Regular Academic Fall Tournament III

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Packet 6

1T. This color predominantly fills the top of a work which shows dark trees with budding white and yellow floors, *Plum Park in Kameido*. To create the title *Maple Leaves on a River*, Hokusai legendarily dipped a chicken's feet in paint of this color and had it run across a canvas. A shade of this color often imported from (*) Mexico was prepared by boiling the namesake cochineal [koh-shee-NEEL] insects. The gates of Shinto shrines are always this color. This color was used to depict Mount Fuji in the rising sun in Hokusai's print *Fine Wind*, *Clear Morning*. For 10 points, name this color of blood.

ANSWER: red

<Morales — Visual Fine Arts>

1B. This leader founded the city of Prophetstown in what is now Indiana in order to reject European influences and restore a more traditional lifestyle. For 10 points each:

[H] Name this Shawnee chief and brother of Tenskwatawa. Earlier in their life, this person refused to sign the Treaty of Greenville following the Shawnee's defeat at the Battle of Fallen Timbers.

ANSWER: Tecumseh

[M] Prophetstown was destroyed and Tenskwatawa was killed in the Battle of Tippecanoe, where the American side was led by this person. This ninth president of the United States died within a month of taking office.

ANSWER: William Henry Harrison [prompt on Harrison]

[E] During the War of 1812, an army led by Tecumseh and British Major General Isaac Brock besieged this city, which was eventually surrendered by William Hull. Pontiac led a 1763 siege of a fort named for this most populous city in Michigan.

ANSWER: **Detroit** [or Fort **Detroit**]

<Rao — American History>

2T. In 2018, the Higgs boson was observed to decay into the most massive of these particles and its antiparticle. Five of these particles were discovered in a larger "exotic" particle at the LHC in 2015. Deep inelastic scattering between electrons and nucleons provided early evidence for the existence of these particles. Due to color confinement, these massive particles cannot exist in isolation below 2 trillion Kelvin. (*) Mesons consist of pairs of these particles and their antiparticles. These particles are held together by the strong force to make up protons and neutrons. For 10 points, name these particles which come in six flavors such as up, down, charm, and strange.

ANSWER: <u>quark</u>s [accept penta<u>quark</u>; accept up <u>quark</u> or down <u>quark</u> or charm <u>quark</u> or strange <u>quark</u> or top <u>quark</u> or bottom <u>quark</u>; prompt on <u>meson</u>s before "exotic" with "what matter particles make up mesons?"]

<Rao — Physics>

2B. One play ends with Argan being granted a degree in this profession after a ceremony performed in broken Latin. For 10 points each:

[H] Name this profession. In a play titled for a member of this profession "in spite of himself", the alcoholic woodcutter Sganarelle is beaten and forced to adopt this profession.

ANSWER: doctor

[M] *The Doctor in Spite of Himself* and *The Imaginary Invalid* are both plays by this author, who wrote of the titular religious hypocrite's arrest at the hands of the king in *Tartuffe*.

ANSWER: Moliere

[E] Moliere wrote in this language, also used by the tragedian Jean Racine to write *Phèdre*. Moliere's comedies often featured Louis XIV, a ruler who spoke this language.

ANSWER: <u>French</u> [or Le <u>français</u>] <Kala — European Literature>

3T. The Pless conference approved a memo drafted by Henning von Holtzendorff to reduce restrictions on these vehicles. These vehicles were targeted by a weapon called the "hedgehog." Germany agreed to restrictions on these vehicles through the Sussex Pledge. The UK introduced the convoy system to protect against attacks from these vehicles. Failed coordinated attacks of these vehicles during World War I preceded (*) "wolfpack" tactics used in World War II. The US entered World War I partially due to the sinking of the RMS Lusitania by one of these vehicles. For 10 points, name these naval military vehicles, German examples of which were called U-boats.

ANSWER: **submarine**s [accept **U-boat**s before mentioned; accept specific forms of submarines such as attack **submarine**s or hunter-killer **submarine**s; do not accept or prompt on "nuclear submarines" or "ballistic missile submarines"]

< Kulkarni — European History>

3B. These constructs are denoted with a subscript g or u depending on whether they are symmetric or antisymmetric under inversion. For 10 points each:

[H] Name these constructs that are generated through the LCAO method. These constructs were used to explain the unnatural structure of diborane.

