

# Michigan Winter Tournament

"The Holy Roman Empire of Tournaments"

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## Packet 3

Tossups:

1. **Before eschewing a beer because it's summertime, one character in this play asks another not to pull his hair because of how sensitive he is. Another character in this play snobbishly says a "servant is a servant" while referring to a cook before her male lover counters with "And a whore is a whore." After one character in this play opens a bottle of wine and reveals he is married, he smells a stench that is coming from something used to induce a dog's (\*) abortion.** After deciding to escape with her lover and start a hotel with him, the title character of this play refuses to give up a canary, which is then decapitated. For 10 points, the title woman walks through a door to kill herself with Jean's razor at the end of what naturalistic play by August Stringberg?

ANSWER: Miss Julie [or Fröken Julie] <Bunker, European Literature>

2. **The death of a man from an aristocratic family originally from this country triggered a conflict in which so-called "Calico Indians" attacked government forces. A remonstrance named for a place in one of this country's colonies containing an exemption from a ban on Quaker worship is considered an important precursor to the US Constitution. The Anti-Rent War was fought against a feudal system operated by descendants of immigrants from this country, the (\*) *patroon* system.** Inhabitants of one of this country's colonies conquered New Sweden under the rule of its peg-legged final director general; that colony, formed from land purchased by Peter Minuit, was last led by Peter Stuyvesant. For 10 points, name this country which ruled a North American the colony centered at New Amsterdam.

ANSWER: The Netherlands [accept New Netherlands] <Laurie, European History>

3. *Description acceptable.* **One might check the amount of round numbers or do a gap detection to detect incidence of this practice. Regulators put minimum market cap and shareholder equity standards for penny stocks to discourage so-called "pump and dump" schemes, which are part of this practice. To determine whether this practice had occurred, scholars like Mark Nigrini have used (\*) Benford's Law to analyze the first digits of numbers.** Forensic accountants investigate the incidence of this practice which may be one of the causes of the "tax gap." "Know your client" and anti-money-laundering laws target, for 10 points, what general type of nefarious practice in which firms and individuals misrepresent business information for financial gain?

ANSWER: financial fraud [accept equivalent such as falsifying financial and accounting records or money laundering before mention; or securities fraud; or tax fraud; lying on taxes; prompt on lying or cheating] <Bunker, Other Academic>

4. **An artist from this movement later added the face of Alexa Wilding to a painting of a woman combing her hair while looking at a hand mirror. Jane Morris modeled for two paintings by that artist from this movement that were commissioned by Frederick Leyland; those paintings were part of that artist's "six stunners." An artist from this movement painted a woman in a blue robe holding a partially-eaten fruit. This movement produced the paintings *Lady Lilith* and (\*) *Proserpine*.** Elizabeth Siddal modeled for a painting from this movement of a woman in a white dress holding a handful of flowers before drowning to death in a river. For 10 points, what artistic movement produced the painting *Ophelia* and was founded by John Everett Millais and Dante Gabriel Rossetti?

ANSWER: Pre-Raphaelite Brotherhood [or Pre-Raphaelites; or PRB] <Rodriguez, Painting>

5. In one of this man's appearances, a character known as "Number 2" is often referenced only by a dollar sign or two stripes and a star. Following the death of this man, a copy of *John Ferguson*, Shakespeare's *Othello*, and a letter to speak to his longtime valet, Georges, are discovered. This character shoots a man named Norton in the head after Norton nearly pressures this character's best friend into committing murder in the novel *Curtain*. In an infamous twist ending, this man's assistant is the unreliable narrator James Sheppard, the killer of (\*) Roger Ackroyd. This man's best friend is Arthur Hastings, and he uses his "little grey cells" to deduce that 12 passengers on the Orient Express stabbed Ratchett to death. For 10 points, name this Belgian detective created by Agatha Christie.

ANSWER: **Hercule Poirot** ["pwah roh"] [accept either underlined answer] <Rodriguez, British Literature>

6. Note to players: two answers required. A paramagnetic gas comprising of only these two elements exists in an equilibrium with a different gas of these two elements that is diamagnetic. A ligand containing these two elements appears in Roussin's salts. A radical made of these two elements can be detected by spin trapping the molecule with a derivative of an iron-dithiocarbamate ligand. A compound created from these two elements is formed by enzymatic breakdown of (\*) arginine into citrulline and water; that compound causes relaxation of blood vessels. Along with phosphates, anions of these two elements are essential in fertilizers. Laughing gas is made of, for 10 points, what two elements which are the most common in Earth's atmosphere?

