

# Michigan Winter Tournament

"The Holy Roman Empire of Tournaments"

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## Packet 6

Tossups:

1. **This book's author dismissed accusations of its Francocentrism in a 1999 foreword, which described how its central concept was inspired by Derrida's analysis of Kafka's "Before the Law." This book compares the usage of the term "masquerade" in the writings of Joan Riviere and Jacques Lacan. This book defined its title concept as "a politically neutral surface on which culture acts" and "the very expressions that are said to be its results." The writings of Monique (\*) Wittig are analyzed in the context of a "heterosexual matrix" in this book's section on "Subversive Bodily Acts." For 10 points, name this book subtitled "Feminism and the Subversion of Identity" which examines the performativity of the title concept by Judith Butler.**

ANSWER: *Gender Trouble: Feminism and the Subversion of Identity* <Tsai, Philosophy>

2. **The description "'E got long face. 'E tall man. 'E live long South America." was used to characterize the central figure of one of these religions. Adherents of one of these religions perform penance by meditating in front of a money jar called "television," and believe that faithful adherents will be rewarded with white skin during a coming paradise known as the "Period of Government." Members of some of these religions perform imitations of (\*) military parades and construct mock airstrips in the belief that they will bring about the return of US soldiers. For 10 points, identify these religions which worship figures like John Frum and Tom Navy and are centered around attempts to induce air-dropping of goods.**

ANSWER: cargo cults [prompt on cults, prompt on descriptive answers, prompt on answers describing Polynesian or Melanesian traditional religions or beliefs, prompt on answers describing worship of Americans or the US Army or American soldiers] <Thompson, Religion>

3. **This character compares himself to the "very likeness of a roasted crab" while describing an action he is ordered to do on a woman who sometimes mistakes him for a "three-foot stool." A character wearing the "Weeds of Athens" is sought out by this character before he stumbles upon a troop of actors whose ranks include Francis Flute. At the end of the play in which he appears, this character (\*) apologizes to the audience by saying "If we shadows have offended, Think but this, and all is mended." This servant of Oberon transforms Nick Bottom's head into that of an ass. For 10 points, what Shakespearean trickster also known as Robin Goodfellow uses a love potion on the protagonists of *A Midsummer Night's Dream*?**

ANSWER: Puck [also accept either Robin or Goodfellow before "Robin" is read] <Bunker, British Literature>

4. **The opening of this piece consists of strings trading a rising G-[A-sharp]-B motif over two pianos playing trills. A section of this piece includes violins playing a very high E note followed by a descending two note motif. An offstage clarinet that only plays a C-[A-flat] motif accompanies two pianists in another movement from this piece. Various quotations in this piece include Berlioz's *La damnation de Faust*, (\*) "Twinkle Twinkle Little Star", and basses playing a slow version of Offenbach's "Galop infernal". The composer only allowed one part of this piece to be played in public in his lifetime, which is the cello-lead penultimate movement depicting a swan. For 10 points, what is this comical fourteen movement suite by Camille Saint-Saëns?**

ANSWER: *The Carnival of the Animals* [or *Le carnaval des animaux*] <Tsai, Classical Music>

5. Harold Garfinkel used a theory exemplified by a person of this type to help develop the idea of sequentiality, but which differs from the idea of "interaction order." One theory named for these people is contrasted with a heroic approach to understand technology. That theory put forth by Michel Callon and furthered by Bruno Latour uses the principle of generalized symmetry to argue that (\*) technological progress comes from human and non-human objects. In addition to that network theory named after these people, they are the subject of a book which argues that people play different parts and wear different masks depending on the situation. For 10 points, Erving Goffman's *The Presentation of Self in Everyday Life* contains an allusion to what profession in his dramaturgical analysis?

ANSWER: **actor** [accept **actor network theory**, **theater actors**, etc.] <Bunker, Psychology/Sociology>

6. It's not an alcohol, but when a molecule with this functional group reacts with trimethylsilyl iodide, it forms an iodoalkane and an alkyl trimethylsilyl form of this functional group. Plasmalogen belongs to a group of lipids that are named for containing this functional group, which are also found in archaeal cell membranes. In a reaction that forms molecules with this functional group, an alcohol is reacted with a strong base to form an (\*) alkoxide, which is then reacted with an alkyl halide; that reaction is the Williamson synthesis. An organic solvent with this functional group is classified as a heterocyclic compound and is water-miscible; that polar solvent is THF. A cyclic three-atom molecule with this functional group is known as an epoxide. For 10 points, name this functional group with the general formula R-O-R.

