Pre-ICT and Nationals Open/Minnesota Open 2019 (PIANO/MO): "What about bad subject matter? Or a bad title drop, even? That could kill a tournament pretty good."
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Packet 8 Tossups

1. **A film by this director ends by craning up from a shot of a boy at his mother's grave to a wide shot of peasants plowing a field. This director's taste for long takes led him to develop a method he dubbed "one scene, one cut." Only one of this director's over 40 films from the 1920s has survived intact. In one of this director's films, a girl and her brother recognize their mother after hearing her sing a song with their names in the lyrics. One of this director's characters encounters his wife at a brothel and then throws his armor into a river. Near the beginning of that film by this director, the two central couples take a boat ride over a (*)** fog-covered lake. In that film by this director, a man's wife is raped by bandits after he runs off to become a samurai, while his potter friend is seduced by a ghost. For 10 points, name this director of *Sansho the Bailiff* and *Ugetsu*.
ANSWER: Kenji **Mizoguchi** [accept names in either order] <JR>

2. **Despite a common misnomer, the most common cranial schwannoma affects this ability. A Tumarkin attack is a sudden loss in this ability; more commonly, chronic loss in this ability can be diagnosed as canal paresis, so named because no caloric response is observed from hot or cold water. This ability is regulated by a long projection called the kino⬜cilium that directs orientation of cells in a crista or in the planar direction along the striola. Topical administration of scopolamine** [skoh-PAW-luh-meen] **treats acute defects in it. This ability is driven in the (*)** saccule and utricle by movement of calcium carbonate otoliths through the semicircular canals located inside the bony labyrinth. This non-hearing ability, transmitted by hair cells through the eighth cranial nerve, is impaired in people with Ménière's disease. For 10 points, name this sense granted by the vestibular system in the inner ear, which is disrupted in patients with vertigo.
ANSWER: sense of **balance** [or sense of **orientation**; or sense of **stability**; or **standing**; or word forms; accept the **vestibular** system until it is read; prompt on motion or word forms; prompt on spatial perception or similar answers; prompt on vestibuloocular reflex; do not accept or prompt on "sight" or "vision" or "hearing"] <AS>

3. **While "watching the rabbits in their pens," one of this author's characters thinks, "I'm no different from you, poor things," but then when she tries to set the rabbit free, the rabbit refuses to move. Another novel by this author interweaves the narratives of the retiring Vassar College professor Camila and her dead mother, a poet who is compared to Emily Dickinson. The snow falls in New York City "like the Bible's little pieces of manna bread" at the end of a novel by this author of *In the Name of Salomé*, who also wrote a novel in which (*)** Dedé recounts the staged murder of the sisters Patria, Minerva, and María Teresa. She wrote a novel in which Carlos flees with his wife Laura and his daughters Yolanda, Carla, Sandra, and Sofia from Rafael Trujillo's regime. *In the Time of the Butterflies* is by—for 10 points—what Dominican-American author of *How the García Girls Lost Their Accents*?
ANSWER: Julia **Alvarez** <WJ>

4. **A section of an aqueduct terminating in *this* modern-day country is the longest known tunnel from antiquity; that aqueduct supplied water to this modern-day country's city of Gadara. Three two-headed busts were among the lime plaster and reed statues discovered at ʿAyn Ghazāl in this country. A gigantic stone statue that once stood on the citadel of this country's capital now only survives as an elbow and three fingers; that statue in this country's capital depicted (*)** Hercules. A site in this country contains the "Temple of the Winged Lions." To reach that site in this country, visitors must pass through the "Sīq," a passageway that opens onto the treasury of al-Khaznah. The explorer Johann Ludwig Burckhardt rediscovered the ruins of an ancient Nabatean city in this country. For 10 points, name this country in which Petra is located.
ANSWER: The Hashemite Kingdom of **Jordan** [or al-ʾ**Urdunn**] <MK>

5. **Art historian Esther Jacobson proposed an ancient goddess of *this* form based on stones depicting these things in South Siberia and Mongolia. In heraldry, one these things called the "pantheon" is studded with stars. A white one of these things with a gold crown and chain around its neck was the emblem of England's Richard II. Another white one of these things was pursued by the brothers Hunor and Magor in a Hungarian origin myth. One of these creatures was trotted around to inspire awe by the Roman rebel (*)** Sertorius. As a hermit, Saint Giles took care of one of these creatures; another was seen with a crucifix above its head in visions by Saint Hubert and Saint Eustace. The hunting hounds of the Fianna found a maiden in this form named Sadhbh, who later became Finn mac Cool's wife. The four animals eating Yggdrasil are—for 10 points—what ungulates whose antlers blend in with the branches?
ANSWER: **deer** [or **roe**s; or **roebuck**s; or **buck**s; or **stag**s; or **doe**s; or **hart**s; or **faun**s; or rein**deer**; or **cervid**s; accept *The **Deer** Goddess of Ancient Siberia*] <MJ>