ANSWER: **nitrogen** and **oxygen** [or **N** and **O**] <Bunker, Chemistry>

7. The Hasegawa-Mima equation assumes length scales are large in the direction of this vector quantity. The pitch angle between particle velocity and this quantity is used to define a loss cone, and R and L waves propagate parallel to it. Guiding center drift velocity is proportional to force cross this quantity, and plasmas frequently have different temperatures parallel to this quantity and perpendicular to it. (\*) Cyclotron frequency is equal to the charge to mass ratio times this quantity's magnitude, and Ampere's law gives its curl in terms of the current density and displacement current. The Lorentz force is equal to charge times velocity crossed with, for 10 points, what vector quantity measured in teslas?

ANSWER: **magnetic field** [accept **B**-field] <Mitchell, Physics>

8. Some works in this genre end with a crescendo followed by two notes known as "chum-chum." This genre began to lose popularity in favor of rock 'n' roll partially due to a ban on male-only public gatherings. Many pieces in this genre were arranged for orchestra by Osvaldo Pugliese. Guardia Vieja ["vee-ay-hah"] is a community of early performers of this genre, which standardized usage of the bandoneón. A (\*) milonga is a type of venue for this dance, whose standards include "Caminito" and "La cumparsita." Saxophones and electric guitars were introduced to this dance's "nuevo" form by Ástor Piazzola. The "king" of this dance, Carlos Gardel, wrote the popular "Por una Cabeza." For 10 points, name this partner ballroom dance that originated in Uruguay and Argentina.

ANSWER: **tango** <Hadley, Other Auditory>

9. People with this occupation intimidated bank agents in order to buy each other's foreclosed homes and give them back to their original owners in "penny auctions." A shooting outside of a meeting of a "Progressive" union of people with this occupation was the first assignment for NAACP Field Secretary Walter White; that meeting resulted in a white mob's massacre of African Americans in Elaine, Arkansas. The (\*) Wabash case overturned a major policy victory for people with this occupation that had been achieved earlier via *Munn v. Illinois*, which upheld the regulation of grain warehouses as a "public good." For 10 points, give this occupation of people who organized under the Grange to agitate for agricultural reform.

ANSWER: **farmers** [accept **sharecroppers** or tenant **farmers**] <Laurie, American History>

10. A town in this state was officially renamed "PhinDeli Town Buford" between 2013 and 2019 after two unidentified Vietnamese men bought it in an online auction. This state's town of Thermopolis claims to be the home of "The World's Largest Mineral Hot Springs." One large igneous landmark in this state was said by Native Americans to have been carved by bear claws. A famous pre-Columbian medicine wheel is located in the (\*) Bighorn Mountains in the north-central area of this state. A state park and a dam across the Shoshone River in this state are named for Buffalo Bill, as is a nearby city, Cody. Devils Tower is located in, for 10 points, what least populous US state, home to the Grand Tetons and Yellowstone National Park?

ANSWER: **Wyoming** <Higgins, Geography>

11. Vincent Callebaut ["KULL-bow"] designed a plant-filled apartment complex in this city called Agora Garden, which is shaped like a double helix. In this city, a performing arts center with a giant orb sticking out of the side was designed by Rem Koolhaas. A white presidential memorial hall with a blue octagonal roof is flanked by two performing arts centers in this city. A skyscraper in this city is covered in green tinted glass, decorated by swirling motifs of clouds and (\*) talismans called *ruyi*. That skyscraper in this city's commercialized Xinyi ["shin-ye"] district has the world's largest tuned mass damper to reduce swaying, which resembles an eight-tiered pagoda. For 10 points, name this city that contains the Chiang Kai-Shek Memorial Hall and a skyscraper with 101 floors, the capital of Taiwan.

ANSWER: **Taipei** City [or **Taipei** Shih] <Tsai, Other Visual>

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

12. The first part of a planned trilogy by an author from this country sees Tracker, a master hunter, befriend people like the shape-shifting hunter Leopard. The dead politician Sir Arthur George Jennings partially narrates a novel from this country where Josey Wales shoots a man in front of Nina in Copenhagen City. This country is the setting of the childhood of Charlotte Bronte's "madwoman in the attic" in Jean Rhys' (\*) *Wide Sargasso Sea*. An author from this country wrote about the New York City crack wars in *A Brief History of Seven Killings*. This country is the birthplace of *Home to Harlem* author Claude McKay. For 10 points, name this home country of Marlon James who dramatized an assassination attempt on native son Bob Marley.

