

Stevenson Memorial Tournament 2018

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Packet 8

Tossups:

1. **These objects are found using the High Resolution Echelle Spectrometer from the Keck Observatory, which measures the incoming light intensities of color channels. The first of these objects discovered was by Aleksander Wolszczan [“VOLE-chahn”] and Dale Frail, who used pulsar timing to find these near B1257+12. These objects were detected through (*) Doppler spectroscopy, but that method has been mostly supplanted by the transit method used in the Kepler spacecraft. Certain examples of these objects found in the Goldilocks zone are habitable for humans. Two of these objects were found in the Gliese 581 system and were known as mega-earths. For 10 points, name these planets orbiting a star that is not the sun.**

ANSWER: **exoplanets** [accept **extrasolar planets**; accept descriptions specifying **planets** outside our **solar system** that **orbits a star**; prompt on partial descriptions; prompt on **planets**]

<DM Astronomy>

2. **The massive cuts recommended by a 1963 report on this industry led to it being reduced by nearly one-third via the subsequent “Beeching Axe.” The revelation of the creative accounting used by the “king” of this non-canal industry, George Hudson, led to his disgrace and the collapse of the namesake “mania” of this industry in 1840s Britain. A contest for infrastructure of this industry, the Rainhill Trials, was won by George and Robert (*) Stephenson with their *Rocket* design. A “Great Western” system of this industry was engineered by Isambard Kingdom Brunel, who sparked the “gauge wars” by choosing to use the broad gauge for it. Many Brits first made use of this industry to visit the Great Exhibition in 1851. For 10 points, name this transportation industry that makes use of locomotives.**

ANSWER: British **railroad** industry [or British **railways**; or **train** industry; or **locomotive** industry until “locomotives” is read; prompt on **transportation** or **travel** industry until “transportation” is read]

<JB British History>

3. **Czesław Miłosz [“CHESS-waff MEE-woash”] was inspired by this novel to write a poem about a place “where... you hardly notice how time goes by.” A character in this novel is referred to as “Satana” because of his affinity for hymns to the Devil. That character refers to the protagonist as “my good engineer,” and both watch Dr. Behrens draw a pig during a parlor game at a Walpurgis-Night party. The elderly Dutchman (*) Mynheer Peeperkorn takes up with the protagonist’s love interest, Clavdia Chauchat, in this novel. Much of this novel is devoted to the debates of the authoritarian Jesuit Naphtha and humanist Settembrini. The protagonist’s cousin Joachim Ziemssen [“YO-ah-keem ZEEM-sen”] dies of tuberculosis in this novel’s title location. For 10 points, name this Thomas Mann novel about Hans Castorp’s stay at a Swiss sanatorium.**

ANSWER: *The **Magic Mountain*** [or *Der **Zauberberg***]

<OL European Literature>

4. A work by this artist was originally enclosed in an oblong box topped by a salamander, one of which he claimed to have seen in a fireplace at the age of five. One of this artist's sculptures has a base depicting the four seasons and the four parts of the day. A lunette by this artist features hounds flanking a reclining nymph with her arm around a deer. He used bed sheets to escape from the Castel Sant'Angelo, an episode (*) featured in a text that narrates his sculpting of a piece in which blood drips from a disembodied head. This artist of *The Nymph of Fontainebleau* described in his *Autobiography* how he "represented the Sea and the Land, both seated, with their legs intertwined" in a small gold piece for his patron Francis I. For 10 points, name this Renaissance artist of *Perseus with the Head of Medusa* and a *Salt Cellar*.

ANSWER: Benvenuto Cellini

<JB Painting and Sculpture>

5. The "angel of repentance" takes the form of one of these figures to speak to the slave Hermas in a once-canonical scripture. Christian art in the catacombs often depicted one of these people in an image derived from the iconography of Hermes Kriophoros. A man who told Amaziah that "I am not a prophet, nor am I the son of a prophet" was a grower of sycamore figs and one of these people; that prophet was Amos. Moses won his (*) wife Zipporah by standing up to a group of these people at Jethro's well. The Gospel of John describes one of these figures who "lays down his life" for his charges, in contrast to the "hired hand." The 23rd Psalm begins by calling the Lord "my" one of these people and states "I shall not want." For 10 points, Jesus is called a "good" member of what pastoral profession?