6. *Note: specific English term required.* **Australia-based artist Nusra Qureshi is known for reviving *this* art form in works like *The Ideal Floral Background.* This art form has been reimagined in works like *Disruption as Rapture* and 2009's *Provenance, The Invisible Hand* by Shahzia Sikander. In a trope sometimes imitated by Renaissance painters, works in this art form often depicted angels with multicolored wings. Reza Abbasi is often called the last great master of this art form, works of which were collected along with (*)** calligraphy in albums called *Muraqqa*. This art form is named for a lead-based red pigment. Abd al-Samad introduced this art form to the Mughal Empire from Persia, where it itself derived from Chinese models, and it was used to paint portraits of patrons like Queen Elizabeth I by Nicholas Hilliard. For 10 points, give this term for the paintings in an illuminated manuscript, which are often small.
ANSWER: **miniature**s [accept more specific answers like **Persian miniature**s; prompt on manuscripts or illuminations before mention; prompt on painting by asking "In what format?"] (The pigment is "minius.") <JM>

7. **Dynamic oligopoly models frequently use an equilibrium concept named for Markov and *this* word. Kreps and Wilson's concept of sequential equilibrium strengthens a concept named for this word by imposing more structure on off-equilibrium beliefs. In signaling games, an outcome is *this* kind of Bayesian equilibrium if strategies are optimal and beliefs are consistent with the strategies. If a strategy set possesses a property partially named for this word, it will induce a Nash equilibrium for every (*)** subgame of an extensive-form game. Extensive-form games where every player knows every payoff and also knows every past move involve this kind of information. The welfare theorems hold in markets with this kind of competition. For 10 points, what word describes a type of competition in which agents take prices as given?
ANSWER: **perfect** [or Markov **perfect**; or **perfect** recall; or **perfect** Bayesian; or subgame **perfect**; or **perfect** information; or **perfect** competition] <SB>

8. **After a prophet known as "Ice" convinced *this* tribe's warriors that they could stop bullets with their hands, they were slaughtered when cavalry charged with sabers. A warrior of this tribe thought he would be invincible unless he ate like a white man, and in fact died after his meal was cooked with an iron fork before the Battle of Beecher Island. Silas Soule tried to stop, and was likely killed for publicizing, a massacre of this tribe in which a chief of it was shot while waving a white flag and wearing medals bestowed by (*)** Abraham Lincoln. Roman Nose was a warrior of this tribe, whose Dog Soldier society was decimated at Summit Springs. This tribe, whose "southern" branch forms a joint tribe with the Arapaho, was led by Black Kettle. For 10 points, name this tribe whom John Chivington slaughtered in the Sand Creek Massacre, and who lend their name to the capital of Wyoming.
ANSWER: **Cheyenne** [accept specific names for the branches like the **North**ern **Cheyenne**, **Tsitsistas**, Tsé**tsêhéstâ**hese, Notame**ohmésêhese**, "Northern **Eater**s," **South**ern **Cheyenne**, **Sutai**o, Heévâhe**taneo'o**, or "**Rope**d People"; prompt on Arapaho with "who confederate with whom?" until mentioned] <JG>

9. **During structure formation, this equation is satisfied at exactly twice the turnaround time when the density ratio equals 18 pi-squared. A traceless term for the moments of the surface pressure is used in a tensor variant of this equation developed by Chandrasekhar. This statement is derived by noting that the dot product of generalized position and momentum has periodicity if the potential is bounded. This equation is only satisfied if its namesake quantity, one-half the time derivative of (*)** rotational inertia, is a constant. Applying this equation to Newtonian gravity gives a globular cluster's mass from its velocity dispersion. Applying it to a nonideal gas gives the pressure as a power series of the volume. For 10 points, name this theorem that predicts, for inverse-square central forces, the average potential energy equals negative two times the average kinetic energy.
ANSWER: **virial** theorem [or **virial** equation of state] <AS>

10. **The introduction to this play claims that "The most extraordinary example of the whirligigs of being and appearance, of the imaginary and the real, is to be found in" it. After accidentally touching someone's fingers, a character in this play says that "Frontiers are not conventions but laws." This play's "second movement" is bookended by the ringing of a telephone and the ringing of an alarm clock. A woman in this play is strangled with (*)** "dish-gloves," and her murderer then enters wearing a "short black dress" and delivers a monologue to "imaginary, though present" people. This play ends with the declaration that "We are beautiful, joyous, drunk, and free!" One of this play's title characters seduces Mario the milkman and later serves poisonous tea to the other title character rather than to Madame. Solange and Claire act out sadomasochistic games in—for 10 points—what play by Jean Genet?
ANSWER: The ***Maids*** [or Les ***Bonnes**] <WJ>

