



**ACADEMIC
COMPETITION
FEDERATION**

2023 ACF NATIONALS

Playoffs Round 1

Packet By

The Editors (1)

Editors

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TOSSUPS

1. A book that argues that this philosopher preemptively criticized the traditions of Durkheim (“dur-KEM”) and Weber (“VAY-ber”) claims that an influential reading of this philosopher overlooks the logic of the “speculative proposition” in his work. That book by Gillian Rose is titled for this philosopher “contra sociology.” A school sometimes named after this philosopher included T. H. Green and Bernard Bosanquet (“BOH-zen-ke”). J. M. E. McTaggart wrote several books explicating this man’s philosophy, including a commentary on a book in which this man divides the title subject into being, essence, and concept. The British idealists were influenced by this philosopher’s introduction of the concept of “the Absolute.” For 10 points, name this German philosopher who wrote about the development of *Geist* (“guyst”) in *The Phenomenology of Spirit*.

ANSWER: Georg Wilhelm Friedrich **Hegel** [or G. W. F. **Hegel**; accept **Hegel** *Contra Sociology*; accept neo-**Hegelianism**]

<Philosophy>

2. A man’s only visitor to his shack is this character, where he tells her “Always, always” and keeps the purple-and-white belt she left behind. This character has a birthmark that is alternately described as resembling a stemmed rose, a snake, and her mother’s ashes. This character realizes she knew nothing about her lover when she discovers from his driver’s license that his real name is Albert Jacks. As a child, this character cuts off her fingertip with a knife to scare off four Irish boys from bullying her. A “plague of robins” accompanies this character’s return to the town of Medallion. This character’s senile grandmother Eva conflates her with the narrator when recalling an accident during which this character drowned Chicken Little in the river. For 10 points, name this best friend of Nel Wright and resident of the Bottom who titles a novel by Toni Morrison.

ANSWER: **Sula** Peace [prompt on **Peace**]

<American Literature>

3. Ratings of these structures and their environment are empirically weighted and summed in the DRASTIC (“drastic”) method of assessing these structures’ vulnerability. When a filter pack or developed zone causes the double straight line effect, analysis of these structures ignores the first line and applies the Bower and Rice method or the Hvorslev method to the second line. Permeable reactive barriers are inserted into these structures to intercept plumes. Borehole EM (“E-M”) conductivity logs of these structures track wedge intrusion. Slug tests of these structures use the gradient of the piezometric head to estimate properties like storativity. These structures are less vulnerable to contamination when they are confined, like the Floridan one. In the hydrological cycle, these structures are recharged by water moving through the unsaturated zone. For 10 points, name these permeable rock layers that store groundwater.

ANSWER: **aquifers** [accept confined **aquifers** or unconfined **aquifers** or perched **aquifers**; accept **groundwater basins**; accept Floridan **aquifer**; prompt on **basins**; reject “wells” or “drainage basins”]

<Other Science>

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4. Angels and men beat each other with clubs atop this location in a scene from the Bedford Hours. A lightning flash illuminates this location in the background of a painting in which a crowd flees near a golden statue covered by a serpent. A “Little” painting of this location in Rotterdam shows more curved walls than a “Great” version in the Kunsthistorisches (“KOONST-hist-OR-ish-iss”) Museum. Those two paintings were preceded by a lost ivory miniature that may have provided the basis for a painting of this location by Lucas van Valckenborch. A man raises his arms in front of a depiction of this location based on the minaret of the Great Mosque of Samarra in a Gustave Doré engraving. Hieronymous Cock’s prints of the Colosseum inspired a painting of this location whose foreground depicts stonemasons bowing to a king. For 10 points, Pieter Brueghel the Elder created two paintings of what unfinished biblical structure?

ANSWER: Tower of **Babel** [or Tower of **Babylon**; or Migdal **Bābel**; or Toren van **Babel**; prompt on tower or mīgdal] (The painting in the second sentence is *Belshazzar’s Feast* by John Martin.)

<Painting & Sculpture>

5. This hero’s horse is able to discern the footprints of an ant upon a dark cloth at night at a distance of two leagues. After coming across a roast deer and improvising a song on a tambour, this hero slays a beautiful sorceress who instantly becomes ugly when he utters the name of a god. At the age of 600, this hero ultimately dies after being thrown into a well filled with poison spears. This hero uses a double-headed arrow fashioned from a tamarisk tree to kill his main rival. This hero was born after his albino father was taught how to administer a C-section by a legendary bird. Along with his talking horse Rakhsh, this man performs seven labors that culminate in him slaying the White Demon. This hero begs King Kay Kaus for a healing potion after recognizing an armband possessed by a warrior he had just stabbed in battle. For 10 points, name this son of Zāl from the *Shahnameh* who slays his own son Sohrab.

ANSWER: **Rostam** [or **Rostam** of Sistan; or **Rustam**] (The legendary bird is the Simurgh.)

<Mythology>

6. In a family of animals, this process depends on changes in the spacing of a lattice of guanine nanocrystals. Undulating displays of this process have been termed “passing clouds” and result from sequential activation of neural pathways in the satellite ganglia and anterior pedal lobes. Organs composed of glia, sheath cells, and radial fibers expand or shrink the cytoelastic sacculus to generate this process in coleoid members of a class of animals. Off-axis, U-shaped pupils may facilitate this process by maximizing a kind of “blur”; that hypothesis has supplanted the idea that this process is facilitated by undiscovered dermal opsins. Non-cephalopods that can perform this process cause it by changing the distribution of molecules like heme and melanin in cells called chromatophores. For 10 points, octopi and chameleons use pigments to rapidly undergo what camouflage mechanism?