ANSWER: **ethers** [prompt on **furans** until "THF"; prompt on **epoxides** until read] <Phadnis, Chemistry>

7. This leader's defense in a corruption trial was mocked as a "little show" in a series of texts between the judge and prosecutor unearthed by Glenn Greenwald's magazine *The Intercept*. This leader's government banned those convicted of a crime from running for office under the Clean Slate Act. A failure to investigate this man was among the reasons for the impeachment of his successor, who had overseen the allegedly suspicious purchase of the Pasadena Refinery System. This leader's (\*) Fome Zero ["foh-may zay-roh"] anti-poverty program includes a direct cash transfer-based family allowance program called *Bolsa Familia*. Sergio Moro sentenced this man to prison as part of Operation Car Wash. For 10 points, name this former President from the Workers Party, who led Brazil in the 2000s.

ANSWER: Luiz Inácio **Lula** da Silva <Laurie, World History>

8. In a humorous twist of fate, Hikaru Nakamura told a chess player from this country "resign when you are lost" during a game Nakamura later drew. At the 1995 Tal Memorial, Gary Kasparov defeated a player from this country with the rarely-used Evans Gambit. After an 1884 match between a player from this country and John Cochrane, a series of opening defenses were named after this country and start with black playing knight to f6 on their first turn. This country is the birthplace of the first (\*) non-Western world champion, who lost to current world champion Magnus Carlsen in their 2012 title match. For 10 points, identify this Asian country which is the home of former world chess champion Viswanathan Anand.

ANSWER: Republic of **India** [or **Bhārat** Gaṇarājya] <Bunker, Other Academic>

9. In a poetic manifesto, this man addresses an imaginary warrior with the lines "there is a war between the mind and sky, between thought and night and day...it is a war that never ends." The speaker of a poem from this man's first collection advocates for building a "haunted heaven" from a "nave" built from the "moral law." This poet declared that "poetry is the supreme fiction, madame" in a poem that may be titled for his religious mother. A poem from this man's first collection asks the title man to (\*) "whip in kitchen cups concupiscent curds" and to "call the roller of big cigars." For 10 points, name this American poet whose collection *Harmonium* includes "A High-Toned Old Christian Woman" and "The Emperor of Ice Cream."

ANSWER: Wallace **Stevens** (the manifesto from the lead-in is *Notes Towards a Supreme Fiction*) <O'Rourke, American Literature>

10. *Description acceptable.* Natural features named for Beardmore and Axel Heiberg were instrumental to two early attempts to perform this feat. Though originally built for a different feat, the ship *Fram*'s flag crowned a tent erected by the first group to perform this action. While returning from having performed this action, one man declared that "I am just (\*) going outside and will be some time" before walking out to his death. The *Terra Nova* expedition, upon completing this action, discovered a Norwegian flag, indicating that they had been beaten to it by a group led by Roald Amundsen. Robert Falcon Scott died while returning from, for ten points, what action involving a journey to a certain Antarctic location?

ANSWER: **reaching the** (geographic) **South Pole** [accept obvious equivalents, prompt on answers like **going to Antarctica** that do not mention the South Pole, do not accept answers indicating reaching the South *Magnetic Pole*] <Thompson, European History>

11. **The optimal stopping time for which an asset can be sold can be computed using the stochastic version of this non-gradient descent method. When considering the matrix chain multiplication problem, this method splits the sequence of matrices in half, finds the cost of each multiplication, and minimizes over combinations. In this technique, each iteration, the program picks the control variable that maximizes the value function in the (\*) Bellman equation.** This approach, which frequently makes use of memo-ization, is commonly used to solve a problem of maximizing the value of objects in a finite capacity bag. Often used in knapsack and path-finding algorithms, this is, for 10 points, what form of programming where complicated problems are broken down into smaller ones?

ANSWER: **dynamic programming** [prompt on **recursion** or **memoization** before mention] <Bunker, Computer Science>

-- This packet contains 22 tossups. Halftime is after tossup 11. --

12. **Al Jarreau's scat-singing version of this song includes a story about a girl "sitting on the front [...] sewing." Carmen McRae recorded this song with the original band and named the live album after this song. Lyrics including "Though I'm going out of my way/Just so I can pass by each day" were written by Iola, the original bandleader's wife. On its original recording, Eugene Wright plays a simple three note bassline under an extended (\*) drum solo of Joe Morello, as well as the bandleader playing E-flat minor vamps on piano. This song, composed by saxophonist Paul Desmond, comes after "Strange Meadow Lark" and "Blue Rondo à la Turk" on the album *Time Out*. For 10 points, the unique quintuple meter gives the name of what hit for the Dave Brubeck Quartet?**