ANSWER: shepherds

<JB Religion>

6. This author is the subject of the leftmost of the three columns on each page of *Bottom's Dream*, a *Finnegans Wake*-like novel written by a translator of this author, Arno Schmidt. Walter Benjamin ["VALL-tuh BEN-yah-meen"] described a story by this author as an "X-ray of a detective story"; that story's convalescent narrator is identified with the *flâneur* in the essay "A Painter of Modern Life." Jules Verne wrote *The Sphinx of the Ice Fields* as a sequel to a novel by this author that ends abruptly in (*) Antarctica. This American author inspired Stéphane Mallarmé and other Symbolists poets who read him in Charles Baudelaire's translations. This author of "The Man of the Crowd" and *Arthur Gordon Pym* used Paris as the setting for his tales of ratiocination. For 10 points, name this author who wrote about C. Auguste Dupin ["see oh-GOOST doo-PAN"] in "Murders on the Rue Morgue."

ANSWER: Edgar Allan Poe

<JB Other Lit>

7. This place is home to a gumbo that has varieties named after pigeon peas and chicken; that dish is *asopao*. An amphibian with "common" and "mountain" varieties which is named for its two-part mating call is a symbol of this place; that animal is a type of frog known as the coquí. This place's El Yunque ["JOON-kay"] National Forest is the only tropical rainforest administered by the National Park Service. Shipping things to this place costs twice as much as shipping to nearby (*) islands due to a law requiring goods shipped in the US to be carried on American ships; that law was temporarily waived in September 2017 in response to a natural disaster on this island. For 10 points, name this US territory affected by Hurricane Maria whose capital is San Juan.

ANSWER: Commonwealth of Puerto Rico

<CH Geography>

8. After one figure was subjected to this action, he learned a set of “mighty songs” from the “son of Bolthor, Bestla’s father.” Sets of nine corpses from different species, such as dogs, horses, and humans, were said to be subjected to this action at the Temple of Uppsala in Adam of Bremen’s account. The speaker recalls how “No bread did they give me nor a drink from a horn” while he underwent this experience in a “windy” place in a poem from the *Hávamál* book. After (*) stabbing himself with a spear, a god did this action for nine days and nine nights while staring into Mimir’s well in order to learn the Runes; in that story, Odin sacrifices himself by undergoing this action on the trunk of Yggdrasil. For 10 points, Odin takes the form of a raven to converse with people undergoing what fate in his role as “Lord of the Gallows?”

ANSWER: **hanging** [or more specific answers like **hanging** from Yggdrasil; prompt on **garroting**, **strangulation**, or **self-sacrifice** (until “sacrifices” is read) by asking “by what method?”]

<JB Mythology>

9. This empire installed Shefqet Vërlaci [“SHEF-chet vur-LOT-see”] as the ruler of a conquered territory, as he had been the mortal enemy of that territory’s previous king. This empire was prevented from annexing Southeastern Anatolia after the Greeks occupied İzmir. This empire executed Omar Mukhtar, a guerilla leader of the Senussi Order, during their “pacification” of a colony it viewed as the “Fourth Shore.” The Hoare–Laval pact attempted to end an (*) invasion in which this empire used mustard gas against a country that had humiliated it at the Battle of Adwa. This empire lost control of Somalia after World War II, prior to which its regime had given its penultimate king the titles of Emperor of Ethiopia and King of Albania. For 10 points, name this empire nominally ruled by the House of Savoy and Victor Emmanuel III during World War II.

ANSWER: **Italian** Empire [or Kingdom of **Italy**; or Fascist **Italy**; or Regno d’**Italia**]

<GP European History>

10. Examples of these compounds derived from fatty acids include sorbitan esters and ethoxylated sorbitan esters, known as spans and tweens, respectively. Langmuir–Blodgett troughs are used to study the properties of monolayers of these substances. The bulk concentration of these compounds is assumed to be zero in the derivation of the Gibbs (*) adsorption isotherm. These compounds will flocculate below the Krafft temperature. To denature proteins before gel electrophoresis, they are boiled with one of these substances, SDS. These compounds can form aggregate bodies known as micelles, whose structure is determined by the balance between the hydrophilic head and hydrophobic tail. For 10 points, name these compounds that reduce surface tension.

