

Tossups

0. These objects appear on the album cover of Jefferson Airplane's *Thirty Seconds Over Winterland*. Delrina produced a screensaver in which Opus the Penguin shoots these objects down. A 911 operator hangs up on a man because he didn't read the man page for one of these objects, which grows an arm and stabs him in the face in an *xkcd* comic. The HardBrick Hotel in *Hotel Mario* suffers power problems because too many of these objects are plugged in a secret room. A classic After Dark screensaver describes (*) flying ones that come from the sun. A living one of these objects "Goes to Mars" to save a baby named Robbie. That same object is accompanied by Lampy, Blanky and Radio in an animated film. The objective of the game *I Am Bread* is to reach one of these objects. For 10 points, name these appliances, one of which is described as "brave" and "little" in an animated film.

ANSWER: toasters <KG>

1. In a play by this author, a character draws four feet to prove that he has cut off the feet of his oppressors, then draws lines above them when asked "What about the smell?" In that play by this author, a poor Algerian named Said marries the ugly Leila and becomes a thief. Three men represent blood, tears, and sperm in a dream scene from another play by this author. In that play, the activities of characters like the (*) Bishop and the General are interrupted by screams and machine gun fire. In his most famous play, the Chief of Police asks Carmen if he appears in any of the fantasies of her clients. In that play, a revolution takes place outside while various people engage in role-playing in Irma's brothel. For 10 points, name this French playwright of *The Screens* and *The Balcony*.

ANSWER: Jean Genet <WN>

2. Petschek's fast model for changes in these entities' structure involves a small diffusion region and in two dimensions that process can only occur at X points. Particles will be reflected by these entities where a ratio of their magnitude equals the sine of the pitch angle squared. This quantity moves with the local plasma velocity according to Alfven's theorem. The restoring force applied by the tension of this quantity gives rise to (*) Alfven waves, as described by a discipline which uses the Navier-Stokes equations to analyze interactions between this quantity and plasma. Z and theta pinches use this quantity to confine plasma, as do tokamaks, and q times E plus v cross this quantity is equal to the Lorentz force. For 10 points, name this field which is created by moving electric charges.

ANSWER: magnetic field [or magnetic induction, or H or B field] <BM>

3. This philosopher proposed three types of essence: those that exist in the external world, those that exist in the mind, and those that have no mode of existence. He has sometimes been considered a mystic because of the last sections of his *Pointers and Reminders*. His magnum opus is an encyclopedia of science and philosophy whose title indicates that it is meant to cure ignorance. This philosopher argued for the existence of the soul with a (*) thought experiment about a man suspended in the air with no sensory awareness, his "floating man" thought experiment. Along with al-Farabi, he was the major target of al-Ghazali's *The Incoherence of the Philosophers*. For 10 points, name this Islamic Golden Age philosopher who wrote the *The Book of Healing* and *The Canon of Medicine*.

ANSWER: Avicenna [or ibn Sina] <WN>

4. Priests from the Atsuta Shrine traveled to villages to perform this action to drive out malevolent spirits. The founder of a faith centered on doing this action had a vision during a solar eclipse on New Year's Day. A

black shroud called a *khirqa* is removed before performing a type of this action, which is done while wearing a *sikke* cap and a white *tennure*. The name of the religion (*) Candomblé literally means doing this action “in honor of the gods.” This action is done as part of kagura in Shinto, which recalls Ame-no-Uzume’s attempt to do this to lure Amaterasu out of a cave. The Mevlevi order performs a type of this action to achieve *dhikr*, the remembrance of God. A movement that believed performing this action would unite the human and spirit worlds was led by Wovoka. For 10 points, name this religious action done by the Sufi Whirling Dervishes.

ANSWER: dancing [accept word forms; or whirling until it is read] <KG>

5. This novel ends with the protagonist begging God: “I’m too tired and old to learn to love, leave me alone forever.” A boy’s sudden recovery from appendicitis and the clearing of a strawberry birthmark from a preacher’s face are miracles posthumously attributed to a woman in this novel. The protagonist of this novel leaves a funeral with Waverly’s girlfriend and hires the detective Alfred Parkis, who recovers a woman’s diary. The title event of this novel is precipitated by a (*) V-1 rocket exploding during an air raid in front of an apartment where a couple has just had sex. In this novel, the wife of the civil servant Henry flees from the protagonist into a rainy night, catching the pneumonia that kills her. For 10 points, name this novel in which Sarah Miles breaks off her liaison with Maurice Bendrix, by Graham Greene.

