

## Regular Academic Fall Tournament III

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### Packet 14

1T. In 1923, Lu Xun delivered a speech at a women’s school examining what happened after the end of one of this author’s plays. A man in a play by this author infantilizes his wife by calling her “my little squirrel” and “my little skylark” as she unwraps and eats macaroons. In a play by this author, the title character burns a manuscript belonging to (\*) Eilert Lovbørg before shooting herself. At the end of one play by this author of *Hedda Gabler*, Nora Helmer walks out on her husband Torvald and slams the door. For 10 points, name this Norwegian author of *A Doll’s House*.

ANSWER: Henrik (Johan) **Ibsen**

<Delot-Vilain — European Literature>

1B. These pathogens can be transmitted via the saliva of insects such as plant hoppers and aphids. For 10 points each:

[E] Name these non-living pathogens composed of genetic material enveloped in protein capsules. Examples of these pathogens in plants include the cauliflower mosaic and tobacco mosaic, while human examples include influenza.

ANSWER: **viruses**

[M] These pores found in plant cells are dilated by viral movement proteins, which allow the viral genome to move throughout a plant. These pores connect the cytoplasm of neighboring cells via openings in their cell walls.

ANSWER: **plasmodesmata**

[H] Plasmodesmata facilitate the movement of solutes through this transport system, which bypasses the Casparian strip and is composed of the continuous cytosolic stream between plant cells. This system is contrasted with the apoplastic route.

ANSWER: **symplastic** route [or **symplast** pathway]

<Xie — Biology>

2T. During this war, one side’s decisive victory at the Battle of Nördlingen prompted a neighboring country to enter this war. The first serious defeat for the Spanish tercio formation occurred at this war’s Battle of Rocroi. The Heilbronn League was organized by Axel Oxenstierna after one battle in this war. This war is divided chronologically into (\*) Bohemian, Danish, Swedish, and French phases. Queen Christina succeeded to the throne during this war after Gustavus Adolphus was killed during the Battle of Lützen. This war was ended by the Peace of Westphalia and started when three Catholic officials were defenestrated in Prague. For 10 points, name this European war fought between 1618 and 1648.

ANSWER: **Thirty Years’ War**

<Rao — European History>

2B. The republic of Kalmykia is the only European region where a plurality of the population practices this religion. For 10 points each:

[H] Name this religion. The Gelug school of this religion, also known as the “Yellow Hat” school, is predominant among ethnic Kalmyks.

ANSWER: **Buddhism**

[M] Gelug Buddhism is a school of the form of Buddhism named for this region. Buddhism spread to Kalmykia through Mongolia from this region, whose capital is Lhasa.

ANSWER: **Tibet** [accept **Tibetan** Buddhism]

[E] Kalmykia is a republic in this country, the largest in the world. Tibetan Buddhism is also prominent in Tuva and Buryatia, republics in this country’s region of Siberia.

ANSWER: **Russia** [or **Russian** Federation] <Boonin — World Geography>

3T. **An empty tomb in the Green Dome in Medina is reserved for this person. When ‘Imrān deemed that this person’s mother was not suited to be an imam, it was passed to this person’s cousin instead. The first of six miracles attributed to this person in the Qur’an involve this person speaking in the cradle. In Chapter 5 of the Qur’an, this person is clarified as being (\*) “no more than a messenger” while calling this person’s mother a “woman of truth.”** In Islam, this person is the second-to-last prophet sent to Earth, before Muhammad. For 10 points, name this person, the son of Mary, who most Muslims believe did not die on the cross.

ANSWER: **Jesus Christ** [or **‘Isā ibn Maryam** or **Isa al-Masih**; accept any underlined portion]

<Rao — Religion>

3B. For 10 points each, answer the following about musical guests from Saturday Night Live’s 46th season:

[E] On one episode, this Canadian singer sang “Lonely,” a single from his 2021 album *Justice*. This artist’s recent number one hits include “Peaches” and “Stay,” a collaboration with the Kid Laroi.

ANSWER: Justin **Bieber**

[M] On the season’s premiere, rapper Megan Thee Stallion added an interlude referencing the murder of Breonna Taylor and her own shooting to a performance of this song, in which she describes herself as “classy, bougie, ratchet.”

ANSWER: **Savage**

[H] On an episode hosted by Dan Levy, this indie singer/songwriter performed the songs “Kyoto” and “I Know The End” from her album *Punisher*. She is also a member of the group Boygenius with Julien Baker and Lucy Dacus.