ANSWER: **surfactants** [or **detergents** or **surface acting agents**; prompt on **micelles** or **phospholipids**]

<DM Chemistry>

11. One of these objects moves through a golden wheatfield in a sequence from Abbas Kiarostami’s *The Wind Will Carry Us*. The camera cuts between birthday party guests and the gasping protagonist swimming across a river in the climactic scene of a 2004 Walter Salles film titled for this sort of machine. In a film featuring these vehicles, a girl narrates the Apostles Creed over flashing images of the sun and church statues in an acid trip sequence set on (*) Mardi Gras. That film ends with a crane shot of one of these vehicles on fire after two men in a pickup gun down men played by Peter Fonda and Dennis Hopper. A character who rides one of these vehicles responds “What’ve you got?” when asked what he’s rebelling against in an early Marlon Brando film. For 10 points, name these vehicles featured in *Easy Rider* and *The Wild One*.

ANSWER: **motorcycles** [or **motorbikes**; prompt on **bikes**, **cycles**, **choppers**, etc. but not “bicycles,” obviously]

<JB Other Arts (Film)>

12. Loyd Wheaton captured twelve men of this ethnicity at Pembina in the Dakota Territory. Four men of this ethnicity were nicknamed the “Bonanza Kings” for controlling many of the Comstock Lode silver mines. A woman called “Hell-Cat” for her trademark brass fingernails fought for a gang of this ethnicity, the Dead Rabbits. James Kelso failed to prevent parades that led to the (*) Orange Riots between groups of this ethnicity. After a group of men of this ethnicity surrendered at Churubusco, their battalion was executed for defection during the Mexican War. This was the majority ethnicity of people who violently reacted to news of a 300-dollar commutation fee in the New York Draft Riots. For 10 points, name this ethnicity of people who immigrated to the US in “coffin ships” during the Potato Famine.

ANSWER: Irish-Americans (The men in the first clue were Fenians; the battalion is the St. Patrick’s Battalion.)
<GP American History>

13. In the “Metaphysics” section of one of his works, this philosopher claimed that the subject matter of logic is “secondary intelligible concepts.” This thinker’s belief that God cannot know particular things and his denial of the resurrection of the body are critiqued in the 13th and 20th points of a book by another author. This philosopher argued that one would still affirm one’s own existence despite being unaware of one’s body if born blind and unable to (*) touch anything. This thinker argued for the existence of the soul in the “flying man” thought experiment and is, along with his predecessor Al-Farabi, the major target of *The Incoherence of the Philosophers* by al-Ghazali. For 10 points, *The Book of Healing* was authored by what medieval Persian polymath known by a Latinized name?

ANSWER: Avicenna [or Ibn Sina]
<JB Philosophy>

14. In a dream sequence from this movie, a crowd wearing 3D glasses watches as a priest analyzes a “meaningfully underlined” copy of *Moby Dick*. This movie opens with its title characters playing croquet before asking other characters how they would spend 5 million dollars if they knew aliens were going to blow up the world. Students sign a petition asking the band Big Fun to play at a school dance in this movie, though the petition is actually a pledge to (*) die. A 2018 remake of this movie controversially replaced the title characters with a black and genderqueer student. The deaths of popular football players Kurt and Ram are framed as suicides by J. D. and Veronica in this film, which also popularized the phrase “What’s your damage?” For 10 points, name this 1988 movie starring Christian Slater and Winona Ryder, about the title identically named clique.

ANSWER: Heathers
<OL Trash>

15. A section of this poem written from the perspective of Jesus sees the speaker exclaim “Enough! Enough! Enough!” One section of this poem claims that the actions of a mastodon, buzzard, and elk are all “in vain,” while another describes the habits of a “spinning girl,” “duck-shooter,” and “pure contralto.” In this poem, a woman joins some young men “by the shore” as the “the twenty-ninth bather.” The speaker of this poem uses the phrases “a uniform hieroglyphic” and “the (*) beautiful uncut hair of graves” to describe grass. This poem begins by claiming “every atom belonging to me as good belongs to you” and ends “I stop somewhere, waiting for you” after the speaker sounds his “barbaric yawp.” For 10 points, name this poem by Walt Whitman that makes up over half of *Leaves of Grass*.

