

1. One segment of this book describes men "who whet their tongues like swords, who aim bitter words like arrows." The opening stanza of another part of this book asks "how long will you hide your face from me," amidst a refrain of "how long?" The ashrei prayer consists entirely of segments from this book. One part of this book, which consists of 22 stanzas, each beginning with a different (*) letter of the Hebrew alphabet, is the longest chapter of the Bible. Superscriptions appear above most parts of this book, which was paraphrased in Martin Luther's "A Mighty Fortress is Our God." The words "The Lord is my shepherd, I shall not want" open its twenty-third section. For 10 points, name this Old Testament book of lyrics, attributed to David.

ANSWER: The Book of Psalms [or Tehillim; or Praises]

<Gupta>

2. This song, which was first performed at New York's Cafe Society in 1939, was covered on the 1965 album *Pastel Blues* by Nina Simone. Columbia Records declined to record this song, but did grant its singer a release to record it on the Commodore label with a 70-second piano introduction by Sonny White. This song was adapted from a poem by Abel Meeropol, a Jewish schoolteacher who adopted Ethel and Julius Rosenberg's children and used the pen name Lewis Allan. Its lyrics contrast a "gallant" and "pastoral scene" with "the (*) bulgin' eyes and twisted mouth" and describe "blood on the leaves" and "black bodies swingin'" in the breeze. For 10 points, name this song in which Billie Holiday sings about "southern trees" that bear the products of lynchings.

ANSWER: "Strange Fruit"

<Hart>

3. This area was labeled "unincorporated" in the 1922 *Balzac* case, relying on a distinction about this place first put forth in *Downes v. Bidwell*. This place was industrialized by Operation Bootstrap with the guidance of "brian trust" member Rexford Tugwell. This place's residents were made citizens by the Jones Act, and an early government here was created by the (*) Foraker Act. After the Jayuya uprising, radicals from this place went to Blair House to try and assassinate Harry Truman, and the FBI began suppressing its independence movement. For 10 points, name this island captured by Nelson Miles, a United States Commonwealth in the Caribbean.

ANSWER: Puerto Rico

<Weiner>

4. In this country, the far-left October 22 Circle attempted to attack a US consulate. This country was home to a Masonic lodge called P2, which collaborated with a NATO stay-behind program called Operation Gladio to combat Communist influence. A film whose English title is *Marianne and Juliane* provided a name for an era of turmoil here, during which the leader of its Christian Democracy party was (*) killed and stuffed in a car trunk by the Red Brigades. Aldo Moro died during this country's violent Years of Lead in the 1970s and 80s. It has more recently been led by a media tycoon who hosted a series of "bunga bunga" parties, leading to his 2013 conviction for underage prostitution. For 10 points, name this European country home to Silvio Berlusconi.

ANSWER: Italy [or Italian Republic; or Repubblica italiana]

<Liu>

5. These objects are commonly studied using a log T-log rho graph, from which one can easily find if gas pressure or radiation pressure is more important. The opacity of these objects is proportional to density times temperature to the negative seven-halves according to Kramers's law. A condition for the formation of these things is the Jeans length being exceeded by a molecular cloud, which will (*) collapse and tend to form "clusters" of them. These objects are classified according to their spectral lines in the Harvard classification scheme, which divides them - in order of decreasing temperature - into the categories O, B, A, F, G, K or M. For 10 points, name these astronomical objects whose life cycles are depicted on H-R diagrams, and which include red giants and brown dwarfs.

ANSWER: stars [prompt on black bodies; or red giants, neutron stars, or any more specific type of star]

<Jose>

6. A painting of a man in one of these places by Juan Gris alludes to Picasso and Apollinaire by including the letters "PIC" and "AP". The artist of a painting set in one of these places declared "I have tried to express the terrible human passions through the use of red and green". A woman holds her fist to her face in a Gauguin work set in a smoke-filled one of these places in (*) Arles. A painting set in one of these locations depicts the artist Marcellin Desbouts smoking a pipe next to the glum-looking actress Ellen Andree. A painting set in one of these places includes a clock showing 12:15 and a green pool table on a slanted floor. For 10 points, name this type of building depicted in *L'Absinthe* and at "night" in a Van Gogh painting.