ANSWER: *The End of the Affair* <AG>

6. This country, where a Ragged Guard was established after World War I, was the site of Operation Spring Awakening, one of the last major German offensives of World War II. Residents of this country were rounded up, taken to Kamianets-Podilskyi, and killed during one of the earliest actions of the Einsatzgruppen. A plot that involved rolling up the son of this country’s leader in a carpet eventually brought the (*) Arrow Cross Party to power. That plan, Operation Panzerfaust, was orchestrated by Otto Skorzeny. Thousands of Jews in this country during World War II were issued Swedish passports by Raoul Wallenberg. After World War II, thousands of this country’s residents were involved in a population exchange with Slovaks from neighboring Czechoslovakia. For 10 points, name this country where the kidnapping of Miklos Horthy, Jr. prompted the Soviets to besiege Nazi-occupied Budapest.

ANSWER: Hungary [or Magvarország] <KG>

7. In Ovid’s *Metamorphoses*, Diomedes tells Aeneas he can’t lend him soldiers because this action occurred to his men after one of them named Acmon insulted Venus. After Anthus was eaten by horses, Zeus and Hermes did this to the rest of his family. After Althaea causes Meleager’s death, Diana does this to his grieving sisters. This happened to Thracian king Tereus, after it also happened to his would-be victims (*) Procne and Philomela as they ran away from him. Even though they offended the gods by calling each other Zeus and Hera, this happened to Ceyx and Alcyone after their deaths. Zeus did this to himself in order to obtain the form he would abduct Ganymede in. For 10 points, name this transformation that Zeus himself underwent before he seduced Leda in the form of a swan.

ANSWER: being turned into a bird [accept equivalents that imply change or transformation; accept answers that mention specific birds like swan, swallow, nightingale, kingfisher, eagle, guinea fowl, and even the hoopoe] <SD>

8. This group began staging ceremonies whose name literally means “land-days” after their subjugation of Mattau. Delegates from this organization’s six chambers were collectively known as the Lords Seventeen. Isaac Le Maire often tried to thwart this group, whose local leaders had a title meaning “upper-head.” This group lost the Battle of Colachel as part of their war against the Travancore. This organization eradicated the native population of the Banda Islands. This organization waterboarded and executed some of its competitors in the (*) Amboyna massacre. Coxinga kicked this company out of Taiwan after the Siege of Fort Zeelandia. This

company established Batavia as its center of operations. It minted coins with its abbreviation “VOC” on them. For 10 points, name this competitor of the British East India Company headquartered in Amsterdam.

ANSWER: Dutch East India Company [or United East India Company; accept VOC or Vereenigde Oost-Indische Compagnie until “VOC” is read] <WN>

9. Keith Quincy’s monograph on this ethnic group is subtitled “History of a People.” In the traditional culture of this ethnic group, the practice of bride kidnapping, known as *zij poj niam*, was common. They believe that the soul of a dead person travels back to where their placenta is buried and wears the placenta as a jacket so they can be reborn. This animistic culture believes in a condition called (*) *qaug dab peg* (“cow dah pay”). Cultural conflicts prevented the effective treatment of Lia Lee, a member of this ethnic group with epilepsy in Merced, California. This ethnic group is the subject of Anne Fadiman’s book *The Spirit Catches You and You Fall Down*. For 10 points, name this ethnic group centered in China, Vietnam and Laos.

ANSWER: Hmong [or Hmoob] <WN>

10. One of these proteins deficient in patients with LAD1 pairs with another one used as a common histological marker for microglia to form the complement receptor macrophage-1 antigen. Osteopontin and bone sialoprotein are two of the five SIBLING proteins that bind to these proteins. Rap1 is a member of the Ras GTPase family that activates these proteins. Some of these proteins recognize and bind an LDV sequence, but more of them recognize an RGD motif. These proteins can engage in “inside-out” signaling, and participate in (*) heterophilic interactions, similar to selectins but unlike cadherins. These proteins act as transmembrane adhesion proteins for focal adhesions and hemidesmosomes. For 10 points, name these proteins that play a key role in cell adhesion by linking the cytoskeleton to the extracellular matrix.