ANSWER: molecular orbitals [prompt on orbitals] do not accept or prompt on "atomic orbitals"]

[M] When two atomic p-orbitals overlap, they generate this kind of molecular orbital. Unlike sigma orbitals, these orbitals do not have cylindrical symmetry.

ANSWER: **pi** orbitals [accept bonding **pi** orbitals or antibonding **pi** orbitals]

[E] In a heteronuclear molecule, the bonding orbitals are closer in energy to the atom with a higher value for this quantity. The Pauling scale for this quantity gives fluorine a value of 4.

ANSWER: electronegativity

<Ye — Chemistry>

4T. This author wrote a letter in which he compared life to a "Mansion of Many Apartments." In one poem, this author compares himself to "some watcher of the skies / when a new planet swims into his ken" and to "stout Cortez" seeing the Pacific Ocean. Another poem by this author ends by asking "do I wake or sleep?" and tells the addressee (*) "thou wast not born for death." This author of "On First Looking into Chapman's Homer" wrote a poem addressed to an "unravish'd bride of quietness" that declares "beauty is truth, truth beauty." For 10 points, name this Romantic poet of "Ode to a Nightingale" and "Ode on a Grecian Urn."

ANSWER: John Keats

<Carvell — British Literature>

- 4B. Answer some questions about Austrian composer Johann Nepomuk Hummel. For 10 points each:
- [E] Hummel wrote an E-flat major concerto for this instrument dedicated to Anton Weidinger. Mozart wrote a now-lost concerto in C major for this highest pitched brass instrument, most of which are pitched in B-flat.

ANSWER: trumpet

[H] Some scholars have suggested that this piece was actually dedicated to Hummel's wife, Elisabeth Röckel. This piece begins with the repeated *E - D-sharp - E - D-sharp - E*.

ANSWER: Für Elise [or Beethoven's Bagatelle No. 25 in A minor]

[M] The instrumentation of a quintet and septet by Hummel may have inspired the inclusion of a double bass in this piece. The fourth movement of this piece consists of a theme and variations on its composer's lied "Die Forelle" [dee for-ELL-eh].

ANSWER: <u>Trout</u> Quintet [or <u>Schubert Piano Quintet No. 5</u> in A major, D. 667]

<Morales — Auditory Fine Arts>

5T. The Metternicht Stela depicts a myth where this deity attempts to save their poisoned son. This deity cut off that son's hands and threw them into a river after discovering their brother had defiled them. The Tyet knot is a symbol of this deity, who was often shown with a throne on their head as a patron of the (*) Pharaohs. This goddess created a snake out of sand to bite Ra in order to uncover his secret name. This eldest daughter of Geb and Nut reassembled the pieces of her husband's body after he was murdered by Set. This goddess convinced Ra to make her son king of the gods, while her husband became ruler of the dead. For 10 points, name this Egyptian goddess of magic and wife of Osiris.

ANSWER: <u>Isis</u> [or <u>Aset</u>] <Morales — Mythology>

5B. This rock is placed at the P vertex of a QAPF diagram. For 10 points each:

[M] Name this rock that is primarily formed of plagioclase feldspar, pyroxene, and olivine. 90 percent of all volcanic rock on Earth is this extrusive rock.

ANSWER: basalt

[E] Basalt is an example of this type of rock, which forms when molten material cools and also includes pumice and obsidian. This type of rock is contrasted with sedimentary and metamorphic rock.

ANSWER: **igneous** rock [accept **magmatic** rock]

[H] This chart describes the sequence of minerals that molten igneous rock crystallizes into as it cools, with quartz at the bottom. This chart is composed of a discontinuous and continuous series that merge at lower temperatures.