ANSWER: “Song of Myself”
<OL American Literature>

16. **The maximum voltage in these devices are limited by a phenomenon known as punch-through as a result of extreme channel length modulation. A hybrid model for one of these devices uses four H-parameters dependent on quantities such as input impedance and admittance. Two of these devices can be connected in a (*) Sziklai pair or a Darlington pair to output a greater current than they could individually. These devices can come in NPN and PNP varieties, the latter of which will only conduct if its base and collection regions are negative relative to the emitter. Moore’s law states that the number of these devices that fit on a circuit board doubles approximately every 18 months. For 10 points, name these devices that can act as switches or amplifiers.**

ANSWER: **transistors** [accept **MOSFETs** or **metal-oxide-semiconductor field-effect transistors**; accept **FETs** or **field-effect transistors**]

<DM Physics>

17. **One of this kingdom’s monarchs thwarted Constantius II’s efforts to extradite his tutor for heresy. Cosmas Indicopleustes recorded two stone inscriptions he saw in this kingdom’s port of Adulis, which he was visiting when its king Kaleb launched an overseas military campaign against Dhu Nuwas’s Himyarite Kingdom. The mysterious queen Gudit laid waste to this kingdom. It’s not Medina, but followers of Muhammad fled to this kingdom in the First Hijra. (*) Ge’ez [“GHEE-ezz”] was the main language of this kingdom, which was succeeded by the Zagwe dynasty. Frumentius converted this kingdom’s ruler Ezana to Christianity and oversaw the building of the Church of Our Lady Mary of Zion, the purported site of the Ark of the Covenant, here. For 10 points, name this Christian kingdom located in modern-day Eritrea and Ethiopia.**

ANSWER: **Axumite Kingdom** [prompt on Ethiopia until read]

<GP World History>

18. **A poem about this event tells a “droll rat” that “they would shoot you if they knew / Your cosmopolitan sympathies.” In addition to that Isaac Rosenberg poem, a pair of poems written during this event include the parallel exclamations, “O Jesus, make it stop!” and “O Christ, they’re coming at us!” Dusk is described as a “drawing-down of blinds” in a poem about this event, which inspired a poem that describes a man (*) “drowning” under a “green sea” and “green light.” Siegfried Sassoon and Rupert Brooke wrote about this conflict, the subject of a poem that describes men who walk like “old beggars under sacks” until a man shouts “Gas! GAS! Quick, boys!” For 10 points, name this war, the subject of Wilfred Owen’s “Dulce et Decorum Est” and John McCrae’s “In Flanders Fields.”**

ANSWER: **World War I** [or the **Great War**; accept “Break of Day in the **Trenches**” until “pair” is read]

<OL British Literature>

19. **The flutes and oboes play the motif E F-sharp E in a dotted rhythm in this composer’s *Fantasy for Piano and Orchestra*, his only work in that genre. This composer drew inspiration from *The Songs of Bilitis* for his *Six Antique Epigraphs* for piano duo. Another of this composer’s piano duos opens with an *Avec empotement* [“uh-VEK om-port-MAWN”] waltz dedicated to Serge Koussevitzky and is his (*) *En Blanc et Noir*. The pieces “What the west wind saw” and “The girl with the flaxen hair” are grouped together in this composer’s first book of preludes. An orchestral piece by this composer was published with a Hokusai piece on its cover and opens with a movement depicting the titular feature seen “from dawn to midday.” For 10 points, name this French composer of *La Mer*, *Prelude to the Afternoon of a Faun* and *Claire de Lune*.**

ANSWER: Claude **Debussy**

<YFL Music and Opera>

20. **One form of this phenomenon was shown to have a strong correlation with thymidine uptake as a measure of cell proliferation in a paper by Krouch and Kozlowski. Coelenterazine is a cofactor for enzymes that cause this phenomenon. Some species in the order Coleoptera regulate this phenomenon with (*) nitric oxide gas.** Acylated homoserine lactone is an autoinducer that binds to proteins from the LuxR gene, which controls this phenomenon in some dinoflagellates. The BLT and BRET imaging techniques are based on this phenomenon. Typical examples of this phenomenon rely on the oxidation and decay of a luciferin. For 10 points, name this phenomenon where organisms such as fireflies produce light.

ANSWER: **bioluminescence** [prompt on chemiluminescence; prompt on luminescence; do not accept “fluorescence,” “photoluminescence,” or “phosphorescence”]

<MW Biology>

21. **In a work by this painter, people celebrate behind a railing in the top right corner, and a Protestant, a monk, and a statesman shake hands and embrace in the foreground. In that work by this painter, a man stands on a table at the center of the painting and raises his right arm above a crowd of men with their arms outstretched at him. On the right side of a painting by this artist, a woman cries and covers herself with a blue shawl next to a woman in orange clutching two children. A (*) double portrait by this painter shows glass equipment next to Antoine Lavoisier and his wife. This man painted *The Victors Bring to Brutus the Bodies of His Sons* and a painting that shows three men raising their arms at three swords being handed to them by their father.** For 10 points, name this painter of *The Oath of the Horatii*.