ANSWER: **Jamaica** [the first line is about Marlon James' *Black Leopard, Red Wolf*] <Laurie, World/Other Literature>

13. Shakirov et al found that in this organism, the ribosome biogenesis genes *NOP2A* and *RPL5* regulate telomere length; that study used a multi-parent advanced inter-generation cross. For research, the most commonly used background lines of this organism are Ler and Col. Tissue from this organism is often grown in Murashige and Skoog medium. Trichome formation in this organism is initiated by *GLABROUS1*. Dipping tissue from this organism into a broth of a certain (\*) bacteria is used to transform it; that bacterium is *Agrobacterium tumefaciens*. This organism was used to show that overlapping hox-gene expression is used to specify the identity of floral parts in the ABC model. For 10 points, name this small flowering weed often used as a model organism, the first plant to have its genome sequenced.

ANSWER: ***Arabidopsis thaliana*** [accept ***Arabidopsis***, **thale cress**, or **mouse-ear cress**] <Phadnis, Biology>

14. *Description acceptable.* One sect requires people doing this thing to take a vow that begins "whither thou goest, I will go; and where thou lodgest, I will lodge." It is forbidden to use the fact that someone has done this against them in an argument. People who have done this are referred to as "children of Abraham and Sarah" in ritual prayers. In the past, people who wanted to do this might have been turned away three times in order to test their sincerity. It's not a divorce, but the approval of a (\*) *beth din* is required to take this action. The rituals confirming this action include immersion in a ritual bath and, for men, circumcision. For 10 points, identify this process in which one adopts the religion of Israel.

ANSWER: **converting to Judaism** [or **giyur**; accept any answers indicating **becoming a Jew**; prompt on religious **conversion** by asking "to what religion?"] <Thompson, Religion>

15. During this era, a practice of infanticide known as "thinning out" became popular as a means of population control. The first successful surgery performed with general anaesthesia was performed during this period. Nobles were required to live in the capital every other year under this period's "alternate attendance" policy. A failed Christian uprising during this period triggered the expulsion of (\*) Portuguese traders. People during this period kept up with western technology via Dutch Learning, which was facilitated by contact with the Dutch enclave of Dejima. Mathew Perry's black ships ended the *sakoku* isolationist policy pursued during this period. For 10 points, name this era, which was ended by the Meiji Restoration.

ANSWER: **Tokugawa** period [or **Edo** period or **Tokugawa** Shogunate; prompt on **Bakumatsu**] <Laurie, World History>

16. A parable told by one thinker from this school about a man who tilled the field and accidentally killed a hare is used to show that the rules used today should not be derived from earlier kings. Another thinker associated with this school of thought contributed to a book whose first chapter encourages agriculture, and later argues "Sophistry and cleverness are an aid to lawlessness." This philosophy rose to prominence after the (\*) royal leader banned all other philosophy as corrupting influences. The members of this school argued that political institutions should resemble human behavior because humans are selfish. For 10 points, name this pessimistic philosophical school of Shang Yang and Han Fei, which emphasized strict adherence to laws and was popular in the Warring States Period.

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

17. Some scholars have noticed a similarity between this figure, the Latvian god Jumis or the Gallic god Gapt, and argue the myth of this figure has a pre-Tacitean basis. In the Poetic Edda, Odin's first question for Vafthrudnir in their contest of wits is about this figure. This figure, one of whose names translates as Gravel Screamer, was nursed by an animal whose licks thawed (\*) Buri from ice. This figure was born when the fire from Muspelheim and the ice from Nifelheim combined in Ginnungagap. This figure's blood caused a great flood when he was slain by Buri's grandchildren. For 10 points, Vili ["VILL-ee"], Ve ["VAY"] and Odin killed which primordial Norse jotunn ["yo-tun"], from whose corpse the universe was constructed?  
ANSWER: **Ymir** [or **Aurgelmir** or **Brimir**] <Bunker, Mythology>

18. Based on her work on languages spoken in this country, Eloise Jelinek developed the pronominal argument hypothesis for polysynthetic languages. Several language families spoken in the west of this country, including Siuslaw and Yokuts, are part of the proposed Penutian macrofamily. Chimakuan languages made up part of an indigenous creole language originating in this country's northwest that spread to its northern neighbor and is called (\*) Chinook Jargon. The unusual properties and lack of a published dictionary for this country's most-spoken indigenous language led this country to use that language for wartime communication. "Code talkers" were used by the military of, for 10 points, what country home to the Muscogee and Navajo languages?  
ANSWER: The **United States** of **America** [or **USA**; accept either underlined part] <Thompson, Linguistics>