11. **At this event, the question "What would the world be like if women were safe?" was represented via Marco Cochrane's *Bliss Dance*. An American named John Law got embroiled in a legal battle around this event after a motorcycle crash killed Law's friend Michael Furey en route to it, drawing media scrutiny. The first Google Doodle honored this event. Some pendants honoring it depict the layout of a place where roads are arranged in two-thirds of a circle. This basis for a 2018 exhibit at D.C.'s Renwick Gallery called *No Spectators* began on (*)** Baker Beach among the San Francisco Cacophony Society. Larry Harvey codified Ten Principles of this event, including "decommodification." A mechanical octopus has been among the "mutant vehicles" at—for 10 points—what annual festival that constructs Black Rock City in the Nevada desert around a namesake 40-foot-tall effigy?
ANSWER: **Burning Man** <MJ>

12. **Five soldiers in this country's CRW unit were beaten to death after the Queen Elizabeth Barracks mutiny. A *different* country launched Operation Morris Dance after a coup in this country. Members of this country's Group Against Racial Discrimination were arrested for burning a copy of its constitution. This country's military and its Yellow Ribbon campaign opposed a Reconciliation, Tolerance, and Unity Bill proposed by Laisenia Qarase. Sitiveni Rabuka declared this country a republic after taking power in 1987. Most of this country's native (*)** iTaukei people belong to the Methodist Church, which backed a 2000 coup in which George Speight took its Prime Minister hostage to force the resignation of Kamisese Mara. Its prime ministers have included Mahendra Chaudhry and Frank Bainimarama. Hindus make up almost a third of—for 10 points—what Oceanian country governed from Suva?
ANSWER: Republic of **Fiji** [or Matanitu Tugalala o **Viti**] <SK>

13. **The surname of a character who does *this* title action was adopted by Oscar Wilde after leaving Reading Gaol. A person who does *this* title action is encountered by the Indian Immalee, the Spaniard Alonzo Monçada, and the other narrators of a series of nested stories. This is the first verb in a poem whose speaker "little thought / What wealth the show to me had brought." In an 1820 Gothic novel by Charles (*)** Maturin, this title action is performed by an ancestor of John Melmoth. This action is invoked in the first line of a poem that describes how a "vacant or…pensive mood" can be enlivened by "that inward eye / Which is the bliss of solitude." A "host" of daffodils are seen by a poetic speaker who does—for 10 points—what action "lonely as a cloud"?
ANSWER: **wander**ing [accept *Melmoth the **Wanderer*** or "I **wander**ed lonely as a cloud"; prompt on synonyms like travel by asking "What's the action referenced in the *title*?"] <JR>

14. **A map of *this* kind sends a classic example of a nonmatrix Lie group to "S·L₂(R)." A surjection from the fundamental group at a basepoint *x* to the preimage of *x* under *this* kind of map is given by the unique path-lifting property of these maps. For a continuous map *f* to be this kind of map, there must, given a point *x*, be some open neighborhood of *x* whose preimage under *f* is a union of disjoint open sets. "S·U2" has a (*)** twofold form of this property with respect to the rotation group "S·O3," since the *n*-sphere has a "double" form of this property with respect to *n*-dimensional real projective space. A simply connected space is its own "universal" space of this kind. A space of this kind can be divided into "sheets" that are homeomorphic to open sets in the base space. For 10 points, name this kind of space that stacks evenly "on top" of a base space.
ANSWER: **cover**ing map [accept **cover**ing space or universal **cover**] (The other group in the first line is the universal cover of SL(2,**R**).) <JR>

15. **Edward Craig has used this philosopher's notion of "vindicatory genealogies" that uphold rather than corrode their subject. This man praised Diderot's murky picture of selfhood over Rousseau's, and argued that Thucydides, not Herodotus, invented historical time in a book that calls accuracy and sincerity the virtues of truthfulness. This man denied an "Archimedean point" from which to convince (*)** amoralists that they are mistaken in a book that distinguishes thin ethical concepts like "goodness" from thick ones like "prudence." This author of *Truth and Truthfulness* asked if we would judge Gauguin's abandonment of his family harshly if he'd failed as a painter in a paper that coined a term for judgment a person receives for actions outside their control. For 10 points, who wrote *Ethics and the Limits of Philosophy* and "Moral Luck"?
ANSWER: Bernard (Arthur Owen) **Williams** <SK>