ANSWER: **"Take Five"** <Tsai, Other Auditory>

13. **Philippe Sands's account of this practice, titled for a "team" that practiced it, predicted the later unsuccessful criminal charges against men like Jay Bybee and Alberto Gonzalez. Lynndie England and Charles Graner were convicted during a scandal over this practice which revealed a series of "memos" on it written by now-Berkeley professor (\*) John Yoo.** Videotapes pertaining to this practice were controversially destroyed in 2005, allegedly on the orders of Gina Haspel, who faced criticism for her condoning of this practice in Thailand. US soldiers infamously engaged in this practice at Abu Ghraib prison. For 10 points, name this practice known by the euphemism "enhanced interrogation" by George W. Bush's administration.

ANSWER: **torture** [accept **enhanced interrogation** until read] <Laurie, American History>

14. **A deity named for this animal was originally a man beaten to death for peeking at an imperial official's buttocks in the bathroom; that deity is the Chinese god of homosexuality. In the Jataka tales, a bodhisattva reincarnated as one of these animals sacrifices himself in a fire, only for Sakra to reveal that it was a test. Eighty gods trick one of these animals into (\*) jumping into the sea after it loses its skin, before it was helped by Ōkuninushi. A "jade" one of these animals makes either mochi or an elixir of life in a mortar and pestle on the moon. During the Great Race, this animal became fourth in the Chinese zodiac, coming between the tiger and the dragon. For 10 points, what animal loses a race to a slow and steady tortoise?**

ANSWER: **rabbit** [accept **hare** or **bunny**; accept **Tu**'er Shen or **Yùtù**; accept Inaba no Shirousagi] <Tsai, Mythology>

15. **In a story set in this country, the narrator buys his sister Irene wool while also going to buy French literature. In a largely plotless novel from this country, the movie fanatic "Toto" writes an essay titled "The Movie I Liked Best." In a novel from this country, the story of a plantation owner who uses (\*) zombies as workers is told to a man by his transgender cellmate. An author from this country wrote *Betrayed by Rita Hayworth*, and a different author from this country wrote about the spy Yu Tsun, who kills Stephen Albert to reveal the name of an artillery park to his spymasters. For 10 points, name this South American country, home to *Kiss of the Spider Woman* author Manuel Puig and "The Garden of Forking Paths" author Jorge Luis Borges.**

ANSWER: **Argentina** [or **Argentine** Republic; or Republica **Argentina**; the unnamed story is Julio Cortazar's "House Taken Over"] <Rodriguez, World/Other Literature>

16. **A scenario in which one of these particles is formed involves a potential of the form phi to the fourth minus phi squared. The number of these particles for a specific energy state is inversely proportional to the exponential of quantity epsilon minus mu times Boltzmann's constant times temperature, all minus one. A massless particle of this type exists for each spontaneously broken (\*) symmetry; those particles are named for Goldstone. The wavefunction of two of these particles is symmetric under exchange by the spin-statistics theorem. These particles obey the Bose Einstein statistics and have integer spin. For 10 points, identify these force-carrying particles examples of which include ones named after the letters W and Z and Peter Higgs.**

ANSWER: **boson** [accept specific **bosons** such as the **Higgs boson**, W and Z **bosons**, **Nambu-Goldstone bosons**] <Bunker, Physics>

17. George Lois asked an artist to do silly poses for an *Esquire* cover that depicts a giant one of these items. An artist created a painting of a *Box* containing these items, as well as large paintings of them depicted *Torn* and *Crushed*. Irving Blum tracked down people including Dennis Hopper to buy back paintings of these items after they debuted in the Ferus Gallery, displayed in a single (\*) horizontal line. A dollar bill and these items were some of the earliest depicted by an artist using silkscreen printing at his studio, "The Factory." A series with 32 panels depicts the red and white design of these items, with flavors like tomato and clam chowder. For 10 points, name these food items featured in many works of Andy Warhol.  
ANSWER: **Campbell's soup cans** [prompt on partial answer; accept 32 *Campbell's Soup Cans* ] <Tsai, Painting>

18. An economic downturn that occurred in this century during the broader Great Bullion Famine helped trigger Jack Cade's rebellion; that downturn is called the Great Slump. In an attempt to outdo the earlier William of Wykeham, a King in this century founded Eton College and King's College, Cambridge. A failed attempt to install Alexander, Duke of Albany as Scottish King resulted in the English capture of Berwick-upon-Tweed in this century. The only British heir apparent to die in battle died in this century. A King's marriage to (\*) Elizabeth Woodville in this century lost him the support of the "Kingmaker" Richard Neville. Edward of Lancaster's death at the Battle of Tewksbury ended the Lancastrian hopes for the throne in this century. For 10 points, give this century which saw the War of the Roses and the ascension of the Tudor Dynasty.  
ANSWER: **15th Century** [or **1400s**] <Laurie, Other History>