ANSWER: Phoebe **Bridgers**

<Rynearson—Pop Culture Music>

4T. **Hilbert names a class of spaces named for these objects that possess inner products. Helmholtz’s decomposition theorem states that fields of these objects can be divided into irrotational and solenoidal components. Spaces named for these objects satisfy axioms involving addition and dilation. One of these objects that is scaled when acted on by a linear map is prefixed with (\*) “eigen-.”** The gradient is one of these objects that indicates the steepest ascent of a function. These types of objects are outputs of the cross product and can be split into components. For 10 points, identify these objects that have both magnitude and direction.

ANSWER: **vectors** [accept **vector** spaces or **vector** fields or eigen**vectors** or gradient **vectors**]

<Chakraborty — Other Science>

4B. Somewhat contrary to its name, members of this religion believe that diseases are illusions caused by sinning and reject medicine. For 10 points each:

[M] Name this religion founded by Mary Baker Eddy.

ANSWER: **Christian Science** [or **Church of Christ, Scientist**]

[H] Baker Eddy founded this Christian Science newspaper. This publication was read by Nelson Mandela during his years in prison.

ANSWER: *The Christian Science* **Monitor**

[E] The *Manual of the Mother Church* established rooms named for performing this action. Practitioners of Christian Science might perform this action with the *Monitor* newspaper, or with the Bible.

ANSWER: **reading**

<Morales — Religion>

5T. **In this country, the Kaduna and Benue rivers flow into a river which is dammed to create the Kainji Reservoir. The homeland of the Ogoni people in this country has been environmentally degraded due to the growth of this country’s oil industry, which is centered around the city of (\*) Port Harcourt.** This country’s “Middle Belt” separates its predominantly Muslim north from the predominantly Christian south and contains this country’s capital, Abuja. The Yoruba and Igbo [EE-boh] ethnic groups are centered in this country. Lagos is the largest city in, for 10 points, what country, which is the most populous in Africa?

ANSWER: **Nigeria** [or Federal Republic of **Nigeria**]

<Carvell — Geography>

5B. In this story, a cowboy replies “Well, I didn’t do anythin’, did I?” in response to the Easterner’s declaration that they were both culpable for a murder. For 10 points each:

[H] Pat Scully is the owner of the title location of this short story, where the Swede accuses Johnnie of cheating at cards and beats him in a fight before being killed by a patron at a bar as he celebrates.

ANSWER: “The **Blue Hotel**”

[M] This author of “The Blue Hotel” also wrote “The Bride Comes to Yellow Sky” and created Civil War soldier Henry Fleming in his novel *The Red Badge of Courage*.

ANSWER: Stephen **Crane**

[E] Another story by Stephen Crane is titled for an “open” one of these objects. Characters stranded on that title object include the correspondent, the captain, the cook, and an oiler named Billie who dies before reaching land.

ANSWER: **boats** [accept “The Open **Boat**”] <Wu — American Literature>

6T. **This city was renamed Kardunias under Gandash of Mari. Shamash-shum-ukin believed that this city should be capital, and led a revolt against his brother Ashurbanipal. The Kassites were this city’s longest ruling dynasty. This city was sacked by Sennacherib in retaliation for the murder of an Assyrian prince. One ruler of this city sacked Jerusalem, leading to a period known as this city’s (\*) “captivity.”** One leader of this city declared “an eye for an eye” in an early law code. Under Nebuchadnezzar II, this city completed its “Hanging Gardens.” For 10 points, name this Mesopotamian city once led by Hammurabi.

ANSWER: **Babylon** <Gedajlovic — Other History>

6B. This composer’s viola concerto is titled *Der Schwanendreher*, or *The Swan-Turner*. For 10 points each:

[H] Name this 20th century German composer and advocate of the New Objectivity style of music that wrote eight pieces titled *Kammermusik*. This composer’s most-performed piece is *Symphonic Metamorphosis of Themes by Carl Maria von Weber*.

ANSWER: Paul **Hindemith**

[M] Hindemith’s *Kammermusik No. 1* contains this atypical instrument. Sofia Gubaidulina wrote a concerto called *De profundis* for this instrument’s Russian variety, and this instrument produces sound by compressing and expanding bellows.

