

## Regular Academic Fall Tournament III

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### Packet 11

1T. **Tens of thousands of people were killed in this country when police confiscated cigarettes from a woman and fired into a crowd in the 228 incident. That incident led to 38 years of martial law known as the White Terror. An “outside the party” movement in this country that later became the Democratic Progressive Party founded (\*)** Formosa Magazine. The leader who organized the “Great Retreat” to this country succeeded Sun Yat-Sen as head of the Kuomintang. Chiang Kai-shek fled to this country after his defeat in the Chinese Civil War. For 10 points, name this island country across the strait from the People’s Republic of China.

ANSWER: **Taiwan** [or **Republic of China** or **ROC**; do NOT accept or prompt on “China” or “People’s Republic of China”]

<Sarma — World History>

1B. This team plays a game against its in-state rival named after a religious billboard on a highway between the two cities, the “Hell Is Real” derby. For 10 points each:

[H] Name this team whose players include Gyasi Zardes. This team won a 2020 championship game against the Seattle Sounders, in which the MVP was this team’s Lucas Zelarayan.

ANSWER: Columbus **Crew** [or **Columbus** Crew]

[E] The Columbus Crew play in the MLS, the top American league for this sport. El Clásico is a rivalry in this sport between Real Madrid and FC Barcelona.

ANSWER: **soccer** [or **football**; accept Major League **Soccer**]

[M] El Clásico inspired the tongue-in-cheek name of El Trafico, an MLS rivalry between two teams from this west coast city. Before signing with Milan, Zlatan Ibrahimović played for the Galaxy, a team based in this city.

ANSWER: **Los Angeles** [or **L.A.**; accept **Los Angeles** Derby]

<Carvell — Pop Culture>

2T. **The Sanpaku superstition is a Japanese belief that the shape of these objects determine a person’s fate. In Ethiopia, the possession of these objects is called “buda.” Rabbinic literature claims that Joseph’s descendants are immune to a curse from one of these objects. In Mexican culture, one of these objects (\*)** “of God” is often created by weaving yarn on wooden crosses. A circular nazar or a hamsa charm, which consists of a palm with one of these objects in the center, are used to ward off an “evil” one of these objects that is stereotypically blue. For 10 points, name these body parts that may be “all-seeing.”

ANSWER: **eyes** [accept **eye** of God or All-Seeing **Eye**; accept **Evil Eye** or translations thereof]

<Morales — Religion>

2B. An agreement that propelled this treaty took place in 1974 in Vladivostok. For 10 points each:

[H] Name this treaty that was signed in Vienna in 1979 between the United States and Soviet Union that sought to limit the amount of nuclear delivery vehicles and actively deployed strategic nuclear forces.

ANSWER: **Strategic Arms Limitation Treaty II** [or **SALT II**, prompt on **SALT** alone, do not accept or prompt on “SALT I”]

[E] The SALT II treaty was signed on the United States’s behalf by this president from the state of Georgia. This president’s successor, Ronald Reagan, heavily criticized the treaty.

ANSWER: James Earl **Carter**, Jr. [or Jimmy **Carter**]

[M] The SALT II treaty was never eventually ratified in the United States Congress after being signed, mainly due to the Soviet Union invading this country in January 1980. The term Mujahideen originates from fighters in this country resisting the Soviet invasion.

ANSWER: **Afghanistan** [or Islamic Republic of **Afghanistan** or Jamhuriye Islamiye **Afghanistan**] <Fuhrer — American History>

3T. According to Maxwell's first relation, the partial of this quantity with respect to volume is equal to the negative partial of pressure with respect to entropy. The total translational energy of a system is given as three halves  $k$ -sub-B times this quantity. The efficiency of a Carnot cycle is one minus the ratio of two values for this quantity. This quantity is defined by the transitivity of (\*) thermal equilibrium in the zeroth law of thermodynamics. This quantity is directly proportional to volume according to Charles' law, and it is a measure of the average kinetic energy in an ideal gas. For 10 points, name this quantity measured using the Kelvin scale.