16. **A work by this author contains the diagram of a window through which he escaped naked after having sex with a babysitter. This author *inspired* a character who freezes to death while counting railway ties in Mexico in the story "The Day After Superman Died." In another book, this author's technique of talking to passengers instead of looking at the road is described as "gestalt driving". In 2018, Emory University purchased this man's "Joan Anderson Letter," which inspired the "spontaneous (*)** prose" of another author. This author of *The First Third* was the driver of the bus Furthur in Tom Wolfe's *The Electric Koolaid Acid Test*. A character based on this author is called "the father we never found" in the final line of a novel in which he abandons Sal Paradise in Mexico City. For 10 points, name this Beat Generation author who was Jack Kerouac's model for Dean Moriarty in *On The Road*.
ANSWER: Neal (Leon) **Cassady** <DS>

17. **Relaxing assumptions in this theory is often described as climbing a Jacob's ladder. A foundational paper in this discipline by Chengteh Lee *et al.* aiming to amend the Colle–Salvetti formula is the eighth-most cited scientific article of all time. A popular three-parameter model in this theory named for Becke, Lee, Yang, and Parr applies a generalized gradient approximation to the standard L·D·A. The first model in this theory, driven originally by work from Enrico Fermi, considered an (*)** electron gas to derive a dependence on the spatial integral of rho to the five-thirds. This theory, which predicts a cusp at every atom, reduces the dimensionality of Hartree–Fock methods down to solving for a single scalar field that can exactly predict molecular energies. For 10 points, name this ubiquitous technique in computational chemistry that computes electron densities.
ANSWER: **density functional** theory [or **DFT**] <AS>

18. **A book by this author analyzes why a place with "gentlemen who have many possessions and live without working" was described in response to questions about a man's belief in an earthly paradise. This man argued that European travelers saw tobacco as an "idolatrous" representation of "symbolically reversed wine" in an essay that connects the expansion of the Russian Empire to the rediscovery of shamans. In one essay, this man found a similar paradigm of "elastic rigor" behind conjectural methods of Giovanni (*)** Morelli, Sigmund Freud, and Sherlock Holmes. This man recounted how the religious authorities in Friuli saw a "diabolical inspiration" for the cosmology of a sixteenth-century miller who was eventually burned at the stake by the Roman Inquisition. The worldview of Menocchio [meh-NAW-kyoh] was studied in a "microhistory" by—for 10 points—what Italian author of *The Cheese and the Worms*?
ANSWER: Carlo **Ginzburg** <WHM>

19. **A late piece by this composer uses the unusual scale [read slowly] "C, D-flat, E, F-sharp, G-sharp, A-sharp, B, C." . This composer unusually used a "Scherzo Fuga" as the last movement of his string quartet in E minor. This composer alternated slashing G minor chords with bass drum thwacks in a choral movement that returns in the seventh and final movement. This composer's last major piece was a set of *Four* (*)** *Sacred Pieces*. This composer imitated Berlioz by using four offstage trumpets to build up the opening fanfare of the "Tuba Mirum" of an 1874 piece. That piece by this composer includes mezzo-soprano and soprano solos in its "Lux Aeterna" and "Libera Me" sections. For 10 points, name this Italian composer of a *Requiem* in memory of Alessandro Manzoni, who also wrote operas like *Otello* and *Rigoletto*.
ANSWER: Giuseppe (Fortunino Francesco) **Verdi** <JR>

20. **A theologian from this country wrote a monograph on *Prayer* which remarks that "our halting utterance to God is but an answer to God's speech to us." The magnum opus of that formerly-Jesuit theologian from this country is titled *Theo-Drama*. Another theologian from this country once claimed that "the gospel is not a truth among other truths" but instead "sets a question mark against all truths," and wrote a book titled for *The Humanity of God*. In this country, the (*)** "Neo-Orthodox" movement was led by a theologian known for his massive, unfinished book *Church Dogmatics*. A Protestant tradition from this country, which was represented in the 20th century by Karl Barth, uses the mnemonic TULIP to remember doctrines like "Irresistible Grace" and "Total Depravity." For 10 points, name this home of reformers Huldrych Zwingli and John Calvin.
ANSWER: **Switzerland** [or the **Swiss Confederation**; or der **Schweiz**; or la **Suisse**; or **Svizzera**; or **Svizzer**/**Svizra**]
(The first theologian is Hans Urs von Balthasar.) <JM>