19. By noting the discrimination information for one object central to this process, one can calculate the Kullback-Liebler divergences which are the error exponents associated with this process. In some methods, this process is accomplished when the statistic does not have a chi-square distribution with one degree of freedom. For a singleton object, by the Neyman-Pearson lemma, the most powerful way to perform this process is by using the ratio of two likelihood functions. In a (\*) T or Z test, during this process, an object sometimes labeled H naught can be rejected in favor of an alternative if the statistic is significant. For 10 points, name this task in statistical inference in which one usually tries to compare null and alternative versions of the namesake plausible vector of parameters.  
ANSWER: **hypothesis testing** [prompt on statistical inference before mention by asking "by testing what?"; accept "**reject decision on null hypothesis**" or equivalents; prompt on **Z** or **T** test before mention by asking "what are you doing in that test?"] <Bunker, Mathematics>

20. Unusually, the minuetto and trio in this piece's second movement were both in the key of D-flat major. Because of this piece's popularity, the composer complained "surely I've written better things!" to Carl Czerny. Ernst Oster analyzed how Frédéric Chopin was inspired by this piece to write *Fantaisie-Improptu*. The left hand plays a pulsating C-sharp-G-sharp ostinato while the right hand plays a three-octave rising C-sharp minor arpeggio in this piece's (\*) *Presto agitato* third movement. This piece begins with an *Adagio sostenuto* where the performer is told not to release the pedal. Given its popular name by Ludwig Rellstab and subtitled "quasi una fantasia", for 10 points, name this Beethoven piano sonata inspired by nighttime at Lake Lucerne.  
ANSWER: **Moonlight Sonata** [or Ludwig van **Beethoven's Piano Sonata** No. **14** in C# minor; or Ludwig van **Beethoven's Op. 27** No. **2**; prompt on partial answer; prompt on *Sonata quasi una fantasia*] <Hadley, Classical Music>

21. Apollodorus attacked a person who spent much of their life in this profession during an allegedly politically motivated trial against his rival Stephanos. Hypereides defended a person of this profession in a speech before the Areopagus. More educated people in this profession were often classified as hetaira in opposition to the lower-ranked pornai. The trials of (\*) Neaera and Phryne provide much modern insight into people in this profession. A person who had held this profession was accused of being the real reason for the Samian War; she was also, according to Socrates, the true author of her partner's Funeral Oration during the Peloponnesian War. Aspasia held, for 10 points, what profession, which worked in Ancient Greek brothels?  
ANSWER: **prostitutes** [accept **courtesans** or **sex-workers**; prompt on **slaves**; accept *hetaira* or *pornai* before mention] <Laurie, Other History>

22. This poet is progressively undressed in a poem whose speaker proceeds "like a polar explorer / through clips, clasps, and moorings." This poet declares "I'd rather call him 'Star!'" in a poem calling the naming of Arcturus "very mean of Science." Nerves sit "ceremonious, like Tombs" in one of this poet's poems that begins "After great pain, a formal feeling comes." This poet, who is undressed in a Billy Collins poem, commands the reader to (\*) "will / And easy as a star / Look down upon Captivity— / And laugh." This poet speaks of the day she "first surmised the Horses' Heads / Were toward Eternity" in a poem set in a carriage that held "just Ourselves — / And Immortality." For 10 points, name this dash-loving poet of "Because I could not stop for Death."  
ANSWER: Emily **Dickinson** (the first line is Billy Collins's "Taking Off Emily Dickinson's Clothes") <Laurie, American Literature>

## Bonuses:

1. Name some things about humorous poetic forms in anglophonic poetry. For 10 points each:

[10] This often raunchy Irish poetic form has the rhyme scheme AABBA. "There once was a man from Nantucket" is a frequent opening line for poems in this form.

ANSWER: **limericks**

[10] The Double Dactyl, a two quatrain poem opening with a nonsense word, was invented partially by this poet. "Mathew Arnold and this girl" stand in front of the crumbling "cliffs of England" in this poet's "The Dover Bitch."

ANSWER: Anthony **Hecht**

[10] Edward Lear, a popularizer of nonsense verse, wrote a poem in which an owl and one of these animals "went to sea / In a beautiful pea-green boat." "Familial," "particular," and "secretive" are the three names given to these animals in a poem from a collection about "practical" examples of them.

ANSWER: pussy-**cats** [the unnamed poem is "The Naming of **Cats**" in T. S. Eliot's collection *Old Possum's Book of Practical Cats*] <Laurie, British Literature>

2. This country's "Hot Autumn" of 1969 was fictionalized by Nanni Balestrini, a member of the left-wing group Potere Operaio. For 10 points each:

[10] Name this country. Workers at the FIAT factories went on strike in this country's city of Turin, the capital of its region of Piedmont.