19. The first rogue wave to be recorded by a measurement device occurred off the coast of this country. A Russian expatriate mining community in this country was devastated by the 1996 crash of a Vnukovo Airlines flight into its Operafjellet ["opera-fyel-let"] mountain, which was chartered by Arktikugol. The Galdhøpiggen ["gahld-hoe-pig-in"] and Glittertind peaks are the highest in its (\*) Jotunheim ["yoh-toon-haym"] National Park. This non-Russia country's abandoned settlement of Pyramiden is home to the northernmost statue of Vladimir Lenin in the world. The city of Longyearbyen ["long-year-bue-en"] is the capital of this country's northern island of Svalbard. The Sognefjord ["sog-na-fjord"] is the largest of the many fjords of, for 10 points, what Scandinavian country led from Oslo?  
ANSWER: **Norway** [or **Norge**] <Thompson, Geography>

20. This organelle acquires dense bodies in Reye's syndrome. Santulli et al. demonstrated that intracellular calcium ion leak causes calcium overload in this organelle, which leads to dysfunction in ischemic heart failure. Parabasalids do not have this organelle, but rather have hydrogenosomes which serve a similar function. Superoxide dismutase 2 transforms superoxide, a toxic (\*) byproduct of a process in this organelle, into hydrogen peroxide and diatomic oxygen. Upon biopsy, patients with myopathies associated with this organelle may demonstrate "ragged red" fibers; these ragged-red fibers may show a decreased reactivity for cytochrome c oxidase. Folds in the inner membrane of this organelles are known as cristae. For 10 points, name this organelle in which ATP is synthesized through the electron transport chain.  
ANSWER: **mitochondria** [accept **mitochondrion**] <Phadnis, Biology>

21. In the final volume of Stefan Zweig's *Master Builders of the Spirit* trilogy, this novel's author is compared to its' protagonist by choosing an "opposition to his generation." The protagonist of this novel argues "Love born in the brain is more spirited, doubtless, than true love" and opts not to speak at a trial. The epigraph of this novel, "the truth, the harsh truth," is supposedly attributed to Georges (\*) Danton. The protagonist of this novel becomes the protege of Abbé Chélan, who gets him a job as a tutor where he begins an affair with Madame de Renal. After shooting the Madame, the protagonist's lover Mathilde kisses his severed head. For 10 points, the two title colors exemplify Julien Sorel's struggles between a clerical and secular life in what Stendhal novel?  
ANSWER: *The **Red and the Black*** [or *Le **Rouge et le Noir**: Chronique du XIXe siècle*] <Bunker, European Literature>

22. A film by this director ends with a shot of three women in black crying, with one of them speaking a warning to an unseen audience. Gottfried Huppertz used the *dies irae* motif in the score of one this man's films to accompany rapid cuts between overlapping eyes staring out of the screen, a crowd of frenzied men, and a woman dancing. During his transition to the sound era, this man often collaborated with his wife, screenwriter Thea von Harbou. In one film by this director, a blind vendor identifies a (\*) serial killer who murders children, who was later marked with the title letter. In an early science fiction film by this man, the inventor Rotwang transferred the likeliness of Maria onto his robot. For 10 points, name this Weimar-era German director, whose films include *M* and *Metropolis*.  
ANSWER: Fritz **Lang** [or Friedrich Christian Anton **Lang**] <Tsai, Other Visual>

## Bonuses:

1. One of these figures is carved into the front of a boat in the first painting in a series. For 10 points each:

[10] Identify these figures, one of which waves goodbye to a boy dressed in red in a painting. One of these beings can barely be seen in the upper left of the painting *Manhood*, but is prevalent in the other three paintings in that series.

ANSWER: **angels**

[10] An angel follows a man through this artistic series that depicts a boy's life journey down a river in a golden boat. The last painting in this series, *Old Age*, shows a bearded man near death.

ANSWER: *The **Voyage of Life***

[10] This founder of the Hudson River School created *The Voyage of Life* series and also included a small self-portrait of himself in the foreground of his painting *The Oxbow*.

ANSWER: Thomas **Cole** <Rodriguez, Painting>

2. Detachments of Bielski partisans fought Nazi forces in the Naliboki Forest in this country. For 10 points each:

[10] Name this country. Russia left World War I in the Treaty of Brest-Litovsk, signed in this modern day country's city of Brest.