Packet 8 Bonuses

1. This man's Foreign Secretary said of a proposed Council of Europe that "If you open that Pandora's Box, you never know what Trojan 'orses will jump out." For 10 points each:
[10] Name this 20th-century Prime Minister whose cabinet included Foreign Secretary Ernest Bevin (spelled "B-E-V-I-N") and Minister of Health Aneurin "Nye" Bevan (spelled "B-E-V-A-N").
ANSWER: Clement (Richard) **Attlee**
[10] Attlee belonged to *this* party, which established Britain's National Health Service under his tenure. It was taken in a "New" direction by Tony Blair in the 1990s.
ANSWER: **Labour** Party [accept **New Labour**]
[10] A later Labour prime minister, Harold Wilson, oversaw *these* massive reductions of the British railroad network, despite opposition from his party. They followed a Conservative namesake's "report" on *The Reshaping of British Railways*.
ANSWER: **Beeching** cuts [or **Beeching** axe; accept **Beeching** report] <MJ>

2. This architect used skewed, pleated stainless steel in the facade of the Broad Art Museum at Michigan State University. For 10 points each:
[10] Name this Iraqi-British architect who designed the Guǎngzhōu Opera House and the Heydar Aliyev Center in Baku.
ANSWER: Zaha (Mohammad) **Hadid**
[10] Since Hadid's death, her firm ZHA has been led by *this* architect. This man's two-volume *Autopoiesis of Architecture* uses systems theory to consider architectural history as a self-contained evolution.
ANSWER: Patrik **Schumacher**
[10] In volume II of *Autopoiesis of Architecture*, Schumacher argues that computer manipulation of *these* functions is central to the next step in architecture. Schumacher earlier coined an "-ism" named for these functions, which is used to describe Hadid's architectural style.
ANSWER: **parametric** functions [accept **parametricism**] <JM>

3. One of these works details Julius Rodman's expedition across the Rockies in 1792, and another one of them announces Baron von Kempelen's discovery of a way to turn lead into gold. For 10 points each:
[10] Name the author and type of these works, the most successful of which was a headline reporting Monck Mason's three-day trip across the Atlantic Ocean in a hot air balloon. A description is fine
ANSWER: **hoax**es by Edgar Allan **Poe** [accept any description of **fake news** by **Poe**; prompt on partial answer]
[10] This protagonist "writes" a preface claiming that it's a true story and Poe only helped him write part of it. He encounters an island of completely black natives who shout "Tekeli-li" when they see anything white.
ANSWER: **Arthur** Gordon **Pym** [accept either; accept *The Narrative of **Arthur Gordon Pym** of Nantucket*]
[10] This author wrote a sequel to *The Narrative of Arthur Gordon Pym* called *An Antarctic Mystery*. The Baltimore Gun Club cheers Poe for writing "The Unparalleled Adventure of One Hans Pfaall" in his novel *From the Earth to the Moon*.
ANSWER: Jules (Gabriel) **Verne** <DS>

4. A monk from this modern country coined the term "Engaged Buddhism" in a book calling it a "Lotus in a Sea of Fire" and, with his student Jon Kabat-Zinn, popularized mindfulness meditation while in exile. For 10 points each:
[10] Name this modern country home to Thich Nhat Hanh. A monk photographed by Malcolm Browne wrote its president asking him to "take a mind of compassion…and implement religious equality" in this country before self-immolating.
ANSWER: The Socialist Republic of **Vietnam** [or Cong hoa xa hoi chu nghia **Viet Nam**]
[10] Thich and the nun Chan Khong founded *this* mindfulness-based tradition, named for a monastery they built in exile in France. This tradition's monks follow a vastly simplified, 14-precept version of Buddhist monastic codes.
ANSWER: **Plum Village** Tradition [accept Order of **Interbeing**, **Tiep Hien**, or Ordre d'**Interêtre**; accept **Persimmon Village**]
[10] Thich used a sutra named for *this* thing to open a collection of his commentaries and translations that is partly named for it. The *Diamond Sutra* and a sutra titled for *this* thing provide the paradigm for *prajñā·pāramitā* texts.
ANSWER: the ***Heart** (of Perfect Wisdom) Sutra* [or the *Prajnaparamita**hṛdaya** Sutra*; or ***Xīnjīng***; accept ***Awakening the Heart***] <JG>

5. Answer some questions about the Casimir force between two uncharged plates in a vacuum, for 10 points each:
[10] Plain classical mechanics is sufficient to show that if you *double* the distance between the plates, the Casimir force decreases by what factor? The Coulomb force decreases by this factor if you *quadruple* the charge separation.
ANSWER: **16** [or **16***x* or **16 times**; accept **1/16** or **one-sixteenth** because fractions are confusing]
[10] You can obtain the numerical prefactor by considering the zero-point energy of electromagnetic standing waves. For a 1D quantum harmonic oscillator, the zero-point energy equals *h*-bar times angular frequency times what number?
ANSWER: **one-half** [or **0.5**]
[10] The full derivation also requires you to neglect electromagnetic standing waves with frequency above what value, which instead activate electronic oscillations inside the conductor itself? This frequency is proportional to electron charge over the square root of electron mass. A description is fine.
ANSWER: **plasma** frequency [or the frequency of the **Langmuir** waves; or the frequency of the **charge density** waves] <AS>