ANSWER: **accordion**

[E] Hindemith’s music was labelled “degenerate music” and banned by this political party. This party, which ruled Germany from 1933 to 1945, also banned the music of composers with Jewish heritage such as Felix Mendelssohn and Gustav Mahler.

ANSWER: **Nazi** Party [or **National Socialist** German Workers' Party or **Nationalsozialistische** Deutsche Arbeiterpartei or **NSDAP**] <Tadigadapa / Rao — Auditory Fine Arts>

7T. **A sigmatropic rearrangement is defined by the molecule’s transition state having one of these structures. Bredt’s rule governs the placement of double bonds in these structures. An annulation forms one of these structures. Epoxides are ethers with one of these structures. Aromatic compounds must be planar, conjugated, and have these structures, according to Huckel’s rule. A six carbon (\*) alkane that contains one of these structures comes in “boat” and “chair” conformations.** Along with double and triple bonds, these structures contribute towards degrees of unsaturation. For 10 points, name these structures in cyclic compounds like benzene and cyclohexane.

ANSWER: **rings** [accept **cyclic** molecules until “cyclic compounds”]

<Morales — Chemistry>

7B. This man’s friendship with David “Doc” Maynard led to the founding of a city named for this man. For 10 points each:

[H] Name this chief of the Suquamish and Duwamish peoples. This man was a signatory to the unequal 1855 Treaty of Point Elliott, which was drawn by territorial governor Isaac Stevens.

ANSWER: Chief **Seattle** [or Chief **Sealth**]

[M] Stevens was recalled from Washington to the Union Army following this Civil War battle. Stonewall Jackson earned his nickname for his actions during this Confederate victory.

ANSWER: **First** Battle of **Bull Run** [or **First** Battle of **Manassas**; prompt on Battle of **Bull Run** or Battle of **Manassas**]

[E] Washington territory was split from this other territory that bordered it to the south. James Polk accepted a compromise over annexing this territory despite his slogan “fifty-four forty or fight.”

ANSWER: **Oregon** Territory

<Zhang — American History>

8T. **A self-portrait by this artist done in lithographic chalk shows their disembodied white face against a black background, with a skeleton arm along the bottom. Several paintings by this artist depicting a nude woman with a red halo are usually titled *Madonna*. This artist's painting *Love and Pain* shows a red-headed woman with a man's head in her arms, and is often called (\*) *Vampire*. This artist's series *The Sick Child* depicts the death of his sister Sophie, which he also portrayed in *Death in the Sickroom*. This artist's *Frieze of Life* includes a painting with a red sky above a man holding his hands against his face.** For 10 points, name this Norwegian painter of *The Scream*.

ANSWER: Edvard **Munch** [moonk] <Carvell — Visual Fine Arts>

8B. The 2015 Nobel Prize in physics was awarded to the discovery of this phenomenon by the Super-Kamiokande experiment. For 10 points each:

[H] Name this phenomenon that was used to retroactively explain the results of the Homestake experiment. This phenomenon results from a changing superposition of eigenstates between a certain lepton's three flavors.

ANSWER: **neutrino oscillation** [accept solar **neutrino oscillation** or atmospheric **neutrino oscillation**; prompt on **oscillation**]

[E] Neutrino oscillation occurs because neutrinos have a very small, but nonzero, value of this quantity. In classical systems, this quantity is measured in kilograms.

ANSWER: **mass**

[M] An unsolved problem in physics concerns the neutrinoless form of this atomic process. When a nucleus undergoes this process, a neutron is converted into a proton, electron, and antineutrino.

ANSWER: **beta decay** [accept **beta-minus decay** or neutrinoless double **beta decay**]

<Ye — Physics>

9T. **This being's saliva supposedly caused the creation of the aconite plant when it dripped on the ground. In the *Aeneid*, Cumaean Sibyl drugs this creature with a cake. Despite having ordered its retrieval, Eurystheus hid in a jar upon seeing this creature. This child of Typhon and Echidna was the subject of (\*) Heracles's final labor. Orpheus lulled this creature to sleep with his lyre in order to enter the underworld. This animal is sometimes depicted with a snake for a tail, and almost always shown having three canine heads.** For 10 points, name this guard dog of Hades.

ANSWER: **Cerberus**

<Morales — Mythology>

9B. One sultanate based in this city rose to power by several Turkish generals deposing the Ayyubid heir. For 10 points each:

[E] Name this city, the seat of the Mamluk Sultanate. After being conquered by the Rashidun Caliphate, this city replaced Alexandria as the capital of Egypt.