ANSWER: **Bowen**'s reaction series

<Xie — Other Science>

6T. This composer wrote a trio, quintet, and two sonatas for the clarinetist Richard Mühlfeld. The "St. Anthony Chorale" appears in this composer's *Variations on a Theme of Haydn*. A quotation of Bach is the basis for the passacaglia that ends this composer's E minor final symphony. This composer broke from traditional Latin texts in a mass for the dead that used the (*) Luther Bible. An honorary degree this composer received from the University of Breslau inspired his *Academic Festival Overture*. This composer's first symphony is sometimes called "Beethoven's Tenth." For 10 points, name this composer of the *German Requiem* and a namesake "Lullaby."

ANSWER: Johannes **Brahms** < Carvell — Auditory Fine Arts>

- 6B. To justify his country's retention of overseas colonies, this leader's regime promulgated the doctrine of "pluricontinentalism." For 10 points each:
- [H] Name this dictator whose PIDE secret police assassinated the dissident Air Force General Humberto Delgado. Many of this dictator's opponents were imprisoned at the Tarrafal concentration camp.

ANSWER: António (de Oliveira) Salazar

[E] António Salazar was a dictator of this Iberian nation, where he ruled by decree from Lisbon.

ANSWER: **Portugal** [or Second **Portuguese** Republic or Segunda República **Portuguesa**]

[M] This southern African country remained a Portuguese colony throughout much of its bloody civil war, which pitted the MPLA against UNITA. This country is fighting an ongoing war with separatists in its oil-rich exclave of Cabinda.

ANSWER: Republic of **Angola** [or Republic of **Angola** or República de **Angola**]

<Boonin — European History>

7T. It's not the Padres, but while a member of this team, Fernando Tatís, Sr. hit two grand slams in the same inning against the Los Angeles Dodgers. David Freese, most notably a player for this team, hit a ninth-inning triple and an eleventh-inning walk off home run to win Game 6 of the 2011 World Series for this team. Bob Gibson set the single season ERA record in 1968 as this team's ace. Albert (*) Pujols played first base for this team before signing a ten-year contract with the Los Angeles Angels. This team plays its home games in Busch Stadium, which is near the Gateway Arch. For 10 points, name this Major League Baseball team based in eastern Missouri.

ANSWER: St. Louis Cardinals [accept either underlined portion; prompt on Cards or Redbirds]

<Rao — Pop Culture>

7B. The Darvaza crater in this country is known by locals as "The Gates of Hell" because it contains a giant fire. For 10 points each:

[H] Name this former Soviet republic. The Karakum, or Black Sand, Desert takes up 70% of this country's area, and this country's capital is Ashgabat.

ANSWER: Turkmenistan

[E] Turkmenistan's Türkmenbaşy Gulf, named in honor of the "Father of the Nation," Sapurmarat Niyazov, is an inlet of this larger body of water. This largest inland body of water in the world is alternately classified as either a lake or a sea.

ANSWER: <u>Caspian</u> Sea [or <u>Mazandaran</u> Sea or <u>Hyrcania</u> Sea or <u>Khazar</u> Sea]

[M] Turkmenistan is one of the world's largest producers of this resource, the release of which causes the Darvaza crater to continuously burn. When completed, the Atlantic Sunrise pipeline will transport this colorless, odorless substance within the United States.

ANSWER: natural gas [prompt on gas; do not accept or prompt on "gasoline" or "oil"]

<Rao — Geography>

8T. Grubbs catalysts are used in metathesis reactions involving these compounds. Ozone reacts with these compounds to produce carbonyl groups. An empirical prediction for electrophilic addition reactions with unsymmetrical examples of these compounds is described by Markovnikov's rule. The stereochemistry of these compounds can be described using (*) cis-trans notation. The simplest of these compounds polymerizes to form the most common plastic. These compounds have the general formula C_nH_{2n} [C-N-H-two-N]. For 10 points, name this class of hydrocarbons that are characterized by a double bond, which are contrasted with alkanes and alkynes.

ANSWER: <u>alkenes</u> [accept <u>olefins</u> before it is mentioned]

<Sivakumar — Chemistry>

8B. In one play, Abigail renounces being one of these people, stating "experience, purchased with grief" compels her to join a convent. For 10 points each:

[H] Name these people. In an Elizabethan play titled for one of these people, a parody of Machiavelli claims "there is no sin but ignorance" and states he will "present the tragedy of" one of these people, who ultimately dies after falling into a boiling cauldron.