6. For 10 points each—answer the following about "in-yer-face theatre."
[10] Sarah Kane's extremely in-yer-face play *Blasted* is often compared to *this* earlier play, in which Chiron and Demetrius are murdered, baked into a pie, and served to their mother Tamora.
ANSWER: ***Titus Andronicus*** (by Shakespeare)
[10] Aleks Sierz, who coined the term "in-yer-face theatre," cited *this* playwright's "comedies of menace," like *The Dumb Waiter* and *The Birthday Party*, as predecessors to the style.
ANSWER: Harold **Pinter**
[10] This author's highly violent play *Mojo* is often considered "in-yer-face theatre." His more recent works include *The Ferryman* and *Jerusalem*, which centers on the drug-dealing Johnny "Rooster" Byron.
ANSWER: Jez **Butterworth** <JG>

7. This song states "Knife and fork are on the table, there's nothin' in my pan / And if you say anything about it, havin' trouble with the man." For 10 points each:
[10] Identify this blues song that originated among prisoners in the American South. It's titled for a train the singer asks to "shine the light on me".
ANSWER: "**Midnight Special**"
[10] John and Alan Lomax attributed "Midnight Special" to *this* singer, who may have gotten his nickname from a mispronunciation of his surname or from being shot in the stomach. His other songs include "Goodnight Irene" and "Black Betty."
ANSWER: **Lead Belly** [or Huddie **Ledbetter**]
[10] Lead Belly played in a style of blues from *this* state. The Lomaxes were based at a university in this state, which also produced Janis Joplin, Stevie Ray Vaughan, and Willie Nelson.
ANSWER: **Texas** <DS>

8. This man's symbol, a yellow sun with 40 wavy rays, appears on the flag of the modern-day country in which he lived. For 10 points each:
[10] Name this warrior, whose defeat of his Uyghur and Afghan rivals is related in an extremely long national epic. A mausoleum in the valley of the Talas River is believed by locals to contain his remains.
ANSWER: **Manas** [accept *The Epic of **Manas***]
[10] *The Epic of Manas* describes the struggles of this Turkic ethnic group against the neighboring Khitan and Oirat. They migrated south to the Pamirs from the Yenisei basin starting in the 9ᵗʰ century.
ANSWER: **Kyrgyz** people [accept **Kyrgyzstan**]
[10] Modern-day Kyrgyzstan was also the site of the 751 Battle of Ṭalās River, at which the Táng dynasty was beaten back by *this* Islamic caliphate, which was fresh off its victory over its predecessor at the Battle of the Zāb.
ANSWER: ʿ**Abbāsid** Caliphate <SE>

9. After the 2018 elections, this state's State Assembly is less representative of the popular vote than any other state legislature: Republicans lost its popular vote with only 46%, but held 63% of seats. For 10 points each:
[10] Name this Midwest state where Democrat Tony Evers [EE-vurs] succeeded anti-union Republican Scott Walker as governor.
ANSWER: **Wisconsin**
[10] In *this* 2018 case, the Supreme Court avoided a direct decision on whether Wisconsin's Republican gerrymander is unconstitutionally extreme. Plaintiffs in this case relied on a measure called the "efficiency gap."
ANSWER: *__Gill__ v. Whitford* [or *__Whitford__ v. Gill;* plaintiffs' full names are Beverly R. **Gill** and William **Whitford**]
[10] With Eric McGhee, a legal scholar of *this* surname at UChicago co-developed the "efficiency gap" measure to quantify the effect of "wasted votes." A different man of this surname was Bill Clinton's communications director before going into TV news.
ANSWER: **Stephanopoulos** [accept Nicholas **Stephanopoulos** or George **Stephanopoulos**] <MJ>

10. The Gralnick lab at Minnesota and others have shown that a strain of bacteria in this genus, M·R-1, can be used for bioremediation because it reduces metals like manganese found in lake water. For 10 points each:
[10] Name this genus of Gram-negative bacteria whose most important member, *oneidensis*, is being studied for the suitability of making fuel cells powered by microbes.
ANSWER: ___Shewanella___
[10] Bacterial fuel cells would pass electrons to external anodes through these proteins that have heme cofactor groups. One of them shuttles electrons between Complexes III ["three"] and IV ["four"] in the electron transport chain.
ANSWER: __cytochrome__s [or __cytochrome c__]
[10] *Shewanella* natively forms one of these structures on some extracellular metal oxides. These 2D structures occur when microbes adhere to solid surfaces, and *Pseudomonas aeruginosa* forms them in the lungs.
ANSWER: __biofilm__s [prompt on film] <AS>