ANSWER: Republic of **Italy**

[10] Potere Operaio would eventually split, with some its members joining this left-wing paramilitary group responsible for the kidnapping and assassination of Aldo Moro. Mario Moretti was a leader of this group.

ANSWER: **Red Brigades** [or *Brigate Rossa* or **BR**]

[10] In a book on this organization's "Secret Armies," Daniele Ganser alleges that it encouraged violence as part of a "strategy of tension." The trial of fascist Vincenzo Vinciguerra revealed a stay-behind mission planned by this organization.

ANSWER: **North Atlantic Treaty Organization** [the stay-behind mission is Operation Gladio] <Laurie, European History>

3. Answer the following about the work of English art critic John Ruskin. For 10 points each:

[10] Ruskin sold this painting, but also called the sea in it "the noblest ever painted by man." This painting was originally displayed alongside a poem which asks "Hope, Hope, fallacious Hope! / Where is thy market now?"

ANSWER: *The **Slave Ship*** (by J.M.W. Turner)

[10] Ruskin also wrote a work titled *The Stones of [this city]*. One painter from this city depicted two men in gold and red robes along with a third younger man in a green robe sitting on the ground in *The Three Philosophers*.

ANSWER: **Venice** [or **Venezia**] (that painter was Giorgione)

[10] One section of *The Stones of Venice* is titled "The Savageness of [this type of] Architecture," which often utilized flying buttresses on cathedrals.

ANSWER: **Gothic** architecture <Rodriguez, Painting>

4. Static web pages are often made using markup languages such as HTML or XML. For 10 points each:

[10] Name this interface that treats an XML or HTML document as a tree structure with each node as an object representing part of the document, allowing programmatic access to the tree.

ANSWER: **D**ocument **O**bject **M**odel

[10] In client-side dynamic pages, this browser-based language is often used to render and modify the Document Object Model to help create a web application.

ANSWER: **JavaScript** [do not accept or prompt on "Java"]

[10] This algorithm, implemented in Apache Hadoop, is used for parallelizing big data problems by breaking up input data, assigning the data to different worker nodes, and filtering or combining the output data of the nodes.

ANSWER: **MapReduce** <Ranganathan, Computer Science>

5. In a novel titled for this word, Baldy Li accepts bribes for a description of Lin Hong's butt; Lin Hong marries his step-brother, Song Gang, later on in that novel. For 10 points each:

[10] Give this word, which titles a two-part Yu Hua novel about the Cultural Revolution. An alternate title for *Water Margin* follows the phrase "All Men Are" this word.

ANSWER: **brothers** [accept *All Men Are Brothers*]

[10] Yu Hua has been influenced by this art form, most notably in *Chronicle of a Blood Merchant*. Adaptations of plays, such as one based on the *Generals of the Yang Family* legends, were featured in this art form's "Beijing" type.

ANSWER: **opera** [or Peking **opera**; or Beijing **opera**]

[10] According to Yu, his early work was heavily inspired by this author. The concept of a "Borgesian Conundrum" comes from a Borges essay on this author "and His Precursors," in which Borges argues that all authors create their precursors.

ANSWER: Franz **Kafka** <Laurie, World/Other Literature>

6. Amílcar Cabral founded the group FRAIN to coordinate efforts between groups fighting this colonial power, including the MPLA and his own group, PAIGC. For 10 points each:

[10] Name this colonial power, which relinquished its colonies of Angola and Mozambique following the fall of Antonio Salazar's government. Earlier, this country split New World colonies with Spain in the Treaty of Tordesillas.

ANSWER: **Portugal**

[10] Cabral was killed while in this country, one of his country's neighbors. This country's first post-independence leader was Ahmed Sékou Touré.

ANSWER: Republic of **Guinea** [accept **Guinea-Conakry**; do not accept or prompt on "Guinea-Bissau"]

[10] Cabral was an attendee of the Tricontinental Congress organized by Mehdi Ben Barka, a revolutionary from this country. This country organized the "Green March" in an effort to regain a disputed territory occupied by the Sahrawi People.

ANSWER: Kingdom of **Morocco** <Laurie, World History>

7. Scholars observe a bias during this process that occurs when people with landline cellphones are oversampled. For 10 points each:

[10] Name this process about questioning a population about political candidates or issues. Websites such as FiveThirtyEight have moving averages of data generated by this process.