ANSWER: integrins <SD>

11. This issue was described as being “like a drip, drip, drip” in a *Meet the Press* interview. Part of this issue may have stemmed from the inaction of Huma Abedin and Cheryl Mills. Bryan Pagliano pleaded the Fifth Amendment when being questioned about this issue. Elijah Cummings and Adam Schiff argued with Committee Chairman Trey (*) Gowdy over his allegations about this issue, which became prominent after the release of Sidney Blumenthal’s communications. During an October 2015 debate, Bernie Sanders memorably stated that Americans are “sick and tired” of hearing about this “damn” issue. For 10 points, identify this issue that initially stemmed from the deletion of over 32,000 documents about the Benghazi attacks by a former Secretary of State.

ANSWER: Hillary Clinton using a private email server [accept Clinton not using official her State Department email; or Clinton deleting emails; prompt on anything mentioning Benghazi until it is read by asking “what was done in response?”] <KG>

12. The Lex Claudia forbade any member of this institution from owning a seaworthy ship with a tonnage of 300 or more amphorae. Supporters of Publius Clodius Pulcher burned down a meeting place for this group by constructing a giant funeral pyre for their murdered leader. Julius Caesar ordered the discussions of this group to be included in the *Acta Diurna*, and built them a new meeting place called the Curia Julia. Members of this institution were permitted to wear an iron ring and a (*) toga edged with a reddish-purple stripe. For a long time, membership in this institution was contingent on a minimum required income of one million sesterces. This institution “and the people of Rome” are represented by the popular acronym SPQR. For 10 points, name this powerful Roman legislative body, on which the upper house of the US Congress was modeled.

ANSWER: Roman Senate <AG>

13. Clara Schumann and Joseph Joachim may have destroyed all but the third of Robert Schumann’s piano arrangements of these pieces. In 2010, Dale Henderson began performing these pieces for free on the New York City subway. The first of them begins with an arpeggiated figure starting with an ascending [read

slowly] G-D-B, followed by an A a whole tone lower. Except for the fifth movement, which is either a “Minuet,” “Bourree,” or a “Gavotte,” these pieces all have the same six movement structure. The last of these pieces is the only one that must be played by a (*) five-stringed instrument. In the 1930s, Pablo Casals became the first to record all of these pieces. The prelude from the first one, BWV 1007, is a popular showpiece played by Yo-Yo Ma. For 10 points, name these six pieces for a solo string instrument by J.S. Bach.

ANSWER: the solo cello suites of Johann Sebastian Bach [prompt on partial answer; Bach's name is not required after it is read; accept “violoncello” for “cello”] <AG>

14. This architect’s influence in Britain is shown by the fact that Colen Campbell and William Adam both named books after him. He lends his name to a wavy moulding pattern also called the running dog pattern. Daniele Barbaro published an influential commentary on this man’s architectural theories. This man famously said that a building should have the virtues of solidity, utility and beauty. His writings are the source of the story of (*) Archimedes and the bathtub. He greatly influenced Le Corbusier’s Modulor system and Alberti’s architectural theories. His magnum opus is the ten-volume *De architectura*. For 10 points, name this Roman architect who inspired Leonardo da Vinci’s drawing of an ideally proportioned man.

ANSWER: Marcus Vitruvius Pollio <WN>

15. If the curvature of a manifold is always greater than one fourth of its max value, it’s isomorphic to one of these objects. This object is the double cover of a space whose homology group is \mathbb{Z} over \mathbb{Z} two for odd p less than the total dimension. Identifying certain points on one of these objects forms real projective space. Every vector field tangent to one of these in even dimensions will have at least one (*) singular point. This is the only compact 2-manifold with genus zero. The Banach-Tarski paradox involves cutting up one of these and rearranging it to two copies of itself. Every simply connected closed three-manifold is homeomorphic to one of these according to the Poincare conjecture. For 10 points, name these objects whose points are all the same distance from the center.

