

Boilermaker Spring Novice

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Packet 12: Skimblehanks, the Railway Cat

TOSSUPS

1. In a monopsony, the presence of this quantity shifts the point of maximum profit below the intersection of marginal cost and marginal revenue product. In *Myth and Measurement*, Card and Krueger examine how the increase of this quantity in New Jersey did not result in classically predicted effects. If demand elasticity for low-skilled labor is finite and supply elasticity for it is positive, this quantity is desirable in a market. (*) Gig workers may be used to circumvent this quantity. In the supply and demand model of the labor market, this quantity acts as a price floor. The “Fight for \$15” concerns this quantity, whose federal value is currently set at \$7.25 in the United States. For 10 points, name this quantity, the lowest legal amount employees can be paid.

ANSWER: minimum wage [prompt on just wage or salary]

<LM, Social Sciences - Economics> [Ed. KJ]

2. Raney (“rainy”) nickel is used to cleave a thioketal (“thigh-o-kee-tal”) in a reaction of this type named for Mozingo. In another of these reactions, zinc amalgam and hydrochloric acid are reacted with a carbonyl. (“carbon-ee”). Ammonia, sodium, and an alcohol are used to convert benzene to 1,4-cyclohexadiene (“one-four cyclo-hexa-dye-ee”) in one of these reactions named for (*) Birch. Precious metal catalysts like palladium can be used to convert alkenes to alkanes in a subclass of this kind of reaction, hydrogenation. (“hy-draw-jen-nation”). Aldehydes can be converted to alcohols in one type of this reaction, and this reaction occurs at the cathode of an electrochemical cell. For ten points, identify this reaction in which a compound gains electrons, usually contrasted with oxidation.

ANSWER: reduction [prompt on redox, anti-prompt on hydrogenation by asking “What broader type of reaction is hydrogenation?”]

<MS, Science - Chemistry> [Ed. JF]

3. A 2015 report by the OECD noted a “complete disconnect” between economic development and the increasing size of these objects. The Japanese corporation Shoeni Kisen Kaisha manages these objects. In April of 2021, a court in Ismailia seized one of these objects with a demand for 916 million dollars, including 300 million for “loss of reputation.” A widely-publicized incident involving one of these objects caused a shortage of (*) garden gnomes in Europe. One website allows users to visualize what one of these objects would look like when stuck anywhere in the world; that website is *Ever Given Ever Ywhere* (“Everywhere”). For 10 points, name these objects, one of which delayed global trade in March 2021 by becoming lodged in the Suez Canal.

ANSWER: container ships [or cargo ships, freight ships, freighters, or freightliners; accept boats in place of “ships”]

<SB, The World - Current Events> [ed. KJ]

4. A “blue” one of these objects titled John Coltrane’s second album, which features the songs “Moment’s Notice” and “Lazy Bird.” A conversation with a shoeshine boy appears in a big band tune recorded by Glenn Miller and his Orchestra about one of these objects in Tennessee. Billy Strayhorn wrote the lyrics to a tune about one of these objects that includes the command “hurry, get on (*) board.” A popular jazz standard describes one of these objects in New York that goes “to Sugar Hill,” noting how missing it means “you missed the quickest way to Harlem.” The signature song of the Duke Ellington orchestra was about “taking the A” type of, for 10 points, what vehicles that are the subject of the song “Chattanooga Choo Choo”?

ANSWER: trains [accept “Blue Train,” accept “Take the A-Train,” accept subways]

<LM, Fine Arts - Other Auditory> [Ed. LM]

5. In the last engagement of this war, one side was stopped from crossing the Charles Bridge by forces led by the Jesuit priest Jiří Plachý. (“yee-jee pla-kee”). The Battle of Dessau Bridge prevented reinforcements from reaching Christian IV’s *Kejserkrigen* (“kigh-za-kreeg-in”) in this war. The use of the battle cry “Cut them down!” by one unit in this war led to them being called *Hakkapeliitta*. Following a major victory at (*) Breitenfeld, Swedish forces killed the Count of Tilly at this war’s Battle of Rain. At this war’s Battle of Lutzen, Wallenstein’s (“vall-en-stine’s”) forces killed the leader of those Swedish forces, Gustavus Adolphus. The Peace of Westphalia ended, for 10 points, what religious war that began with the Second Defenestration of Prague and lasted from 1618 to 1648?

ANSWER: Thirty Years’ War

<QP, History - European History> [Ed. LM]

6. Note to players: your answer can be a general type of person like “painter” or “teacher”

At the end of a film, one of these characters tears up a photo of him and his son while sobbing that he changed his mind. One of these characters becomes offended after his home is called “a breeding ground for criminals” in response to a boy who was arrested there. One of these characters rejects the idea that a switchblade was (*) one-of-a-kind after buying an identical blade, and that character pretends to be an old man to see how long it would take to cross a room. After doubts are raised about whether someone could hear a shouted threat over the sound of a train, some of these people change their vote on a secret ballot. For 10 points, what group of twelve people find the defendant not guilty in a play by Reginald Rose?