11. The original experiment demonstrating this trait asked people to find a way to affix a candle to a wall using only thumbtacks and the box the thumbtacks came in. For 10 points each:
[10] Give this two-word term coined by Hans Duncker for the tendency of humans to see objects only in terms of their traditional or common use cases. A problem-solver with a narrow "mental set" might fall prey to this phenomenon.
ANSWER: __functional fixedness__ [or __Funktionale Fixierung__]
[10] Hans Duncker was part of *this* school of psychology, which Max Wertheimer launched in 1910s Germany. Its members studied how the mind automatically clusters discrete perceptions into whole objects.
ANSWER: __Gestalt__ psychology
[10] Gestalt theorists found that the mind divides black-and-white images into these *two* layers, then decides which one goes in front. It's ambiguous which of these *two* things is which in Edgar Rubin's image of a vase whose sides look like faces in profile.
ANSWER: __figure__ [or __Figur__] and back__ground__ [or Unter__grund__ [(OON-tehr-)GRUHNT]] <MJ>

12. A history of poems described by *this* generic label was given by Burton Watson in the book *Chinese Lyricism*. For 10 points each:
[10] Name this classicizing genre of Chinese "odes" and other poetry contrasted with *cí* [tsu] lyrics and *fù* [foo] rhapsodies. Ironically, this Chinese word is mostly used in that technical sense by Western scholars.
ANSWER: ___shī___ [shur] [accept ___Shījīng___]
[10] The original *shi* poems from the *Book of Odes* use *this* number of characters per line. This is the number of lines in a *rubai'i*.
ANSWER: __four__
[10] The poems in the *Book of Odes* were originally accompanied by *this* art form, whose namesake "bureau" collected "folksongs" during the Hàn Dynasty.
ANSWER: __music__ [or *yīn__yùe__*; accept ___yùefǔ___] <JR>

13. This artist's sculpture *Le Couple* inspired similar works by David Smith. For 10 points each:
[10] Name this Catalan modernist sculptor, known for his pioneering work in welded iron. He taught Picasso the welding techniques later used to make the *Chicago Picasso*.
ANSWER: Julio **González** (i Pellicer)
[10] Several González-influenced David Smith pieces are on view at *this* museum in Washington D.C. This museum houses the Smithsonian's collection of contemporary art.
ANSWER: **Hirshhorn** Museum and Sculpture Garden
[10] One of the David Smith pieces at the Hirshhorn is from a series named for *this* geometrical shape. González worked in an abstract style named for these shapes, which was developed by Picasso and Georges Braque.
ANSWER: **cube**s [accept **CUBI** or **cubism**] <JR>

14. In a November 2018 *Science* paper, Dan Nocera and Neel Joshi showed that a surface-coated yeast with no pentose phosphate cycle could use nanoparticles of this element's phosphide to regenerate N·A·D·P·H. For 10 points each:
[10] Name this heavy metal in the boron group. It is mostly interesting because it makes up most of the mass of a chalcogenide complex used ubiquitously as a conductive transparent film in photovoltaics and glass coatings.
ANSWER: **indium** [or **In**]
[10] Indium tin oxide is classified as this type of extrinsic semiconductor, since the tin supplies more electrons than holes. Group V [“five”] dopants generally produce this type of semiconductor.
ANSWER: ***n***-type semiconductor
[10] Thin films made of these molecules may supplant I·T·O both because of the rarity of indium and because these molecules have so many delocalized pi electrons. They are sheets of graphene rolled up into cylindrical rods.
ANSWER: carbon **nanotube**s [or **C·N·T**s] <AS>

15. In one work, this historian argued that the "civic virtue" ideal of U.S. Republicanism abruptly obliterated the blood-based division of "gentlemen" and "commoners" under colonial Monarchy. For 10 points each:
[10] Name this author of 1992's *The Radicalism of the American Revolution*. His first book was an influential account of *The Creation of the American Republic, 1776–1787*.
ANSWER: Gordon S(tewart) **Wood**
[10] Wood won an American history prize of *this* name for *The Creation of the American Republic.* A man of this surname moved the Naval Academy to Annapolis as Naval Secretary and penned the first comprehensive *History of the United States* in the 1840s.
ANSWER: **Bancroft** [accept **Bancroft** prize or Frederic **Bancroft** (prize namesake) or George **Bancroft** (historian)]
[10] Gordon Wood and George Bancroft were both born and raised in this state. A precursor colony on its namesake "Bay" was the focus of Edmund S. Morgan's paper "The Puritans and Sex."
ANSWER: **Massachusetts** [accept **Massachusetts** Bay Colony—though Wood and Bancroft aren't *that* old!] <MJ>