ANSWER: sphere <BM>

16. Gregory Peck narrated TV commercials against this man produced by People for the American Way. Benjamin Hooks represented a group that he said would oppose this man “until hell freezes over,” after which they’ll “skate across the ice.” A speech attacking this man describes “writers and artists” being “censored at the whim of the government.” The Video Privacy Protection Act was enacted after this man’s (*) video rental history was published. William Saxbe replaced him as acting Attorney General, a position he took on after the resignation of William Ruckelshaus. Ted Kennedy described this man’s America as one in which “women would be forced into back-alley abortions.” As Solicitor General, he fired Archibald Cox during the Saturday Night Massacre. For 10 points, name this legal scholar whose 1987 Supreme Court nomination was rejected by the Senate.

ANSWER: Robert Bork <WN>

17. A quantity representing this process is multiplied by the bulk modulus and divided by density times heat capacity in one formulation of the Gruneisen parameter. The alloy Invar resists this process, which is the last step of adiabatic demagnetization. Temperature change during this process is positive or negative depending on whether it occurs above or below the (*) inversion temperature. A throttling device allows fluids to undergo this process freely, leading to the Joule-Thomson effect. An example of this process in one dimension considers a change in length in long thin rod and uses its namesake coefficient as a proportionality constant. For 10 points, name this thermal process whereby objects usually increase in volume upon heating, contrasted with compression.

ANSWER: thermal expansion <SD>

18. This island “starts to hum / like music in a dream,” and is made “paper-white” by a full moon in a poem by Elizabeth Bishop, who lived here with her Vassar classmate Louise Crane. A character who calls the inhabitants of this island “conchs” deals with the crooked lawyer Robert “Bee-lips” Simmons. This speaker of

a poem asks his companion why the “glassy lights” on this island fixed “emblazoned zones and fiery poles, arranging, deepening, enchanting night,” and finds himself arranged “in ghostlier demarcations, keener sounds.” A fisherman who (*) smuggles Chinese and Cuban immigrants, named Harry Morgan, is based out of this island in *To Have and Have Not*. A house in this island overrun with polydactyl cats is where an author penned his story “The Snows of Kilimanjaro.” For 10 points, name this island where Hemingway lived, the setting of a Wallace Stevens poem about its “Idea of Order.”

ANSWER: Key West <AG>

19. An artist from this modern-day country often projects photographs onto his canvases and then traces them, before applying his trademark “blur” effect. That artist from this country made a series of paintings of candles, one of which was used on the cover of Sonic Youth’s *Daydream Nation*. The *documenta* exhibition takes place every five years in this country. An artist from this country depicted a journalist wearing a monocle with a cocktail in front of her, and showed a man with two wooden legs in the left panel of his (*) *Metropolis* triptych. A 1937 art exhibition in this country featured paintings hung off-kilter with critical text on the walls, in order to emphasize that art’s “degenerate” nature. For 10 points, name this country home to Gerhard Richter and Otto Dix.

ANSWER: Germany [or Federal Republic of Germany; or Bundesrepublik Deutschland] <WN>

20. In this novel, a woman is nursed back to health in the relative safety of the Two-Step Tavern, which sharply contrasts with a police station where Fedina’s baby dies of starvation in her arms. Distraught at the social inequality following a devastating 1917 earthquake, the author wrote a story titled “The Political Beggars,” which became this novel. This novel begins with one of the beggars sleeping on the Cathedral Porch murdering a man who mockingly yelled (*) “Mother!” into his ear. This novel ends with a pair of tragedies for Camila, whose husband is arrested en route to Washington D.C. on government business, and whose father General Canales dies leading a rebellion against the title character. The Zany is saved from a buzzard by this novel’s protagonist, Miguel Angel Face. For 10 points, name this dictator novel by Guatemalan author Miguel Asturias.

