

1. **Properties of well-ordered sets, such as point-set topologies, are often demonstrated using the transfinite form of this technique. George Polya used the example of a horse of a different color to illustrate the subtleties of this technique. The strong form of this technique allows one to assume that a statement is true for all values in between zero and k. This technique, which is closely related to recursion, begins by proving a (*) base case and then assuming the namesake hypothesis is true for n; subsequently, one must demonstrate that a statement holds for the $n + 1$ case. For 10 points, name this kind of mathematical proof in which some statement is demonstrated to be true for all natural numbers.**

ANSWER: induction [or deductive reasoning; or word forms; prompt on proofs]

<Jose>

2. **This city is the center of the Klang Valley, and it contains the Bukit Nanas rain forest. This city was the site of the 13 May incident, a riot between its two major ethnicities. Arthur Benison Hubback designed several landmark buildings in this city, including the Jamek Mosque. Menara Telekom and Dayabumi are two (*) skyscrapers located in this city, whose International Airport is located in the Sepang District. A César Pelli-designed complex in this city features the tallest twin skyscrapers in the world. For 10 points, name this Asian city that is home to the Petronas Towers in Malaysia.**

ANSWER: Kuala Lumpur

<Karas>

3. **In this film's opening credits, a still image of Michelangelo's *Creation of Adam* accompanies an overture by Miklos Rosza. In one sequence in this film, a row of hanging gold sculptures of dolphins gets tipped over one by one. Its title character wears a slave ring given to him by Simonides's daughter Esther, and is aided by Ilderim, an (*) Arab sheikh. During a parade early in this film, a roof tile falls from the protagonist's house. Its title character, a childhood friend of Messala, escapes the galley of a rammed boat and later avoids a spiked wheel while winning a chariot race. For 10 points, name this big-budget 1959 film based on a Lew Wallace novel, in which Jesus meets the title Roman Jew played by Charlton Heston.**

ANSWER: Ben-Hur: *A Tale of the Christ*

<Jackson>

4. **Joseph Meacham and Lucy Wright helped organize this faith after the death of an illiterate founder who claimed to be Jesus' second incarnation. It grew out of a religious sect led by Jane and James Wardley that took many of its rituals from the Camisards. This faith experienced a revival during the "era of manifestations." This faith's communities at Watervliet, Hancock, and New Lebanon grew famous for manufacturing (*) simple furniture. Mother Ann Lee brought this faith to America, where its communities mostly died out by the early 20th-century thanks to its doctrine of celibacy. "Simple Gifts" is one of this faith's hymns. For 10 points, name this splinter sect from the Quakers that received its name because its adherents dance during worship.**

ANSWER: Shakers [or the United Society of Believers in Christ's Second Appearing]

<Bollinger>

5. One of this king's ministers provoked the Flour War by attempted to introduce free trade in the grain industry. Stefan Zweig argued that this king was circumcised as an adult to relieve his phimosis after failing to consummate his marriage for seven years. This king's fleet, which lost the Battle of the Saintes, was commanded by the Comte de Grasse. The Declaration of (*) Pillnitz pledged foreign support for this man, who was caught trying to flee to Varennes. A "Women's March" protested in front of this monarch's residence against the high prices of bread, shortly after he dismissed his finance minister Jacques Necker. For 10 points, name this king who failed to stop the Tennis Court Oath four years before he was executed by the French Revolution.

ANSWER: Louis XVI

<Bentley>

6. The speaker of one of this author's poems praises the "giver of breath and bread" who "hast bound bones and veins in me." His distress and depression while teaching at University College Dublin gave rise to a series of so-called "terrible sonnets". One of his poems describes the "brute beauty and valour and act" of a recently-caught "morning's minion," while another is dedicated to (*) nuns who drowned after fleeing Germany. Another poem by this author extols "skies of couple-colour as a brinded cow" and begins "Glory be to God for dappled things." This author wrote about a "dapple-dawn-drawn Falcon" in a poem which pioneered "sprung rhythm." For 10 points, identify this British poet of "The Wreck of the Deutschland", "The Windhover", and "Pied Beauty."

ANSWER: Gerard Manley Hopkins

<Schindler>

7. Troops commanded by this man retreated during the Runaway Scrape. This man's political career paused after his separation from Eliza Allen. This man's horse, Saracen, was shot at a battle where his troops used cannons called the Twin Sisters. This man sent a militia to end the Regulator-Moderator War. This man was accused of defrauding Indians by William Stanbery, whom he (*) beat with a cane. This sometime Tennessee governor received the name "Black Raven" while a runaway with the Cherokee. This man was deposed as governor after refusing to swear loyalty to the Confederacy, years after beating Stephen Austin to become his country's first president. For 10 points, name this victor against Santa Anna at San Jacinto, the namesake of Texas's largest city.