ANSWER: **Cairo** [or al-**Qahirah**]

[H] This sultanate split off from Oman after 1856 and became a British protectorate after losing a 38 minute war. This island, which was an important center for the trade of spices and slaves, was recognized as a British colony in a treaty named for it and Heligoland.

ANSWER: Sultanate of **Zanzibar** [accept Heligoland-**Zanzibar** Treaty]

[M] The medieval Sultanate of Mogadishu was based in this country. This country has had an ongoing civil war since 1991, including an incident where two American Black Hawk helicopters were downed.

ANSWER: Federal Republic of **Somalia**

<Chakraborty — World History>

10T. **In one of this author's short stories, a dying writer remembers his youth in Paris while vultures encircle him. Another story by this author is set in a train station where "the American" tries to convince Jig to get an abortion. This author created a man who dreams of lions on a beach and admires "the great DiMaggio." This author of (\*) "The Snows of Kilimanjaro" and "Hills Like White Elephants" also wrote a short novel in which the fisherman Santiago breaks an 84-day streak by catching a marlin in the Gulf Stream.** For 10 points, name this author of *The Old Man and the Sea*.

ANSWER: Ernest **Hemingway**

<Wu — American Literature>

10B. The Pandavas climb one of these features in an attempt to reach heaven at the end of the *Mahabharata*. For 10 points each:  
[E] Name these locations. A five-peaked one of these geographic locations named Meru serves as an axis mundi.

ANSWER: **mountains** [accept **Mount Meru**]

[H] The sun god Surya encircles Mount Meru each day with seven of these animals. Uchchaishravas, a white, seven-headed one of these animals, emerged during the churning of the ocean.

ANSWER: **horses**

[M] In one story, the wind god Vayu breaks a piece off Mount Meru, leading to the creation of the island on which this kingdom was located. This kingdom was ruled by the ten-headed demon Ravana and gives its name to an island south of India.

ANSWER: **Lanka** [accept Sri **Lanka**]

<Morales — Mythology>

11T. **Charles Bulfinch designed a house in this city named for Federalist politician Harrison Gray Otis. American forces sieged this city while the British were trapped inside for eleven months, eventually causing them to flee to Nova Scotia. Colonial governor Thomas Hutchinson fled this city due to political unrest. A law allowing the British East India Company to sell a certain (\*) Chinese good in the United States without taxation led to a protest in this city in which demonstrators dressed as Native Americans boarded merchant ships. For 10 points, the Sons of Liberty perpetrated a “Tea Party” in the harbor of what northeastern U.S. city?**

ANSWER: **Boston** [accept **Boston Tea Party**]

<Bowman — American History>

11B. Jacques the Anabaptist drowns while saving a sailor in this novella. For 10 points each:

[M] Name this novella, where the title character follows Dr. Pangloss’s optimistic outlook that we are living in the “best of all possible worlds” and concludes “we must cultivate our garden.”

ANSWER: **Candide, ou l’Optimisme**

[H] This character’s father Baron of Thunder-ten-Tronckh banishes Candide from his castle. Candide ends up buying this woman’s freedom despite her ugliness and status as a prince’s slave at the end of the novella.

ANSWER: **Cunégonde**

[E] Candide and Cacambo journey to El Dorado, where the king gives them 102 of these animals with red wool before they are all either lost or stolen. Philip K. Dick titled his dystopian novel *Do Androids Dream of Electric [these animals]?*

ANSWER: **sheep** [or red **sheep**; accept **llamas**]

<Ezriev — European Literature>

12T. **In a play from this country a boy calls his father “an eater of left-overs” after he finds him in prison. In another play from this country, a photographer is imitated in the “Dance of the Lost Traveler.” In a play from this country one character talks about the “not-I bird” to the praise singer. That play ends after Simon Pilkings is unable to prevent the ritual suicide of (\*) Elesin Oba. In a different play from this country, Lakunle and Baroka compete for the hand of the beautiful maiden Sidi. The Lion and the Jewel and Death and the King’s Horseman are plays from this country. For 10 points, name this home country of Wole Soyinka, who wrote many plays inspired by its native Yoruba culture.**

ANSWER: Federal Republic of **Nigeria**

<Gedajlovic — World Literature>

12B. For 10 points each, answer the following about the mechanism of the Diels-Alder reaction:

[M] In the Diels-Alder reaction, a cyclic molecule is synthesized from a diene, which contains two of these structures. These structures are sp<sup>2</sup> hybridized and have bond angles of about 120 degrees.