ANSWER: night cafés [or restaurant; accept *Man in the Cafe* or *Dans un Cafe* or *Night Cafe* in Arles]

<Bentley>

7. This man's adaptation of an earlier poem asks "Why should I climb the lookout?" before noting that "The monkeys make sorrowful noise overhead"; that poem is a series of reminiscences beginning "while my hair was still cut straight across my forehead." This man's work as a translator appears in *Ripostes* and *Cathay*, which includes an adaptation of Li Po entitled "The (*) River-Merchant's Wife: A Letter." This poet, whose slogan was "make it new!" described "apparitions of these faces in a crowd" as "petals on a wet black bough" in his two-line poem "In a Station of the Metro." For 10 points, name this American poet who, while incarcerated in St. Elizabeth's Hospital, wrote the "Rock-Drill" section of his 120-section epic *The Cantos*.

ANSWER: Ezra Loomis Pound

<Mehigan>

8. Per the Transcendental Aesthetic section of Kant's *Critique of Pure Reason*, this concept grounds our "inner sense" as a "form of pure intuition." In Book Eleven of *Confessions*, Augustine expresses confusion at defining this concept, but is certain that God enables it. Some philosophers argue that this concept is a merely relative "B-series" rather than an objective "A-series". This concept was paired with "free will" in a book by Henri Bergson that described consciousness in terms of (*) "duration". A person who radically reversed their place in this concept could trigger the grandfather paradox. For 10 points, name this quantity whose increase is shown by the changes of objects, and is often added as a "fourth dimension" to space.

ANSWER: time

<Jackson>

9. **This character is told that if one has twenty pounds of income, then spending just under twenty pounds will yield happiness while spending just over that sum will yield misery. This character's housekeeper and mother are both named Clara, so, to prevent confusion, the housekeeper goes by (*) Peegotty. After running away from his stepfather Edward Murdstone, this character goes to live with his aunt Betsey Trotwood. After Dora Spenlow dies due to a miscarriage, this man re-marries to Agnes Wickfield and helps unmask the misdeeds of Uriah Heep. For 10 points, identify this title character of a Charles Dickens novel.**

ANSWER: David Copperfield [accept either]

<Schindler>

10. **Phosphomolybdic acid is used in the colorimetric Folin-Wu method to measure this quantity. A low value for this measurement is diagnosed by Whipple's triad. Sulfonylurea-based pharmaceuticals are designed to lower this value. Amylin regulates this quantity in the body. The C-peptide test diagnoses why this quantity would be higher than normal. An HbA1C test indicates how this value has changed over prolonged intervals. A high value for this measurement exacerbates symptoms of (*) ketoacidosis. This quantity is usually higher in postprandial tests because the body is in the "fed", not the "fasting state". Beta cells in the islets of Langerhans secrete insulin when this quantity is high. For 10 points, name this measurement which is elevated in hyperglycemia.**

ANSWER: blood sugar level [or blood glucose level; or blood sugar concentration; or same-knowledge equivalents]

<Silverman>

11. **In a short story by this man, an unfortunate man gorges himself on a banquet at the Chateau de Champignnet before willingly becoming a prisoner of war. The mayor of a town tries to kill himself by intentionally standing under a falling tree in a story by this author in which that mayor rapes and murders Little Louise Roque. This author of "Walter Schnaff's Adventure" described the democrat (*) Cornudet whistling *La Marseillaise* on a carriage ride from Rouen to Le Havre after the prostitute Elisabeth Rousset sleeps with a Prussian officer. In one of his best known stories, Mathilde Loisel and her husband struggle to replace the lost title object, which turns out to be a fake. For 10 points, name this French author of "Ball of Fat" and "The Necklace".**

ANSWER: Guy de Maupassant [or Henri René Albert Guy de Maupassant]