ANSWER: Samuel "Sam" Houston [prompt on "Black Raven"; prompt on "Big Drunk"]

<Bentley>

8. At the end of the *The Great Gatsby*, Nick says that his "Middle West" is not "the prairies or the lost Swede towns" but these "thrilling returning" things of his youth. These vehicles are held above the Slough of Despond by a pile of philosophy books in a short story in which they carry Mr. Smooth-it-away on a trip leaving from the City of Destruction. These vehicles are the focus of a company founded by Nathanael, infiltrated by John (*) Galt, and run by Dagny Taggart in *Atlas Shrugged*. Frank Norris depicted the struggle between Magnus Derrick's wheat ranchers and the companies that use these vehicles in *The Octopus*. For 10 points, name this kind of vehicle ridden in Nathaniel Hawthorne's "The Celestial Railroad."

ANSWER: trains [or railroads until it is read]

<Mehigan>

9. A factor symbolized sigma, representing this property, multiplies the characteristic rotational temperature in the denominator of the molecular rotational partition function. The terms *gerade* and *ungerade* describe this property of molecular orbitals. This property is conserved in orbitals in pericyclic reactions according to the Woodward-Hoffmann rules. Point groups represent this property of compounds. Though meso compounds have a form of this property, no (*) chiral compounds do. Carbon tetrachloride is nonpolar, even though its bonds are polar, because this property of the molecule causes its dipole moments to cancel. For 10 points, name this geometrical property possessed by molecules which look the same when reflected across a point, line, or plane.

ANSWER: reflectional symmetry [or word forms; or specific types of symmetry; prompt on even or odd parity before "chiral" is read]

<Silverman>

10. A suite by a composer from this country contains a piece depicting the procession of Corpus Christi and opens with a piece called "Evocation". This country lends its name to an orchestral rhapsody by Emmanuel Chabrier. A set of "gypsy airs" called *Zigeunerweisen* was written by a violin virtuoso from this country. That man was the dedicatee of a violin concerto by Edouard Lalo whose title suggests it is a (*) "symphony" from this country. A composer from this country included the "Ritual Fire Dance" and the "Dance of the Miller's Wife" in, respectively, his ballets *Love, the Magician* and *The Three-Cornered Hat*. For 10 points, name this home country of Isaac Albéniz and Manuel de Falla, the former of whom composed *Iberia*.

ANSWER: Kingdom of Spain [or Reino de España; or word forms, such as Spanish or Espagnole]

<Rosenberg>

11. The ratio of proportionality constants for two different processes with this name are connected by the Lorenz number according to the Wiedemann-Franz law. In lumped system analyses of the transient form of this process, a number proportional to the internal resistance to this process, the Biot number, is used. If there is no internal energy conversion, the steady-state form of this process is described by Laplace's equation. The flux due to this process is equal to minus a proportionality constant - often abbreviated *k* - times the gradient of (*) temperature according to Fourier's law. For 10 points, name this mode of heat transfer that occurs by microscopic means - without macroscopic motion of a material - as opposed to convection and radiation.

ANSWER: thermal conduction [or word forms; prompt on heat transfer; prompt on heat transport]

<Voight>

12. An ambassador from this government is described on the Galle Trilingual Inscription as making offerings at Adams Peak. Seven Grand Directors and ten Junior Directors oversaw an expedition sponsored by this government, which was recounted in *Description of the Starry Raft*. This government deposed Alakeshvara after its envoys sailed to the Kotte Kingdom, and its sailors killed a group of 5000 pirates at Palembang. This dynasty's court received a single giraffe from Malindi under the (*) Yongle emperor, who scuttled its ships after sending a Muslim eunuch on seven "treasure fleet" voyages around the Indian Ocean. For 10 points, name this Chinese dynasty, under which Zheng He got exotic foreign goods by trading away porcelain in the 1400s.