ANSWER: temperature [or thermodynamic temperature]

<Sivakumar — Physics>

3B. For 10 points each, answer the following about unusual ways of dying in Shakespeare plays:

[H] Name this Shakespearean tragedy. The title vengeful general of this play memorably kills the brothers Chiron and Demetrius by baking them into a pie, which he later serves to their mother Tamora at a feast.

ANSWER: Titus Andronicus

[E] Enobarbas dies of shame after defecting to Julius Caesar's camp in a play named for Antony and this Egyptian queen. At the end of the play, this title character commits suicide by letting an asp bite her.

ANSWER: Cleopatra

[M] In *A Winter's Tale*, Antigonus is chased off stage and dies without warning following a stage direction that reads "Exit, pursued by [one of these wild animals]." A.A. Milne's most famous character is one of these animals.

ANSWER: bears [A.A. Milne wrote *Winnie-the-Pooh*]

<Wu — British Literature>

4T. In a novel by Vladimir Nabokov, Cincinnatus C. is told that because of his "gnostical turpitude," he must face one of these events. In the final line of another novel, a character hopes that when he experiences one of these events, "there [will] be a large crowd of spectators" greeting him with "cries of hate." A novel set during the French Revolution follows Sydney Carton as he replaces (\*) Charles Darnay at one of these events. Meursault undergoes one of these events after he kills the Arab in *The Stranger*. For 10 points, name this type of event which occurs by guillotine at the end of *A Tale of Two Cities* and *Invitation to a Beheading*.

ANSWER: execution [accept death penalty; accept specific kinds like firing squad; accept *Invitation to a Beheading* or guillotine before mention; prompt on death or murder] <Ezrielev — European Literature>

4B. This musician coped with an inability to leave occupied France during World War II by composing works like "Nuages." For 10 points each:

[H] Name this Belgian jazz musician who formed the Quintette du Hot Club de France with violinist Stephane Grapelli.

ANSWER: Django Reinhardt

[E] Reinhardt played this instrument even after losing two of his fingers in a fire. In the Benny Goodman Sextet, Charlie Christian played this six-stringed, acoustic instrument.

ANSWER: guitar

[M] Reinhardt quoted the opening rhythm of a Maurice Ravel piece with this title in his song "Troublant [this name]." Both of those pieces of this name are based on a Spanish dance in 3/4 time.

ANSWER: Bolero [or "Troublant Bolero"] <Morales — Other Fine Arts>

5T. Peace talks for a treaty to end this conflict were sabotaged by Anna Chennault on behalf of a presidential candidate. Internment camps set up by the British during the Malayan Emergency were used as inspiration for this conflict's Strategic Hamlet Program. One country entered this conflict when their ship the *Lennox* was attacked in the (\*) Gulf of Tonkin. A Nobel Peace Prize was somehow awarded to Henry Kissinger for the treaty that ended this war. Atrocities committed by the US during this war included the extensive use of Agent Orange and the My Lai massacre. For 10 points, name this war where the US-backed southern portion of a namesake country fought against the northern portion led by Ho Chi Minh.

ANSWER: Vietnam War [accept Second Indochina War; prompt on Indochina War alone]

<Chakraborty — American History>

5B. This system can be driven by applying a periodic external force. For 10 points each:

[E] Name this system consisting of a swinging mass on a string. At small perturbations from equilibrium, this system can be modeled as simple harmonic oscillation using the small angle approximation.

ANSWER: **pendulum** [accept driven **pendulum**]

[M] A pendulum undergoes this phenomenon when energy is dissipated from the system, typically through friction. The “critical” form of this process occurs when the Q-factor is equal to one-half.

ANSWER: **damping** [accept critical **damping**]

[H] A system containing a pendulum that is both driven and damped experiences this phenomenon at large perturbations. Systems with this property may converge towards a strange attractor over time.

