvskiy patriarkhát**] (The Church on Blood was built over where the Romanovs were killed.)

[10] This church’s current leader, Ilia II, has personally baptized 5.8 percent of births since 2007, when he promised to personally baptize third-born children in order to help boost the country’s birth rate. This church declared Mtskheta (“muts-KHET-ah”) as its “Holy City” in 2014.

ANSWER: **Georgian** Orthodox Church [or **Georgian** Apostolic Autocephalous Orthodox Church; or **Sakartvelo**s samotsikulo avt’ok’epaluri martlmadidebeli ek’lesia; accept any reasonable answer indicating the church of **Georgia** or **Sakartvelo**]

[10] This other Orthodox church selected Tawadros II as its Pope in 2012 and has dealt with increasing religious tension under both the Morsi and Sisi governments.

ANSWER: **Coptic** Church [or **Coptic** Orthodox Church of Alexandria]

<Religion>

18. The Eigen–Wilkins mechanism predicts a second-order kinetics for the “associative” mechanism for this reaction in octahedral complexes. For 10 points each:

[10] Name this fundamental reaction in organometallic chemistry, whose “dissociative” mechanism, in contrast, involves the initial release of a ligand from the coordination complex.

ANSWER: ligand **substitution** [or ligand **exchange**; accept answers that indicate that one ligand is **swap**ping for another]

[10] Substitution reactions in complexes with this ligand unusually follow second-order kinetics, but are dissociative in nature. Nitrogen and hydrogen gas adsorb onto an iron catalyst in the Haber process for producing this compound.

ANSWER: **ammonia** [or **ammine** complexes]

[10] Though they are resistant, metal carbonyl complexes can easily undergo dissociative substitution if subject to this kind of reaction, which promotes a d pi orbital on the metal to a d sigma antibonding orbital.

ANSWER: **photochemical** reaction [or **light**-catalyzed reaction; accept any answer that mentions **light**]

<Chemistry>

19. This event was publicly announced in the preface to the volume *For Lancelot Andrewes*, in which the author also proclaimed that he was a “classicist in literature” and a “royalist in politics.” For 10 points each:

[10] Name this 1927 event that a certain author closely examined in his poem “Ash Wednesday.”

ANSWER: T. S. **Eliot’s conversion** to Anglicanism [or T. S. **Eliot’s conversion** to Anglo-Catholicism; accept T. S. **Eliot’s conversion** to Christianity; do not accept any answer about “conversion to Catholicism”]

[10] Even before his conversion, Eliot drew from the Anglican Book of Common Prayer to title “The Burial of the Dead,” the first section of this modernist poem that opens: “April is the cruellest month, breeding.”

ANSWER: *The* ***Waste Land***

[10] “Ash Wednesday” depicts the moment of Eliot’s conversion as an encounter in one of these places with a “silent sister veiled in white and blue.” In the first section of “Burnt Norton,” the speaker hears “footfalls echo in the memory / Down the passage” leading to one of these places.

ANSWER: rose **garden**

<Non-Epic Poetry>

20. The Maitland plan was a never-executed British initiative that was intended to liberate this city. For 10 points each:

[10] Name this city where an “open cabildo” held in 1806 deposed Rafael de Sobremonte as Viceroy for failing to adequately resist British invasion attempts.

ANSWER: **Buenos Aires**

[10] This period of time names an 1810 revolution in Buenos Aires prompted by another open cabildo. A plaza named for this period of time was the site of many mothers whose children were kidnapped in the Dirty War.

ANSWER: **May** [or **Mayo**; accept **Plaza de Mayo**; do not accept “Cinco de Mayo” or “May 5”]

[10] The Maitland Plan called for liberating Buenos Aires and this non-Argentina country, which José de San Martín liberated after the March Over the Andes with the aid of Bernardo O’Higgins.

ANSWER: (Republic of) **Chile**

<Other History>