ANSWER: Ming dynasty [accept Yongle emperor until "Yongle" is read; prompt on "China" or "Zhongguo"]

<Mukherjee>

13. This man argued that republics become corrupt when they lose the love of virtue that animates them, just as love of fear animates tyrannies. Possibly inspiring Rousseau, this man linked despotic slavery to hotter climates. This man wrote about Roxana, who commits suicide after the Chief Eunuch in her harem writes to Rica's traveling companion Usbek in one fictional work. This native of La Brède mocked his own continent from a (*) foreigner's perspective in his satirical *Persian Letters*. He also valorized the political system of England for the ability of Parliament and judges to check the king there. For 10 points, name this French Enlightenment-era baron whose book *The Spirit of the Laws* argued for preserving liberty via separation of powers.

ANSWER: Montesquieu [or Charles-Louis de Secondat, Baron of La Brède and of Montesquieu; accept either underlined part]

<Jackson>

14. Neylan McBaine leads a "project" named for these people. Since 1978, these people have been allowed to speak in general conference. These people comprise the entire membership of the Relief Society, which since 1977 has been considered on par with the Melchizedek priesthood. A protest for the ordination of these people in April 2014 aroused ire by refusing to leave (*) Temple Square. In December 2012, these people staged a "wear pants to church" protest. For 10 points, identify these people who are currently barred from most leadership positions in the Latter-Day Saint movement, and are instead expected to marry and bear children.

ANSWER: Mormon women [or women in the Church of Jesus Christ of Latter-Day Saints, etc.]

<Weiner>

15. Bence-Jones proteins are synthesized by these cells. Lambda 5 protein is critical for the development of these cells. They express activation-induced deaminase, which greatly increases the rate of cytosine-to-uracil mutations. Hybridomas are hybrids of cancerous and normal types of these cells. Clonal selection theory explains their proliferation. These cells can spontaneously (*) switch from making mu to making delta heavy chains. In birds, these cells are made in the bursa of Fabricius. Memory ones are extremely long-lived. For 10 points, name these cells whose plasma type secretes antibodies in response to infection, a type of lymphocyte that matures in the bone marrow.

ANSWER: B cells [or B lymphocytes; prompt on plasma cells; prompt on memory cells; prompt on myeloma cells]

<Silverman>

16. This author claimed that "This sleep of forgetfulness will not last forever" in the conclusion to a long work that includes the death of Magone and the suicide of Sophonisba. He expressed a "hope to find pity, and forgiveness" between "vain hope and vain sadness" in the first entry in a 366-poem collection of "scattered (*) rhymes". He was crowned the first modern poet laureate on the strength of works like *On Illustrious Men* and the epic poem *Africa*. This man codified a poetic form consisting of an eight-line octave followed by a six-line sestet. For 10 points, identify this namesake of the Italian sonnet, a poet whose *Canzoniere* describes his love for Laura.

ANSWER: Petrarch [or Francesco Petrarca]

<Carson>

17. Jara killed this god by shooting him in the foot with a reed made from the powder of an ill-omened pestle. This god was switched at birth to avoid being killed by King Kamsa. This god purified a river of poison by fatally dancing on the hundred heads of the serpent Kaliya. Duryodhana chose this god's army over this god himself. In his youth, this (*) blue-skinned god was a butter-thief notorious for pulling pranks on the *gopis*. During the Kurukshetra War, this charioteer convinced one of the Pandavas to go to war against his cousins. For 10 points, name this eighth avatar of Vishnu who advises Arjuna in the *Bhagavad Gita*.

ANSWER: Krishna [prompt on Vishnu]

<Bollinger>

18. One subtype of this process which involved music was overseen by the *ketharistes*. Justinian shut down a long-standing center for this process which surrounded an olive grove sacred to Athena. Participants carried wax tablets for use in a version of this process which Isocrates and other Greeks called *paideia*, and which was often delegated to (*) slaves in rich households. A legend about doing this while walking around gives a false etymology to the Peripatetics. Ancient views on this inspired the medieval trivium and quadrivium. Foreign sophists made their money doing this in ancient Greece. For 10 points, name this process begun by Athenian boys at age seven, which was done at the Lyceum of Aristotle and at Plato's Academy.

ANSWER: education [or tutoring; or teaching; or schooling; or teaching philosophy; or teaching rhetoric; accept paideia before "paideia" is read; accept teaching music during the first sentence; prompt on "child-rearing", "raising children," "philosophy," etc.]

<Jackson>

19. One character in this story wears a yellow shirt with parrots on it, and another owns a gray monkey tied to a chinaberry tree. A character in this story suddenly remembers the location of a house with a secret panel as being in Tennessee, not Georgia. Some characters in this story eat lunch at "The Tower", a (*) barbecue joint owned by Red Sammy, before getting in an accident when the cat Pitty Sing jumps on Bailey's face. A character in this story proclaims that Jesus disrupted the balance of the universe by raising the dead after Hiram and Bobby Lee kill John Wesley and June Star. This story ends with the Misfit shooting the grandmother. For 10 points, name this short story by Flannery O'Connor.