<Bentley>

12. **Mountain bikers frequent the Black Mountain Open Space Park in this city, found near its Rancho Peñasquitos neighborhood. In 2006, the federal government used eminent domain to seize a part of this city in an attempt to resolve Steve Trunk and Philip Paulson's longstanding Establishment Clause lawsuit over the Mount Soledad cross. This city hosted the Panama-(*) California Exposition in 1915, celebrating the economic boom that canal traffic brought to its harbor, which is between the Silver Strand and Point Loma. South of this city is the world's busiest land border crossing at San Ysidro; this city's center is only twenty-five miles from that of Tijuana, Mexico. For 10 points, name this California city, home to a large, koala-breeding zoo.**

ANSWER: San Diego

<Karas>

13. This interaction has both vector and axial vector components, which behave oppositely under improper Lorentz transformations. By measuring the disparity in distribution between gamma ray and electron emissions in the decay of cobalt-60 to nickel-60, Chien-Shiung Wu experimentally showed that this interaction violates parity conservation. The mass of this interaction's gauge bosons is provided by the Higgs boson upon the symmetry breaking of this interaction's unification with (*) electromagnetism. The W and Z bosons are the force carriers for this interaction, which mediates beta decay. For 10 points, name this fundamental force that occurs at almost the same length scale as – but whose coupling constant is much smaller than – the strong force.

ANSWER: weak force

<Karas>

14. Century of Gregorian calendar required. Yazdegerd III was assassinated during this century. During this century, campaigns against the Gokturks were waged by Gaozong and Taizong. The Silla dynasty unified the other two of Korea's Three Kingdoms in this century, during which Empress Wu's coup occurred. Greek fire was first invented and used to withstand naval sieges in this century, during which the Sassanid dynasty (*) fell. The battle of Karbala stemmed from disputes over whether Ali or Abu Bakr ought to rule in this century, disrupting a new religion which had enacted the *hijra* earlier in this century. For 10 points, name this century in which the Tang dynasty was formed in China and Islam was founded by Muhammad.

ANSWER: 7th century CE [or Seventh century AD; or 600s CE; or 600s AD]

<Jackson>

15. One of this composer's works uses the upper two strings of a violin to imitate flutes, while the lower two strings imitate horns, and is nicknamed "La chasse". In the third movement of this man's second violin concerto, each instance of the rondo theme is preceded by the ringing of a bell. Various compositions by this man served as the basis for a set of six (*) "grandes études" by Franz Liszt. A minor theme by this man is "inverted" into a D flat major theme in the eighteenth of a set of variations on this man's work by a Russian composer. This composer of *La Campanella* is most famous for his 24 violin caprices. For 10 points, name this Italian violin virtuoso whose 24th caprice was the basis of a "Rhapsody" by Sergei Rachmaninoff.

ANSWER: Niccolò Paganini

<Carson>

16. A poet inspired by a visit to this location recalled "looking on the happy autumn-fields" in his poem "Tears, Idle Tears." Another poem describes how with "somewhat of a sad perplexity the picture of the mind" of this place "revives again", while the speaker stands there reminiscing how he "came among these hills" and "bounded o'er the mountains." That speaker once again beholds the (*) "steep and lofty cliffs" of this location, upon returning here after "Five years have past; five summers, with the length of five long winters!" For 10 points, identify this ruined monastery on the banks of the river Wye, "a few miles above" which a few lines were written by William Wordsworth.

ANSWER: Tintern Abbey

<Schindler>

17. **One of these beings threatens to burn down a palace when a princess tries to get an egg to hang from its ceiling. Another of these beings offers a choice of deaths to the man who finds him, but later leads him to a pond of exotic fish that talk when fried; that one is initially restricted by a hexagram-shaped seal. Another of them became evil after arrogantly refusing to (*) bow before the first man. The *marids*, *ghul*, and *ifrit* belong to this class of beings, one of which is attached to a magic ring and rescues a young Chinese boy from a cave of treasures. For 10 points, name these mostly malevolent, but sometimes wish-granting spirits from Arabian mythology.**

ANSWER: djinni [or genies; or djinn]