ANSWER: *El Senor Presidente* [or *Mister President*] <AG>

Tiebreaker: The T2K experiment to measure these particles’ parameter theta-sub-1-3 uses an off-axis beam of these particles produced at the proton accelerator J-PARC. An experiment studying these particles used cadmium chloride to detect products of their interactions with protons. A perchloroethylene tank was used to detect these particles in an experiment where the final measurement was (*) one-third of what was predicted, leading to the solar problem of these particles. These particles which may be detected by looking for Cerenkov radiation in large underground chambers of water at experiments Homestake and Super-Kamiokande. Kajita and McDonald won the 2015 Nobel Prize for discovering their flavor oscillations. For 10 points, name these very light leptons that come in electron, muon, and tau varieties.

ANSWER: neutrinos <SD>

MLK 2016: Amusing Subtitle

Packet 13

Bonuses

1. At one point in this album, one of the singers bungled part of di Capua’s “O Sole Mio,” but was mimicked by the others, saving the show and delighting the audience. For 10 points each:

[10] Name this album conducted in 1990 by Zubin Mehta with the orchestras of the Maggio Musicale Fiorentino and Teatro dell’Opera di Roma on the eve of the World Cup final. It became the best-selling classical album of all time.

ANSWER: Carreras Domingo Pavarotti in Concert [or *The Three Tenors in Concert*]

[10] This aria, which was encored at the performance, was also famously sung by Pavarotti at the final performance of his career. Calaf assures that “none shall sleep tonight” in this aria from *Turandot*.

ANSWER: “Nessun dorma”

[10] The Three Tenors often performed traditional songs from this city, such as “Torna a Surriento,” “Funiculi, Funicula,” and the aforementioned “O Sole Mio.”

ANSWER: Naples [or Napoli; or Neapolis; or Napule] <AG>

2. If one improves a fraction, f , of a computation by a speedup of S , this law gives the effective speedup as the reciprocal of one minus the f plus f over S . For 10 points each:

[10] Name this law, often used in parallel computing, that helps one determine the actual performance increase of a system when only one part of the system is improved.

ANSWER: Amdahl's law

[10] Using Amdahl's law, one can show that using a redundant array of inexpensive examples of these things can result in better performance than using a single high RPM one. These storage devices read data from a platter using a magnetic head and are examples of non-volatile memory.

ANSWER: hard disk drive [or HDD; or disk drive; or computer disk; prompt on “magnetic drives”]

[10] For RAID zero, this value is its value for a single disk divided by the number of disks in the array, which is bad news for reliability. Using an exponential distribution, this value is simply one over the rate, λ .

ANSWER: mean time to failure [or MTF; or mean time between failures; or MTBF] <BM>

3. Members of this group were targeted by the Edmunds-Tucker Act, which also disincorporated their Perpetual Emigration Fund. For 10 points each:

[10] Name this group whose members committed the Mountain Meadows Massacre. One member of this group was subject of the case *Reynolds v. United States*.

ANSWER: Mormons [or Latter-Day Saints; or members of the LDS Church; or members of the Church of the Latter-Day Saints]

[10] This Mormon Senator was the subject of several early 20th century hearings that sought to expel him. During these hearings, Church president Joseph F. Smith issued a Second Manifesto banning polygamy.

ANSWER: Reed Smoot

[10] Smoot represented this state in the Senate. The Mormons followed Joseph Smith and later Brigham Young to what would become this state.

ANSWER: Utah <SD>

4. This principle is the reason that a small hole acts like a spherical source of light, and it explains the Arago spot seen when light is incident on a circular obstruction. For 10 points each:

[10] Name this principle which states that every point in a wavefront may be treated as its own source of spherical waves.

ANSWER: Huygens' principle

[10] When light is transmitted into a different medium, Huygens' principle can be used to show that this phenomenon will occur at the boundary. Snell's law gives the angle of this phenomenon.

ANSWER: refraction

[10] Snell's law may be used to derive these equations which give the transmission and reflection coefficients of light at an interface depending on angle of incidence and polarizations.

ANSWER: Fresnel equations <BM>

5. Answer the following about a common act of protest against Britain, for 10 points each.

[10] This promoter of nonviolence led the Salt March and underwent several fasts to protest the British Empire's actions in India.

ANSWER: Mahatma **Gandhi** [or Mohandas Karamchand **Gandhi**]

[10] This man died while leading a ring of Irish republicans on a hunger strike at Maze Prison. His actions were prompted by Britain's decision to revoke the Irish prisoners' Special Category Status.