ANSWER: **chaos** [accept **chaotic**; prompt on **nonlinearity**]

<Ye — Physics>

6T. **This organization incorporated a different group’s guerilla 055 Brigade into its military. This organization used Ghazi Stadium as a venue for public executions. Despite an initial promise to protect them, this organization destroyed the two Buddhas of Bamiyan. Viral photos showed members of this group (\*) posing with guns around a desk and using gym equipment in a presidential palace this organization took over. This group was removed from power after a U.S. invasion of their country in October 2001, but regained it in the immediate aftermath of the U.S. withdrawal from that country. For 10 points, name this Islamic fundamentalist group that took control of Afghanistan in August 2021.**

ANSWER: **Taliban** [accept **Islamic Emirate of Afghanistan**; prompt on **mujahideen** until “Ghazi Stadium”; do not accept or prompt on “Islamic Republic of Afghanistan” or “Afghanistan”]

<Rao — Current Events>

6B. This practice was commonly done with a mixture of ferric-acetate and tea powder, called kanemizu. For 10 points each:

[H] Name this dental practice known as ohaguro. This practice was typically done by the aristocracy, married women, and Geisha in order to preserve their teeth into old age.

ANSWER: **teeth blackening** [accept answers indicating people **darkening** or **blackening** their **teeth**]

[E] In Japan, the word irezumi refers to this type of body modification. This type of body modification uses needles and ink to draw images on the skin.

ANSWER: **tattooing**

[M] Irezumi and ohaguro both flourished in popularity during this period of Japanese history. This period, which is typically seen as a period of prosperity and artistic development, was ended by the Meiji Restoration.

ANSWER: **Edo** period [accept **Tokugawa** shogunate]

<Tadigadapa — World History>

7T. **Outputs from this structure are passed through “deep nuclei” named for it. Mossy fibers are one method of inputs into this structure. Damage to this structure is known to cause low frequency “intention tremors.” This structure is divided into three parts including the midline vermis, lesions of which will cause problems with stance and gait. The tiny granules in the inner layer of this structure communicate through parallel fibers to Purkinje cells. Major functions like attention and motor control are primarily controlled by this structure. For 10 points, name this structure sometimes called the “little brain” that is located in the rear of the cerebrum.**

ANSWER: **cerebellum** [do not accept or prompt on “cerebrum”]

<Morales — Biology>

7B. The central figure of a painting by this artist wears a bracelet with an image of Artemis on it, symbolizing chastity. For 10 points each:

[H] Name this artist. She depicted herself working in *Self-Portrait as the Allegory of Painting*, and may have also painted herself as the title Israelite in her two versions of *Judith Beheading Holofernes*.

ANSWER: Artemisia **Gentileschi** [jen-tih-LESS-key] [or Artemisia **Lomi**]

[E] Gentileschi was an artist from this modern-day country. She was the first woman to study at the Academy of Fine Arts in this country’s city of Florence.

ANSWER: **Italy** [or **Italian** Republic or Repubblica **Italiana**]

[M] Gentileschi primarily belonged to this art movement, which originated in the Iberian peninsula and included painters such as Diego Velazquez and Caravaggio. Rococo is also known as the “late” version of this art movement.

ANSWER: **Baroque** [bah-ROKE] <Carvell — Visual Fine Arts>

8T. **One character in this novel attempts to swim “where no woman had swum before,” before leaving for home immediately after. In this novel, the protagonist argues about the role and duties of a mother with Adèle Ratignolle. The opening of this novel features the Farival Twins playing on piano, as well as a parrot who yells “Allez-vous en.”** (\*) Alcée [al-sih] Arobin has an affair with the protagonist of this novel who ultimately ends up falling in love with Robert Lebrun. This novel ends with the main protagonist walking into the Gulf of Mexico and drowning herself. For 10 points, name this novel about Edna Pontellier by Kate Chopin.