ANSWER: <u>Jew</u>s [or <u>Jewish</u> people; accept, but DO NOT REVEAL, *The <u>Jew</u> of Malta*]

[M] Abigail renounces being a Jew and is poisoned by her father Barabas in The Jew of Malta, a play by this British playwright.

ANSWER: Christopher Marlowe

[E] In a Shakespeare play titled for this profession "of Venice," Shylock demands a pound of flesh from Antonio after he refuses to pay a loan. Shylock, a member of this profession, asks "Hath not a Jew eyes?" and "If you prick us, do we not bleed?"

ANSWER: <u>merchant</u>s [accept *The <u>Merchant</u> of Venice*]

<Sarma — British Literature>

9T. In one poem, this author asks "what America did you have when... you stood watching the boat disappear on the black waters of Lethe?" In another poem, this author wonders, "how many flies buzzed round you innocent of your grime" and notes that "you were never no locomotive... you were" the title flower. This author of "Sunflower Sutra" also wrote about seeing Walt Whitman "eyeing the grocery boys" in (*) "A Supermarket in California." Lawrence Ferlinghetti faced an obscenity trial for distributing this author's most famous work, a poem that sees people "thr[ow] potato salad at CCNY lecturers on Dadaism" and begins "I saw the best minds of my generation destroyed by madness." For 10 points, name this Beat poet who wrote "Howl." ANSWER: Allen Ginsberg <Ezrielev — American Literature>

9B. The philosopher who first stated this phrase explicitly used it in three of his works, including *The Search for Truth*, and *Principles of Philosophy*. For 10 points each:

[M] Name this originally Latin phrase used to prove the existence of the philosopher who stated it. The philosopher arrived at this statement after meditating by a fire and rejecting all past assumptions.

ANSWER: cogito ergo sum [or I think, therefore I am]

[E] This man who first stated "I think, therefore I am" in *Discourses on Method* used the example of beeswax to explain his belief in mind-body dualism. This philosopher also posited that the pineal gland is the "seat of the soul."

ANSWER: Rene Descartes

[H] Descartes described these entities as being produced in the blood. In *Passions of the Soul*, Descartes posited that these things, which are supposedly located in the pineal gland, "move the body in all the different ways it is capable of."

ANSWER: **animal spirit**s [prompt on spirits]

<Morales — Philosophy>

10T. One politician with this surname gave a speech predicting that "segregated lunch counters" and "back-alley abortions" would be commonplace in Robert Bork's America. One person with this surname quoted a line about "pain which cannot forget" from Aeschylus in an impromptu speech standing on a truck in Indianapolis following an assassination. That member of this family was himself assassinated by (*) Sirhan Sirhan. An urban legend about one member of this family holds that he accidentally called himself a jelly donut in a speech delivered in Berlin. That member of this family told Americans "ask not what your country can do for you" in his inaugural address. For 10 points, what family of US politicians included the 35th US president, nicknamed JFK?

ANSWER: **Kennedy** family [accept Ted **Kennedy** or Edward Moore **Kennedy** or Robert Francis **Kennedy** or John Fitzgerald **Kennedy**]

< Chakraborty — American History>

10B. In an appearance on Jeopardy!, this celebrity gave his own name as an answer, only to be ruled incorrect. For 10 points each:

[H] Name this celebrity. That *Jeopardy!* clue was about a scene from the film *Airplane!* in which a boy named Joey tells a pilot played by this man that while he thinks this man is "the greatest," his dad says this man doesn't work hard enough on defense.

ANSWER: Kareem Abdul-Jabbar [prompt on (Ferdinand) Lewis Alcindor, Jr.]