ANSWER: **double bonds**

[E] The position of donating and withdrawing groups for these particles differentiates the demand and inverse-demand types of the Diels-Alder reaction. Two of these particles are shared between two atoms in a covalent bond.

ANSWER: **electrons** [accept **electron** withdrawing groups or **electron** donating groups]

[H] The diene in the Diels-Alder reaction assumes this conformation in which the double bonds have the same relative orientation about the sigma bond. In an alkene with two substituents, this isomer is denoted Z in the E-Z notation.

ANSWER: **cis** [accept s-**cis** conformation or **cis** isomer]

<Tran / Ye — Chemistry>

13T. A macroscopic version of a law named for this physicist subtracts two quantities arising from magnetization and polarization to obtain a “free” form of that quantity. This physicist found that the force per length of two straight wires is equal to  $2k\text{-sub-}A$  times the product of their currents divided by the distance between them. A law named for this physicist states that the line integral of the (\*) magnetic field is proportional to the encircled current, which can be used to determine the strength of a solenoid. James Clerk Maxwell added a “displacement current” term to that law named for this physicist. For 10 points, name this French physicist who names the SI unit of current.

ANSWER: Andre-Marie **Ampere** [accept **Ampere**'s circuital law or **Ampere**'s force law]

<Ye — Physics>

13B. A 2019 Atlantic Documentary titled “I was [this man]’s Secret Muse” follows the subject of many of this artist’s paintings. For 10 points each:

[M] Name this realist artist who painted many works in their hometown of Chadds Ford, Pennsylvania. This artist painted a girl with Charcot-Marie-Tooth disease crawling towards a distant house in *Christina’s World*.

ANSWER: Andrew **Wyeth**

[H] Andrew Wyeth’s “secret muse” was this woman, who was a nurse for Wyeth’s neighbor Karl Kuerner. From 1971 to 1985, Wyeth painted over 240 paintings now known as [this woman’s] Pictures.

ANSWER: **Helga Testorf** [accept either name; accept *The Helga Pictures*; prompt on **Testy**]

[E] One of Wyeth’s paintings depicting this season shows a man running down a hill with a sliver of snow on the upper left. Another Wyeth painting named for *Fields* in this season depicts a dead, frozen crow, thought to be a metaphor for World War II.

ANSWER: **winter** [accept **Winter** 1946 or **Winter Fields**]

<Wang — Visual Fine Arts>

14T. One work of this type ends with the suicide of Consort Yu after Xiang Yu loses to Liu Bang. That work is *The Hegemon-King Bids His Lady Farewell*, which was adapted into the film *Farewell My Concubine*. The four main roles in works of this type are noblemen, women, mighty men, and clowns. Mao Zedong’s wife Jiang Qiang produced eight (\*) “model” works in this genre. Xipi shee-pee] and Erhuang [ARE-hwang] are types of aria melodies in this genre. For 10 points, name this stage genre combining music, dance, mime, and acrobatics, whose Peking variety is frequently performed in The Giant Egg theater in Beijing.

ANSWER: Chinese **opera** [or **xìqǔ**]

<Tadigadapa — Other Fine Arts>

14B. A sequel to a book set on this kind of vehicle is partly titled for the obscure word “bummel.” For 10 points each:

[H] English author Jerome K. Jerome wrote a humorous travelogue titled for “Three Men in” this type of vehicle. In an Edward Lear poem, the Owl and the Pussycat travel to the land where the Bong-Tree grows in a pea-green one of these vehicles.

ANSWER: a **boat** [accept *Three Men in a Boat*; prompt on **river** by asking "what vehicle on the river?"]

[H] Jerome edited a magazine called *The Idler*, which shares its name with a series of earlier essays written by this man. This man is the subject of a biography by James Boswell.

ANSWER: Samuel **Johnson**

[E] *Three Men on the Bummel* is set during a cycling trip in this country, where Friedrich Schiller helped establish the school of Weimar Classicism. Other writers from this country include Thomas Mann and E.T.A. Hoffmann.