ANSWER: Jacques-Louis **David**

<YFL Painting and Sculpture>

Bonuses:

1. Answer the following about American literature set in New Jersey, for 10 points each.

[10] This poet of “This is Just to Say” and “The Red Wheelbarrow” wrote *Paterson*, an epic poem about Paterson, New Jersey, in which he put forth his aphorism “no ideas but in things.”

ANSWER: William Carlos **Williams**

[10] One of Dr. Spielvogel’s patients is married to a former Miss New Jersey in this novel, which ends with Spielvogel giving his only line of dialogue: “Now vee may perhaps to begin. Yes?”

ANSWER: ***Portnoy’s Complaint*** (by Philip Roth)

[10] A protagonist of one of this author’s novels attends Rutgers University in New Jersey and encounters protective mongooses while avoiding the fukú curse. This author’s character Junior appears in *This is How You Lose Her*.

ANSWER: Junot **Díaz** (That novel is *The Brief Wondrous Life of Oscar Wao*.)

<OL American Literature>

2. Joseph E. Johnston replaced this general as the leader of the Army of Tennessee. For 10 points each:

[10] Name this Confederate general who was recalled after a decisive defeat to Ulysses S. Grant during the Chattanooga Campaign.

ANSWER: Braxton **Bragg**

[10] Bragg earlier led the Confederates to a victory at this battle, largely due to the arrival of James Longstreet. This battle saw the defeat of William Rosencrans’s Army of the Cumberland.

ANSWER: Battle of **Chickamauga**

[10] At the Battle of Chickamauga, general Benjamin Hardin Helm, a brother-in-law of this politician, was killed. In his second inaugural address, this man called for the Union to act “with malice toward none, with charity for all.”

ANSWER: Abraham **Lincoln**

<AN American History>

3. The orientation of these objects can be described by three angles named for Euler. For 10 points each:

[10] Name these ideal objects that cannot be deformed by external forces. They are formally defined as objects in which the distance between two points is always fixed.

ANSWER: **rigid bodies**

[10] This law from mechanics states that the acceleration of a body with constant mass is directly proportional to the force exerted on it. Its application on the center of mass of a rigid body is used to confirm translational invariance.

ANSWER: **Newton’s second** law [prompt on partial answer; prompt on *F equals ma*]

[10] This man names a rigidity in special relativity that corresponds to that of a rigid body in classical mechanics. Objects as a result can theoretically undergo length contraction without breaking the body.

ANSWER: Max **Born**

<DM Physics>

4. This musician led a recording session including his tunes “Ko-Ko,” “Billie’s Bounce,” and “Now’s the Time” that became a breakout record for bebop. For 10 points each:

[10] Name this bebop jazz saxophonist. In one story about this musician’s early development, Jo Jones threw a cymbal at his feet at a jam session because he messed up during a solo on “I Got Rhythm.”

ANSWER: Charlie **Parker** [or Charles **Parker** Jr.]

[10] Parker is known for developing bebop alongside this musician who wrote the tune “Salt Peanuts” and played with Parker in “The Quintet” on the album *Jazz at Massey Hall*.

ANSWER: John Birks “Dizzy” **Gillespie**

[10] This Gillespie-written jazz standard features a bass vamp in the A section over E-flat 7 and D minor 6 chords. The B section’s chord changes are taken from “Alone Together,” and vocalists have recorded it under the name “Interlude.”

ANSWER: “A **Night in Tunisia**”

<YFL Other Arts (Jazz)>

5. Answer the following about the Protestant Reformation in Italy, for 10 points each.

[10] Italian members of this movement agreed to anti-trinitarian doctrines at a 1550 council in Venice. This broad, radical Protestant movement included the followers of John of Leiden and sects such as the Amish and Mennonites.

ANSWER: **Anabaptists**

[10] Many members of Fausto Sozzini’s nontrinitarian sect joined this region’s Unitarian Church after their expulsion from Poland. This vampire-associated region with a name meaning “beyond the forest” forms modern Romania with Wallachia.

ANSWER: **Transylvania**

[10] Prior to her heresy trial, this Italian city’s countess Renée of France patronized Protestants such as John Calvin at her court. This city ruled by the d’Este family was the second site, after Basel, of the Council of Florence.