[M] Abdul-Jabbar trained in jeet kune do under this martial artist and appeared in this actor's incomplete final film *The Game of Death*. This Hong Kongese actor and director helped popularize martial arts with films such as *Fist of Fury* and *Enter the Dragon*. ANSWER: Bruce **Lee** [or **Lee** Jun-fan or **Lee** Siu Loong]

[E] Aside from his acting career, Abdul-Jabbar played basketball for the Lakers and this team. In 2020, Giannis Antetokounmpo became the third player to win MVP and Defensive Player of the Year in the same season, while playing for this team.

ANSWER: Milwaukee Bucks [accept either underlined portion]

<Rao — Pop Culture>

11T. A geometry named for this shape is sometimes also named for Johann Bolyai and Nikolai Lobachevsky. That geometry can be generated by removing the parallel postulate from the standard geometry and has negative curvature everywhere. The degenerate form of this shape consists of two intersecting lines, while nondegenerate examples of these shapes have two (*) directrices. The graph of y equals 1 over x is an example of one of these shapes, which have two intersecting asymptotes. For 10 points, name these conic sections defined as the locus of points whose distances from two foci differ by a fixed amount, which have an eccentricity of greater than one.

ANSWER: **hvperbola**s [do not accept or prompt on "parabolas"]

<Tran — Other Science>

11B. These sayings are collected in books like the *Blue Cliff Record* and the *Book of Serenity*. For 10 points each:

[M] Name these paradoxical statements important in a certain sect of Buddhism. These statements include one that asks, "what is the sound of one hand clapping?"

ANSWER: kōans

[E] Kōans are important in this school of Buddhism that is popular in Japan. This school of Mahayana Buddhism emphasizes meditation and self-restraint.

ANSWER: Zen Buddhism [or chan]

[H] The koan collection *The Gateless Gate* is especially important in this school of Zen Buddhism. It is differentiated from the Sōtō and Ōbaku schools in that it stresses a sudden *satori*, or awakening.

ANSWER: <u>Rinzai</u> school <Morales — Religion>

12T. A fountain in this city named "the Cup" is used to perform wudu before entering a building in this city. During the Isra', one person rode the Buraq from their home to this city. A building in this city was the first qibla. The Foundation Stone is located under a building in this city, which in Islam is the rock upon which Abraham attempted to sacrifice Ishmael. Muslims believe that Muhammad traveled to the (*) al-Aqsa Mosque in this city before ascending to Heaven. That mosque is near the Dome of the Rock, which are both on the Temple Mount in this city. For 10 points, name this third-holiest city in Islam after Mecca and Medina.

ANSWER: <u>Jerusalem</u> [or <u>al-Quds</u> or <u>Yerushalávim</u>]

<Rao — Religion>

12B. Answer some questions about the Tischbein family, which contained three generations of artists. For 10 points each:

[H] A painting by Johann Heinrich Tischbein the Elder titled *The Rape of [this character]* shows this woman sitting on a bull and wearing a wreath of flowers. A Titian painting with the same title shows this woman waving a red scarf as she is abducted by Zeus in the form of a bull.

ANSWER: **Europa** [or *The Rape of Europa*] or *Der Raub der Europa*]

[M] In addition to painting, George Heinrich Tischbein also created these works. Muhammad al-Idrisi created one of these works in 1154 called *Tabula Rogeriana* that shows Europe, North Africa, Arabia, and parts of Asia.

ANSWER: maps [prompt on atlases with "what works are found inside atlases"]

[E] Artists from the Tischbein family primarily painted landscapes or the nobility of this modern-day country, where they resided. Johann Friedrich August Tischbein was nicknamed for this modern-day country's city of Leipzig.

ANSWER: Germany [or Federal Republic of Germany or Bundesrepublik Deutschland]

<Morales / Rao — Visual Fine Arts>

13T. In a play by this author, five laundresses gossip by a river about a childless woman who regularly visits Dolores. In a play by this author, three woodcutters sing before the Moon and a beggar woman representing Death appear, prophesying doom for the central characters. In one play by this author, the employer of La Poncia fires her gun offstage during an (*)

eight-year-mourning period. Leonardo Felix and The Groom stab one another in a play by this author, while in another, Adela hangs herself after believing Pepe El Romano has died in the title location. For 10 points, name this Spanish playwright who included *The House of Bernarda Alba* and *Blood Wedding* in his *Rural Trilogy*.