ANSWER: **polling** [accept word forms like political **poll** or **pollster**]

[10] Along with Rasmussen, this nonpartisan website and newsletter is notable for its polling of congressional elections. Its namesake Political Report developed a partisan voting index for each US congressional district.

ANSWER: **Cook** Political Report [accept **Cook** Partisan Voting Index]

[10] In political science, this effect refers to a poll's ability to affect public opinion at the voting booth. Due to conformity, some voters might feel pressure due to this effect to vote for a polling leader who has a growing number of supporters.

ANSWER: **bandwagon** effect <Bunker, Political Science>

8. John Bell Hood led an unsuccessful assault at this battle nicknamed "Pickett's Charge of the West." For 10 points each:

[10] Name this battle, a devastating loss for the Confederate States against Union General John Schofield. Along with the subsequent Battle of Nashville, this battle destroyed the Army of Tennessee.

ANSWER: Battle of **Franklin**

[10] Hood was defeated at Nashville by General George Thomas, his instructor at the United States Military Academy located in this upstate New York city.

ANSWER: **West Point**

[10] Hood's right leg was amputated after this battle, the second bloodiest of the Civil War. Braxton Bragg defeated William Rosencrans at this battle in Georgia.

ANSWER: Battle of **Chickamauga** <Foos, American History>

9. Answer the following about the uses of transition metals... in 20th century music. For 10 points each:

[10] This French-American composer titled his piece *Density 21.5* for a property of the platinum flute on which it was first performed. Scientific advancements and Italian Futurism also inspired his percussion ensemble piece *Ionisation*.

ANSWER: Edgard **Varèse**

[10] "Bright copper kettles" and "silver white winters that melt into springs" are among examples of the title concepts in this song. John Coltrane famously covered this song, which was originally from *The Sound of Music*.

ANSWER: "**My Favorite Things**"

[10] This transition metal names a track composed by Wayne Shorter on the Weather Report album *Heavy Weather*. A New York ballroom named after this metal was influential in the popularization of the mambo.

ANSWER: **palladium** [accept **Palladium** Ballroom] <Mitchell, Other Auditory>

10. The Gypsy chief Avadoro is the subject of many stories told in a novel from this country which mimics the Decameron and has a frame story about the guard van Worden. For 10 points each:

[10] Name this country, the home of the author of *The Manuscript Found in Saragossa*. Eunice falls in love with Gaius Petronius in a novel from this country, *Quo Vadis*.

ANSWER: **Poland** [**Polish** People's Republic; or **Polska**; or **Polska** Rzeczpospolita; or **Polska** Rzeczpospolita Ludowa; or Republic of **Poland**; or Rzeczpospolita **Polska**; or Rzeczpospolita **Polska** Ludowa]

[10] Henryk Sienkiewicz ["sink-uh-vich"], the author of *Quo Vadis*, was contemporaneous with Boleslaw Prus ["bowl-eh-swaff proos"], a Polish author who used elements of this genre. Kris Kelvin is the protagonist of a work in this genre by Stanislaw Lem.

ANSWER: **science fiction** [or **sci-fi**; Kris Kelvin is the protagonist of Stanislaw Lem's *Solaris*]

[10] Stanislaw ["stah-nis-waff"] Lem, the author of *Solaris*, also wrote a short story collection titled *Fables for [these beings]*. An inability to hurt humans is the first rule in a set of three rules for these beings outlined by Isaac Asimov.

ANSWER: **robots** [accept *Fables for Robots*; or "Three Rules for **Robots**"] <Laurie, European Literature>

11. Answer the following about swords and knives in religion, for 10 points each:

[10] One of these knives is carried by observant Sikhs at all times so that they may embody the values of a "saint-soldier". Various legal challenges have resulted from that commandment, and these weapons are the only ones allowed in the Canadian Parliament.

ANSWER: **kirpan**

[10] The fourth Caliph of Islam, Ali, was said to have used this scissor-like double-bladed scimitar often depicted on Muslim flags and in Shia depictions of him.

ANSWER: **Zulfiqar** [or **Dhulfiqar**, or **Thulfiqar**, or **Tulfiqar**, or **Dū-l-Faqār**]

[10] According to the Book of Genesis, cherubim and flaming swords were used to prevent anyone from entering this location, once Adam and Eve were forced to leave.

ANSWER: **Garden of Eden** <Ranganathan, Religion>

12. Answer the following about the 19th century individualist anarchist philosopher and magazine editor Benjamin Tucker, for 10 points each:

[10] Tucker said "whoever denies" the private form of this concept is "necessarily an anarchist." A book by Pierre-Joseph Proudhon called *What is [this concept]* says it is merely theft.