ANSWER: The *Awakening*

<F. Wang — American Literature>

8B. During one part of this event, participants run between the hills of Al-Safa and Al-Marwa. For 10 points each:

[E] Name this pillar of Islam that every Muslim must perform once in which participants walk around the Kaaba seven times after a pilgrimage to the sacred city of Mecca.

ANSWER: hajj

[H] During the hajj, participants must pray for almost the whole day on top of this mountain to commemorate Muhammad’s final sermon.

ANSWER: Mount Arafat

[M] The symbolic stoning of the devil is performed twice during the hajj to represent when this man performed the same action when he was tempted to disobey God.

ANSWER: Ibrahim [or Abraham]

<Morales — Religion>

9T. **The Heidelberg School was an Australian offshoot of this art movement. An American member of this art movement depicted the title woman holding a fan in *Spanish Dancer Wearing a Lace Mantilla*. That artist befriended the painter of *L’Absinthe*, who was also part of this movement. One member of this art movement painted their future wife and another member of this movement in *The (\*) Luncheon of the Boating Party*. A major pioneer of this French art movement painted many haystacks and a series of *Water Lilies*. Mary Cassatt and Edgar Degas were members of, for 10 points, what artistic movement led by artists like Pierre-Auguste Renoir and Claude Monet?**

ANSWER: impressionism

<Morales — Visual Fine Arts>

9B. During the Cold War, it was discovered that damage to electrical cables in US nuclear submarines was not from a secret USSR weapon, but instead was from these animals. For 10 points each:

[H] Name this aquatic parasite that uses bioluminescence to lure hosts, after which it attaches on via suction and bites off a chunk of flesh in the shape of a namesake baking tool.

ANSWER: cookiecutter shark [or cigar shark or *Isistius brasiliensis*; prompt on shark]

[M] The cookiecutter shark is one of these types of parasites, which attach themselves to the outsides of their hosts’ bodies. These types of parasites are often contrasted with endoparasites.

ANSWER: ectoparasites [accept ectozoa or epizoa]

[E] The cookiecutter shark sometimes preys on this family of marine mammals known for their porpoising, acrobatics, and echolocation. The hourglass, Amazon River, and bottlenose are common examples of these mammals.

ANSWER: dolphins [or Delphinidae; accept hourglass dolphin or Amazon River dolphin or bottlenose dolphin]

<Xie — Biology>

10T. **A song by BROCKHAMPTON whose title is this word describes “spendin’ all my nights alone waitin’ for you to call me” and repeatedly asks “do you love me?” The singer of another song whose title is this word states “I don’t wanna be needing your love, I just wanna be deep in your love” and wants to “be where you are.” This is the (\*) second word in the title of a song that opens by describing “strawberries on a summer evening.” Adam Levine needs “a little love, a little sympathy” and sings “yes please, would you come and put it down on me?” on a Maroon 5 song with this title. For 10 points, a Harry Styles song is titled for “Watermelon” and what other word?**

ANSWER: sugar [accept Watermelon Sugar]

<Morales — Pop Culture>

10B. This thinker argued that the point of philosophy is to “show the fly the way out of the fly-bottle” in one work. For 10 points each:  
[M] Name this Austrian-born philosopher who argued that philosophy was a form of therapy in the preface to *Philosophical Investigations*.

ANSWER: Ludwig **Wittgenstein**

[E] Wittgenstein created one of these statements about rule-following in *Philosophical Investigations*. Another of these self-contradictory ideas is exemplified by a barber who shaves those that do not shave themselves.

ANSWER: **paradoxes**

[H] *Philosophical Investigations* opens with a quotation from this Christian philosopher in which he describes how he learned language. This theologian describes his religious coming-of-age and the perils of original sin in one work.