ANSWER: **Ferrara**

<JB European History>

6. In “Two Thought Experiments Reviewed,” Tyler Burge introduced AI and his counterpart AI-sub-*i* to this scenario. For 10 points each:

[10] Name this thought experiment put forth by Hilary Putnam, in which a substance identical to water but composed of a chemical abbreviated as XYZ is referred to as water on another planet.

ANSWER: **Twin Earth** paradox

[10] The Twin Earth thought experiment argues for this view in the philosophy of language. According to this position, summed up by Putnam as “meaning just ain’t in the head,” meanings of terms are defined by factors outside of those who use them.

ANSWER: **semantic externalism** [prompt on externalism]

[10] Putnam also revamped a thought experiment from this philosopher with his own, the “brain in a vat.” This philosopher used the statement “I think, therefore I am” to disprove that an evil demon was controlling his thoughts.

ANSWER: René **Descartes**

<YFL Philosophy>

7. The neighborhood is woken up by trumpets played as part of a mock funeral in this text's most famous scene. For 10 points each:

[10] Name this Roman novel by Petronius that depicts Trimalchio's feast. Encolpius and Ascyltus fight for the teenage boy Giton in more ways than one throughout this book.

ANSWER: ***Satyricon*** *liber* [or ***Satyrica***; or *The **Book of Satyrlike Adventures***]

[10] Encolpius debates schooling with a fellow teacher of this name at the beginning of the *Satyricon*. Another character of this name titles a play that opens with a watchman waiting for the beacon fire that will signal his return.

ANSWER: **Agamemnon**

[10] A passage from the *Satyricon* in which the Sibyl declares "I want to die" serves as the epigraph for this T. S. Eliot poem, which is dedicated to Ezra Pound and begins "April is the cruellest month."

ANSWER: "The **Waste Land**"

<OL Classical Literature>

8. These objects are shown hanging off of buildings and blurred together in a painting of them *on the Waldorf*. For 10 points each:

[10] Name these objects that are shown crowding together in *The Avenue in the Rain*.

ANSWER: American **flags**

[10] Childe Hassam painted street scenes with American flags and, like Mary Cassatt, was an American painter from this art movement.

ANSWER: **Impressionism**

[10] This artist is known for his depiction of the American flag using encaustic painting. This artist contributed one of his flags to Robert Rauschenberg's combine *Short Circuit*.

ANSWER: Jasper **Johns**

<YFL Painting and Sculpture>

9. Name some things about the technical details of Bitcoin, for 10 points each.

[10] Bitcoin is mined in these units, which are added to a namesake "chain" that acts as a public record of all transactions.

ANSWER: **blocks** [accept **block**chain]

[10] SHA-256, one of these kinds of functions, is used to verify a proof-of-work when mining a Bitcoin. These kinds of functions are often applied to passwords before being stored in databases.

ANSWER: cryptographic **hash** functions

[10] Bitcoin transactions are stored in hash trees named for and invented by this person. Along with Ivan Damgård, this person names a method of constructing hash functions.

ANSWER: Ralph **Merkle** [accept **Merkle**-Damgård construction]

<DM Computer Science>

10. This author described a magazine photograph of the Czar and the President of France shaking hands in his story “Blumfeld, an Elderly Bachelor.” For 10 points each:

[10] Name this author who frequently described photographs in his works, such as a magazine cutout of a woman in a fur boa that hangs in Gregor Samsa’s room in his novella *The Metamorphosis*.

ANSWER: Franz **Kafka**

[10] A framed image depicting a bushman with a shield hangs in the room of this title character of a Kafka story. The ghost of this Roman hunter has wandered the seas in a ship ever since he died chasing a chamois.

ANSWER: The Hunter **Gracchus** [prompt on the hunter]

[10] A blurry photograph of a messenger practicing the high jump is described in this Kafka novel about K’s attempts to access the title place.

ANSWER: *The Castle* [or *Das Schloss*]

<JB European Literature>

[NOTE: Read over first part answerline before continuing]

11. A story about these pieces alleges that its composer called their theme a “cobbler’s patch,” or “Schusterfleck.” For 10 points each:

[10] Name this set of 33 variations for piano based on a C major waltz. An Alfred Brendel essay about these pieces asks, “Must Classical Music be Entirely Serious?”