ANSWER: "A Good Man is Hard to Find"

<Mehigan>

20. In one section of this work, an ankylosaurus-like creature sits near a sore-covered figure with a distended belly who may represent an ergotism sufferer. In other sections of this painting, a pointing man stands next to the words "illum oportet crescere me autem minui" and a monster peeks through a window at a man atop a pedestal. The middle of another of its sections features a concert of (*) disturbing angels to the left of the Nativity. Sculptures by Nikolaus Hagenauer are contained within its two sets of wings, which display the Crucifixion when closed and the Temptation of St. Anthony when fully open. For 10 points, name this altarpiece whose creation inspired an opera and symphony by Paul Hindemith, the most famous work of Matthias Grünewald.

ANSWER: the Isenheim Altarpiece

<Carson>

21. This character browbeats a messenger into identifying a woman as a thirty-year-old widow who "creeps" and has a round face and a low brow. In another scene, she discursively describes a dream about a man whose "delights were dolphin-like", ignoring the interruptions of Dolabella. The messenger Thyreus is whipped after kissing this character's hand. The handmaids Iras and Charmian serve this character, who describes a time when she was "green in judgement" as her (*) "salad days". Enobarbus claims that "Age cannot wither her, nor custom stale her infinite variety". This woman commits suicide with an asp after fleeing from battle at Actium and being captured by Octavian. For 10 points, name this Shakespearean character, an Egyptian queen beloved by Antony.

ANSWER: Cleopatra VII

<Carson>

22. Along with a US Navy boat, three ships belonging to an offshoot of this institution were attacked by the Japanese in the 1937 *Panay* incident. Henry H. Rogers provided information for a report on this organization, which was depicted in a political cartoon as two snakes wrestling with the sitting President as baby Hercules. Maurice B. Clark helped found this organization with a man who also developed the Florida Keys, Henry (*) Flagler. This organization, the first to profit off the Frasch process, was described in nineteen installments of McClure's magazine in a history by Ida Tarbell. For 10 points, name this company, founded by John D. Rockefeller, which was broken up in 1911 for its monopoly on the petroleum industry.

ANSWER: Standard Oil Company [or Standard Oil Trust; or Standard Oil Company of New Jersey; or Standard Oil until "Henry H. Rogers" is read]

<Bentley>

23. Some subunits of this protein are called the bridge, the rudder, and the trigger loop. Alpha-aminitin inhibits this protein. The heptapeptide repeats on this enzyme's carboxy-terminal domain are phosphorylated to enhance its processivity. In bacteria, this enzyme's sigma factor recognizes the -35 and -10 sites. Roger Kornberg won a Nobel Prize for crystallizing this protein. In prokaryotes, the action of this enzyme is halted by stem-loops or by rho factor. This enzyme binds to the (*) TATA box in eukaryotic promoters, as part of initiation. It synthesizes both exons and introns, though its product must be capped and spliced before translation. For 10 points, name this enzyme vital for transcription, which synthesizes RNA from DNA.

ANSWER: RNA polymerase [or RNA Pol; or RNA polymerase II or any other number; or ribonucleic acid instead of RNA; or RNAP; do not accept "DNA polymerase"]

<Silverman>

24. The penultimate one of these pieces by this composer closes with a fugue that is interrupted by a reprise of an arioso dolente theme that led into the fugue. The eighth of them features three instances of an A-flat major theme in its adagio cantabile second movement. Another of these pieces was written after the composer's patron fled Vienna and includes movements labeled "The Absence" and "The Return". Nicknames of these non-Haydn works include "Les (*) Adieux" and "Waldstein", while two others were dubbed "quasi una fantasia". One of those pieces got its nickname after a critic compared it to a night on Lake Lucerne. For 10 points, name these compositions by a German composer for a keyboard instrument, which include the "Pathetique" and "Moonlight".

ANSWER: piano sonatas of Ludwig van Beethoven [prompt on partial answer]

<Rosenberg>

1. Popular plays during this time period include George Farquhar's *The Beaux' Stratagem*, George Etherege's *The Man of Mode*, and William Wycherley's *The Country Wife*. For 10 points each:

[10] Identify this period of time lasting from roughly 1660 to 1710 in England, which gave its name to a genre based on the comedy of manners that encompasses the aforementioned plays.