ANSWER: jurors from *12 Angry Men* [accept equivalent answers like jury members, accept answers like the characters from 12 Angry Men or the *12 Angry Men*]

<LM, Literature - Drama> [Ed. PS]

7. They’re not bacteria, but some of these organisms have a type of antenna called phycobilisomes (“phyco-billa-somes”). Coral bleaching occurs when coral polyps expel a type of these organisms called zooxanthellae (“zoh ox anthellay”). Diatoms (“die-a-tom”) are a group of these organisms that are responsible for 20 to 50 percent of oxygen produced on Earth. The study of these organisms is phycology. (*) Lichens (“likens”) consist of fungi and either cyanobacteria or these organisms. Eutrophication is commonly detected by the presence of “blooms” of these organisms. Cyanobacteria are sometimes erroneously referred to as the “blue-green” type of these organisms. For 10 points, name this broad category of aquatic photosynthetic eukaryotes that includes seaweeds and red and green groupings.

ANSWER: algae [accept microalgae, accept algal blooms, prompt on eukaryotic organisms or phytoplankton]

<DB, Science - Biology> [Ed. JF]

8. In the sequel to this novel, a character designs a mythology-based theme park with their husband, whom they later divorce. In this novel, that character writes love letters to their neighbor on behalf of their illiterate maid. This novel's protagonist is given swans made of bread by their Uncle (*) Anoosh before he is executed. The protagonist of this novel reads the comic book *Dialectic Materialism* and has to beat their breast at school in honor of the martyrs. This novel ends with its protagonist being sent to Vienna, and the first section, "The Veil," is set after the 1979 Iranian Revolution. For 10 points, name this autobiographical graphic novel by Marjane Satrapi, ("mar-ja-nee sa-tra-pee"), named after an ancient Persian capital.

ANSWER: Persepolis [accept Persepolis 1, accept Persepolis: The Story of a Childhood, accept Persepolis 2, accept Persepolis: The Story of a Return]
<QP, Literature - Short Stories/Other> [Ed. SB]

9. A team from this city is nicknamed "the mattress makers" due to a distinctive pattern on their jerseys. Players on a team from this city won the Ballon d'Or ("ball-on door") in three straight years from 2016 to 2018. The 2014 Champions League final was played between two teams from this city, and featured a clinching goal by Marcelo in extra time after a (*) Sergio Ramos header tied the game in the 93rd minute. Those two teams from this city finished first and second in La Liga in 2020-21. A team from this city has signed "galácticos" like Gareth Bale, Luka Modrić, ("mo-dritch"), and Cristiano Ronaldo. For 10 points, name this Spanish city home to football clubs nicknamed Atlético and Real. ("ray-ahp").

ANSWER: Madrid [accept Real Madrid Club de Fútbol or Real Madrid CF; accept Atlético Madrid or Club Atlético de Madrid, S.A.D.]
<VS, Pop Culture - Sports> [Ed. SB]

10. A memorial sculpture made of this material by Eila Hiltunen was criticized for being too abstract, requiring her to add Jean Sibelius's face. Abstract sculptures made of this material and painted bright red are known as "stabiles." The "Chicago Picasso" is an unnamed sculpture made of this material that resembles a baboon. Several of the most expensive works by living artists are works by Jeff Koons made of this material, such as (*) *Balloon Dog* and *Rabbit*. A large sculpture made of this material, whose underbelly contains an "omphalos" with intricate circular reflections, was designed by Anish Kapoor. For 10 points, name this material used to sculpt *Cloud Gate*, a Chicago sculpture nicknamed "the Bean."

ANSWER: steel [accept stainless steel; prompt on metal; do not accept or prompt on "iron"]
<SB, Fine Arts - Painting and Sculpture> [Ed. SB]

11. Agricola won the Battle of Mons Graupius in the far northernmost portion of this island, which emperor Septimus Severus died while campaigning in. This island was home to the Iceni ("ice-see-nee") tribe, who were crushed at the Battle of Watling Street. The Caledonian confederacy was located on this island, as were a group possibly named for their extensive tattoos, the (*) Picts. Emperor Hadrian constructed a 73-mile long defensive wall spanning this island. Boudica's revolt occurred in this island, whose Celtic population split into groups including the Cornish and Bretons. For 10 points, name this island on which the settlement of Londinium later became the city of London.

ANSWER: Great Britain [accept England, Wales, or Scotland, prompt on "British Isles"]
<LM, History - Other History> [Ed. LM]

12. A saint with this first name founded the Sisters of St. Joseph of the Sacred Heart and was the first saint from Australia. Another figure with this name may have been syncretized with the deity **Tonantzin** (“to-nant-zeen”) in Mexico. In the Gospel of John, the disciples object when a person with this name anoints Jesus with expensive perfume while he is being served by her sister (*) Martha. Another person with this name was the first to witness Jesus’ empty tomb. Papal infallibility has only been formally applied to two doctrines concerning a woman with this name, the Assumption and the Immaculate Conception. For 10 points, the Rosary is prayed to the mother of Jesus, who had what name?