<Bollinger>

18. **Magnus Barefoot saved this kingdom by stumbling into an uprising and inadvertently shooting Hugh Montgomery's eye. This kingdom's lore appears in the Red and White Books of Hergest. It was traditionally divided into commotes. Eleanor de Montfort was captured by pirates en route to this kingdom, forcing its ruler to sign the Treaty of Aberconwy. Its eastern border was governed by the Marcher Lords, and it lies west of (*) Offa's Dyke. Powys and Dyfed are sub-kingdoms within this country, where a rebel known as "the Last" lost to Edward Longshanks. Henry V subjugated Owen Glendower here. For 10 points, name this kingdom whose pre-Anglo-Saxon peoples were once led by Llywelyn the Great, whose namesake prince is the crown prince of the United Kingdom.**

ANSWER: Wales [or Cymru]

<Ray>

19. **One poster for this event features an image of Ingres's *The Source* and advertises its location in Walkill. Toothpaste manufacturing heir John Roberts financed this event, which was promoted by Joel Rosenman, Artie Kornfeld, and Michael Lang. Michael Wadleigh directed a documentary about this event that was partly edited by Martin (*) Scorsese and begins with an appearance by Richie Havens. This event, which was billed as an "Aquarian Exposition" that promised "three days of peace and music," was held on Max Yasgur's farm in August 1969. For 10 points, name this New York music festival at which Jimi Hendrix played a psychedelic version of the national anthem.**

ANSWER: Woodstock Music & Art Fair [accept Woodstock Festival or equivalents]

<Hart>

20. **During this period, the continent of Cimmeria collided with Laurasia's eastern edge. The first corals appeared during this period, as well as the eoostrodon, one of the first true mammals. The seed ferns known as Glossopteris went extinct at the end of it. The extinction that preceded this period destroyed a multitude of insects, and this period is marked by no coal deposits, which is known as its coal gap. This period followed the so-called (*) "Great Dying", which occurred at the end of the Permian period. Taking its name from the distinct layers of red bed, chalk, and black shale that can be found in Germany, this period is the first of the Mesozoic. For 10 points, name this geologic period followed by the Jurassic period.**

ANSWER: Triassic Period

<Jose>

21. **Somites 34-41 in the embryos of birds develop into a "heart" named for this substance, found in the tail. This substance moves easily through the subcapsular sinus. This substance is combined with emulsified fats to form a milky-colored mixture called chyle, which is transported by capillaries called lacteals. Near the left jugular, the left subclavian vein receives this substance from the thoracic duct. This material (*) accumulates in the lower legs in elephantiasis. This substance is formed from material that doesn't enter the venules from capillary beds in tissues. For 10 points, name this substance that contains waste interstitial fluid and flows past namesake "nodes" which swell during infection.**

ANSWER: lymph

<Silverman>

22. **In one post, this man was betrayed by assistant Surgeon D'Arcy Wentworth, and he hid from a plot against his rules under his bed while his daughter attacked soldiers with her parasol. Lachlan McQuarrie was appointed governor to replace this man after he arrested John McArthur and banned the barter of alcohol in his officer corps. This target of the Rum Rebellion as (*) governor of New South Wales had previously been sent to Tahiti to pick up breadfruit trees, during which time a group whose descendants still live on Pitcairn Island forced him into a small raft at Fletcher Christian's behest. For 10 points, name this captain deposed by the Mutiny on the *Bounty*.**

ANSWER: William Bligh

<Mukherjee>

23. **A character created by this author has an affair with Thelma Harrison, the wife of his old rival Ronnie, and later suffers a heart attack while out fishing with his granddaughter, whom he manages to save from drowning. Years earlier, that character created by this author is unable to save his newborn daughter from drowning in a bathtub due to Janice's negligence. In a novel by this man, a (*) MagiPeel salesman from Brewer, Pennsylvania, has an affair with Ruth Leonard, whom he meets through Marty Tothero, an old coach. This man's most famous character, a former high school basketball star, appears in novels in which he "is Rich" and "at Rest." For 10 points, name this American author who described the life of Harry Angstrom in his "Rabbit" series.**