ANSWER: the English **Restoration** [or **Restoration** comedy/ies]

[10] One of the most prominent authors of Restoration comedies was this playwright, who turned out hits like *Love for Love* and *The Way of the World* before the genre became unpopular.

ANSWER: William **Congreve**

[10] Congreve's play *The Mourning Bride* coined several famous phrases, including one often paraphrased as "Hell hath no fury like" one of these people "scorned".

ANSWER: a **woman** [or **women**]

<Carson>

2. When the universe dropped to a temperature below ten to the ten Kelvin these particles froze out, and their rate of creation suddenly decreased. For 10 points each:

[10] Name these particles that Raymond Davis and John Bahcall found while performing the Homestake experiment.

ANSWER: **neutrinos**

[10] The Homestake experiment was, partially, conducted to figure out why this object didn't emit as many neutrinos as expected. During an eclipse, this object's corona is visible.

ANSWER: the **Sun**

[10] The Super Kamiokande detects stellar neutrinos by immersing photomultiplier tubes in water and looking for this phenomenon when a neutrino strikes an electron.

ANSWER: Vavilov-**Cherenkov** radiation

<Jose>

3. Answer these questions about the Irreconcilables, a cross-party faction who refused to let the US Senate ratify the Treaty of Versailles, for 10 points each.

[10] The US never joined this international organization, a precursor to the UN, because Irreconcilables such as William Borah and George Norris helped block the ratification of the Treaty of Versailles.

ANSWER: **League of Nations** [or **Societe des Nations**]

[10] This Republican senator from Massachusetts led opposition to ratifying the Treaty of Versailles, though he was less radical than the Irreconcilables. His son was Richard Nixon's first running mate.

ANSWER: Henry Cabot **Lodge**, Senior

[10] This Irreconcilable and sometime governor of California ran with Theodore Roosevelt on the Bull Moose ticket in 1912.

ANSWER: Hiram Warren **Johnson**

<Bentley>

4. This figure grapples with the giant Antaeus in a sculpture by Antonio del Pollaiuolo. For 10 points each:
[10] Identify this figure from Greek mythology whose club is draped with the skin of the a lion in a classical nude sculpture named for the Farnese family.

ANSWER: **Hercules** [or **Heracles**]

[10] A drunken Hercules drapes his arms over a male and female satyr in a painting by this Flemish artist. He also painted the Marie de Medici cycle, a number of entries in which depict his characteristic full-figured women.

ANSWER: Peter Paul **Rubens** [prompt on "rubenesque"]

[10] A pensive Hercules sits on a rock and struggles to choose between women representing Virtue and Pleasure in a painting by Annibale, a member of this Bolognese family who founded an early art academy with his brother Agostino and cousin Ludovico.

ANSWER: **Carracci** family [accept Annibale, Agostino, or Ludovico **Carracci**]

<Bentley>

5. A type of five-note chord voicing named for this song consists of three perfect fourths topped by a major third, and was originally used by Bill Evans to respond to this song's head. For 10 points each:

[10] Name this opening track of a 1959 album, which also features saxophone solos by Cannonball Adderley and John Coltrane.

ANSWER: **"So What"**

[10] "So What" is the first song on this pioneering modal jazz album, which also features the tracks "Flamenco Sketches" and "Freddie Freeloader".

ANSWER: **Kind of Blue**

[10] *Kind of Blue* was recorded by this jazz trumpeter's namesake quintet. His most amusing song is undoubtedly a cover of Cyndi Lauper's "Time After Time", and his other famous albums include *Sketches of Spain* and *Birth of the Cool*.

ANSWER: Miles Dewey **Davis** III

<Carson>

6. This man criticized policy models that ignored how the policy would affect people's decision making. For 10 points each:

[10] Name this economist who used a rational expectations model to show anticipated monetary policy could have no real effect.

ANSWER: Robert E. **Lucas**, Jr.

[10] The Lucas critique fell especially hard on the Phillips curve, which purported to show a fixed relationship between unemployment and this quantity, the rate of price level increase.

ANSWER: **inflation**

[10] That the Phillips curve does seem to hold is now often explained by imperfect competition and this phenomenon. Guillermo Calvo and John Taylor both created approaches for modeling it.