ANSWER: **Mary** [accept **Mary** MacKillop, accept **Mary** of Bethany, accept **Mary** Magdalene, accept the Virgin **Mary**, prompt on any of those last names, prompt on Our **Lady of Guadalupe**, prompt on the **Virgin of Guadalupe**] <QP, Beliefs - Practices> [Ed. QP]

HALFTIME

13. An attempt to move this nation’s national documents was interrupted by a cannon shot fired by Angelina Eberly in the Archive War. Anson Jones was the last president of this nation. A currency called the “redback” was issued by this nation’s second president, Mirabeau B. Lamar. In this nation’s war for independence, James Fannin’s forces were massacred at (*) Goliad after attempting to reach troops led by William Travis and James Bowie. The Treaties of Velasco established this nation’s independence after its victory in the 18-minute Battle of San Jacinto. In 1845, the United States annexed, for 10 points, what nation, whose first president Sam Houston used the rallying cry “Remember the Alamo!”?

ANSWER: Republic of **Texas** [or *República de Tejas*] <QP, History - American History> [Ed. LM]

14. This person is called *Philosopher, Psychologist, Antichrist* in the title of a work by his frequent translator, Walter Kaufmann. This philosopher called himself “Dionysus versus the crucified” in a book with chapter titles like “Why I Am So Clever” and “Why I Write Such Good Books.” This philosopher claimed that Paul the Apostle intentionally subverted the master (*) morality of the Roman Empire with the slave morality of Christianity. This philosopher’s sister, Elisabeth Förster, may have edited Nazi sentiments into his collection *The Will to Power*. In his books *The Gay Science* and *Thus Spoke Zarathustra*, this philosopher conceptualized the *Übermensch*. For 10 points, name this German philosopher who proclaimed that “God is dead.”

ANSWER: Friedrich (Wilhelm) **Nietzsche** (“neet-chuh”) <SB, Social Sciences - Philosophy> [Ed. QP]

15. Mummified birds have been found in this desert near the oasis town of Pica, which is famous for its small and acidic limes. This desert is created by the Humboldt current and experiences a fog called *camanchaca*. The Very Large Telescope and the Extremely Large Telescope are observatories in this desert. This desert and the Antarctic Dry Valleys have been studied for their similarity to (*) Martian environments. The deforestation of the Pampa del Tamarugal in this desert was caused by the development of the paradas method for saltpeter mining. Parts of this desert did not see rain for over 400 years. For 10 points, name this driest non-polar desert in the world, located in the two-sided rain shadow of the Andes and the Chilean Coastal Range.

ANSWER: **Atacama** Desert [or *Desierto de Atacama*] <QP, The World - Geography> [Ed. QP]

16. In category theory, compositions of functions that have this property can be written as sequences of arrows that start and end at the same objects. The center of a group is the set of its elements for which the group operation has this property. In ring theory, performing an operation named for this property on ring elements a and b yields $a \cdot b$ minus $b \cdot a$. A group is (*) abelian (“a-beel-ian”) if its operation has this property. In a field, addition and multiplication have distributivity, associativity, and this property. Subtraction has the “anti-” form of this property because a minus b equals negative quantity b minus a . For 10 points, name this property of certain operations, exemplified by a plus b equals b plus a .

ANSWER: commutativity [accept commutative, commute, commuting, commutative diagram, prompt on commutator]

<DB, Science - Math> [Ed. DB]

17. Ogden Nash wrote 26 quatrains about this activity that correspond with the letters of the alphabet. A poem about this activity references Alexander Pope’s *Essay on Man* by describing a crowd that “clung to the hope which springs eternal in the human breast.” A poem about this activity’s “Sad Lexicon” describes “ruthlessly pricking our gonfalon (“gon-fa-lin”) bubble” with “words that are heavy with nothing but trouble: (*) ‘Tinker to Evers to Chance.’” A character who plays this sport fails to bring joy to fans of the Mudville Nine after his teammates, Flynn and Jimmy Blake, unexpectedly hit a single and a double. Ernest Lawrence Thayer wrote a poem about, for 10 points, what sport played by Casey, who strikes out “at the Bat?”

ANSWER: baseball

<LM, Literature - Poetry> [Ed. SB]

18. A "weapon" in this industry consisted of iterative five percent supply cuts and an embargo on exports to certain countries. In 2016, a “plus” was added to the name of an organization in this industry when ten additional countries including Mexico and Russia joined. The world’s largest sovereign wealth fund, Norway’s Government Pension Fund, is derived from (*) profits in this industry. Saudi Arabia refused to allow for production changes in this industry to address 2010s “glut” of this resource partially spurred by new methods like fracking. For 10 points, name this industry which includes companies like Exxon-Mobil and BP.