ANSWER: skin **color change** [or **metachrosis**; prompt on crypsis; prompt on background, active, or adaptive camouflage until read by asking “what is the mechanism of camouflage?”; prompt on changing appearance or equivalents by asking “what aspect of the animal’s appearance changes?”; prompt on body patterning by asking “what aspect of body patterning?”] (The first sentence refers to chameleon skin, which has a layer of guanine nanocrystals overlaying chromatophores.)

<Biology>

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7. This legislation was unilaterally transformed twice by “Dear Colleague” letters from Russlynn Ali and Catherine Lhamon (“LAY-mon”). A Supreme Court ruling regarding this legislation was effectively overturned by the Grove City Bill. On this legislation’s fiftieth anniversary, Sherry Boschert (“BOH-shert”) published a book about the “37 words” that defined it. Jacob Javits and John Tower proposed amendments to this legislation to address concerns incorporated into a “three-part test” fleshed out by Norma Cantú. This legislation was posthumously renamed after the first woman of color to serve in Congress, Patsy Mink, who had worked to pass it with Birch Bayh (“bye”) in 1972. A documentary series about this legislation was modeled on ESPN’s *30 for 30* series and examined its impact on Sheryl Swoopes and other college athletes. For 10 points, name this law that, in federally-funded programs, prohibits sex-based discrimination.

ANSWER: **Title IX** (“nine”) [accept Higher **Education Amendments** of 1972; accept Patsy T. Mink **Equal Opportunity in Education** Act] (The Grove City Bill overturned the decision in *Grove City College v. Bell.*)
<American History>

8. This person hired the Jamaican-born photographer Percy Rainford to assist him in creating a self-portrait titled “at the age of 85,” which he actually made at 58. A photograph of this man titled *Tonsure* shows him with a shooting star shaved into his head. This man took a five-way self-portrait using a trick mirror during a trip to Coney Island he made with Beatrice Wood. This man wears a hat and fur coat in a 1921 photograph placed on a perfume bottle. In a picture taken at the Pasadena Art Museum, this man plays a game against Eve Babitz, who is completely nude. An object created by this man appears in front of Marsden Hartley’s painting *The Warriors* in a photograph taken for the magazine *The Blind Man* by Alfred Stieglitz. Man Ray photographed this avid chess player’s female alter ego Rose Sélavy. For 10 points, name this Dada artist known for his “readymades.”

ANSWER: Marcel **Duchamp** [or Henri-Robert-Marcel **Duchamp**; accept Rose **Sélavy** until read]
<Other Fine Arts>

9. Upon arriving at one of these places, the title character of a novel is told he must “sit for his portrait,” which involves the employees visually examining him. In another novel, a man follows a seamstress to one of these places while investigating the mystery of a watch with the inscription “D.N.F.” The rent collector Pancks discovers that William, who is nicknamed the “father of” one of these places, is the heir to a significant fortune. To find out about a resident of one of these places, Arthur Clennam visits a parody of British bureaucracy called the Circumlocution Office. Alfred Jingle gets out of one of these places with the help of Pickwick in *The Pickwick Papers*. The title character of *Little Dorrit* is born in one of these specific institutions, where her father is held for decades. For 10 points, what institutions included the Marshalsea where Charles Dickens’s father was confined?

ANSWER: **debtors’ prisons** [accept synonyms such as **jail** in place of “prison”; prompt on **prisons** or **jails** or other synonyms]
<British Literature>

10. In this modern-day country, unknown perpetrators repeatedly placed mutilated female body parts outside the windowsills of well-off residents, prompting nationwide police reforms. The Concordat of 1854 entrenched the Catholic Church in this country’s government, a cause pushed by the Aycinena (“eye-see-NAY-nah”) family. Opposing Mariano Rivera Paz, the state of Los Altos separated from this country in 1848. The “Plan of the Fatherland” was promulgated in this country by Justo Rufino Barrios, who tried to revive a united state led 50 years earlier by a different country’s leader, Francisco Morazán. The first republican state in this country was founded by Rafael Carrera after he broke up the Federal Republic of Central America. British Honduras, Mexico, and this country ended the Mayan Caste War in the Yucatán. For 10 points, name this country where the United Fruit Company later sought to depose Jacobo (“ha-COH-bo”) Árbenz.

ANSWER: **Guatemala** [or Republic of **Guatemala**; or República de **Guatemala**]
<World History>

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11. Verbs that license this case are the subject of Burzio’s generalization, which inspired the hypothesis that this case is actually assigned by a predicate called “little v.” A construction named for this case plus the infinitive is similar to the exceptional case-marking construction in English. This is the second case in the name of the world’s most common morphosyntactic alignment. Adding the prefix “un-” to the name of this case gives a term for an intransitive verb whose subject is not an agent, contrasted with an unergative (“un-ERG-uh-tiv”) verb. In Latin, this case can be used when describing motion toward a destination, such as *Romam* (“ROH-mahm”) meaning “toward Rome.” Both this case and the dative were supplanted by the oblique case in English. For 10 points, name this case that marks the direct object of a transitive verb.