ANSWER: **property** [accept **private property**; prompt on **land**]

[10] Max Stirner heavily influenced Tucker with his anarchism named after this Latin word. In Freudian psychology, this term refers to the part of the id that has been modified by reality.

ANSWER: **ego** [accept **egoist anarchism**; do NOT accept or prompt on "superego"]

[10] Tucker translated parts of the correspondence between this free market French liberal economist and Proudhon as part of their interest debate. This author of the essay *The Law* argued for a state that serves to protect life, liberty and property.

ANSWER: Frédéric **Bastiat** <Bunker, Philosophy>

13. Souls must pass this test in order to make it into the fields of Aaru. For 10 points each:

[10] Souls that failed this test would be eaten by Ammit. Participants in this test recited 42 negative confessions that were memorized from the Book of the Dead.

ANSWER: **weighing** of the **heart** [accept any answer that demonstrates they know that the heart is being weighed against the feather of truth; prompt by asking "what are they weighing the feather against?" if they mention the feather and not the heart]

[10] Dead souls' hearts were weighed against the feather of Ma'at. Ma'at's emblem of an ostrich feather was also used in depictions of this Egyptian god of air, who is sometimes considered Ma'at's brother.

ANSWER: **Shu**

[10] Ma'at is often depicted in the solar barge next to Ra, and she helps defend the boat against this evil serpent of chaos each night.

ANSWER: **Apep** [or **Apophis**] <Ranganathan, Mythology>

14. Due to favorable state laws within California, this type of health plan started to become popular on the West Coast first. For 10 points each:

[10] Name this type of health plan that is similar to an EPO. These often high deductible plans are differentiated from HMOs in that they may have higher premiums but do not require referrals from a patient's primary care physician.

ANSWER: **PPO** [or **Preferred Provider Organization**]

[10] Commonly, people can purchase a PPO plan at some of the healthcare exchanges set up due to this 2010 piece of legislation. Gold, silver and bronze-tier plans are set up on the subsidized exchanges created by this legislation which also expanded Medicaid.

ANSWER: Patient Protection and **Affordable Care Act** [or **Obamacare**, or the **ACA**, or the **PPACA**]

[10] This Oakland, California-based health consortium, founded by an American shipbuilder, was among the first to offer companies a PPO. A family foundation named for the same man frequently publishes research and news in health policy.

ANSWER: **Kaiser** Permanente [also accept **Kaiser** Family Foundation] <Bunker, Other Academic>

15. The only reversible version of this type of reaction is sulfonation, which is often used to block the para position in order to direct a subsequent reaction of this type to the ortho position. For 10 points each:

[10] Name this general class of organic reaction, in which a hydrogen on a benzene ring is replaced by an electron pair acceptor. Friedel-Crafts reactions proceed by this reaction mechanism.

ANSWER: **electrophilic aromatic substitution** [accept **EAS**]

[10] In the Friedel Crafts alkylation, this metal's chloride can be used as a catalyst. This metal's sulfate is also known as ferrous sulfate.

ANSWER: **iron** [accept **Fe**]

[10] This example of an activated ring has an amino group that is ortho and para directing by resonance. This organic molecule can be synthesized via the hydrogenation of nitrobenzene.

ANSWER: **aniline** [accept **C6H5NH2**] <Bunker, Chemistry>

16. The first Indian musician to perform at the UN General Assembly was M. S. Subbulakshmi, a singer from this system of music. For 10 points each:

[10] Name this South Indian system of classical music with a different style but the same basic elements as its North Indian counterpart, Hindustani.

ANSWER: **Carnatic** music

[10] This wooden, double-headed drum is part of the ensemble used for Bharatanatyam performances. The difference in size of the two heads of this drum creates bass and treble sounds for the four basic strokes *Tha*, *Dhi*, *Thom*, and *Nam*.

ANSWER: **mridangam**

[10] In Carnatic music, the continuous plucking of the four strings of a tambura is used to create this harmonic effect. Organ pedals or bagpipes can also achieve this effect of a long sustained note, which also names a style of doom metal.

ANSWER: **drone** <Ranganathan, Classical Music>

17. You are visiting Bavaria. Answer some questions about what you might do there, for 10 points each:

[10] You might visit one of these establishments, which include the Augustiner Keller and the Hofbräuhaus ["HOF-broy-house"]. Munich's Oktoberfest is a yearly festival celebrating these establishments and their products.

ANSWER: **breweries** [or **beer halls**, or any equivalent indicating somewhere where **beer** is produced]

[10] You might go skiing in the Alps in this resort town south of Munich and overlooked by Germany's highest mountain, the Zugspitze ["TSOOG-shpeet-zuh"]. It is probably best known for hosting the 1936 Winter Olympics.