ANSWER: **sticky prices** [or **nominal rigidity**]

<Bailey>

7. This character has been given two weeks to live by his doctor and recounts his failed romance with Lizaveta, the daughter of Ozhogin in an "uncomfortably built" district town. For 10 points each:

[10] Identify this archetypal title character who writes a diary in a novella by the author of *A Sportsman's Sketches*.

ANSWER: the superfluous man [or Tchulkaturin; or *The Diary of a Superfluous Man*; or *Dnevnik Lishnego Cheloveka*]

[10] *The Diary of a Superfluous Man* was written by this Russian novelist who also wrote *Fathers and Sons*.

ANSWER: Ivan Sergeyevich Turgenev

[10] In January 1860, Turgenev gave a lecture that divided people into personality types based on either this character or Don Quixote. This literary character also titles a Turgenev story from *A Sportsman's Sketches* in which Vasily Vasilych monologues about his pathetic life at a dinner party.

ANSWER: Hamlet [or "Hamlet of the Shchigrovsky District"]

<Bentley>

8. Alberto Korda took an iconic photograph of this man in a beret, seven years before he was killed in Bolivia. For 10 points each:

[10] Name this Argentine-born Marxist revolutionary who helped Fidel Castro take over Cuba.

ANSWER: Ernesto "Che" Guevara [or Ernesto Guevara de la Serna; prompt on "Che"]

[10] While in this Latin American country, Guevara witnessed the deposition of Jacobo Arbenz Guzman in a CIA-backed coup. Rigoberta Menchu advocated for indigenous rights during its civil war.

ANSWER: Republic of Guatemala [or Republica de Guatemala]

[10] Che sailed to Cuba aboard a yacht of this name in 1956 alongside Fidel Castro and others. This ship now lends its name to Cuba's official state newspaper.

ANSWER: Granma

<Bentley>

9. This man proposed a sovereign separate from the government, which was to adhere to the "general will" of the citizenry. For 10 points each:

[10] Name this philosopher who claimed that "man is born free, but everywhere he is in chains" in *The Social Contract*.

ANSWER: Jean-Jacques Rousseau

[10] Rousseau argued that the transition between natural and civil society began with the development of this selfish concept. John Locke asserted that men had the right to "life, liberty" and this concept.

ANSWER: private property [reverse prompt on "land ownership"]

[10] In the book *On Revolution*, this student and lover of Heidegger claimed that the wish for a unitary "general will" was one factor in the failure of the French Revolution. She also argued that violence was only necessary in the absence of true power in *On Violence*.

ANSWER: Hannah Arendt

<Spencer>

10. Answer the following about freezing point depression, for 10 points each:

[10] Freezing point depression is an example of one of these properties, which depend on the concentration of a dissolved solute rather than its actual nature. Osmotic pressure is another example.

ANSWER: **colligative** properties

[10] To determine the freezing point depression of an ideal solution of calcium chloride, you multiply the freezing point depression constant by the molality and this integer, which would be the van't Hoff factor for calcium chloride.

ANSWER: **3**

[10] Freezing point depression is no longer effective below this temperature, because the system separates into two distinct solid solutions of different concentrations. For salt water, this temperature is -21.2 degrees Celsius.

ANSWER: **eutectic** point [or **eutectic** temperature]

<Silverman>

11. Roy Howat investigated this composer's use of the Golden section in pieces like "Reflets dans l'eau". For 10 points each:

[10] Name this French composer of *La Mer* and *Prelude to the Afternoon of a Faun*.

ANSWER: Claude **Debussy** [or Achille-Claude **Debussy**]

[10] This piano suite by Debussy, dedicated to his daughter Emma, opens with the Muzio Clementi parody "Doctor Gradus ad Parnassum" and ends with the playful, banjo-inspired "Golliwog's Cakewalk".

ANSWER: the ***Children's Corner Suite*** [or ***Coin des Enfants***; or **L.113**]

[10] This piano prelude by Debussy is inspired by the Breton legend of the lost city of Ys [EES], and breaks with traditional harmony through its prolific use of parallel fourths and fifths.

ANSWER: *The **Sunken Cathedral*** [or *La **cathédrale engloutie***]

<Rosenberg>

12. After this author's short story "The Bear Came over the Mountain" was adapted into the film *Away from Her*, her collection *Hateship, Friendship, Courtship, Loveship, Marriage* was republished under that title. For 10 points each:

[10] Name this female Canadian author of *The Moons of Jupiter*, *Lives of Girls and Women*, and *The View from Castle Rock*. She won the 2013 Nobel Prize in Literature.