16. This book traces a shift from practitioners asking "What's the matter with you?" in the 18th century to asking "Where does it hurt?" in the 19th. For 10 points each:
[10] Name this 1963 book that discusses how scholars like Marie-Francois Bichat [bee-SHAH] began seeing bodies as clusters of symptoms. Its introduction oh-so-humbly calls it "a book about space, about language, about death."
ANSWER: The **Birth of the Clinic**: *An Archaeology of Medical Perception* [or ***Naissance de la clinique***: *une archéologie du regard médical*]
[10] This bald French post-structuralist discussed how patients are subjected to the "medical gaze" in *The Birth of the Clinic*. He also wrote *Discipline and Punish*.
ANSWER: Michel **Foucault** [foo-KOH]
[10] Foucault was influenced by *this* earlier French doctor and social theorist, who analyzed 19th-century conceptions of "biology" and "disease" in *The Normal and the Pathological.*
ANSWER: Georges **Canguilhem** [kawn-ghee-lem] <MJ>

17. This nebula appears green-tinged from the interstellar medium, which was once attributed to a hypothetical element called "nebulium" before astronomers figure out it was just a forbidden oxygen transition. For 10 points each:
[10] Name this nebula which also contains the Trapezium cluster. It's located close to the stars Altilak, Alnilam, and Mintaka in a large constellation of the same name.
ANSWER: **Orion** Nebula [or **M42**]
[10] The nebula also appears red in color because it is one of these regions, named for their large amounts of ionized gas, where stars are formed inside of larger molecular clouds.
ANSWER: **H II** ["H two"] regions
[10] Protoplanetary disks in the Orion nebula have been extensively studied, particularly in their emission spectra which feature this molecule in the millimeter wavelength range. Radio emissions of this molecule are generally used as a tracer to infer hydrogen gas levels in H II regions.
ANSWER: **carbon monoxide** [or **CO**] <AS>

18. For 10 points each—answer the following about anthropological studies on Iroquois or Haudenosaunee people:
[10] Lewis Hunt Morgan, who was adopted into the Seneca tribe, wrote about the Iroquois "bifurcate merging" kind of *this* system, among many others. In anthropology, this term refers to a system of familial relationships.
ANSWER: **kin**ship
[10] Anthony Wallace's work on revitalization movements was inspired in part by *this* Seneca prophet's "code," which helped revive traditional Iroquois beliefs in the early 19ᵗʰ century.
ANSWER: **Handsome Lake** [or **Sganyodaiyo**]
[10] In Audra Simpson's book *Mohawk Interruptus*, a present-day Mohawk community engages in a "politics of refusal" with respect to states described by *this* word. Colonialism that aims to displace indigenous people is described by this word, which also titles a book on the "mythology of the white proletariat" by J. Sakai.
ANSWER: **settler**s [accept **settler** states or **settler** colonialism] <SK>

19. In this town, a rich man named Nathan Jozefover deserts his wife to marry their maid, only to end up living in a ruined building on his own land after she cheats him out of everything. For 10 points each:
[10] Name this Polish town which, in another story, gives up gold coins forever after being deceived by "The Gentleman from Krakow." It's home to a naïve character who becomes a wandering storyteller after dreaming about his dead wife Elka.
ANSWER: **Frampol**
[10] Frampol and its inhabitants were created by *this* Yiddish-language author and creator of "Gimpel the Fool."
ANSWER: Isaac Bashevis **Singer**
[10] Several of Singer's Frampol stories, including "The Mirror" and "The Unseen," are narrated by *these* characters, who often emerge victorious at the end of the story. The rich "Gentleman from Krakow" turns out to be one of these characters in disguise.
ANSWER: **demon**s [or **devil**s, or **evil spirit**s, or similar] <DS>

20. Answer the following questions about the ritual of *evocatio*, in which a Roman general would "call forth" an enemy deity, offering it a cult at Rome and thereby depriving its city of divine protection. For 10 points each:
[10] The first recorded instance of *evocatio* was the transferal of Juno Regina from *this* city to the Aventine Hill. The supposed ten-year siege of this city, which fell in 396 B.C., is likely an artificial reference to the Trojan War.
ANSWER: **Veii** [accept **Veius**; accept **Veio**]
[10] Another use of *evocatio* occurred when Romans "called forth" the goddess Tanit from *this* city. This city's citadel was known as the *byrsa*, while its harbor was an example of a *cothon*.
ANSWER: **Carthage** [accept **Carthāgō**]
[10] The Roman commander and performer of the *evocatio* ritual at the siege of Carthage bore this *cognomen*. Another Roman general with this *cognomen* earned the nickname "Africanus" after defeating Hannibal at Zama.
ANSWER: **Scipio** [do not accept or prompt on "Cornelius," as that is not a *cognomen*] <MK>