ANSWER: John Hoyer Updike

<Mehigan>

24. **Armstrong's axioms govern the inference rules for this kind of structure. They can be partitioned into horizontal units called shards. The logical consistency of these structures can be improved by converting them into Boyce-Codd form, one of the many normal forms for these entities. Atomicity, durability, consistency, and isolation comprise the ACID properties of these structures. Items organized in these structures can be stored in (*) column-oriented or row-oriented formats. They are typically accessed by using queries through a language like SQL. For 10 points, name these computer programs that store large collections of information.**

ANSWER: relational databases

<Jose>

1. One ruler of this name built an opera house in Bayreuth for Richard Wagner; another built a shrine called the Walhalla that celebrated common German heritage. For 10 points each:

[10] Identify this common name of three kings of Bavaria, the second of whom was known for being "mad".

ANSWER: **Ludwig**

[10] During a wave of revolutions in this calendar year, Ludwig I was forced to abdicate the Bavarian throne. Louis-Philippe was deposed in a revolt during this year.

ANSWER: **1848** CE

[10] This Magyar briefly rose to power during the Revolutions of 1848. He persuaded the Hungarian Diet to issue a proclamation dethroning the Habsburgs before being exiled to America.

ANSWER: Lajos **Kossuth** de Udvard et Kossuthfalva [or Louis **Kossuth**]

<Bentley>

2. Erwin gives Friedrich a two-headed clay idol to demonstrate the concept of magic in this author's short story, "Within and Without." For 10 points each:

[10] Name this author who described the friendship of a medieval artist and a monastic teacher in his novel *Narcissus and Goldmund*. Hans Giebenrath is ground down by the education system in his novel *Beneath the Wheel*.

ANSWER: Hermann Karl **Hesse**

[10] The title character of this Hesse novel finally achieves enlightenment when he meets the ferryman Vasudeva and learns to listen to the songs of the river.

ANSWER: **Siddhartha**

[10] In Hesse's novel *Steppenwolf*, this historical figure torments Harry Haller in Pablo's Magic Theater by playing Handel's Concerto Grosso in F Major over the radio. He also calls Haller a coward for being willing to die but not to live.

ANSWER: Wolfgang Amadeus **Mozart**

<Bentley>

3. Complete the following lines from Allen Ginsberg's "Howl," for 10 points each.

[10] "Howl" begins with Ginsberg observation that he saw the best minds of his generation destroyed by this condition.?

ANSWER: **madness**

[10] Part III of "Howl" begins with repeated assertions that Ginsberg is with dedicatee Carl Solomon in this place, a fictionalized psychiatric hospital.

ANSWER: **Rockland**

[10] In a memorable incident from the first section of "Howl," Ginsberg's comrades throw this food "at CCNY lecturers on Dadaism" before presenting themselves "on the granite steps of the madhouse."

ANSWER: **potato salad** [prompt on partial answer]

<Mehigan>

4. Multiplying a square matrix by one of these matrices does not change the square matrix. For 10 points each:

[10] Name these matrices with ones wherever the row number equals the column number and zeros everywhere else.

ANSWER: **identity** matrix

[10] Identity matrices are an example of this type of matrix which have zeros for all entries where the row number does not equal the column number.

ANSWER: **diagonal** matrix

[10] These matrices are unitarily similar to diagonal matrices and commute with their own conjugate transpose. Hermitian matrices are an example of this type of matrix.

ANSWER: **normal** matrix

<Reinstein>

5. This artist collaborated with Pirkle Jones on the *Life* magazine photo-essay "The Death of a Valley", which depicted the flooding of Monticello, California by the new Lake Berryessa. For 10 points each:

[10] Name this photographer who chronicled the internment camp at Manzanar for the War Relocation authority but remains most famous for a photo of Florence Owens Thompson called *Migrant Mother*.