ANSWER: Republic of **Belarus**

[10] Other notable partisan groups include the Parczew partisans, who operated in this modern-day country near its city of Lublin. This country's Home Army helped train fighters in this country's Warsaw Ghetto.

ANSWER: Republic of **Poland**

[10] Groups of partisans also formed this group, which fought the Soviet occupation of the Baltic states after World War II. Weakening this group was among the primary reasons for the mass deportation of so-called enemies under Operation Priboi.

ANSWER: **Forest Brothers** [accept **Forest Brethren** or **Brotherhood of the Forest**] <Laurie, European History>

3. This type of statistics includes the Wilcoxon rank-sum test, which compares two matched or paired samples to see if there is a statistically significant difference. For 10 points each:

[10] Name this branch of statistics, which also includes tests such as one named for Kruskal and Wallis, where the researcher does not assume a family of distributions on their data.

ANSWER: **non-parametric** statistics [do NOT accept or prompt on partial answers]

[10] The Kruskal-Wallis test is a one-way method to do an analysis on this quantity non-parametrically. This quantity, the second central moment, is equal to the squared standard deviation.

ANSWER: **variance**

[10] This non-parametric test, named for two Soviet scientists, is used to determine how well a sample of data fits a specified distribution. This test's statistic is the supremum of the absolute difference between the difference of the empirical CDF and the specified CDF.

ANSWER: **Kolmogorov-Smirnov** test [or **K-S** test] <Bunker, Mathematics>

4. Answer the following about similar deaths, for 10 points each:

[10] Both of Psyche's sisters performed this action with the expectation that Zephyrus would carry them to Eros. They died when he did not prevent the logical conclusion of this action.

ANSWER: **jumping off a cliff** [accept obvious equivalents; prompt on **falling**]

[10] Aegeus jumped to his death many years after disobeying the prophecy warning "Do not loosen the bulging mouth of the wineskin until you have reached the height of Athens, lest you die of grief" in this city. Theseus encounters Procrustes and Sciron on the road to Athens from this city.

ANSWER: **Troezen**

[10] This figure threw herself off her high rock to her death after her riddle was solved by Oedipus on his way to Thebes.

ANSWER: **Sphinx** <Ranganathan, Mythology>

5. The Scythians were expelled from this Kingdom by Cyaxares, who formalized his alliance with the Babylonians by marrying his daughter Amytis to Nebuchadnezzar II. For 10 points each:

[10] Name this Kingdom centered at Ecbatana that fell after Cyrus the Great defeated its final ruler, Astyages.

ANSWER: **Median** Kingdom [or **Median** Empire or **Medes**]

[10] A discussion of the Median language appears in this Greek geographer's encyclopedic work *Geographica*.

ANSWER: **Strabo**

[10] Ecbatana was also the site of the assassination of the general Parmenion, who was assassinated on the orders of this Macedonian ruler and son of Philip II.

ANSWER: **Alexander the Great** [or **Alexander III** of Macedon; prompt on **Alexander**] <Laurie, Other History>

6. Three Virtues— Reason, Rectitude, and Justice—pull an author out of bed and force her to complete a book titled for these people, itself a sequel to another book named for these people. For 10 points each:

[10] Name these people. An allegorical city is composed of these people in a book written to refute Jean de Meun's *Romance of the Rose*.

ANSWER: **ladies** [accept equivalents like **women**; accept *The Treasure of the City of Ladies* or *The Book of the City of Ladies*]

[10] Christine de Pizan's *The Book of the Cities of Ladies* was heavily inspired by the works of this earlier author, who wrote *On Famous Women* and *The Decameron*.

ANSWER: Giovanni **Boccaccio**

[10] The narrator is taken on a dream journey by the Cumaean Sybil in Pizan's *The Book of the Path of Long Study*, which was inspired by this work. The narrator flies on the back of Geryon down to the Malebolge in the first part of this work.

ANSWER: *The **Divine Comedy*** [prompt on Dante's **Inferno**] <Laurie, European Literature>

7. The 2018 Nobel Prize in Medicine and Physiology was jointly awarded to Tasuku Honjo and James Allison for their work in immunotherapy. For 10 points each:

[10] Allison developed ipilimumab, a drug that targets this protein that is upregulated on the surface of activated T-cells, especially in cancers. T-cell exhaustion is induced when this protein binds to CD80/86 on antigen presenting cells.

ANSWER: **CTLA-4** [or **cytotoxic T-lymphocyte associated protein 4**; accept **CD152**]

[10] One of the many diseases linked to mutations in CTLA-4 is this autoimmune disease, in which antibodies to the TSH receptor trigger the release of massive amounts of thyroid hormone.