ANSWER: **Diabelli Variations** [or **33 Variations on a Waltz by Diabelli**; or **33 Veränderungen über einer Walzer von Diabelli**; accept **Beethoven’s Opus 120**; **DO NOT REVEAL LAST ALTERNATE ANSWERLINE**]

[10] This composer of the *Diabelli Variations* also wrote 32 piano sonatas, including ones commonly called the “Hammerklavier,” “Waldstein,” and “Les Adieux.”

ANSWER: Ludwig van **Beethoven**

[10] This 8th Beethoven piano sonata opens its *Grave* first movement with a long forte-piano C minor chord and was dedicated to Karl von Lichnowsky [“likh-NOFF-skee”].

ANSWER: **Pathétique Sonata** [or the *Sonata Pathétique*; or the **Grande sonata pathétique**; or Beethoven’s **Opus 13**]

<YFL Music and Opera>

12. Two groups in this classification are known as positive-sense and negative-sense. For 10 points each:

[10] Name this virus classification system named for an American biologist based on mRNA synthesis. It groups viruses into 7 groups, the first of which is double-stranded DNA viruses.

ANSWER: **Baltimore** classification

[10] Unlike most dsDNA viruses, the virus for this disease replicates in the cytoplasm rather than the nucleus. Edward Jenner developed the first successful vaccine against this disease after noting that milkmaids who had cowpox did not catch this disease.

ANSWER: **smallpox**

[10] Salvador Luria won a Nobel Prize for showing that resistance to these dsDNA viruses is genetically inherited. These viruses were labeled with radioactive sulfur and phosphorus in another experiment.

ANSWER: bacteri**phages** [accept specific types like lambda **phage** or T4 **phage**]

<DM Biology>

13. Answer some questions about Jagmeet Singh. For 10 points each:

[10] Jagmeet Singh leads the New Democratic Party, which finished third behind these two main Canadian political parties in the 2015 election. Name both.

ANSWER: **Liberal** Party of Canada AND **Conservative** Party of Canada [prompt on partial answer]

[10] Jagmeet Singh replaced this man as leader of the New Democratic Party. This MP from Outremont announced that he would resign his seat in the summer of 2018 to serve as a visiting professor in Montreal.

ANSWER: Thomas Joseph **Mulcair**

[10] Jagmeet Singh will run against this current Canadian prime minister in 2019. In February 2018, this man controversially used the term “peoplekind” rather than mankind in a nod to feminism.

ANSWER: **Justin Trudeau** [prompt on Trudeau]

<AN Current Events>

14. This god triumphed over Tiamat, the primordial goddess of the ocean. For 10 points each:

[10] Name this son of Ea, who took the Tablets of Destiny from Kingu. This patron god of Babylon created humans to do work so that the gods could have more leisure.

ANSWER: **Marduk**

[10] Marduk’s victory over Tiamat is told in this Babylonian creation myth. Thought to be used during Akitu, a spring festival, it established Marduk’s pre-eminence over the Babylonian pantheon.

ANSWER: **Enuma Elish** [prompt on “When on high”]

[10] After Marduk rose in importance over Ea in southern Mesopotamia, this god also absorbed some of Ea’s traits in the north. In the Sargonid version of the Enuma Elish, this consort of Kishar slays Tiamat, not Marduk.

ANSWER: **Ashur** [or **Anshar**]

<JK Mythology>

15. A book about this man consists of the author’s romanticized interpretation of notes his daughter Enid took while this man’s son Ben translated his words. For 10 points each:

[10] Name this Lakota medicine man, the subject of a popular John Neihardt book that influenced New Age religious groups through its account of Plains Indian spirituality.

ANSWER: **Black Elk**

[10] Black Elk describes the Sioux version of the Sun Dance rite in a Joseph Epes Brown book about him titled for the “sacred” one of these objects. Tribes such as the Lakota sealed peace treaties by smoking one of these objects.

ANSWER: **pipes** [accept ceremonial **pipe**s; accept peace **pipe**s]

[10] In both *Black Elk Speaks* and *The Sacred Pipe*, Black Elk describes the *inipi* purification rite held in these structures. In them, water is poured over hot stones to create a heated atmosphere, often as part of a vision quest.

ANSWER: **sweat** lodges [accept anything mentioning a building and **sweat**, such as “sweat hut,” “sweat tipi,” “sweat bath,” etc.]

<JB Religion>

16. *The Haunted Man and the Ghost's Bargain* takes place during this event. For 10 points each:

[10] Name this event. John Peerybingle suspects his wife Dot of cheating and Edward Plummer marries his sweetheart May during this event in *The Cricket on the Hearth*.