ANSWER: St. **Augustine** of Hippo

<Miles — Philosophy>

11T. **In one poem by this author, he asks himself if the day “had been wet or fine?” Traveling some roads is described as “harder than scaling the blue sky” in a poem by this author. In one poem, this author describes how when he dances, his shadow dances with him. This author, his shadow, and the (\*) moon “will make three men,” and he hopes to meet them on “the Cloudy River of the sky” in one poem. That poem by this author opens by describing “a cup of wine under the flowering trees.”** For 10 points, name this Chinese poet of *Quiet Night Thought* and *Drinking Alone By Moonlight*.

ANSWER: **Li** Bai [or **Li** Bo or **Li** Po]

<An — World Literature>

11B. A leader of this country established the Smolny Institute and passed a new law code called the Nakaz. For 10 points each:

[E] Name this country ruled by Catherine the Great after she deposed her husband, Tsar Peter III.

ANSWER: **Russia** [Do not accept or prompt on **Soviet Union**]

[M] Catherine helped install Stanislaw Poniatowski on the throne of this nearby empire ruled by the Jagiellonian dynasty. Named for two modern day countries, it was established by the Union of Lublin in 1569.

ANSWER: **Polish-Lithuanian Commonwealth** [accept **Poland-Lithuania**, prompt on **Poland** or **Lithuania** alone]

[H] In 1773, this Cossack ataman launched a revolt and established an alternative government in the name of Peter III. He was eventually executed after being decisively defeated at Tsaritsyn.

ANSWER: Yemelyan **Pugachev**

<Gedajlovic — European History>

12T. **The protagonist of this musical awakens after hearing a monkey music box in the song “I Remember.” In this musical, Carlotta is replaced by the protagonist during the production of *Hannibal* and *Il Muto*. That antagonist was earlier thought to be the “Angel of Music” by another character who is later engaged to (\*) Raoul. A character in this musical sings “turn your face away from the garish light of day” while seducing Christine in his underground lair beneath the title locale. That song is performed by the disfigured Erik and is called “The Music of the Night.”** For 10 points, name this musical in which the title figure haunts a Paris opera house.

ANSWER: *The **Phantom of the Opera***

<Ye — Other Fine Arts>

12B. Right you are—if you think so! Name the following about playwright Luigi Pirandello, for 10 points each:

[H] Pirandello is perhaps most notable for his play *Six Characters in Search of an Author*, where this character speaks in broken English and owns a dress shop that is also a brothel. When this character goes missing during Act II, the Father replaces her with a rack covered with The Actresses’ hats and cloaks.

ANSWER: Madame **Pace**

[E] Pirandello is from this country. Other playwrights from this country include Dario Fo, who set his play *Accidental Death of an Anarchist* in Milan.

ANSWER: **Italy** [accept **Italia**]

[M] Another Pirandello play is *Henry IV*, which follows a man after he suffers an accident involving one of these animals and believes he is the title ruler. In *Animal Farm*, an animal of this kind named Boxer repeats “I will work harder.”

ANSWER: **horse** <Ezrielev — European Literature>

13T. **This quantity was found to follow a Gaussian distribution for the pyrolysis of biomass. The variation in this quantity between same-family reactions is described by the Evans-Polanyi principle. This quantity over the ideal gas constant is the slope of a graph plotting the natural log of k against 1 over temperature. This quantity is represented by a (\*) “hump” in a reaction diagram and is the difference in energy between the reactants and transition state. The dependence of the rate constant on this quantity is given by the Arrhenius equation. For 10 points, name this quantity that must be overcome to produce a chemical reaction, which is lowered by catalysts.**

ANSWER: **activation energy** [or **activation enthalpy**]

<Chen — Chemistry>

13B. This hero rode atop Grani, a horse descended from Sleipnir. For 10 points each:

[M] Name this hero who slew Fafnir. When Gunnar wanted to woo Brynhildr, this hero took his form and rode through a ring of fire.