ANSWER: Federico Garcia Lorca

<Kala — European Literature>

13B. For 10 points each, answer the following about the historical origins and development of entropy in physics:

[E] This physicist defined entropy in statistical mechanics as the logarithm of the number of microstates times his namesake constant, which was inscribed on his gravestone. Along with James Clerk Maxwell, this physicist names a distribution for gases.

ANSWER: Ludwig **Boltzmann** [accept **Boltzmann**'s constant or Maxwell-**Boltzmann** distribution]

[H] This other physicist defined entropy as the ratio of heat to temperature. This physicist's namesake inequality states that the closed line integral of the change in heat for a system over the surrounding temperature is less than or equal to zero.

ANSWER: Rudolf <u>Clausius</u> [accept <u>Clausius</u> inequality or <u>Clausius</u> theorem]

[M] The closed line integral in Clausius' inequality equals zero when a cyclic process has this property, meaning that there is no change in entropy. A process with this property can go back to its original state over time.

ANSWER: <u>reversible</u> [accept <u>reversibility</u>; prompt on <u>isentropic</u>]

<Ye --- Physics>

14T. The architects Avoscani and Rosi built an opera house in this country's capital that commissioned an opera by Giuseppe Verdi. One of this country's leaders built the Mahmudiyah Canal to achieve "perennial irrigation" so that it could grow cotton. Towards the end of his life, Ibn Khaldun became a judge in this country and taught in this country at Al-Azhar university. This country's (*) Mamluk rulers were overthrown by the reformer Muhammad Ali Pasha in 1811. Ferdinand de Lesseps designed a structure in this nation that drastically reduced travel time from Europe to India. For 10 points, name this nation where the Suez Canal was built connecting the Red Sea to the Nile River.

ANSWER: Egypt [or Arab Republic of Egypt or Jumhuriyat Misr al-Arabiyah]

<Ah Now — World History>

14B. In one short story by this author, the narrator is knocked out by a Yale padlock thrown by his brother Rafa. For 10 points each:

[H] Name this author of the short story collection *This Is How You Lose Her*. This author also featured his recurring character Yunior in *The Brief Wondrous Life of Oscar Wao*.

ANSWER: Junot <u>Díaz</u> (the unnamed short story is "The Pura Principle")

[E] Stories by Díaz commonly explore the experiences of immigrants from the Dominican Republic to this country. Yunior lives in this country's state of New Jersey.

ANSWER: <u>United States</u> [or <u>America</u> or <u>US</u> or <u>USA</u> or <u>United States</u> of America]

[M] Díaz's first short story collection is titled for this action. In *Hamlet*, Laertes's sister dies in this manner after falling from a willow tree

ANSWER: **drown**ing [the unnamed character is Ophelia]

<Miles — American Literature>

15T. A 2017 film subtitled Four Sisters was a continuation of a nine-hour-long documentary about this event that was directed by Claude Lanzmann. Despite suffering from jaundice, the title character of a film about this event is saved from death when he is able to play Chopin's Ballade No. 1. Roman Polanski's The (*) Pianist is set during this event, during which the title character of another film is forced to decide which of her children will die. A Steven Spielberg film about this event is entirely in black and white, except for a girl's red coat. For 10 points, Sophie's Choice occurs and Schindler's List is set during what genocide conducted by Nazi Germany?

ANSWER: **Holocaust** [or **Shoah**; prompt on World War II or equivalents]

<Rao — Other Fine Arts>

15B. The Wagner Murals are a series of wall paintings that were illegally taken from its archaeological site in the 1960s. For 10 points each:

[H] Identify this ancient city, which was the largest ever constructed in the New World. The massive Pyramids of the Sun and of the Moon could be found along this city's Avenue of the Dead.

ANSWER: Teotihuacan

[E] After the collapse of Teotihuacan, this Mesoamerican empire built the city of Tenochtitlán as a capital nearby. This empire was destroyed after Spanish conquistadors under Hernan Cortés spread smallpox and captured and killed Montezuma II.