ANSWER: **accusative** case [or **ACC**]

<Social Science>

12. Terrence Collins’s group has popularized green catalysts for this type of reaction that use tetra-amido macrocyclic ligands. The Mars–van Krevelen model describes heterogeneous catalysis of these reactions using platinum-doped gold or ceria nanoparticles. Metalloenzymes that normally catalyze these reactions using a “radical rebound” are a common starting point for directed evolution by Frances Arnold’s group. Supercritical water and activated sludges catalyze this type of reaction to degrade halogenated organic solvents. The platinum atom in a two-way catalytic converter catalyzes this type of reaction on carbon monoxide. The heme iron atom in a cytochrome P450 enzyme catalyzes this general type of reaction – for instance, to convert alkanes to alcohols. For 10 points, name these reactions in which molecules lose electrons.

ANSWER: **oxidations** [or word forms like **oxidize** or **oxidizing**; accept catalytic **oxidations**; accept mono**oxygenation**; accept **hydroxylation**; accept **peroxidation**; accept **dehydrogenation**; prompt on **redox** or **reduction-oxidation** reactions by asking “what type of reaction produces the desired product?”; prompt on C-H **activation** or carbon-hydrogen **activation** until “activated” is read by asking “what is the general class of reaction?”; reject “dehydration,” “reduction,” “hydrogenation,” or “combustion”]

<Chemistry>

13. This composer included a polacca and a minuet in a set of five “country dances” for violin and piano. At age nine, this composer wrote an entirely pizzicato duo for violin and cello titled *Water Droplets*. This composer used a question-and-answer motif in the violin and cello to open a five-movement string quartet in D minor, which concludes with a furious folk dance. During his nearly thirty-year retirement, this composer made a string orchestra and timpani orchestration of his *Andante festivo* for string quartet. A piece by this composer depicts a sick woman who dances more and more energetically before Death arrives at her door. This composer vowed to give up drinking in 1908, a year before the publication of his *Voces intimae* quartet. This composer published two extracts from music for the play *Kuolema* as a “Scene with Cranes” and a “Valse Triste.” For 10 points, name this composer of *Finlandia*.

ANSWER: Jean **Sibelius** [or Johan Julius Christian **Sibelius**]

<Classical Music>

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14. This result is reversed for non-physical fields whose contributions to virtual processes ensure a unitary theory, called ghost fields. This result takes its usual form in $3 + 1$ (“three-plus-one”) dimensions because world lines cannot form knots, making the braid group just the symmetric group; however, the nontrivial braid group in $2 + 1$ (“two-plus-one”) dimensions causes this result to take a different form obeyed by anyons (“ANY-onz”). Proofs of this result require relativistic quantum field theory, but topological intuition for it is seen in the belt trick, in which a four pi rotation returns the belt to its original state. Per this result, the exchange operator leaves wave functions of one class of particles unchanged, while wave functions of another class of particles pick up a minus sign under exchange. For 10 points, name this theorem that states that half-integer spin particles obey the Fermi (“FAIR-mee”)–Dirac (“dih-RACK”) distribution and integer spin particles obey the Bose (“boze”)–Einstein distribution.

ANSWER: **spin–statistics** theorem [or **spin–statistics** relation or **spin–statistics** connection or **spin–statistics** correlation]

<Physics>

15. This person used the punning jibe “good-for-nothing” to mock a man’s sexual prowess. This person received a wedding band with the inscription “to destiny” after being married. This person is not Louis Philippe, but this person’s daughter Hortense was wounded while they traveled to see a performance of *The Creation* when a shotgun set off an explosive device dubbed “the infernal machine.” This person carried on a highly public affair with Hippolyte Charles (“ee-poh-LEET SHARL”), a hussar lieutenant. This person established extensive rose gardens at Malmaison (“mahl-may-ZOH”). A leader spoke this person’s name alongside “the army, the head of the army” as his last words while dying of stomach cancer in exile. This person was the [emphasize] *second* to be crowned at a ceremony blessed by Pius VII in 1804, directly after her husband. For 10 points, name this Martinican woman who became Empress of France as Napoleon’s first wife.

ANSWER: **Joséphine** Bonaparte [or Empress **Joséphine** Bonaparte; or Empress **Joséphine** de Beauharnais; or Marie Joséphe Rose **Tascher** de La Pagerie; prompt on **Bonaparte**; prompt on de **Beauharnais**] (Joséphine’s punning jibe was “*bon-a-parte est bon-à-rien*”)

<European History>

16. An exiled emperor’s epitaph in this language laments that “for his burial / Not even two yards of land were to be had his beloved land.” An English adaptation of a poem in this language concludes by demanding “Heart, / bolt forever your sleepless doors ... No one, now no one will ever return.” After censorship of the author of “Solitude,” a defiant performance of his poem “We Will See” in this language at Alhamra Arts Council made it a protest anthem. Ali Sethi (“SAY-tee”) is a modern singer in a semi-classical genre that adapts poems from this language like Ahmed Faraz’s “If it is grief, so be it,” whose past singers include Jagjit Singh and Begum Akhtar. It’s not Persian, but Iqbal Bano was another singer of ghazals in this language, including those by Muhammad Iqbal and Mirza Ghalib. For 10 points, Faiz Ahmad Faiz wrote in what national language of Pakistan?