ANSWER: crude oil industry [accept petroleum industry; accept gas industry; prompt on fossil fuel industry] (the third line is about OPEC, which is now OPEC+)

<LM, Social Science - Other> [ed. RR]

19. The Xi’an Incident in this decade led to a temporary truce in the Encirclement Campaigns. A small dynamite explosion on a railway early in this decade was blamed on Chinese dissidents in the Mukden Incident. The Marco Polo Bridge Incident occurred in this decade, where a separate event saw the Chinese Red Army forced to flee to the North and West of the country in the (*) Long March. Japan withdrew from the League of Nations in this decade after invading Manchuria, and later in this decade the Japanese Imperial Army murdered upwards of 300,000 civilians in the Rape of Nanking. For 10 points, name this decade whose second half saw the beginnings of the Second Sino-Japanese War and World War 2.

ANSWER: 1930s

<LM, History - World History> [ed. LM]

20. **Heusler** (“*hoi-slur*”) alloys are examples of these objects composed of materials that are not these objects. The behavior of these objects cannot be explained by classical theories and was first explained by the alignment of **Weiss** (“*wees*”) domains and the application of the **2D Ising** (“*icing*”) model. These objects display a characteristic **hysteresis** (“*hiss-ter-ee-sis*”) loop that has jagged **Barkhausen** (“*bark-how-zen*”) jumps from material defects and heating them past the (*) Curie Point causes them to lose their special properties. A visualization of the field lines around one of these objects will move from the north to the south end. For 10 points, name these objects that create a field that attracts certain metals.

ANSWER: ferromagnet [accept permanent magnet or word forms]

<JF/LM, Science - Physics> [Ed. JF]

21. This card is given the highest rank in the Jass group of card games, including Clobyosh. This card appears in diamonds in the namesake meld of **Pinochle**. (“*pee-knuckle*”). A form of poker originating from Gardena is nicknamed for requiring at least a pair of these cards to open betting. The two of these cards in the same color as trump are called the right and left in **Euchre**, (“*you-ker*”), where they are sometimes called (*) **bowers**. (“*bao-ers*”). The spades and hearts suits for this card are traditionally depicted in profile, and often called one-eyed. A reaction-based game revolves around slapping this card. For 10 points, name this lowest-ranking face card, ranked above 10 and below queen.

ANSWER: jack [or knave; accept **J**; accept bower before mention]

<SB, Pop Culture - Games> [Ed. SB]

22. It’s not a lion, but depictions of Heracles’ abandoned son Telephus frequently show him being suckled by one of these animals. Upon seeing one of these animals, Otos and Ephialtes, the twin sons of Poseidon, accidentally threw their spears at each other and killed one another. After killing one of these animals, Agamemnon is required to sacrifice his daughter Iphiginea. As part of his third labor, Heracles spent a year targeting one of these animals in (*) Ceryneia. Actaeon is killed by his own hunting dogs after being turned into one of these animals. This animal was sacred to Artemis, with her chariot being pulled by six of them with golden horns. For 10 points, name these woodland animals with antlers.

ANSWER: deer [accept stag or hind]

<LM, Beliefs - Stories> [Ed. LM]

23. This composer cycled through upper class, working class, and peasant themed music in their *El Salon Mexico*. A woodblock punctuates a light piano section in a piece by this composer that also features sixteenth note xylophone rhythms. Sharp timpani and gong hits accompany the brass section in a piece by this composer written after America’s entry into World War (*) Two. This composer of *Fanfare for the Common Man* also composed a ballet that includes the song “Ranch House Party.” Martha Graham choreographed a work by this composer that includes variations on the Shaker hymn “Simple Gifts.” One ballet by this composer ends with the song “Hoe Down.” For 10 points, name this American composer of *Appalachian Spring* and the ballet *Rodeo*.

ANSWER: Aaron Copland

<LM, Fine Arts - Classical Music> [Ed. QP]

24. In a novel by this author, castaways end up on Lincoln Island, the hideout of Prince Dakkar. This author of *The Mysterious Island* wrote a trilogy about the Baltimore Gun Club, who design massive cannons for bizarre feats like changing Earth's axial tilt and sending a rocket to the moon. Professor Otto Lidenbrock rappels into an Icelandic (*) volcano and emerges from an Italian one in another novel by this author. Phileas Fogg wins a bet due to time zones in a novel by this author, who also wrote about Captain Nemo's adventures aboard the *Nautilus*. For 10 points, name this French science fiction author, whose *Voyages Extraordinaires* includes *Journey to the Center of the Earth*, *Around the World in 80 Days*, and *Twenty Thousand Leagues Under the Sea*.

ANSWER: Jules Gabriel Verne (*The Mysterious Island* is a sort-of sequel to *Twenty Thousand Leagues Under the Sea*; and Prince Dakkar is the real name of Captain Nemo)

<QP, Literature - Novels> [Ed. SB]

BONUSES

1. The concept of *xenia*, or hospitality, was not to be taken lightly in Greek myth. For 10 points each:

[10e] This god had the epithet *Xenios* for his role protecting strangers and enforcing *xenia*. This deity ruled as king of the gods on Mount Olympus and carried a lightning bolt.

ANSWER: Zeus

[10m] Antinous and Eurymachus are among the many suitors who blatantly violate *xenia* in their attempt to court this woman, leading them to be slaughtered by her husband when he returns at the end of the *Odyssey*.