ANSWER: Alice Ann **Munro** [or Alice Ann **Laidlaw**]

[10] In this title story of Munro's first collection, a mentally-handicapped student of Miss Marsalles amazes the audience of a piano recital with a skilled performance of the namesake piece from Gluck's *Orpheus and Eurydice*.

ANSWER: "**Dance of the Happy Shades**"

[10] The first section of *The View from Castle Rock* depicts the Laidlaw's family's origins in this country. Its native poets include Hugh MacDiarmid and the author of "To a Mouse", Robert Burns.

ANSWER: **Scotland** [prompt on "the U.K." or "the United Kingdom" or "Great Britain"]

<Carson>

13. This state agreed to the Peace of Philocrates after the Third Sacred War, in which its soldiers wielded an ultra-long spear called the sarissa. For 10 points each:

[10] Name this Greek polity whose territory expanded greatly under Philip II in the 300s BCE.

ANSWER: **Macedonia**

[10] This Athenian orator made several speeches against Philip of Macedon's expansion called the Philippics.

ANSWER: **Demosthenes**

[10] According to Plutarch, Sparta gave this single-word response to Philip of Macedon's threats to enslave the city should he invade, an extreme example of Laconic wit.

ANSWER: **"if"** [or **aika**]

<Jackson>

14. The Chisso Corporation's release of toxins containing this element caused an outbreak of Minamata disease. For 10 points each:

[10] Name this metal. Its bioaccumulation may poison top predators, such as swordfish and tuna.

ANSWER: **mercury** [or **Hg**]

[10] Unfounded allegations link this mercury-containing preservative used in multidose flu vaccines to autism. It's also an antiseptic.

ANSWER: **thimerosal** [or **thiomersal**]

[10] Metallothioneins, which complex with mercury, have lots of this amino acid. This amino acid has an imidazole side chain and can be acidic or basic at physiological pH.

ANSWER: **histidine** [prompt on **His** or **H**]

<Kothari>

15. This group's name roughly translates as "the deception of Western education is forbidden." For 10 points each:

[10] Name this Islamist group of Nigeria. They received widespread media attention after kidnapping over 200 young girls from school in April 2014.

ANSWER: **Boko Haram**

[10] This man is the current president of Nigeria and was pressured into ordering an operation against Boko Haram. His election in 2011 stirred controversy due to not following Nigeria's traditional system of rotating Muslim and Christian presidents.

ANSWER: Goodluck **Jonathan**

[10] Boko Haram offered to release the girls as part of this kind of deal. An earlier instance of this event happened in 2011 to obtain Gilad Shalit's return to Israel.

ANSWER: **prisoner exchange** [or equivalents]

<Rosenberg>

16. This archon enacted the *seisachtheia* and established a social class called the *zeugitae*, or "yoked men." For 10 points each:

[10] Name this Athenian legal reformer who undid the harsh law code of Draco in the 590s BCE.

ANSWER: **Solon**

[10] Solon repealed laws which reduced people to this status for excessive debt. Many of these people were kidnapped in war or traded from Thrace to work in households.

ANSWER: debt **slavery** [or **slaves**; or **bondage**; or **bondsmen**; or **douloi**]

[10] Solon allegedly advised this king of Lydia not to evaluate any man as truly happy until after death. This man was burned alive after his army crossed the Halys river and lost to Persia.

ANSWER: **Croesus** [or **Kroisos**]

<Jackson>

17. A character in this play thinks she has gone to Antarctica when she has really only gone to Prospect Park in Brooklyn. For 10 points each:

[10] Name this two-part play about the visions and apparitions beheld by Prior Walter, the boyfriend and, later, ex-boyfriend of Louis Ironson, who starts a new relationship with Joe Pitt.

ANSWER: Angels in America: *A Gay Fantasia on National Themes*

[10] This screenwriter of 2012's *Lincoln* and 2005's *Munich* wrote *Angels in America*.

ANSWER: Tony Kushner [or Anthony Robert Kushner]

[10] In *Angels in America*, Roy Cohn uses his political power to acquire this experimental drug that helps keep him alive. Prior also uses this drug to stave off the effects of AIDS.

ANSWER: AZT [or azidothymidine]

<Mehigan>

18. This man leaves his father and son at the temple of Ceres after fleeing Troy and attempts to return back home to find his wife Creusa, only to find her ghost. For 10 points each:

[10] Name this hero whose flight from Troy occurs before he defeats Turnus and the Rutulians in an epic poem that was considered a foundation story for Rome.