ANSWER: **Urdu** [prompt on **Hindustani** or **Hindi–Urdu**; reject “Hindi”] (The first line refers to the epitaph of Bahadur Shah Zafar, the last Mughal emperor, who wrote that poem and many others.)

<World Literature>

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17. This biblical book's injunction to "lament like a virgin girded with sackcloth" is paraphrased in the third responsory on Holy Saturday. An epic simile in this book compares a group of animals to a marauding army of warriors who "climb up on the houses" and "enter in at the windows." This book rebukes insincere repenters with the instruction "rend your heart, not your garments." This three-chapter book is named for the son of Pethuel, who is known as "the learned prophet" for his numerous allusions to Exodus and Isaiah, though his own description of the Day of the Lord is quoted on Pentecost by Peter in Acts. Modern interpretations have declared this book "the prophet of ecological doom" for its two poems describing Israel being ravaged by drought and swarms of locusts. For 10 points, name this second minor prophetic book in the Hebrew Bible, placed between Hosea and Amos.

ANSWER: Book of **Joel** [or **Yō'ēl**]

<Religion>

18. This country's mysterious GlowByte consulting firm instituted SAS Analytics in place of a "by hand" system of management for its 36.6 ("thirty-six point six") pharmacy stores. This country's capital contains large, green terminals for its telehealth EMIAS ("E-M-I-A-S") system. A health institute in this country is named after a scientist who discovered that lice transmitted typhus and who laid the foundation for phage therapy. Despite this country having a universal healthcare program known as FFOMS ("F-F-O-M-S"), private plans called "voluntary health insurance" are prominent. Three COVID-19-infected doctors suspiciously "fell" out of windows in this country, which later began the first mass COVID-19 vaccination program. This country likely stole trial data from AstraZeneca to promote a vaccine developed by the Gamaleya Institute. For 10 points, name this country that developed the Sputnik V vaccine.

ANSWER: **Russia** [or **Rossiya**; or **Russian** Federation or **Rossiyskaya** Federatsiya]

<Current Events>

19. Later accounts of this region's history largely rely on the compendium "The Breath of Perfume from the Fragrant Branch of" this region. The death of the saints Flora and Mary in one of this region's cities is detailed in a hagiography of 48 martyrs written by Eulogius. A Princeton historian coined a term meaning "living-togetherness" to describe the general coexistence of this region's cultural groups. According to legend, the mother of a ruler of this region told him to "weep like a woman for a kingdom you could not defend as a man." An anonymous historian from this region wrote the *Chronicle of 754*, which is also called *The Mozarabic Chronicle*. A namesake 11th-century *fitna* occurred in this region, where a knight called the "the lord" ruled a *taifa*. For 10 points, nationalist historiographers claimed that what region was liberated from foreign rule in the *Reconquista* ("reh-kohn-KEE-stah")?

ANSWER: al-**Andalus** [accept **Andalusia**; accept **Muslim Spain** or **Arab Spain** or equivalents; accept Caliphate of **Córdoba**; accept Martyrs of **Córdoba**; accept **Umayyad Spain**; accept **Taifa** Spain; accept **Almohad Spain**; accept Emirate of **Granada**; accept **Nasrid Spain**; accept **Iberia** or **España** or **Hispania** in place of "Spain"; prompt on **Spain**, **Iberia**, **España**, or **Hispania** by asking "ruled by whom?"] (The historian Américo Castro coined the term *convivencia*. The knight was El Cid.)

<Other History>

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20. Friedrich Nietzsche likely misquoted this poet's aphoristic assertion "become such as you are, having learned what that is." This poet's lines "O my soul, do not aspire to immortal life, but exhaust the limits of the possible" are quoted in the preface to Albert Camus's *The Myth of Sisyphus*. A poem by this author declares "Creatures of the day! What is anyone? What is no-one? Man is the dream of a shadow." This author wrote that "gold, like a fiery flame gleaming at night, stands supreme above haughty wealth's pride" after enigmatically beginning a poem "water is best." This author dedicated that poem to "Hieron, who holds the scepter of law in Sicily." This rival of Bacchylides ("buh-KIH-lih-DEEZ") wrote four surviving books of *epinikia*, including a poem written for Hippocleas ("hah-poh-CLAY-ahs") after the youth won a double-*stadion*. For 10 points, name this Theban lyric poet who honored triumphant athletes in his victory odes.

ANSWER: **Pindar** [or **Pindaros**]

<European Literature>

BONUSES

1. James Allen’s extension of this policy to Waikato-Maniapoto outraged locals who accused the government of illegally using census data. For 10 points each:

[10m] Name this policy that local men circumvented with the help of Princess Te Puea (“teh PWAY-uh”). In Canada, this policy was opposed by Henri (“awn-REE”) Bourassa during a namesake “crisis” in 1917.

ANSWER: **conscription** into the British military [accept British World War I **draft**; accept **Conscription** Crisis of 1917]

[10e] Te Puea opposed British conscription during World War I, believing that members of this ethnic group should not fight for a British crown responsible for the Treaty of Waitangi.

ANSWER: **Māori** [prompt on **Polynesians**; prompt on **Pacific** Islanders]

[10h] During the war, Te Puea began to lead the Kīngitanga, which sought to unify the Māori under one king to halt this process. It had been previously promoted by Governor George Grey as part of the “amalgamation” policy.