ANSWER: Dorothea **Lange** [or Dorothea Margaretta **Nutzhorn**]

[10] Fellow pioneering female photographer Margaret Bourke-White may be most famous for her photographs of this Indian nationalist leader sitting at a spinning wheel, taken shortly before his assassination by Nathuram Godse.

ANSWER: Mahatma **Gandhi** [or Mohandas Karamchand **Gandhi**; prompt on "Bapu"]

[10] The most expensive photograph sold by a female photographer is this woman's *Untitled #96*. She used mannequins and prosthetic limbs in her series *Sex Pictures* and modeled herself for her most famous series, *Untitled Film Stills*.

ANSWER: Cindy **Sherman** [or Cynthia Morris **Sherman**]

<Carson>

6. Identify the following about autobiographical works of Japanese literature, for 10 points each.

[10] Sayo Masuda described experiencing "half a lifetime of pain and struggle" in her *Autobiography of* one of these figures. Arthur Golden wrote a novel in the form of the "memoirs" of Chiyo Sakamoto, another of them.

ANSWER: a **geisha** [accept **geiko** or **geigi**; do not accept "prostitute" or equivalents; prompt on "women"]

[10] Lists of "annoying things", "embarrassing things", and other categories are among the most amusing parts of this work of Sei Shonagon, which also includes many anecdotal observations of life at the Heian court.

ANSWER: *The **Pillow Book*** [or ***Makura no Soshi***]

[10] One of this author's last works was the heavily autobiographical story "Cogwheels". He also wrote about the criminal Kandata dooming himself through selfishness in "The Spider's Thread".

ANSWER: Ryunosuke **Akutagawa** [accept names in either order]

<Carson>

7. This man married his daughter to the poet Sir Philip Sidney. For 10 points each:

[10] Name this principal secretary of the English crown, who uncovered the Babington and Throckmorton plots as the *de facto* spymaster for Queen Elizabeth I.

ANSWER: Sir Francis **Walsingham**

[10] Walsingham hired many turncoats from this religion, who were barred from advancement by the Test Act and the Act of Settlement. "Bloody Mary" fervently observed this religion.

ANSWER: Roman **Catholicism** [prompt on "Christianity"]

[10] Walsingham tried to intercept the Casket Letters from this Catholic ruler and enemy of Elizabeth. The Babington plot tried to install this long-imprisoned ruler on the English throne.

ANSWER: **Mary**, Queen of Scots [or **Mary Stuart**]

<Bentley>

8. In rhabdomyolysis, myoglobin is degraded and causes this substance to turn brown. For 10 points each:

[10] Name this substance which is used by mammals to excrete nitrogenous waste. The collecting ducts in the kidneys regulate the concentration of this liquid.

ANSWER: **urine** [or same-knowledge equivalents]

[10] The collecting ducts are separated from the loop of Henle in the nephrons by the "distal" one of these vessels. The "proximal" one lies between Bowman's capsule and the descending loop. Both have large surface areas for solute exchange.

ANSWER: convoluted **tubule** [or proximal and distal convoluted **tubules**]

[10] The yellow color of urine originates due to this compound, which itself is formed from the breakdown of heme. Dysfunctions of the liver preventing the breakdown of this compound lead to jaundice.

ANSWER: **bilirubin**

<Silverman>

9. Styx was the first to side with Zeus and the others during this 10-year long conflict. For 10 points each:

[10] Name this war which pitted Hades, Poseidon, and their brethren against another group of immortal deities, which included Hyperion.

ANSWER: **Titanomachy** [accept the war between the **titans** and **gods**, or other such equivalents]

[10] This leader of the Titans had dethroned Uranus. He swallowed up the siblings of Zeus because he wished to avoid his downfall, which was foretold in a prophecy.

ANSWER: **Kronos**

[10] This titaness was the wife of Oceanus. She was sometimes conflated with Thalassa, another personification of the sea.

ANSWER: **Tethys**

<Jose>

10. This man incorporated a theme from the carol "March of the Kings" into the farandole that ends his second *L'Arlésienne Suite*, and he completed a well-received *Symphony in C* at the age of 17. For 10 points each:

[10] Name this French composer of *The Pearl Fishers* who died of a heart attack three months after the 1875 premiere of his most enduring opera, *Carmen*.