ANSWER: Bobby **Sands** [or Robert Gerard **Sands**]

[10] In 1913, this act stopped the force-feeding of imprisoned suffragettes, instead allowing for their release when they were weak enough. However, the act still allowed police to re-imprison them after they recovered.

ANSWER: **Cat and Mouse** Act [or **Prisoners' Temporary Discharge for Ill Health** Act] <KG>

6. According to this doctrine, stable relationships are necessary for social harmony. For 10 points each:

[10] Name this doctrine, which emphasizes giving fixed designations to social roles, and ensuring that the holders of those roles fulfilling their associated responsibilities.

ANSWER: **rectification of names** [or **zhengming**]

[10] Rectification of names is central to the philosophy of this Chinese author of the *Analects*. His later followers included Mencius.

ANSWER: **Confucius**

[10] This key Confucian virtue refers to respect for one's parents, or one's elders in general. Guo Jujing wrote a book collecting 24 exemplars of this virtue.

ANSWER: **filial piety** [or **xiao**] <WN>

7. Answer the following about the translator power couple Richard Pevear and Larissa Volokhonsky, for 10 points each.

[10] Their first major success was an idiosyncrasy-preserving translation of this novel, which had first been rendered in English by Constance Garnett. A character in this novel says "If God does not exist, everything is permitted."

ANSWER: *The* **Brothers Karamazov** [or **Brat'ya Karamazovy**]

[10] Volokhonsky chose to keep the popular Russian expression "Mortally in love" in her translation of this Pushkin story, which had introduced the phrase. In this story, the title event prevents the sentimental teenager Marya Gavrilovna from eloping with the poor soldier Vladimir Nikolayevich.

ANSWER: "The **Blizzard**" [or "The **Snow Storm**"; or "**Met'el**"]

[10] In his "Note on the Translation" of this novel, Pevear lambasted the purging of sexuality and the verbosity of past English editions of this Alexandre Dumas book about Athos, Porthos, Aramis, and d'Artagnan.

ANSWER: *The* **Three Musketeers** [or *Les* **Trois Mousquetaires**] <AG>

8. In one of this author's novels, Swelter sleepwalks with a meat cleaver to the Hall of Spiders, where he is murdered in a duel by Flay and fed to the starving Death Owls. For 10 points each:

[10] Name this British author of *Titus Groan*, the first entry of his macabre and bizarre *Gormenghast* series.

ANSWER: Mervyn **Peake**

[10] Peake's collection *Rhymes Without Reason* was influenced by this nonsense poem, which he illustrated. In this poem, the Bellman, the Beaver, and eight others learn that the title creature was, in fact, a Boojum after all.

ANSWER: "The **Hunting of the Snark**"

[10] This author of "The Hunting of the Snark" created such characters as the Knave of Hearts and the Cheshire Cat in his *Alice's Adventures in Wonderland*.

ANSWER: Lewis **Carroll** [or Charles Lutwidge **Dodgson**] <AG>

9. Name some Canadian pianists, for 10 points each.

[10] This composer of massive music-theater works like *Apocalypse* and the *Patria* cycle founded the World Soundscape Project for acoustic ecology. He's probably Canada's most famous composer.

ANSWER: Raymond Murray **Schafer**

[10] Schafer won the inaugural award named after this pianist, who hummed while playing and insisting on sitting on a chair to play. His debut album was a legendary recording of the *Goldberg Variations*.

ANSWER: Glenn **Gould** [or Glenn Herbert **Gould**]

[10] This jazz pianist recorded a live album at the Stratford Shakespearean Festival with his trio, including Ray Brown and Herb Ellis. He composed the *Canadiana Suite*.

ANSWER: Oscar **Peterson** [or Oscar Emmanuel **Peterson**] <WN>

10. Name some places where the descendants of Indian laborers still live, for 10 points each.

[10] Indians are the largest ethnic group in both this former South American British colony and its eastern neighbor, Suriname. Its French counterpart still remains a region of France.