ANSWER: **selling** of Indigenous **land** to the Europeans [accept **alienation**, **confiscation**, or **redistribution** in place of “selling”; accept **property** in place of “land”]

<World History>

2. In 1978, the countertenor Dominique Visse founded a Renaissance and Baroque ensemble named for this composer. For 10 points each:

[10h] Name this early 16th-century Parisian composer who heavily used onomatopoeic vocal effects to craft imitative songs like “Il est bel et bon” (“il ay bell ay bon”) and “La Bataille (“bah-TIE”).”

ANSWER: Clément **Janequin** (“clay-MAWN zha-neh-CAN”) [accept Ensemble Clément **Janequin**]

[10m] Parisian composers such as Janequin and Claudin de Sermisy abandoned the polyphonic texture of the Franco-Flemish school and moved towards this harmonic texture, in which all voices move essentially in parallel.

ANSWER: **homophony** [accept **homophonic**]

[10e] This leading composer of the Franco-Flemish school used similar homophonic textures to the Parisian school in his chanson *Vive le roy*. He is better known for the song “El grillo” and the *Missa Pange lingua*.

ANSWER: **Josquin** des Prez (“zhoh-SCAN day pray”) [or Josquin **des Prez**; or Josquin **Lablottle**]

<Classical Music>

3. A book by the Ahnishinahbæótjibway (“uh-nish-ih-NAH-bay-oh-JIB-way”) philosopher Wub-e-ke-niew is titled “We Have the Right to” this concept. For 10 points each:

[10h] Ernest Renan’s (“ruh-NAWN’s”) “What Is a Nation?” states that a “moral conscience” requiring “the subordination of the individual to the communal good” implies the right to what concept, which Renan calls a “daily plebiscite” (“PLEB-uh-site”)?

ANSWER: **existence** [or the right to **exist**; or **existence** of a nation; accept *We Have the Right to* **Exist**; prompt on **nationhood**]

[10e] *We Have the Right to Exist* underlines the first letter of this word to distinguish the cyclical Ahnishinahbæótjibway (“uh-nish-ih-NAH-bay-oh-JIB-way”) version of this concept from the Euro-American version, which is conceived as an “arrow.”

ANSWER: **time** [accept arrow of **time**]

[10m] *We Have the Right to Exist* features a blurb by this cognitive scientist, whose 1971 debate with Michel Foucault (“foo-KOH”) positioned him as a champion of analytic philosophy.

ANSWER: Noam **Chomsky** [or Avram Noam **Chomsky**]

<Philosophy>

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4. Molecular tectonics relies on framework materials held together by these noncovalent interactions since they can be programmed to give tighter control over pore size. For 10 points each:

[10e] Name these strong dipole-dipole interactions that often involve nitrogen, oxygen, or fluorine.

ANSWER: **hydrogen bonds** [or **hydrogen bonding**; or **H bonds**; accept **hydrogen-bonded** organic frameworks]

[10m] Despite the hype for gas storage in hydrogen-bonded organic frameworks, they have yet to match the best MOFs (“moffs”) or COFs (“coffs”) in this key attribute. The BET (“B-E-T”) method calculates this physical quantity for an adsorbent.

ANSWER: specific **surface area** [or **SSA**; prompt on **porosity**; prompt on **area**]

[10h] Predictable design of pore size is obstructed by this effect, the undesired spatial overlap between adjacent framework lattices, since it is more common in noncovalent networks. Tissue engineers deliberately use this effect to strengthen hydrogels.

ANSWER: **interpenetration** [accept **interpenetrating** frameworks; accept **interpenetrating** polymer networks; prompt on **penetration** or **penetrating**]

<Chemistry>

5. Answer the following about the use of Latin in 20th- and 21st-century opera, for 10 points each.

[10m] Jean Cocteau wrote a libretto in French, which was then translated into Latin, for this composer’s 1927 opera *Oedipus Rex*.

ANSWER: Igor **Stravinsky** [or Igor Fyodorovich **Stravinsky**]

[10h] After his Latin lessons, the boy Miles sings an aria in which he repeats this word before phrases like “I would rather be” and “in the apple tree” in Benjamin Britten’s *The Turn of the Screw*.

ANSWER: **malo**

[10e] Martina Winkel wrote the libretto to this composer’s opera *Kepler* in German and Latin. This composer used the extinct languages of Akkadian and Ancient Egyptian in parts of his opera *Akhmaten* and used Sanskrit in *Satyagraha*.

ANSWER: Philip **Glass**

<Other Fine Arts>

6. Irène Némirovsky condemned the citizens that worked with this government in her most famous book before she was executed. For 10 points each:

[10e] The antisemitic author Louis-Ferdinand Céline was put on trial for collaborating with what short-lived regime before its 1944 collapse?

ANSWER: **Vichy** France [or **Vichy** government or **Vichy** regime or Régime de **Vichy**; or **État français** or **French State**; prompt on **France**; reject “French Republic” or “République française”]

[10m] While scholars debate whether the writer Georges Simenon was a Nazi collaborator, he sold the film rights to this character, a pipe-wielding French police detective, to a German studio.

ANSWER: Inspector **Maigret** (“may-GRAY”) [or **Jules** Maigret; or Chief Inspector Jules Amédée François **Maigret**]

[10h] Under Nazi occupation, this author worked for the newspaper *Le Soir*. He included a caricature of a Jewish banker in *The Shooting Star* and drew on both Hitler and Mussolini for the unseen character Müsstler, the leader of the Syldavian Iron Guard.