ANSWER: <u>Aztec</u> Empire [accept <u>Triple Alliance</u>]

[M] This site, located in the Yucatán Peninsula in present day Mexico, is the site of a step pyramid known as the Temple of Kukulcán. This site contains an observatory referred to as El Caracol, and a Mayan ball game court.

ANSWER: Chichen Itza < Chakraborty — Other History>

16T. These things are divided into separation, initiation, and return stages according to one work. Fundamental units among these things were described in a Claude Lévi-Strauss work titled for these things that includes *The Raw and the Cooked*. A common journey motif in these things is described as its "mono-" type in Joseph Campbell's *The* (*) *Hero with a Thousand Faces*. Plato justified his ideal city in the *Republic* with examples of these things "of Er" and "of metals." Lévi-Strauss examined the recurrence of trickster figures in Native American-created types of these things. For 10 points, name these foundational cultural narratives, which often depict gods and non-human figures.

ANSWER: <u>myth</u>s [accept <u>myth</u>ologies or <u>myth</u> systems; accept mono<u>myth</u>s; accept <u>Myth</u>ologiques; prompt on <u>stories</u> or <u>narratives;</u> prompt on <u>journey</u>s until Lévi-Strauss is read; anti-prompt on specific myth systems]

< Kulkarni — Social Science>

16B. This piece consists of a melody written over the chord progression of "How High the Moon." For 10 points each:

[H] Name this song whose title references one of its songwriters' nicknames. This bebop jazz standard was written by Benny Harris and a composer notable for pioneering bebop.

ANSWER: "Ornithology"

[M] This musician's septet recorded the single "Ornithology" as a reference to his nickname, "Bird." This musician developed bebop along with Dizzy Gillespie and featured a chord progression of II-V [two-five] chords in "Blues for Alice."

ANSWER: Charlie "Bird" Parker

[E] Parker was a jazz player of this instrument that has varieties like baritone, tenor and alto. Stan Getz and Cannonball Adderley were also players of this instrument that is usually made of brass.

ANSWER: <u>sax</u>ophone [accept alto <u>sax</u>ophone or tenor <u>sax</u>ophone or baritone <u>sax</u>ophone]

<Morales — Other Fine Arts>

17T. After undergoing capacitation, these cells bind to ZP3 and are blocked by the fusion of cortical granules to the plasma membrane. These cells release hydrolytic enzymes like hyaluronidase to degrade the zona pellucida in the acrosomal reaction. The production of these cells by Sertoli cells is promoted by FSH. These cells are carried by the (*) epididymis. In one process, these cells penetrate the second oocyte to initiate the completion of meiosis II. The motor function of these cells is controlled by a distinct long flagella. For 10 points, name these male reproductive gametes produced by the testes that fuse with egg cells during fertilization.

ANSWER: **sperm** cells [or **sperm**atozoa]

<Xie — Biology>

17B. In a poem addressed to this type of person, the speaker describes "cherries that you loved / black with so much redness!" For 10 points each:

[M] Name this type of person described by Yehuda Amichai in the poem "A Meeting with [this type of person]." A Sylvia Plath poem about this type of person describes them as having a "stake in [their] fat black heart."

ANSWER: the poet's **father** [accept "A Meeting with My **Father**" or "**Daddy**"]

[E] Yehuda Amichai was a poet from this country. In "A Meeting with My Father," Amichai and his father see each other in the Cafe Atara near this country's Mount Carmel, and Amichai often wrote in this country's official language of Hebrew.

ANSWER: State of **Israel** [or Medinat **Yisra'el**]

[H] Amichai's English poetry was included in the first issue of "Modern Poetry in Translation," a literary magazine started by Daniel Weissbort and this poet. This poet, the husband of Sylvia Plath, often wrote about her in his collection *Birthday Letters*.

ANSWER: Ted **Hughes** [or Edward James **Hughes**]

<Casey — World Literature>

18T. Paul J. Crutzen proposed the Anthropocene as beginning with this event. Along with a political event, this event titles the first of three "ages" described by Marxist historian Eric Hobsbawm. Mary Shelley's *Frankenstein* was penned as a criticism of developments during this non-artistic event. The Frame-Breaking Act was passed in response to the destruction of property by

(*) Luddites during this general event. The growth of textile production during this event was aided by technological developments such as the water frame and steam engine. For 10 points, name this period of mass economic development in early 19th century Britain.