ANSWER: **Garmisch-Partenkirchen**

[10] Finally, you might visit this town in northern Bavaria, home to the Richard Wagner Festspielhaus ["FEST-shpeel-house"], or Festival Hall, in which several of Wagner's operas were premiered, and which hosts an annual festival dedicated to the composer.

ANSWER: **Bayreuth** ["BYE-root"] <Thompson, Geography>

18. One economist who works at this institution wrote a book called *Mostly Harmless Econometrics* with Steve Pischke and dressed up as a sword-wielding ninja in a video about the furious five of econometrics. For 10 points each:

[10] Joshua Angrist works in which university's economics department, which also employs the charter school researcher Parag Pathak and the Nobel-winning development economist Abhijit Banerjee?

ANSWER: **Massachusetts Institute of Technology**

[10] Angrist's strange video mentions a "discontinuity" version of this broad class of statistical techniques. The best fit line from the linear version of this technique minimizes the sum of squared residuals.

ANSWER: **regression** [also accept "**regression discontinuity**", **linear regression**, etc.]

[10] Daron Acemoglu, also of M.I.T., and James A. Robinson wrote this book, which argues that good institutions protect property rights and are essential for development.

ANSWER: **Why Nations Fail** <Bunker, Economics>

19. This author punned on Public Enemy in "Fear of a Black President," in which he argued that Barack Obama's success while ignoring racial issues exposed the weakness of an integration based on soothing racial consciousness. For 10 points each:

[10] Name this author, whose essays on the Obama years are collected in *We Were Eight Years in Power*.

ANSWER: Ta-Nehisi ["tah-nuh-hah-see"] **Coates**

[10] "Fear of a Black President" illustrates Obama's tenuous position using the example of the hatred spewed at him for saying that this person "could have been [his] son." This 17 year old boy was shot by George Zimmerman.

ANSWER: Trayvon **Martin**

[10] Coates' *Between the World and Me* takes its title from a poem by this author, who, late in his life, wrote 817 haikus collected in *Haiku: This Other World*. The essay "Everybody's Protest Novel" is contained in a collection named for one of this author's novels.

ANSWER: Richard **Wright** <Laurie, American Literature>



20. In classical field theory, a continuous field is used to define a density named for this quantity. For 10 points each:  
[10] Identify this quantity, which for a non-relativistic physical system, is equal to the difference of kinetic and potential energy.  
ANSWER: **Lagrangian**  
[10] The dynamics of a system can be determined from the Lagrangian by solving an equation named for Lagrange and this mathematician. He also names a set of angles in rigid body dynamics.  
ANSWER: Leonhard **Euler**  
[10] In QFT, the Euler-Lagrange equation can sometimes yield a result that is "off" this structure, corresponding to a virtual particle. This structure is a hyperboloid in energy-momentum space corresponding to solutions of classical equations of motion.  
ANSWER: mass **shell** <Bunker, Physics>
21. This Kingdom's Queen Hysicratea was apparently one of only three people not to abandon her husband after Pompey defeated him. For 10 points each:  
[10] Name this Kingdom, ruled by a King who could speak all twenty-two of his subjects' languages. The Roman physician Andromachus created Theriac by adapting a universal antidote created by another ruler of this Kingdom.  
ANSWER: Kingdom of **Pontus**  
[10] Pontian King Mithridates VI allied with this Kingdom's Tigranes the Great against Rome. This Kingdom was Christianized by Gregory the Illuminator.  
ANSWER: Kingdom of **Armenia**  
[10] The Kingdom of Pontus was in this ancient region that roughly corresponds with modern-day Turkey.  
ANSWER: **Anatolia** [accept **Asia Minor**] <Laurie, Other History>
22. A set of six bacteria in this phylum are all resistant to the antibiotic rifampin. For 10 points each:  
[10] Identify this phylum of bacteria known for their long, helical shape. They include the causative agent of syphilis, *Treponema pallidum*.  
ANSWER: **spirochete** [or **spirochaete**]  
[10] The spirochete *Borrelia burgdorferi* causes this disease, which presents with a bullseye-shaped rash known as erythema migrans. This tick-borne disease is named for a town in Connecticut.  
ANSWER: **Lyme** disease  
[10] This other disease caused by a spirochete can cause kidney damage and meningitis if left untreated. This disease, usually spread to humans from dogs and animal urine, can manifest into Weil's disease after repeated exposure.  
ANSWER: **leptospirosis** <Bunker, Biology>