ANSWER: **Guyana** [or Co-operative Republic of **Guyana**]

[10] This island nation, where Frank Bainimarama staged a 2006 coup, is home to a substantial Indian population. Its two main islands are Vanua Levu and Viti Levu.

ANSWER: **Fiji** [or Republic of **Fiji**]

[10] This port city is home to the largest Indian population of any city outside of India. It is the most populous city in a region that Vasco da Gama named Natal after passing it by on Christmas Day.

ANSWER: **Durban** [in South Africa] <KG>

11. Some mythological mothers really tried to keep their kids safe. Sadly, they often failed. For 10 points each:

[10] After hearing Balder was supposed to die, Frigga extracted promises from every object in the universe to not harm Balder, except for this material...which of course would end up killing Balder.

ANSWER: **mistletoe**

[10] Thetis tried to protect this child of hers, most famously by dipping him in the Styx. His heel was not protected, and indeed he ended up dying after an arrow from Paris pierced it during the Trojan War.

ANSWER: **Achilles**

[10] In the Mahabharata, this son of Gandhari covered his private parts when he went to see his mother, so they were left vulnerable, though she made the rest of him impervious to weapons. Bhima took advantage and killed him.

ANSWER: **Duryodhana** <SD>

12. Vienna has often been the target of military campaigns. For 10 points each:

[10] In 1529, this sultan tried, but failed, to take Vienna for the Ottoman Empire. He previously conquered Belgrade with little resistance and defeated Hungarian forces at the Battle of Mohács.

ANSWER: **Suleiman I** [or **Suleiman the Magnificent**; or **Suleiman the Lawgiver**]

[10] About a century and a half later, the Ottomans once again tried to take Vienna, but were repulsed by one of the largest military charges in history. These cavalry troops under John III Sobieski led the charge.

ANSWER: Winged **Hussars**

[10] Vienna briefly came under Hungarian control after Matthias Corvinus invaded this emperor's territory. Before Charles V, he was the last Holy Roman Emperor to be crowned by the Pope, and he printed the mysterious monogram "A.E.I.O.U." on all his possessions.

ANSWER: **Frederick III** <KG>

13. One sign of this event is the appearance of the Dajjal, whose right eye is blind and bulges out like a grape. For 10 points each:

[10] Name this event, which will begin with a trumpet sounded by Israfil. During it, Isa will appear and kill the Dajjal.

ANSWER: **Day of Judgment** [accept **Day of Resurrection**; prompt on "**end of the world**" or equivalent]

[10] Belief in the Day of Judgment is one of these statements that every Muslim must believe. The concept of Iman is defined by belief in these statements, which include a belief in Allah and belief in the Books of Allah.

ANSWER: Six Articles of Faith

[10] Another article of faith is the belief in these figures, one of whom revealed the Quran to Muhammad and was named Jibril.

ANSWER: angels <SD>

14. Eugen von Böhm-Bawerk coined the term “roundaboutness” to refer to the use of these goods. For 10 points each:

[10] Name these durable goods, such as machinery, which are used in the production of other goods.

ANSWER: capital goods

[10] The consumption of this type of good increases as their price increases. Examples include potatoes during the Irish potato famine.

ANSWER: Giffen goods

[10] Giffen goods violate the law stating that this value decreases when price increases. In other words, the price elasticity of this value is generally negative.

ANSWER: demand <WN>

15. A poetic drama from this country is named after the celebration of Forefathers' Eve. For 10 points each:

[10] Name this country whose national poets of the Romantic movement are collectively called the Three Bards.

ANSWER: Poland [or Polska]

[10] Zygmunt Krasiński, one of the Three Bards, wrote a play whose title is the opposite of that of this masterwork by Dante, which includes the *Inferno*, *Purgatorio* and *Paradiso*.

ANSWER: *The Divine Comedy* [or *La Divina Commedia*]

[10] This more recent Polish poet won the Nobel Prize in Literature on the strength of collections like *Calling Out to Yehi* and *Non-Required Reading*.

ANSWER: Wisława Szymborska [or Maria Wisława Anna Szymborska] <WN>

16. During this event, the incumbent propaganda minister Shao Yuanchong died after he was hit in the testicles while attempting to scale a fence. For 10 points each:

[10] Name this 1936 event in which the commanders of the forces in Manchuria and Northwest China arrested the leader of the Kuomintang.