ANSWER: **Christmas** [or **December 25**]

[10] This family receives a Christmas turkey from the boss of their patriarch Bob in a novella by the author of *The Cricket on the Hearth*. Children in this family include Martha, Belinda, and the youngest, Tiny Tim.

ANSWER: **Cratchit** family

[10] This author wrote *The Haunted Man and the Ghost's Bargain* and *The Cricket on the Hearth*, and created Ebenezer Scrooge in *A Christmas Carol*.

ANSWER: Charles John Huffam **Dickens**

<OL British Literature>

17. One of these places in Hameln is the setting of the diary written by a 17th-century businesswoman named Glückel. For 10 points each:

[10] Name this sort of place. One of these places in Warsaw was destroyed by Jürgen Stroop's forces after a failed uprising.

ANSWER: Jewish **ghettos**

[10] Glückel of Hameln's diary was written in this Germanic language, which is written in the Hebrew alphabet and developed among Europe's Ashkenazi Jews.

ANSWER: **Yiddish**

[10] Glückel's diary describes how her father-in-law packed chests of dried meat to prepare for a journey to join this man in the Holy Land. This false messiah attracted followers throughout the Jewish world before his forced conversion to Islam.

ANSWER: **Sabbatai Zevi** [accept either name; accept **Shabbatai Tzvi**]

<JB European History>

18. David Keirse's *Please Understand Me* introduced a classification of temperaments such as "guardian" and "artisan" based on this test. For 10 points each:

[10] Name this test developed by mother-daughter pair of psychologists that produces outputs such as INFJ and ESTP based on four scales.

ANSWER: **Myers-Briggs** Type Indicator [or **MBTI**]

[10] The "I" and "E" in Myers-Briggs results refer to the taker's orientation on an axis of these two opposing traits, which respectively manifest as outward-turning and inward-turning behavior. Name either.

ANSWER: **introversion** OR **extroversion** [accept word forms]

[10] The concept of personality types described as multi-letter abbreviations is also used in the Holland Codes system, which matches personalities with these things. Satisfaction with these things is explained by the two factors of hygiene and motivation in a theory of Frederick Herzberg.

ANSWER: **occupations** [or **workplaces**; accept equivalents such as **jobs**, **careers**, and **professions**]

<JB Social Science>

19. The Barmakid family rose to positions of power in a government centered on this city. For 10 points each:
[10] Name this city where the last Abbasid caliph, Al Musta'sim, was rolled up in a carpet and trampled by horses. Saddam Hussein's government was based in this city.

ANSWER: **Baghdad**

[10] The Barmakids built a paper mill in Baghdad after the Abbasid Caliphate halted Chinese expansion into Central Asia by defeating the forces of this dynasty at the Battle of Talas River.

ANSWER: **Tang** dynasty

[10] One of the dynasties that sprung up in Transoxiana after the demise of the Abbasids was this one, whose founder Sabuktigin founded it by seizing Samanid territory. Its sultan Mahmud patronized the poet Ferdowsi.

ANSWER: **Ghaznavids**

<GP World History>

20. In reaction diagrams it is often represented as $h\nu$. For 10 points each:

[10] Name this phenomenon that, if it has energy greater than the work function, can release electrons from a metal surface in a process first explained by Albert Einstein.

ANSWER: **light**

[10] Ultraviolet light can induce the formation of these highly reactive molecules that contain unpaired valence electrons.

ANSWER: free **radicals**

[10] Free radicals can be formed using radical initiators, one of which is this compound produced from acetone cyanohydrin and hydrazine. When this compound decomposes, it eliminates nitrogen to form two 2-cyanoprop-2-yl radicals.

ANSWER: **AIBN** [or **azobisisobutyronitrile**]

<DM Chem>

21. This politician gained his highest post after defeating Gerald Ford in the 1976 Presidential Election. For 10 points each:

[10] Name this former Georgia governor turned President. His Vice President was Minnesota Senator Walter Mondale.

ANSWER: James Earl **Carter** Jr.

[10] Carter was succeeded as Governor of Georgia by this Democrat. This segregationist politician gained notoriety early on by refusing to serve African American customers in Atlanta.

ANSWER: Lester Garfield **Maddox** Sr.

[10] In 1976, Maddox also ran as president as part of this third party. This is not the Democratic Party, but one candidate from this party was shot by Arthur Bremer, paralyzing him permanently from the waist down.

ANSWER: **American Independent** Party

<AN American History>