ANSWER: Penelope

[10h] After a disguised Zeus and Hermes were denied hospitality by everyone in town except for Baucis and Philemon, they sent a flood that wiped out the entire town except for the elderly couple, who were allowed this fate.

ANSWER: turned into trees [accept answers clearly describing being transformed into a tree, prompt on answers like transformation]

<LM, Beliefs - Stories> [Ed. QP]

2. This work features a thought experiment about a squirrel on a tree, and a man trying to “go round” the squirrel, but the squirrel always moves to keep the tree between them. For 10 points each:

[10m] Name this series of lectures by William James, subtitled “a new name for some old ways of thinking.” Its titular school of thought emphasizes the “cash value” of ideas.

ANSWER: Pragmatism: *A New Name for Some Old Ways of Thinking*

[10e] In *Pragmatism*, James argues that this concept is a process that happens to an idea, as opposed to rationalists, who believe that either this concept or falsehood is an innate property of the idea.

ANSWER: truth [or word forms like true]

[10h] James credits the name “pragmatism” to this thinker, who wrote the essays “The Fixation of Belief” and “How to Make Our Ideas Clear.”

ANSWER: Charles Sanders Peirce (“purse”)

<QP, Social Sciences - Philosophy> [Ed. QP]

3. For 10 points each, answer the following about the United States' diplomatic relations with Britain and France during the Napoleonic Era.

[10h] In one notable incident, the HMS *Leopard* forcibly boarded this American ship. The assault on this vessel, named after a body of water, was ostensibly to capture British deserters.

ANSWER: USS Chesapeake [accept the Chesapeake-Leopard affair]

[10m] Congress passed this piece of legislation thanks to public pressures over incidents like the Chesapeake-Leopard affair. A political cartoon about this act depicts a turtle biting the butt of a man clinging to a barrel.

ANSWER: Embargo Act of 1807 [prompt on Embargo Act]

[10e] The Chesapeake-Leopard incident and the Embargo Act occurred during this man's presidency. More cordial relations included this president's completion of the Louisiana Purchase.

ANSWER: Thomas Jefferson

<AP, History - American History> [Ed. QP]

4. This poem was directly inspired by Dante's *Inferno*, and its nine lines and conic shape mimic the layers of hell. For 10 points each:

[10h] Name this poem whose speaker ponders the end of the world at the hands of the two title concepts, which are personified as "desire" and "hate."

ANSWER: "Fire and Ice"

[10m] In another poem by the same author, this place is called "lovely, dark, and deep." The speaker passes by this unnamed place, noting "I have promises to keep and miles to go before I sleep."

ANSWER: the woods [accept "Stopping by Woods on a Snowy Evening"]

[10e] "Fire and Ice" and "Stopping by Woods on a Snowy Evening" are by this American poet who "took the road less traveled by" in "The Road Not Taken."

ANSWER: Robert Frost

<PQ, Literature - Poetry> [Ed. PS]

5. For 10 points each, answer the following about the few volcanoes in the world that have persistent lava lakes.

[10m] The caldera of this most active volcano in Antarctica contains a persistent lava lake. A namesake type of crystal is ejected in glassy volcanic bombs during this volcano's many Strombolian eruptions.

ANSWER: Mount Erebus

[10e] Another persistent lava lake is located in Erta Ale, in the Afar Region of this country. The Afar Triangle covers parts of Eritrea, Djibouti, and this landlocked country in the Horn of Africa.

ANSWER: Ethiopia [or Ītyōṗṗyā, or Itiyoophiyaa, or Itoophiyaa, or Itoobiya]

[10h] This South Pacific island nation has two persistent lava lakes. One of them at Mount Yasur is sacred to this country's John Frum cargo cult.

ANSWER: Vanuatu

<QP, The World - Geography> [Ed. QP]

6. Along with microfilaments and intermediate filaments, these polymers form the cytoskeleton. For 10 points each:

[10m] Name these cylindrical polymers that are roughly 25 nanometers in diameter. Flagella consist of a "nine plus two" arrangement of these polymers.

ANSWER: microtubules [prompt on MTs]

[10h] These motor proteins, which are contrasted with dyneins, typically transport cellular cargo by "walking" from the center of the cell to its periphery along a microtubule

ANSWER: kinesins

[10e] Kinesins and dyneins are involved in axonal transport, in which cargo is transported along these cells' axons. The brain is mainly made up of these cells.

ANSWER: neurons [or nerve cells]

<SB, Science - Biology> [Ed. DB]

7. The composer of this *adagio* movement said it was a record of a “long summer evening” talk with a friend about the beautiful music of Beethoven. For 10 point each:

[10h] Name this movement of a larger work dedicated to and punning on the name of Augustus J. Jaeger, the composer’s publisher and editor.

ANSWER: Nimrod [accept **Variation IX** (Adagio) of *Variations on an Original Theme* or the **9th** movement of the *Enigma Variations*] (Nimrod is a biblical hunter and Jaeger is German for “hunter”)

[10m] Nimrod is the ninth of this English composer’s *Enigma Variations*.