ANSWER: Xi'an Incident [or Xi'an Shibian]

[10] This generalissimo seized in the Xi'an incident fought against Mao Zedong during the Chinese Civil War as leader of the Kuomintang, and fled to Taiwan, where he imposed martial law.

ANSWER: Chiang Kai-Shek [or Jiang Jieshi]

[10] This Communist politician was instrumental to wresting Manchuria from Nationalist control in the Liaoshen campaign during the war. He was later appointed Mao's designated successor before dying in a “mysterious” plane crash in 1971.

ANSWER: Lin Biao <AG>

17. One of the earliest synthesis reactions for this compound was proposed by Debus and improved by Radziszewsky. For 10 points each:

[10] Name this functional group, increasing concentrations of which are commonly used during protein purification to elute proteins attached to Ni-NTA in metal affinity chromatography via a certain tag.

ANSWER: imidazole

[10] The most pervasive appearance of imidazole is in the side chain of histidine, which undergoes one of these reactions to become histamine. In the Krebs cycle, one of these reactions converts pyruvate to acetyl-CoA.

ANSWER: **decarboxylation** [prompt on descriptions like “**releasing carbon dioxide**”]

[10] Imidazole have two atoms of this element, which is connected to hydrogens or carbon in amines.

ANSWER: **nitrogen** [accept **N**] <SD>

18. After Biagio da Cesena insulted this painting, its artist added Cesena’s face to a donkey-eared figure. For 10 points each:

[10] Name this religious painting, which was condemned for featuring nudity, leading Daniele da Volterra to cover up the genitalia.

ANSWER: *The **Last Judgment*** [or *Il **Giudizio Universale***]

[10] Michelangelo’s *Last Judgment* is in this chapel, which Michelangelo also painted the ceiling of.

ANSWER: **Sistine** Chapel [or Cappella **Sistina**]

[10] The twenty nude males sitting on plinths on the Sistine Chapel ceiling are given this Italian name.

ANSWER: **ignudi** <WN>

19. Gangsters kidnap Cody, who can predict the outcome of horse races, in this man’s play *Geography of a Horse Dreamer*. For 10 points each:

[10] Name this American playwright and actor, whose “Family Trilogy” includes *Buried Child* and *True West*.

ANSWER: Sam **Shepard**

[10] Emma talks to an empty refrigerator in this third play of the “Family Trilogy,” which is about the Tate family, including the alcoholic patriarch Weston.

ANSWER: **Curse of the Starving Class**

[10] Shepard’s *True West* is about Austin and Lee, who have this familial relationship. This is the relationship of Biff and Happy in *Death of a Salesman*.

ANSWER: **brothers** [or **siblings**] <WN>

20. KNL/KBP, alongside MIS proteins, CENP-F, and the Ndc80 complex, are stable components of this structure’s outer layer. For 10 points each:

[10] Name this protein structure on chromatids where spindle fibers attach during cell division.

ANSWER: **kinetochores**

[10] The outer portions of kinetochores interact with these cytoskeletal components, which make up the mitotic spindle, and are composed of tubulin monomers.

ANSWER: **microtubules**

[10] These types of organisms, such as nematodes, assemble the kinetochore along the entire length of the chromosome, because the whole chromosome acts as a centromere.

ANSWER: **holocentric** organisms <AG>

Extra: In 1647, this city’s cathedral became the tallest building in the world. For 10 points each:

[10] Name this city on the Rhine, where Johannes Mentelin and Heinrich Eggstein established some of the first printing presses after Gutenberg. Along with Brussels, it is where the European Parliament meets.

ANSWER: **Strasbourg**

[10] Strasbourg is the most populous city in this French region. After the Franco-Prussian War, it alternated between French and German possession along with Lorraine.

ANSWER: **Alsace** [or **Elsass**]

[10] In 1518, Strasbourg was the site of one of the most severe kinds of these events, which were thought to be caused by ergotism. In 1374, a wide region surrounding Aachen was affected by one of these events.

ANSWER: **dancing plagues** [or **dancing mania**; or **choreomania**] <KG>