ANSWER: **Sigurd** [accept **Siegfried**]

[E] After tasting the dragon’s heart, Sigurd is able to understand the speech of these animals. The flaps from one of these animals’ wings is the origin of wind, while another one of these animals perches on top of the world tree.

ANSWER: **birds**

[H] The birds’ chattering revealed this man’s plan to kill Sigurd. This brother of Fafnir raised Sigurd and forged his sword Gram.

ANSWER: **Regin**

<Yu — Mythology>

14T. **In a story by this author, Nuñez slips down the side of a mountain before discovering a valley with windowless houses and repeating to himself that “in [the title location], the One-Eyed Man is King.” In a novel by this author of “The Country of The Blind,” a meteor lands on Horsell Common and a prickly red weed spreads across London. After a shipwreck, Edward (\*) Prendick encounters the title scientist’s human-like animal hybrids in this author’s *The Island of Dr. Moreau*. In one of this author’s novellas, a traveler finds out that humans have split into two races, the ineffectual Eloi and the crude Morlocks. For 10 points, name this British author of *The Time Machine* and *The War of the Worlds*.**

ANSWER: H.G. **Wells** [accept Herbert George **Wells**]

<Ezrielev — British Literature>

14B. The Redlich-Kwong equation of state is used to model these substances. For 10 points each:

[H] Name these substances whose virial expansions do *not* truncate beyond the first term. Parameters symbolized *a* and *b* are used in one equation that describes these substances.

ANSWER: **real gases** [or **non-ideal gases**; prompt on **gas**; do not accept or prompt on “ideal gases”]

[M] The van der Waals equation uses the *b* parameter to account for the nonzero particle size of real gases and the *a* term to describe these forces. These forces are attractions and repulsions between different compounds.

ANSWER: **intermolecular** forces [or **intermolecular** attractions; accept **IMFs** or **secondary** forces; accept **van der Waals** forces or **dipole-dipole** forces or **ion-induced dipole** forces or **ion-dipole** forces or London **dispersion** forces]

[E] Real gases can be approximated as ideal gases when temperature is high and this quantity is low. This quantity is typically measured in bars or Pascals.

ANSWER: **pressure**

<Ye — Chemistry>

15T. **A jurist from this country contrasted Portugal’s *Mare clausum*, or closed seas, policy with this country’s *Mare liberum*, or free seas, policy. During the second of four wars between this country and England, this country’s navy sank 13 English vessels during the Raid on the Medway. During this country’s war for independence, its city of (\*) Breda was besieged and captured. That war for independence, which ended with this country being recognized by Spain, was the Eighty Years’ War. This country was ruled by stadtholders until its independence, after which it was ruled by William I and the House of Orange. For 10 points, name this country with capital Amsterdam.**

ANSWER: The **Netherlands** [or the Kingdom of the **Netherlands**; accept Koninkrijk der **Nederlanden**]

<Gedajlovic — European History>

15B. An artist who creates a painting of this location is mockingly referred to as “monkey-hide” [monkey hee-day]. For 10 points each:  
[H] Name this location which Yoshihide is commissioned to paint on a folding screen in one short story. Yoshihide tortures his apprentices and orders a carriage containing a woman to be burnt in order to faithfully recreate the horrors of this place, though that carriage ends up containing his daughter.

ANSWER: **hell** [or **jigoku**; accept “**Hell** Screen” or “**Jigokuhen**”]

[M] This Japanese author wrote the short story “Hell Screen.” Different characters give varying accounts of the murder of a samurai in this author's short story “In a Grove.”

ANSWER: Ryūnosuke **Akutagawa** [or **Akutagawa** Ryūnosuke]

[E] Akutagawa also depicted Hell in a short story titled for one of these animals, in which a criminal attempts to climb out of Hell using the silk produced by this eight-legged arachnid, but is unable to due to his selfishness.