ANSWER: Edward Elgar [or Sir Edward William **Elgar**, 1st Baronet]

[10e] Elgar also composed a tune commonly played at graduation ceremonies titled “[this word] and Circumstance.”

ANSWER: pomp [accept the **Pomp and Circumstance** Military Marches]

<PQ, Fine Arts - Classical Music> [Ed. QP]

8. For 10 points each, answer the following about the 1533-1656 Sultanate of Women.

[10e] The Sultanate of Women was a period of increased political influence of the wives and mothers of this empire’s Sultans. This empire conquered Constantinople in 1453.

ANSWER: Ottoman Empire

[10h] The Sultanate of Women began with Hürrem Sultan’s marriage to this Ottoman ruler. This leader of the 1529 siege of Vienna was preceded by **Selim I** (“*se-leem the first*”) and succeeded by his son Selim II.

ANSWER: Suleiman the Magnificent [or **Suleiman I**, accept **Suleiman the Lawgiver**, prompt on **Suleiman**]

[10m] One project commissioned by the Sultanate of Women was an imperial one of these buildings sometimes named for the Valide Sultan. The Hagia Sophia became one of these buildings after the conquest of Constantinople.

ANSWER: mosque

<LM, History - World History> [Ed. QP]

9. A story about this activity among refugees at Kweilin reveals to the protagonist that she has two lost sisters. For 10 points each:

[10h] Name this activity. A group of four families, including the St. Clairs and the Woos, meet regularly at a Baptist church to tell stories and do this activity.

ANSWER: mahjong rummy [do not accept or prompt on “rummy”]

[10m] 16 mahjong tiles structure the 16 stories encompassing this novel by Amy Tan, in which four Chinese families form a group to play it.

ANSWER: The Joy Luck Club

[10e] Amy Tan was part of the Rock Bottom Remainers, an amateur rock band composed of popular American authors performing for charity. Her bandmates included this “King of Horror” who wrote *Carrie* and *The Shining*.

ANSWER: Stephen King

<PQ, Literature - Novels> [Ed. SB]

10. Players in this sport are known as *rikishi*, (“ree-kee-shee”), and often live, eat, and train together in groups known as stables. For 10 points each:

[10e] The only item of clothing players wear in this sport is a loincloth known as a *mawashi*. (“ma-wa-shee”). Since there are no weight classes in this sport, players are generally very large in size and in weight.

ANSWER: sumo wrestling

[10m] At the beginning of each sumo match, this substance is spread around to purify the match ring. In Shintoism, this substance is said to be offered to *kami* to ward off evil spirits.

ANSWER: salt

[10h] Five of the six most recent wrestlers to achieve the rank of *yokozuna* (“yo-ko-zu-na”) are from this country, including the current *yokozuna*, *Terunofuji Haruo*. (“te-roo-no-fuji ha-roo-oh”). This country's "Three Manly Skills" are wrestling, horse riding, and archery.

ANSWER: Mongolia

<SH, Pop Culture - Other> [Ed. RR]

11. This concept is analogized as an “iron maiden” in a book by Naomi Wolf. For 10 points each:

[10m] Name this concept whose standards are a *Myth* according to Wolf. In philosophy, this concept is often contrasted with the sublime.

ANSWER: beauty [or word forms like **beautiful**; accept reasonable equivalents like **pretty** or **attractive**]

[10e] Naomi Wolf's *The Beauty Myth* is a work of this movement's third wave. A work by Rebecca Solnit from this movement's current fourth wave gave rise to the term “mansplaining.”

ANSWER: feminism [accept third-wave **feminism** or fourth-wave **feminism**]

[10h] Third-wave feminism also saw the rise of this underground subculture in the Pacific Northwest. Kathleen Hanna fronted the band Bikini Kill, which started this punk subculture.

ANSWER: riot grrrl [or **riot girl**]

<SB, Social Science - Other> [Ed. RR]

12. Approximately 500 trillion of these particles will pass through my body while I read this sentence. For 10 points each:

[10m] Name these nearly massless fermions that come in electron, muon, and tau flavors.

ANSWER: neutrinos [accept **electron neutrinos**, **muon neutrinos**, or **tau neutrinos**]

[10h] Via this phenomenon, a neutrino's flavor may change over time. This phenomenon causes observatories to detect fewer electron neutrinos from the Sun than would be expected in its absence.

ANSWER: neutrino oscillation

[10e] Many neutrinos on Earth originate from the first step of the Sun's fusion process, which is named for these particles. The nucleus of an atom contains neutrons and these particles.

ANSWER: proton [accept **proton-proton** chain reaction; prompt on **p** or **p-p** chain reaction]

<DB, Science - Physics> [Ed. DB]

13. For 10 points each, answer some questions about art museums that are works of art in themselves:

[10e] While most of this museum was built in the 12th century as a palace for King Philip II, its most iconic feature is a glass pyramid added by I.M. Pei in 1984.

ANSWER: the **Louvre** Museum

[10m] Frank Gehry designed a museum for this foundation in Bilbao with a titanium facade resembling a flowing cloak. A New York museum owned by this foundation was designed around a continuous spiral staircase.