ANSWER: **Graves'** disease

[10] Ipilimumab was first approved to treat this particularly malignant form of skin cancer, that occurs in superficial spreading and lentigo maligna varieties.

ANSWER: **melanoma** <Mukherjee, Biology>

8. From the 15th to 17th centuries, this language's high long vowels became diphthongs, and other long vowels became raised. For 10 points each:

[10] Identify this language, one dialect of which is also currently undergoing the Northern Cities Vowel Shift.

ANSWER: **English**

[10] The sociolinguist William Labov identified three principles about these people's usage of nonstandard pronunciations. Being one of these people showed the highest correlation with adoption of innovative sound changes like the Northern Cities Vowel Shift.

ANSWER: **women** [or any synonyms like **females**; accept **mothers**]

[10] Another feature of Midwestern American English is the use of this three-letter word to describe a soft drink. Speakers around Milwaukee and Saint Louis, however, follow the Northeast in using the word "soda" instead of this word.

ANSWER: **pop** <Thompson, Linguistics>

9. In a novel set in this city, Tilo falls in love with an American man named Raven and helps rebuild the city after her shop is destroyed in an earthquake. For 10 points each:

[10] Name this city, the setting of Chitra Banerjee Divakaruni's novel, *The Mistress of Spices*. The title character of a semi-autobiographical novel, Martin Eden, struggles to become a writer and woo the bourgeois woman Ruth Morse while living in this city.

ANSWER: **Oakland**

[10] The Roberts leave Oakland at the beginning of this author's *The Valley of the Moon*. This author wrote *Martin Eden* and *Call of the Wild*.

ANSWER: Jack **London**

[10] Al Miller tries to prevent Jim Fergessen from selling his used-car lot in this author's *Humpty Dumpty in Oakland*. Guiseppe Zangara succeeds in assassinating Franklin Roosevelt in an alternate history novel by this author in which the Axis wins World War II.

ANSWER: Philip K. **Dick** (the unnamed novel is *The Man in the High Castle*) <Ranganathan, American Literature>

10. This man first tested his "open-office" idea in Buffalo, New York in 1909 and called boxes a "fascist symbol." For 10 points each:

[10] Name this artist who designed many of his buildings from his Taliesin estate and created Fallingwater in Pennsylvania for the Kauffman family.

ANSWER: Frank Lloyd **Wright**

[10] A historic district in Pleasantville, New York served as a large-scale implementation of this architectural philosophy pioneered by Wright. He preferred the use of this word to the use of "America."

ANSWER: **Usonia** [or **Usonian**]

[10] Wright worked extensively in this city, including designing an all-girls school at the urging of his assistant for another project. Wright designed a temporary annex for a building in this city after the original burned down. The wings of that building in this city were designed to resemble the letters in its company's logo.

ANSWER: **Tokyo**, Japan <Rodriguez, Other Visual>

11. According to Raoult's law, the relative decrease of this quantity in a dilute solution of nonvolatile solute is equal to the mole fraction of solute in the solution. For 10 points each:

[10] Name this quantity. At the normal boiling point of a liquid, this quantity is equal to the ambient atmospheric pressure.

ANSWER: **vapor pressure**

[10] This other equation describes the relation between vapor pressure and temperature for pure substances. This equation states that the common logarithm of the vapor pressure is equal to A minus B over the quantity T plus C, where A, B, and C are constants.

ANSWER: **Antoine** equation

[10] In a real gas, this quantity is an effective partial pressure that makes calculation of the equilibrium chemical potential more accurate. For an ideal gas, this quantity and pressure are equal, so its namesake coefficient is equal to 1.

ANSWER: **fugacity** [accept **fugacity coefficient**] <Phadnis, Chemistry>

12. Answer some questions about gender identity and Judaism, for 10 points each:

[10] The ultra-Orthodox Tzitz Eliezer used this Biblical figure to establish precedent that transgender people who have transitioned should be treated according to their gender identity for the purposes of religious law. This prophet's transition to angelhood without dying was held to have changed his gender, because angels are neither male nor female.

ANSWER: **Elijah** [or **Eliyahu**; do NOT accept "Elisha" and ask them to clarify if it's unclear]

[10] Many transgender Jews choose to mark their gender transition by undergoing an immersion in one of these Jewish ritual baths, which are also used for other more traditional purposes such as cleansing women after menstruation.

ANSWER: **mikveh** [or **mikvah**, or **mikva'ot**, or **mikvot**, or **mikves**]

[10] Four classes of non-binary gender identities are enumerated in this central text of Rabbinic Judaism. It contains commentary and elaboration on the Torah and codified Jewish law.