ANSWER: Aeneas

[10] Aeneas becomes enraged and kills Turnus after he sees the belt of this man, the son of King Evander, on his waist.

ANSWER: Pallas

[10] Aeneas sojourned in this favorite city of Juno until Mercury called him out; while there, Aeneas married its queen, Dido.

ANSWER: Carthage

<Jose>

19. Answer the following about empirical attempts to determine acceleration, for 10 points each.

[10] This Italian scientist apocryphally dropped two balls from the Leaning Tower of Pisa to determine if there was an acceleration difference between them.

ANSWER: Galileo Galilei [accept either]

[10] This reverend invented a device in which two masses of different weights are set up in a pulley-like configuration so that the heavier mass accelerates at a constant rate; this setup allows little g to be determined.

ANSWER: George Atwood [or Atwood machine]

[10] Unfortunately, determining the acceleration of either mass in a swinging Atwood machine is untenable because the entire system has this property. This property is held by systems that are very sensitive to initial conditions.

ANSWER: chaos [or word forms; do not accept "nondeterministic"]

<Jose>

20. One type of this symbol consists of a concentric square and circle, each with four gates, symbolizing the "eight cemeteries" that mediators must pass through. For 10 points each:

[10] Name this pattern that symbolizes balance in Hinduism and Buddhism.

ANSWER: mandala

[10] Mandalas are painted in the sand in the form of Buddhism prevalent in this region, whose Yellow Hat sect was historically led by the Dalai Lama.

ANSWER: Tibetan Plateau [or Bod; or Zangqu; or Tuvd; or Tsast]

[10] According to the 4th or 5th century text *Treasury of Abhidharma*, the center of a mandala corresponds to this mythical five-peaked mountain sacred to many religions from the Subcontinent.

ANSWER: Mount Meru [or Sumeru; or Sineru; or Mahameru; or Pali Neru; or Myinmo]

<Gupta>

21. Identify the following about the computer science behind videogame engines, for 10 points each.

[10] Some game engines come with tools for performing this operation on video, which reduces the size of the video. This operation can come in lossy and lossless forms, and is exemplified by formats like MP3 and ZIP.

ANSWER: **compression**

[10] Real time strategy game engines might make use of the A* ("A-star") algorithm to heuristically perform this operation. Dijkstra's algorithm can also be used when performing this operation.

ANSWER: **pathfinding** [or **pathing**; or **finding** the shortest **path**; or obvious equivalents]

[10] Many game engines support scripting languages, which are not compiled but instead undergo this operation. This operation is combined with compilation in intermediate representation, and is used to execute commands in languages like Ruby and Java.

ANSWER: **interpretation** [or **interpreted** languages]

<Bentley>

22. This country won maritime supremacy in the Mediterranean after winning the war of Chioggia against Genoa, which was also ruled by a doge. For 10 points each:

[10] Name this Adriatic city-state whose exports included Murano glassware. Its landmarks include the Rialto bridge and the Grand Canal.

ANSWER: Serene Republic of **Venice** [or Serenissima Repubblica di **Venezia**]

[10] In 1508, this pope formed the League of Cambrai to subdue Venice's power. His willingness to personally lead his army led him to be called the "Warrior Pope."

ANSWER: Pope **Julius II** [or Giuliano **della Rovere**]

[10] Venice's holdings included this Roman emperor's retirement palace at Split, on the Dalmatian coast. He set price caps on all goods and appointed Galerius and Constantius as subordinate caesars.

ANSWER: **Diocletian** [or **Diocles**; or Gaius Aurelius Valerius **Diocletianus** Augustus]

<Liu>

23. In the first section of this part of a larger poem, the speaker lays out his plans to describe the "condition", "array", and "degree" of a group of people gathered at the Tabard Inn in Southwark. For 10 points each:

[10] Name this section of a larger work, which begins with the famous Middle English couplet "Whan that Aprill, with his shoures soote / The droghte of March hath perced to the roote".

ANSWER: the **General Prologue** to the *Canterbury Tales* [or the **prologue** to the *Canterbury Tales*]

[10] The General Prologue, like the rest of the *Canterbury Tales*, was written by this 14th-century author of the *Book of the Duchess*.

ANSWER: Geoffrey **Chaucer**

[10] After the depressing Physician's Tale, the host's request for a more pleasant tale is fulfilled by this one, in which three Flemish men set out to kill Death but end up finding gold and killing each other. Its teller describes its "theme" as "Greed is the root of all evil".

ANSWER: "The **Pardoner's** Tale"

<Carson>