ANSWER: the Solomon R. **Guggenheim** Foundation [accept the Solomon R. **Guggenheim** Museum or the **Guggenheim** Museum Bilbao]

[10h] Richard Meier used 16,000 tons of Italian limestone in the design of this museum, with an elevated cactus garden that overlooks Los Angeles.

ANSWER: the **Getty** Center [accept the J. Paul **Getty** Museum; do not accept or prompt on “the Getty Villa”]
<VS, Fine Arts - Other Visual> [Ed. SB]

14. A joke this character tells about things that are not “fair” causes one man to show him “a real Batsuo arse” before this character spits in that man’s face. For 10 point each:

[10h] Name this character. This character is reminded that “you can’t fly kites on rainy days” by Sam, who built a kite for this character but was not able to fly it with him after this character sat down on a “Whites Only” bench.

ANSWER: **Hally** [accept Master **Harold**]

[10e] *Master Harold...and the Boys* is a play by Athol Fugard, an author from this country. Fugard’s plays frequently criticized this country’s system of apartheid.

ANSWER: **South Africa**

[10m] *Master Harold...and the Boys* opens with Willie dancing while Sam reads one of these things. Scott McCloud described how “gutters” on these pieces of “visual sequential art” create closure in *Understanding* [these things”]

ANSWER: **comic** books [accept **graphic novels**] (“gutters” are the white spaces between panels in comic books)
<PS, Literature - Drama> [Ed. PS]

15. One ruler of this city asked a rival city to give her six birds from each house, to which she attached flaming sulfur to the birds and released them back home, burning the rival city to the ground. For 10 points each:

[10m] Name this city ruled by Saint Olga after her husband Igor’s death. Vladimir the Great introduced Christianity to this city, which was the center of a medieval federation in Eastern Europe.

ANSWER: **Kyiv** [accept **Kiev**, accept **Kievan Rus**]

[10h] Olga and the other rulers of the Kievan Rus belonged to a group of Vikings dubbed this term by the Byzantine Empire. Byzantine emperors also employed a “Guard” known by this term as their protective force.

ANSWER: **Varangian** [accept **Varangian** Guard]

[10e] After Olga requested that Otto I of this empire appoint bishops and priests for Kyiv, he sent them the first archbishop of Magdeburg. Voltaire quipped that this empire was neither of the three words in its name.

ANSWER: **Holy Roman Empire**

<LM, History - European History> [Ed. QP]

16. This material can be synthesized by applying a DC arc discharge across graphite electrodes. For 10 points each:
[10m] Name this material, long tubes of a certain element whose exceptional strength gives it unique applications like superconductors and space elevators.

ANSWER: carbon nanotubes [prompt on nanotubes]

[10e] In addition to arc discharge, nanotubes can be produced from iron carbonyl immersed in this gas at high pressure. Most homes have detectors for this colorless, odorless, tasteless, and toxic gas.

ANSWER: carbon monoxide [or CO]

[10h] Nanotubes can also be produced by this process, more widely used in the semiconductor industry. This process involves exposing a wafer of a substrate to volatile precursors to create the desired thin film on the substrate.

ANSWER: chemical vapor deposition [or CVD]

<QP, Science - Chemistry> [Ed. MS]

17. After developing “engaged Buddhism” and being nominated for a Nobel Peace Prize by MLK, Thích Nhất Hạnh was allowed to return to Vietnam before dying in 2022. Answer some questions about his ideas, for 10 points each:

[10m] Nhất Hạnh was a member of this school of Mahayana Buddhism. This school, which emphasizes meditation, was legendarily founded by Bodhidharma, and its Japanese sects include Soto and Rinzai.

ANSWER: Zen Buddhism [or Chan Buddhism, or Thiền Buddhism]

[10e] In the title of one of Nhất Hạnh’s books, he describes Vietnam as one of these flowers “in a sea of fire.” These flowers also name a central Mahayana sutra and a meditation position.

ANSWER: lotus [accept *Vietnam: Lotus in a Sea of Fire*, accept Lotus Sutra, accept lotus position]

[10h] In *Being Peace*, Nhất Hạnh uses this term to describe verses recited rhythmically to practice mindfulness. In Zoroastrianism, this term refers to seventeen Avestan hymns written by Zoroaster that form the core of the Yasna.

ANSWER: gathas

<QP, Beliefs - Practices> [Ed. DC]

18. Professor David Rigler led a team studying this person to test the critical period hypothesis of language learning. For 10 points each:

[10h] Name this feral child, a victim of neglect who was locked in her room for most of her early life in the 1960s. After being rescued, this person became a frequent psychological case study in language development.

ANSWER: Genie Wiley

[10e] The discovery that Genie could develop language skills in different parts of the brain altered the theory of lateralization, which posits that certain skills are divided between these two, globe-like, halves of the brain.

ANSWER: hemispheres

[10m] On other psychological testing, Genie achieved the highest recorded score at the time on the Mooney Test to recognize these things. People with prosopagnosia have a “blindness” for these things.