ANSWER: First Industrial Revolution

<Ye — Other History>

18B. This creature supposedly lives in Nastrond and chews on corpses of criminals. For 10 points each:

[H] Name this creature. A squirrel named Ratatoskr sends deceiving messages between this creature and an eagle living nearby.

ANSWER: Nidhogg

[E] Nidhogg gnaws at the roots of this tree of Norse mythology. The nine realms surround this World Tree.

ANSWER: **Yggdrasil**

[M] Nidhogg is usually depicted either as a serpent or one of these mythological creatures. Another of these creatures named Fafnir is killed by Sigurd in the Volsung saga.

ANSWER: <u>dragon</u>s <Morales — Mythology>

19T. One poem by this author describes love as both "a war of lightning" and "two bodies ruined by a single sweetness." This author praises a "heavenly globe, platinum goblet" for its ability to "make us cry without hurting us" in his "Ode to the Onion." In one poem, this author wrote "She loved me, sometimes I loved her too" and (*) "Love is so short, forgetting is so long." That poem is part of a collection whose final poem repeats the lines "it is the hour of departure" and "in you everything sank!" The penultimate poem in that collection begins "Tonight I can write the saddest lines." For 10 points, name this Chilean poet of Twenty Love Poems and a Song of Despair.

ANSWER: Pablo <u>Neruda</u> <Wu — World Literature>

19B. For 10 points each, answer the following questions about why you should consider eating sardines.

[E] Sardines are an excellent source of omega 3 fatty acids, part of this class of biological macromolecules that also includes waxes, triglycerides, and cholesterols. These macromolecules are typically nonpolar and insoluble in water.

ANSWER: <u>lipids</u> [prompt on <u>fat</u>s]

[M] Sardines also contain good quantities of this vitamin, which promotes the absorption of calcium and phosphorus from the small intestine. Cholecalciferol is one of these vitamins formed by exposure to sunlight.

ANSWER: vitamin \mathbf{D} [accept vitamin \mathbf{D}_3]

[H] Another vitamin found in abundance in sardines is vitamin B12, which contains a rare organometallic bond where the ion of this transition metal is found at the center of a corrin ring.

ANSWER: cobalt [or Co]

<Xie — Biology>

20T. While the solicitor general of one state, this politician authored an *amicus* brief advising that D.C. v. Heller be affirmed. In September 2020, this politician was the most senior senator on a list of 20 potential Supreme Court nominees. As part of a 21-hour-long filibuster against the Affordable Care Act, this senator read (*) "Green Eggs and Ham." After this politician's state was hit by severe winter storms in February 2021, he was widely criticized for taking a trip to Cancún. This senator won an unexpectedly close re-election campaign in 2018 against Beto O'Rourke. For 10 points, name this current junior senator from Texas.

ANSWER: Ted Cruz [or Rafael Edward Cruz]

<Rao — Current Events>

20B. In her book *Coolie Woman*, Gaiutra Bahadur discusses domestic violence in this country as a legacy of the forced migration of Indian indentured servants. For 10 points each:

[H] Name this modern-day country that has the largest Indian diaspora population in South America. This country was carved out from Dutch territory and ceded to the British following the Napoleonic Wars.

ANSWER: **Guyana** [accept British **Guiana**]

[E] Plantation owners began to transport large numbers of Indian indentured servants to their plantations after the British largely abolished this practice. Africans who were forced into this status were shipped across the Atlantic Ocean to the Americas.

ANSWER: **slavery** [accept **enslavement**]

[M] Like the African slaves before them, the majority of Indian indentured servants in Guyana worked on plantations cultivating this good. This good was the main export of the colonies of Brazil and Saint-Domingue, or modern-day Haiti.

ANSWER: <u>sugar</u> [or <u>sugarcane</u>]

<Sarma — World History>