ANSWER: the (Babylonian) **Talmud** [or the **Shas**, or the **Talmud Bavli**] <Thompson, Religion>

13. After members of the Akili movement were massacred by Pashto guards trying to take one of these places, Gandhi said the guards had "out-Dyered Dyer." For 10 points each:

[10] Name these religious sites, one of which was the site of the Nankara Massacre. Indira Gandhi was assassinated in the aftermath of a siege of one of these places in Amritsar.

ANSWER: **Sikh temples** [accept **gurdwaras**; prompt on "temples"]

[10] The Akili movement split from the Ghadar party, a group which attempted to overthrow the British with the help of this country in the failed February mutiny. It's not Ireland, but this country helped orchestrate the sale of IRB arms to the Ghadar Party aboard the *Annie Larsen*.

ANSWER: **German** Empire [accept **Germany** or **Deutschland**; accept **Deutsches Kaiserreich** or Imperial **Germany**]

[10] Germany later helped establish the Indian Legion, a military force led by this head of Azad Hind. This man revamped the Indian National Army.

ANSWER: Subhas Chandra **Bose** [accept **Netaji**] <Laurie, World History>

14. A poem named for these two things declares that "it is [one of these things] we fight for, but we fight for [the other of these things], too". For 10 points each:

[10] Name these two things, which title a James Oppenheim poem that compares them to "a sharing of life's glories" and reminds the reader that "hearts starve as well as bodies".

ANSWER: **bread** and **roses**

[10] "Bread and Roses" became a rallying cry for one of these events in Lawrence, Massachusetts in 1912 led by the International Workers of the World. Ronald Reagan fired all the air traffic controllers who participated in one of these events in 1981.

ANSWER: labor **strikes**

[10] In 2018, "Bread and Roses" was used in a video supporting the #HomeToVote social media campaign, which encouraged expatriates to travel back home to this country to vote in high-profile referenda here in 2015 and 2018.

ANSWER: Republic of **Ireland** [or Poblacht na h**Éireann**] <Ranganathan, Other Academic>

15. Leif Segerstam is a conductor and composer who has written over 300 symphonies. For 10 points each:

[10] Segerstam is from this country, which is also home to composers like Esa-Pekka Salonen, Einojuhani Rautavaara, and Jean Sibelius.

ANSWER: Republic of **Finland** [or **Suomi**; or Suomen tasavalta]

[10] Segerstam's Symphony No. 106 is titled *Hommage a [this composer]*. This Austrian composer has a namesake problem due to various editions of his symphonies, such as his fourth one, the "Romantic" Symphony.

ANSWER: Anton **Bruckner**

[10] Bruckner's "Romantic" Symphony has this many editions. Bruckner's symphony of this number, sometimes nicknamed "Lyric," includes four Wagner tubas and legendarily included a cymbal crash when he learned about Wagner's death.

ANSWER: **seven** [or **7**] <Fu, Classical Music>

16. In one epic written in this language, Kannagi confronts the king and queen of the Pandyas over the wrongful execution of her husband Kovalan for the theft of one of the queen's anklets. For 10 points each:

[10] Name the language of that epic, *Silappatikaram*. At the end of *Silappatikaram*, Kannagi's rage is said to have destroyed half the city of Madurai.

ANSWER: **Tamil**

[10] The first Tamil work in this form was Samuel Vedanayagam Pillai's *Prathapa Mudaliar Charithram*. A triple thesis involving the rising popularity of this kind of media is the subject of Ian Watt's book about the rise of this literary form.

ANSWER: the **novel** [or Tamil **novels**; or *The Rise of the Novel*]

[10] The poet Kambar wrote the Tamil version of this epic by Valmiki. Sita, the wife of this Hindu epic's title character, is kidnapped by the demon Ravana.

ANSWER: **Ramayana** [or **Ramayanam**] <Ranganathan, World/Other Literature>

17. To empirically test a theory of Beta decay named for this scientist, the Coulomb and shape factors are substituted into a differential equation that holds for allowed transitions. For 10 points each:

[10] What Italian-American scientist's "golden rule" describes the transition probability based on the strength of the coupling? His namesake particles obey the Pauli exclusion principle.

ANSWER: Enrico **Fermi** [accept **fermions**]

[10] Fermi assonances hold if the two vibrational energies transform according to identical irreducible representation in these entities. These entities contain five types of symmetry elements and are labeled using Schoenflies notation.

ANSWER: **point group**

[10] This type of spectroscopy provides information on a molecule's vibrational modes. The shorter wavelength of particles described by its namesake form of scattering is the anti-Stokes line.