ANSWER: **Germany**

<Zhang — British Literature>

15T. This film’s costume designer, Mary Jane Fort, said that tissue paper coming out of a bag inspired a scene where the protagonist falls into a garbage can. One character in this film is tricked into eating “Swedish nutrition bars.” The video for Ariana Grande’s (\*) “thank u, next” includes a recreation of a scene from this film where a group of girls dance to “Jingle Bell Rock” while dressed in Santa costumes. In this film, the Burn Book is started by Karen, Gretchen, and Regina, who are known as the Plastics. For 10 points, name this 2004 teen comedy film starring Lindsay Lohan as part of the title high school clique.

ANSWER: **Mean Girls** <C. Shao — Pop Culture>

15B. Historian Gavin Langmuir argued that belief in this phenomenon was fundamentally irrational, and therefore it does not matter if it ever actually occurred. For 10 points each:

[H] Name this phenomenon, which involves the accusation that a certain people commit ritual murder for religious purposes. A description is acceptable.

ANSWER: **blood libel** [accept but do NOT reveal anything describing a **claim that Jews kill gentiles** or **want** gentile **blood**]

[E] Blood libel is a form of antisemitism, the hatred of these people. Blood libel often claims that these people use the blood of babies to make matzah for Passover.

ANSWER: **Jews** [accept **Jewish** people, accept **Am Yisrael**]

[M] The Rhineland Massacres of Jewish people occurred during the first phase of this conflict. The beginning stage of this conflict, which was initiated at the Council of Clermont, was led by Peter the Hermit and Walter Sans Avoir.

ANSWER: **First Crusade** [accept **People's Crusade**; prompt on **crusades**]

<Gemmill-Nexon — European History> [Edited]

16T. **Punty rods and marvers are devices frequently used in this technique. The two main types of this technique are the mold- and free- types. An alternative to this technique is known as lampworking. People working in Venice's Murano district used this technique to produce (\*) *crystallo* products.** In this technique, the central material is heated in a furnace in order to soften it before being finally annealed. For 10 points, name this process of manipulating a certain material to make objects like Mason jars.

ANSWER: **glassblowing** [accept **glassworking** or **glassforming**]

<Delot-Vilain — Other Academic>

16B. Chlorofluorocarbons contribute to the depletion of this compound from the atmosphere. For 10 points each:

[E] Name this compound that absorbs UV radiation from the sun, thus contributing to global cooling. The increase of greenhouse gases has raised concern for a "layer" named for this compound in the stratosphere.

ANSWER: **ozone** [accept **ozone** layer]

[M] Ozone layer depletion is most prominent in the ozone hole, a portion of the ozone layer located over this large Southern region that develops between August and November. In 2021, the ozone hole of this region reached an area of 9.6 million square miles.

ANSWER: **Antarctica** [accept **Antarctic** Ozone Hole]

[H] The observation of these nacreous clouds in Antarctica is a general indicator of the formation of ozone holes. Type I examples of these clouds contain high levels of nitric acid and chlorine.

ANSWER: **polar stratospheric** clouds [or **PSCs**]

<Wang — Earth Science>

17T. **In a novel by this author, the sick girl Josie purchases the title Artificial Friend, who ends up in a junkyard. In a novel by this author, Miss Kenton buys flowers for the house, only to be shut down by the protagonist. A character narrates one of this author's novels while reminiscing on a drive to Cornwall. A character created by this author of (\*) *Klara and the Sun* frequently listens to the radio in order to improve his bantering skills for Mr. Farraday. This author created the Nazi sympathizer Lord Darlington and his butler, Stevens.** For 10 points, name this British author of *The Remains of the Day*.

ANSWER: Kazuo **Ishiguro**

<Delot-Vilain — British Literature>

17B. The substitution and income effects are two parts of this equation. For 10 points each:

[H] Identify this equation which relates changes in Marshallian demand to Hicksian demand.

ANSWER: **Slutsky** equation

[E] Both the substitution and income effect change this value for a good, since there is a change in quantity demanded. This quantity is the amount of money that must be paid for a certain product.

ANSWER: **price**

[M] The Slutsky equation can be written in terms of this quantity, which is equal to the percent change in quantity over the percent change in demand. Examples of this quantity are price, income, and cross.

ANSWER: **elasticity** [accept price **elasticity**; accept income **elasticity**; accept cross **elasticity**]

<Chakraborty — Social Science>

18T. **During embryonic development, this tissue’s maturation is regulated by the Indian hedgehog homolog. A mutation in the FGFR3 gene disrupts the replacement of this tissue during endochondral ossification, which may lead to achondroplasia. The cricoid and carina are examples of this tissue’s hyaline variety and can be found in the (\*) trachea.** In osteoarthritis, changes in chondrocyte behavior results in the degradation of a variety of this tissue that protects the ends of bones. For 10 points, name this structural tissue found in the tip of the nose and external ear that is softer and more flexible than bone.