ANSWER: **Hergé** (“air-ZHAY”) [or Georges Prosper **Remi**] (He created the character of Tintin.)

<European Literature>

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7. Answer the following about medical metrics that pathologize non-white populations, for 10 points each.

[10h] The reference minimum count of these cells, 1500 cells per microliter, disregards the normal lower levels of these cells found in populations of African descent, leading to the diagnosis of “benign ethnic [lack of these cells].”

ANSWER: **neutrophils** [or polymorphonuclear **neutrophils**; or **PMNs**; accept benign ethnic **neutropenia**; prompt on **BEN**] (This clue refers to the reference values used in the US; other countries use other reference values, and most African countries’ reference values reflect the prevalence of the Duffy null phenotype in the population.)

[10e] The eugenicist Adolphe Quetelet developed this other metric using white reference populations. This metric doesn’t account for population-level differences in body fat percentage and distribution and perpetuates weight bias.

ANSWER: **BMI** [or **body mass index**]

[10m] In 2021, NKF and ASN removed a multiplier for Black people from the CKD-EPI equation for this metric. The multiplier inflated Black patients’ value for this metric, delaying their access to kidney transplant evaluations.

ANSWER: **eGFR** [or estimated **glomerular filtration rate**; prompt on **filtration** rate; reject “mGFR” or “measured glomerular filtration rate”]

<Biology>

8. A hybrid animal that was a cross between a horse and one of these animals, known as Lord Morton’s mare, was cited by Charles Darwin as evidence for telegony (“tuh-LEG-uh-nee”). For 10 points each:

[10m] Name this subspecies of the plains zebra hunted to extinction by South African settlers. These animals had black and white zebra stripes on the head and neck but brown, horse-like fur on the rest of their bodies.

ANSWER: **quagga** (“KWAH-khah”) [or *Equus quagga quagga*; or *E. quagga quagga*; prompt on **equids** or **equines** or *Equus*]

[10h] Another extinct equid was this hybrid draft animal prized in Mesopotamia in the 3rd millennium BCE.

Skeletal evidence suggests that these equids were crosses between female domesticated donkeys and wild male onagers (“ON-uh-jers”).

ANSWER: **kungas**

[10e] A more familiar equid hybrid is this widely-used cross between a male donkey and a female horse. They are the reciprocal cross of the hinny.

ANSWER: **mules**

<Other Academic>

9. When transcribing this phrase late in life, its popularizer added a question mark in place of the exclamation point present in the King James Version. For 10 points each:

[10h] Name this phrase that provides the title of a Daniel Walker Howe history covering the years 1815 to 1848. This phrase’s popularizer said that it “baptized” an invention “with the name of its author.”

ANSWER: “**what hath God wrought?**”

[10e] Samuel Morse sent the message “what hath God wrought” to Alfred Vail while testing the functionality of this technology in 1844.

ANSWER: **telegraphy** [accept electrical **telegraph**]

[10m] Vail developed Morse code while working at this type of facility, where he and Morse first unveiled the telegraph’s capabilities in 1838. Joseph R. Anderson saved the Tredegar facility of this type from destruction by Confederates evacuating Richmond.

ANSWER: **ironworks** [accept Tredegar **Iron Works**; accept Speedwell **Ironworks**; prompt on **works** or industrial **plants**; prompt on munitions **factory** or munitions **factories**; prompt on **foundry** or **foundries** or **smeltery**; prompt on blast-**furnaces**]

<American History>

2023 ACF Nationals | Playoffs Round 1. Editors 1

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10. An Ann and Jeff VanderMeer anthology collects stories of the “New” form of this genre, which China Miéville (“mee-AY-vul”) equated with the image of the tentacle. For 10 points each:

[10m] Name this adjective that describes supernatural fiction evoking “unexplainable dread of outer, unknown forces.” A pulp magazine named for this adjective published stories like “The Dunwich Horror” in the 1930s.

ANSWER: **weird** [accept **weird** fiction; accept *The New **Weird***; accept ***Weird Tales***]

[10e] This author defined the term “weird fiction” in the essay “The Supernatural Horror in Literature.” *Weird Tales* published many uncanny stories from this author’s Cthulhu (“kuh-THOO-loo”) mythos.

ANSWER: H. P. **Lovecraft** [or Howard Phillips **Lovecraft**]

[10h] In a seminal short story of weird fiction, these mysterious objects seem to change position at night and kill a peasant while tormenting two canoers on the Danube.

ANSWER: **willow** trees [accept “The **Willows**”; prompt on **trees** or **plants**] (“The Willows” is by Algernon Blackwood.)

<American Literature>

11. One of these algebraic structures whose elements are polynomials with coefficients in some field is always a unique factorization domain. For 10 points each:

[10e] Name these algebraic structures that, unlike groups, are equipped with two binary operations: one akin to addition, the other akin to multiplication.

ANSWER: **rings** [accept polynomial **rings**]

[10m] By Hilbert’s basis theorem, if R is a commutative Noetherian (“NUH-ter-ee-an”) ring, then the polynomial ring $R[x]$ (“R-x”) is Noetherian, meaning all of these sets in $R[x]$ are finitely generated. These sets are subrings that are closed under multiplication.