ANSWER: faces

<PQ, Social Sciences- Psychology> [Ed. RR]

19. In 2021, Maurizio Cattelan had his first solo exhibit in China, including *Bidibidobidiboo*, a work consisting of a taxidermied squirrel slumped over a mini dinner table. Answer some questions about his works, for 10 points each:
[10h] Cattelan's photorealistic sculpture *La Nona ora* depicts a man with this title being crushed by a meteorite. Francis Bacon depicted several men with this title screaming in frames that resemble cages.

ANSWER: popes [accept **Pope** John Paul II or **Pope** Innocent X]

[10m] In 2016, Cattelan unveiled *America*, a fully-functioning toilet made out of this material. During Gustav Klimt's "phase" named for this material, he used it liberally in works like the *Stoclet Frieze* and *The Kiss*.

ANSWER: gold [accept **gold** leaf]

[10e] Cattelan gained viral fame in 2019 for *Comedian*, a work featuring one of these fruits duct-taped to a wall, which sold for 120,000 dollars. Later, performance artist David Datuna took this fruit off the wall and ate it.

ANSWER: bananas

<SB, Fine Arts - Painting and Sculpture> [Ed. DC]

20. For 10 points each, answer the following about research conducted in Antarctica.

[10m] The WISSARD expedition discovered bacteria that metabolize methane in a subglacial one of these entities. When CO₂ builds up in these entities they undergo limnic eruptions.

ANSWER: lake [or subglacial **lake**; prompt on "body of water" and other vague answers]

[10h] Data from Antarctic ice cores provides evidence for this model of climate. In these cycles named for a Serbian scientist, factors like eccentricity, axial tilt, and precession are combined to predict the effect of ice ages.

ANSWER: Milankovitch cycles

[10e] Glaciologists at Antarctic stations research the Antarctic ice sheets, whose melting contributes to this phenomenon that threatens to submerge many Pacific island nations.

ANSWER: sea level rise [accept equivalents]

<QP, Science - Other Science (Earth Science)> [Ed. MS]

21. Modern Egyptologists believe these people were Canaanite groups who gradually settled Egypt. For 10 points each:

[10h] Name these people of probable Levantine origin, who are also credited with introducing numerous technological innovations to ancient Egypt, such as the chariot and composite bow.

ANSWER: Hyksos

[10m] The Hyksos ruled Egypt alongside the sixteenth and seventeenth dynasties, which were centered in this Egyptian city. This city shares its name with a Greek city ruled by Cadmus and Oedipus in mythology.

ANSWER: Thebes

[10e] Jewish historian Josephus claimed the Hyksos founded this city after being expelled from Egypt. This capital city of the Kingdom of Judah is a holy city in all three major Abrahamic religions.

ANSWER: Jerusalem

<LM, History - Other History> [Ed. QP]

22. Reading classic literature for quiz bowl has never been easier due to public digital libraries. For 10 points each:

[10e] The oldest digital library is a "Project" named for this man who introduced the movable-type printing press.

ANSWER: Johannes Gutenberg [or Johannes Gensfleisch zur Laden zum **Gutenberg**; accept Project **Gutenberg**]

[10m] This English text archive was the first to publish a book in HTML. Barnes and Noble now owns this site, which is named after a literary character who responds to most requests with "I would prefer not to."

ANSWER: Bartleby.com [accept **Bartleby** the Scrivener]

[10h] A digital archive for texts in this language has a name that translates to "Blue Sky Library." Classic stories written in this language include *Dragon: The Old Potter's Tale* and *In A Grove*.

ANSWER: Japanese

<PQ, Literature - Other> [Ed. SB]

23. This project began as a tree-planting effort, but has expanded to address water quality, food security, and land use. For 10 points each:

[10h] Name this ongoing multi-billion-dollar project aimed to slow down the desertification of the Sahel.

ANSWER: Great Green Wall for the Sahara and the Sahel Initiative

[10m] The Great Green Wall is a project led by this continental government body, a collection of 55 member states, many of whom are threatened by the expansion of the Sahara Desert.

ANSWER: African Union (accept **AU**)

[10e] Nobel Laureate Wangari Matthai started the similar Green Belt Movement in this East African country. The movement protested against the construction of a skyscraper in Uhuru Park, located in this country's city of Nairobi.

ANSWER: Kenya

<PQ, The World - Current Events> [ed. KJ]

24. For 10 points each, answer some questions about recent horror film franchise installments:

[10h] 2022 saw the first addition to the *Scream* franchise since the death of this director of the first 4 movies. This director revitalized the slasher genre with the film *A Nightmare on Elm Street*.

ANSWER: Wes Craven [or Wesley Earl **Craven**]

[10e] Another 2022 film continued a long-running horror franchise in which Leatherface massacres people in Texas using this tool.

ANSWER: chainsaw [accept *Texas Chainsaw Massacre*; prompt on saw]

[10m] A 2021 film revived this franchise, which centers around an urban legend in central Chicago. The title figure of this franchise has a hook for a hand and a ribcage full of bees.

ANSWER: Candyman

<PQ, Pop Culture - Film> [Ed. SB]