ANSWER: **cartilage**

<Xie — Biology>

18B. One of these buildings in the Roman city of Ephesus was dedicated to the proconsul Celsus. For 10 points each:

[E] Name these institutions that served as centers of knowledge and learning in the ancient world. A “Great” one located in Alexandria was partially destroyed in a fire during the Roman Civil Wars.

ANSWER: **libraries** [accept Great **Library** of Alexandria]

[M] A great library in this city was founded by the Abbasid Caliphate. The Tigris apocryphally ran black with ink when the Mongols sacked this city in 1258.

ANSWER: **Baghdad**

[H] The great library in Baghdad, also known as the House of Wisdom, was founded by this Abbasid caliph. This caliph, who appears in many of the stories in the Arabian Nights, sent what can only be described as a gimmicky alarm clock as a gift to Charlemagne.

ANSWER: **Harun** al-Rashid

<Gemmill-Nexon — Other History>

19T. **This composer wrote “In Memoriam!” above a quotation of the funeral march of Beethoven’s *Symphony No. 3* at the end of a piece for 23 solo strings, *Metamorphosen*. The cycle *Four Last Songs* was the last completed work of this composer before their death. Another piece by this composer is divided into 22 sections which represent the ascent and descent of a mountain. This composer’s many (\*) tone poems include *An Alpine Symphony* and *Death and Transfiguration*. Stanley Kubrick used the opening of this composer’s *Also Sprach Zarathustra* in *2001: A Space Odyssey*. For 10 points, name this German composer who was the last composer of the Romantic Era.**

ANSWER: **Richard** (Georg) **Strauss** [prompt on **Strauss**]

<Rao — Auditory Fine Arts>

19B. In one of this author’s novels, Felipe Montero helps the title character’s aunt organize her dead husband’s journals. For 10 points each:

[H] Name this author of *Aura* and *Where the Air is Clear*, who wrote about a sick politician in *The Death of Artemio Cruz*.

ANSWER: Carlos **Fuentes**

[E] Fuentes is from this country, whose capital is the subject of a series of vignettes in *Where the Air is Clear*. In a collection of novellas entitled *The Orange Trees*, Fuentes fictionalized Hernan Cortes’s conquest of the Aztecs in this country’s present-day capital.

ANSWER: **Mexico** [or United **Mexican** States or Estados Unidos **Mexicanos**]

[M] Fuentes wrote *The Old Gringo*, whose title character is named after and inspired by this American author. This author created the satirical work *The Devil’s Dictionary* and wrote about the Civil War in his story “Chickamauga.”

ANSWER: Ambrose **Bierce**

<Ezrielev — World Literature>

20T. **After the overproduction of this good in World War I, the UK attempted to stabilize prices of this good in the Stevenson Plan. Henry Wickham expanded the production of this good into Southeast Asia by stealing hundreds of thousands of seeds from Brazil. The journalist E.D. Morel published an exposé about the practices in a colony that mostly produced this good, titled “Red [this good].” King (\*) Leopold II’s Force Publique enforced quotas on the collection of this good in the Congo. Charles Goodyear patented a method of strengthening this good by adding sulfur to it known as “vulcanization.” For 10 points, name this good, which can be used to make tires.**

ANSWER: **rubber** [accept Red **Rubber**]

<Delot-Vilain — World History>



20B. A designer and a poet who both have this surname collaborated on the outdoor art pieces Reading a Garden and Input. For 10 points each:

[H] Give this surname of the architect who designed the Women's Table at Yale University. A recent installation by that designer with this surname deals with environmental destruction and is called Ghost Forest.

ANSWER: **Lin** [accept Maya **Lin** or Tan **Lin**]

[E] It's not Georgia, but Input is a public artwork at a university in this state's city of Athens. Both Reading a Garden and the I. M. Pei-designed Rock and Roll Hall of Fame are located in this state's city of Cleveland.

ANSWER: **Ohio**

[M] Maya Lin's most famous artwork, the Vietnam Veterans Memorial, is made of a black form of this rock. Mount Rushmore is also made of this rock.

ANSWER: **granite** [or black **granite**]

<Rao — Other Fine Arts>