ANSWER: **ideals** [accept left **ideals** or right **ideals**]

[10h] A set F in a polynomial ring is one of these sets if all polynomials in the ideal generated by F can be reduced to zero with respect to F . Computer algebra programs generate these sets with Buchberger’s algorithm.

ANSWER: **Gröbner bases** (“BAY-sees”) [or **Gröbner basis**; prompt on standard **bases** or standard **basis** or **generating sets**]

<Other Science>

12. A poem by this author in which an “o’er-ravished shepherd” is “unable to perform the sacrifice” was originally misattributed to the Earl of Rochester. For 10 points each:

[10m] The impotent Lysander appears in “The Disappointment,” a poem by what 17th-century member of the “fair triumvirate of wit”?

ANSWER: Aphra **Behn** [prompt on Aphra **Johnson**] (The “fair triumvirate of wit” also included Eliza Haywood and Delarivier Manley.)

[10h] The maid in “The Disappointment” has this pastoral name, which Behn used in several poems. A “fair” woman with this name masturbates while lying in a pigsty in a poem by the Earl of Rochester.

ANSWER: **Chloris** [accept “Fair **Chloris** in a pigsty lay”]

[10e] In *A Room of One’s Own*, Virginia Woolf writes that women should let flowers fall on Behn’s tomb in this abbey. Behn is buried in this abbey’s East Cloister, rather than in its Poets’ Corner.

ANSWER: **Westminster** Abbey [or Collegiate Church of Saint Peter at **Westminster**]

<British Literature>

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13. Guests to a Swedish household might either be disappointed or relieved that they traditionally aren't fed by the family. For 10 points each:

[10e] A casserole called Jansson's Temptation is a mainstay of these buffet-like "tables" traditionally stacked with hot and cold food for open-faced sandwiches. They have become a byword in English for "a variety of things."

ANSWER: **smörgåsbord** ("smarr-gahs-BUHRD") [prompt on **julebord** or **påskbuffé**]

[10m] Outdoor celebrations in August celebrate the High Coast dish of surströmming, which is produced in this manner. Hákarl is produced in this manner in Iceland and served in cubes.

ANSWER: **fermented** [or word forms, such as undergoing **fermentation**; accept **fermented** herring; accept **fermented** shark]

[10h] A common food during Shrovetide is this sweetroll filled with almond paste and topped with homemade whipped cream. This sweetroll is usually served alongside espresso but also can be served drowned in warm milk.

ANSWER: **semla** [or **semlor**; or **fastelavn**; or **vēja kūkas**; or **laskiaispulla**; or **fastlagsbulle**; or **fastelavnbolle**]
<Geography>

14. A series of poems describes members of this profession as frozen "in the great / refrigerator of Los Angeles" and "lost in the dark city." For 10 points each:

[10m] What profession titles a novel that ends with the narrator being disappointed by a poet's notebooks after taking a road trip to the Sonora Desert with the prostitute Lupe?

ANSWER: **detectives** [accept *The Savage **Detectives*** or *Los **detectives** salvajes*; accept "The Lost **Detectives**" or "Los **detectives** perdidos"; accept "The Frozen **Detectives**" or "Los **detectives** helados"; prompt on private **investigators** or **private eyes** or **P.I.s**]

[10e] "The Frozen Detectives" is by this Chilean author, who fictionalized himself and Mario Santiago Papasquiaro as Visceral Realist poets in his novel *The Savage Detectives*.

ANSWER: Roberto **Bolaño** [or Roberto **Bolaño** Ávalos]

[10h] Papasquiaro inspired the infrarealists with a collection named for this animal's "howl." "The new Poetry" is conceived under this animal in a poem that begins, "It happened in a divine moment for the human species."

ANSWER: **swans** [accept "El **Cisne**"; accept ***Swan's** Howl* or *Aullido de **cisne***; prompt on **birds** or **avians**] (The second poem is by Rubén Darío.)

<World Literature>

15. Answer the following about Italy in the 1970s, for 10 points each.

[10m] In the late 1970s, Enrico Berlinguer's ("bare-leen-GWER's") Italian Communist Party and Aldo Moro's Christian Democracy unexpectedly formed a coalitionary alliance known by this two-word term.

ANSWER: "**historic compromise**" [or "**compromesso storico**"; accept **Third Phase** or **Terza Fase**; accept **Democratic Alternative** or **Alternativa Democratica**]

[10e] In 1975, Aldo Moro sparked public uproar by signing the Treaty of Osimo, which divided the area around Trieste with this country. The Informbiro period followed this country's split with Stalin's brand of Communism.

ANSWER: **Yugoslavia** [or Socialist Federal Republic of **Yugoslavia**; or **SFRY**; or Socijalistička Federativna Republika **Jugoslavija**]

[10h] In 1976, a chemical factory explosion near this town in Lombardy exposed its inhabitants to the highest known levels of dioxin in a residential population. A 2012 EU directive that controls "major accident hazards involving dangerous substances" is named for this town followed by "III."

ANSWER: **Seveso** [accept **Seveso** disaster or Disastro di **Seveso**; accept **Seveso-III** directive]

<European History>

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16. Chasles's ("shal's") theorem states that any displacement of one of these theoretical objects can be represented as a rotation plus a translation. For 10 points each:

[10m] Name these theoretical objects whose motion about a fixed point can be represented using Cayley–Klein parameters or quaternions.