ANSWER: **Raman** spectroscopy [accept **Raman** scattering] <Bunker, Physics>

18. This polity's flag contains a map of it, surrounded by four differently-colored mountains and positioned under a rainbow. For 10 points each:

[10] Name this polity led from Window Rock, which was known as Ni' Ahii'gi ["nee alh-nee-ghée"], or Center of the World, until its establishment as a seat of government.

ANSWER: the **Navajo Nation** [or **Naabeehó Bináhásdzo**; accept descriptive answers like the **Navajo reservation**]

[10] The Navajo Nation's town of Chinle is home to a 7,500-seat venue for this sport, the Wildcat Den. An aggressive press and quick shooting characterizes "rezball", a distinctive strategy in this sport typically used by reservation high schools.

ANSWER: **basketball**

[10] A basketball game involving two reservation schools holds the all-time attendance record for a high school game in this state, in which the Navajo Nation is primarily located and whose state basketball tournaments take place in Tempe and Phoenix.

ANSWER: **Arizona** <Thompson, Geography>



19. Followers of Pyrrho aimed to achieve this state by losing certainty in their beliefs. For 10 points each:

[10] Name this Greek term which means "undisturbed" and which was usually seen as the tranquil aspect of eudaimonia.

ANSWER: **ataraxia**

[10] This philosopher said humans could achieve ataraxia by abstaining from unnecessary desires. His namesake philosophy held that the ultimate pleasure is "freedom from pain in the body and from trouble in the mind."

ANSWER: **Epicurus** [also accept **Epicureanism**]

[10] Epicureanism is a philosophy that belongs to this larger class of philosophical positions, which all claim pleasure is the only intrinsic good.

ANSWER: **hedonism** <Bunker, Philosophy>

20. Bill Clinton's record on race issues is attacked in a Nathan J. Robinson book titled for this word, whose usage in one speech followed a meeting with criminologist John Dilulio, who wrote an article about the "coming" of people known by this word. For 10 points each:

[10] Give this word, used by Hillary Clinton to describe people with "no conscious, no empathy" in a 1996 speech.

ANSWER: **superpredator**

[10] The "superpredator" speech backed Clinton's crime policies, exemplified by a 1994 Crime Bill authored by Orrin Hatch and this Senator, who would later serve as Barack Obama's Vice President.

ANSWER: Joe **Biden** [or Joseph Robinette **Biden** Jr.]

[10] Among the criticisms often leveled at Clinton is his mid-campaign stop to attend one of these events involving Ricky Ray Rector. *Furman v. Georgia* put a temporary stop to these events before being overturned in *Gregg v. Georgia*.

ANSWER: **executions** [accept any answer related to an **execution** or administration of the death penalty; accept more specific forms of **executions**] <Laurie, American History>

21. For 10 points each, answer the following about the contemporary scholars and issues central to the many beefs of Nicholas Nassim Taleb.

[10] Taleb accused this Harvard cognitive psychologist of being a charlatan for his poor use of statistics and myopic view of human conditions. This psychologist argues the world has become a lot better in his book *Enlightenment Now*.

ANSWER: Steven **Pinker**

[10] Taleb criticizes the use of this number in psychometric research as an example of how people misunderstand correlation. This quantity can be calculated using the Stanford-Binet test.

ANSWER: **Intelligence Quotient** [prompt on just "**intelligence**"]

[10] This economist and Cass Sunstein have been used as punching bags for Taleb's hatred of behavioral economics. Taleb characterized this economist as a "Nudgevillain" for his decision making and behavioral economic theories.

ANSWER: Richard **Thaler** <Bunker, Other Social Science>

22. This character becomes disfigured and lives in a leper colony in a Robert Henryson work where, after being reminded of her but unable to recognize her, her former lover donates all of his wealth to those lepers. For 10 points each:

[10] Name this character, the subject of another author's *rime royale* work which is often cited as the origin for the phrase "all good things must come to an end."

ANSWER: **Cressida** [or **Cresseid**; the first work is Robert Henryson's *The Testament of Cresseid*]

[10] This author wrote the latter *Troilus and Cressyda* and invented *rime royale*. This author is credited with spreading the notion of St. Valentine's Day as one for lovers in his *Parlement of Foules*.

ANSWER: Geoffrey **Chaucer**

[10] The central character of Henryson's *Moral Fabillis*, which relates some stories about Reynard the Fox, meets this author, who inspired the work, in a dream vision. This Greek author wrote many namesake fables.

ANSWER: **Aesop** <Laurie, British Literature>