ANSWER: **spider** [accept “The **Spider**’s Thread”]

<Rao — World Literature>

16T. **Durable goods in this type of structure have theoretically competitive prices according to the Coase conjecture. In this type of structure, marginal revenue is twice as steep as demand, which causes deadweight loss. This market structure is characterized by a Herfindahl-Hirschmann index of 10,000. Increasing returns to scale create the (\*) “natural” type of this market structure.** High barriers to entry and economies of scale promote the formation of this type of market structure. This market structure is characterized by a lack of viable substitute goods. For 10 points, name this market structure in which only one company produces a given good.

ANSWER: **monopoly** [do not accept or prompt on “monopolistic competition” or “monopsony”]

<Ye — Social Science>

16B. The tempo of the opening of this piece is marked as half note equals 138, although most performers play it much slower. For 10 points each:

[H] Name this 29th in a collection of 32 pieces for solo piano. The third movement of this B-flat major sonata is an *adagio sostenuto* in F-sharp minor that is typically performed in 15 to 20 minutes.

ANSWER: **Hammerklavier** Sonata, **Op. 106** [or *Grosse Sonate für das **Hammerklavier***; accept either underlined portion; accept, but do not reveal, answers including Beethoven and either underlined portion]

[E] The *Hammerklavier* Sonata is part of this German composer’s late period sonatas. The 14th piano sonata by this composer was nicknamed the “Moonlight” Sonata.

ANSWER: Ludwig van **Beethoven**

[M] The fourth movement of the *Hammerklavier* Sonata begins with a short transition into this form, which involves two or more voices playing in counterpoint. J. S. Bach’s *The Well-Tempered Clavier* contains a prelude and a piece of this type for all 24 keys.

ANSWER: **fugue**

<Rao — Auditory Fine Arts>

17T. **One composer’s 13th work of this type in A minor contains an E - D - E motif that was originally found in incidental music to the play *Rosamunde*. That composer’s next work in this genre contains a second movement whose theme and variations is based on an earlier-written lied. One composer’s Op. 76 of works in this genre was dedicated to Joseph Erdődy and contains pieces in this genre called (\*) “Sunrise” and “Emperor.” Schubert used excerpts from “Death and the Maiden” to compose his 14th work in this genre. It’s not a symphony, but Haydn was called the “father of [this genre].”** For 10 points, name this genre of music consisting of two violins, a viola, and a cello.

ANSWER: **string quartet** [prompt on **quartet**] <Morales — Auditory Fine Arts>

17B. The “single-family” type of this policy was essentially banned in the state of Oregon in 2019. For 10 points each:

[H] Name this type of urban planning policy in which parcels of land are divided into sections that dictate which types of land usage are allowed.

ANSWER: **zoning** laws [or **zoning** ordinances]

[E] Single-family zoning in the US perpetuates these environments, which surround larger cities and whose residents often commute to urban areas. These areas are more developed than rural areas.

ANSWER: **suburbs** [or **suburban** areas]

[M] This Texas city notoriously doesn’t have zoning laws, though it does have some land use restrictions. This most populous city in Texas contains the 26-lane Katy Freeway, which understandably suffers from awful traffic.

ANSWER: **Houston**

<Sarma — Geography>

18T. **Under the reign of this leader, the general Corbulo installed a friendly puppet king, Tigranes VI on the Armenian throne. The death of the king Prasutagus led to a revolt against this leader that ended at the Battle of Watling Street. This emperor used a boat designed to sink in a failed assassination attempt on his mother. This emperor took advantage of a natural disaster to build his massive palace, the (\*) Domus Aurea.** This emperor also ordered the execution of his mother, Agrippina the Younger. The Iceni revolt was led by Boudicca during this emperor's reign. Galba succeeded this man to begin the Year of the Four Emperors. For 10 points, name this emperor who apocryphally "fiddled while Rome burned."