ANSWER: **rigid bodies** [or **rigid body**]

[10e] When rigid body rotation is free of this quantity, the right sides of Euler's ("OY-lur's") equations are set to zero. This quantity is the cross product of force and the lever arm.

ANSWER: **torque** [prompt on **tau**]

[10h] Euler's equations in vector form set this expression of L and omega, where L and omega are the angular momentum and angular velocity pseudovectors, respectively, equal to the applied torque. This expression of L and omega is derived using the relationship between time derivatives in the space and body frames.

ANSWER: **L-dot plus omega cross L** [or **L-dot + $\omega \times L$** or **L-dot plus the cross product of omega and L**; accept the **time derivative of L** (in the body frame) or **dL/dT** in place of "L-dot"; accept answers that flip the addition, such as **omega cross L plus L-dot**; reject answers that change the order of the cross product, such as "L-dot plus L cross omega"]

<Physics>

17. The recitation of this formula occurs while kneeling after the second and last *raka'āt* of Islamic prayer. For 10 points each:

[10h] Name this testimony of faith that is followed by the *ṣalawāt* blessing for Muhammad and his family. Ja'farī Shias do not recite the usual first words of this formula and add a phrase affirming that Allāh has no partner.

ANSWER: **Tashahhud** [or **at-Tahiyat**]

[10m] This action is performed during the Tashahhud, though when exactly differs by school. Ḥanafīs do this while saying "La," Shāfī'īs do this while saying "ill-Allāh," and Mālikīs hold that it should be done continuously.

ANSWER: **raising the index finger** [accept **pointing the index finger**; accept **raising** and lowering the **index finger**; accept equivalent descriptions; prompt on descriptions that do not specify which finger; reject answers like "raising one's hand" or "raising one's arm"]

[10e] *Original language required.* If *salat* is not over, Muslims recite these words after the Tashahhud to continue on. Sections of *salat* are punctuated by this phrase meaning "God is great," which is also called the *takbir*.

ANSWER: **Allāhu 'akbar**

<Religion>

18. Answer some questions about *stasis* ("STAH-siss"), or civil strife in the Greek *polis*, for 10 points each.

[10m] *Stasis* between democrats and oligarchs in Epidamnus began a war between this island and its mother colony, Corinth. This island then allied with Athens to fight Corinth at Sybota, largely causing the Peloponnesian War.

ANSWER: **Corcyra** [or **Korkyra**; or **Corfu**]

[10e] In Sicyon, Euphron became tyrant after a *stasis* by playing on opposition to this city, which dominated much of the Peloponnese. This city tried to avoid *stasis* by controlling the helots in its Messenian hinterlands.

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

[10h] Archaic *staseis* ("STAH-sace") in this city caused the Pentilids' ouster, Myrsilus's tyranny, and the rule of one of the "Seven Sages." Much later, Diodotus argued against "haste and anger" towards the participants in a *stasis* in this city.

ANSWER: **Mytilene** ("mit-uh-LEE-nee") [accept **Mytilenean Debate**; accept Myrsilus of **Mytilene**; accept Pittacus of **Mytilene**]

<Other History>

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19. This psychologist unsuccessfully tried to use cocaine to cure his friend Ernst von Fleischl-Marxow's ("MARX-oh's") morphine addiction. For 10 points each:

[10e] Name this psychologist who alluded to his advocacy of cocaine in his analysis of the dream "Irma's injection."

ANSWER: Sigmund **Freud** [or Sigismund Schlomo **Freud**]

[10h] Freud's attempts to treat morphine addiction are criticized in this man's biography *Freud: The Making of an Illusion*. This one-time psychoanalytic literary critic has attacked psychoanalysis in books like *The Memory Wars*.

ANSWER: Frederick **Crews** [or Frederick Campbell **Crews**]

[10m] Crews's biography also notes that many of the symptoms of this patient of Josef Breuer's ("YO-seff BROY-er's") can be attributed to morphine addiction. This patient's real name was Bertha Pappenheim.

ANSWER: **Anna O.** [prompt on Anna; prompt on O.]

<Social Science>

20. Artists gathered at Brøndums Hotel in this town, where Michael and Anna Ancher painted fisherfolk in works like *Will He Round the Point?* For 10 points each:

[10h] Name this 19th-century Danish art colony led by Marie and P. S. Krøyer, the latter of whom immortalized Marie's affair with the composer Hugo Alfvén ("all-VAIN") in a painting of a Midsummer Eve bonfire on this town's beach.

ANSWER: **Skagen** ("SKAY-un") [or the **Scaw**; accept **Skagen** Painters or **Skagensmalerne**; accept *Midsummer Eve Bonfire on **Skagen** Beach* or *Sankt Hansblus på **Skagen** strand*]

[10e] The Skagen Painters captured the North Sea coast by hauling their canvases outdoors, a practice known by this French phrase since it was pioneered by the Barbizon school.

ANSWER: **en plein air** ("on plan air") [or *peinture **sur le motif***]

[10m] This country's Impressionist Heidelberg School created *en plein air* paintings like *The Pioneer* along the "Artists Trail." *The Big Picture* depicts the opening of this country's parliament in 1903.

ANSWER: **Australia** [or Commonwealth of **Australia**] (Frederick McCubbin painted *The Pioneer*. Tom Roberts painted *The Big Picture*.)

<Painting & Sculpture>