ANSWER: **Nero** Claudius Caesar Augustus Germanicus

<Carvell — Other History>

18B. One of this author's essays begins by detailing the life of Clyde Ross, a black man born in Jim-Crow era Mississippi. For 10 points each:

[H] Name this American author of *The Case for Reparations*. This author wrote about the relationship between racism and United States history in *Between the World and Me*, which he addressed to his son Samori.

ANSWER: Ta-Nehisi **Coates**

[M] Coates was inspired by this author's epistolary book *The Fire Next Time* to write *Between the World and Me*. One of this author's novels centers around Harlem teenager John Grimes and his relationship with the Temple of the Fire Baptized.

ANSWER: James **Baldwin**

[E] In Coates' debut novel *The Water Dancer*, Hiram Walker uses his powers of Conduction to transport individuals on this secret system. Many slaves escaped to the North along this series of safe houses and secret paths.

ANSWER: The **Underground Railroad**

<Liu — American Literature>

19T. **In Slavic myth, these objects transform into balls of lightning and thunder when thrown by Perun. Mannan mac Lir once gifted three of these items to Cormac mac Airt. Prince Ivan sets out to find the Firebird after it steals some of these objects. The Norse goddess (\*) Idunn guarded these immortality-granting objects. Discord threw one of these objects marked "to the fairest" at Peleus and Thetis' wedding. Hera, Athena, and Aphrodite quarreled over that object until Paris awarded it to Aphrodite. In Greek mythology these objects were found in the Garden of the Hesperides and grew on a tree sacred to Hera.** For 10 points, name these fruits made of a precious metal.

ANSWER: **golden apples** [prompt on apples, prompt of fruit, prompt on golden fruit ]

<Yu — Mythology>

19B. Cox's theorem is an axiomatic formalization of this field. For 10 points each:

[H] Name this field of mathematics. The second of three axioms related to this field created by Andrey Kolmogorov states that applying a measure in this field to the sample space results in a value of 1.

ANSWER: **probability**

[E] The first probability axiom states that the probability of any event is a nonnegative one of these numbers. These numbers contain both the rational and irrational numbers and are symbolized with a blackboard R.

ANSWER: **real** numbers

[M] The third probability axiom deals with two events being mutually exclusive, meaning they result in an empty set for this operation. This operation is denoted with an upside down U.

ANSWER: **intersection**

<Morales — Other Science>

20T. **In Python, the commands '%r' [modulo r] or '%s' [modulo s] convert objects into this type. Within Python classes, the method "\_\_repr\_\_" can be used to represent class objects as objects of this type. A default constructor, an equals method, and a method that returns this data type are the default methods inherited by any Java object class. In C, one of these data types can be declared using (\*) "char \*" [CARE-star]. The only argument for main methods in Java is an array of these objects called "args."** A null character is appended to the ends of these data types in C. This data type is represented using double quotes in Java. For 10 points, name this data type which consists of a series of characters, such as names.

ANSWER: **strings** [accept to **String**; prompt on character arrays; do not accept or prompt on "characters" alone]

<Rao / Ye — Other Science>





20B. As World War II neared its end, Adolf Hitler issued the Nero Decree to demolish German infrastructure, an example of this kind of strategy. For 10 points each:

[M] Name this tactic in which an advancing or retreating force intentionally damages infrastructure and supplies so that their enemy can't use them.

ANSWER: **scorched earth** policy

[E] This country's leader Joseph Stalin ordered a scorched earth response of burning crops and destroying factories after this country was invaded by Hitler's Germany in Operation Barbarossa.

ANSWER: **Soviet Union** [or **Union of Soviet Socialist Republics** **USSR** or **Soyuz Sovetskikh Sotsialisticheskikh Respublik** or **CCCP**; prompt on **Russia**]

[H] In response to a Japanese invasion of Burma, the British Raj issued scorched earth "denial policies" in this province of British India, confiscating surplus rice, leading to a famine that killed over a million people in this province.

ANSWER: **Bengal** [accept **Bengal** famine]

<Sarma — Other History>