ANSWER: Georges **Bizet** [or Alexandre César Léopold **Bizet**]

[10] The second movement of Pablo de Sarasate's *Carmen Fantasy* is an adaptation of this aria from the opera, which is sung by the title character during her first appearance. Its original title calls love a "rebellious bird".

ANSWER: "**Habanera**" [or "**L'amour est un oiseau rebelle**"]

[10] Franz Waxman's *Carmen Fantasie* was recorded for the movie *Humoresque* by this Russian-born violinist, the namesake of Carnegie Hall's main auditorium. He often collaborated with the pianist Alexander Zakin and toured China in 1979.

ANSWER: Isaac **Stern** [or Isaa?k **Shtern**]

<Carson>

11. Rudiger Dornbusch created an "overshooting" model of these quantities that used investor expectations to explain their volatility. For 10 points each:

[10] Name these ratios at which one country's currency can be traded for another.

ANSWER: foreign **exchange rates**

[10] Fiscal policy has little effect in a Mundell-Fleming model with floating exchange rates because this curve is vertical. This curve is the locus of equilibria where the demand for money equals its supply.

ANSWER: **LM** cuve

[10] In theory, the balance of payments for a country should always be zero, because the capital and financial account will balance out this account, which accounts for investment earnings and the trade of goods and services.

ANSWER: **current** account

<Bailey>

12. This event was prompted in part by an 1829 gold rush, and more directly by the 1830 Indian Removal Act. For 10 points each:

[10] Name this forced migration of native groups. It resulted in the Cherokee leaving their lands in Georgia and moving to what became Oklahoma.

ANSWER: the **Trail of Tears**

[10] The Trail of Tears began after some Cherokee signed this 1835 treaty. John Ross tried to stop the US from ratifying and enforcing this treaty.

ANSWER: Treaty of **New Echota**

[10] This other "civilized tribe", impacted by the Trail of Tears, included the Hitchiti in its namesake confederacy. They signed the treaties of Indian Springs and Fort Jackson after fighting the US.

ANSWER: **Creek** Indians [or **Creek** confederacy; or **Muskogee**]

<Bentley>

13. The protagonist of this story lives in a borstal, a home for delinquent youths, and imagines himself as an "Out-Law" pursued by various "In-Laws". For 10 points each:

[10] Identify this 1959 short story in which, despite the promise of reduced manual labor if he wins, Smith deliberately throws a race.

ANSWER: "The Loneliness of the Long-Distance Runner"

[10] "The Loneliness of the Long-Distance Runner" was written by Alan Sillitoe, a member of this British literary movement. This movement took its name from a description of John Osborne, author of the play *Look Back in Anger*.

ANSWER: the Angry Young Men

[10] Sillitoe contributed writing to a 1971 collection titled *Poems* with Ruth Fainlight and this other British author, who wrote the poetry collection *The Hawk in the Rain*. He was the husband of Sylvia Plath.

ANSWER: Ted Hughes [or Edward James Hughes]

<Bentley>

14. These objects are characterized by an electric susceptibility, which measures their polarization due to an applied electric field. For 10 points each:

[10] Name these polarizable insulating materials that often inserted into capacitors to increase their capacitance.

ANSWER: dielectrics

[10] Inside dielectrics and other solid materials, a vector field of this name often takes the conceptual place of the electric field. This word also refers to a vector describing an object's change in position.

ANSWER: displacement field

[10] The negative divergence of polarization is given by the density of this quantity, which accumulates in response to an applied electric field. It is added to a persistent counterpart to give the total charge.

ANSWER: bound charge

<Eltinge>

15. Because the frequency of these objects' emitted light decreases with their size, they can be tuned to produce different colors. For 10 points each:

[10] Name these nanoparticles which behave like particles-in-a-box. These objects fluoresce when electrons fall in energy from the conduction band back to the valence band.

ANSWER: quantum dots [prompt on partial answer]

[10] Quantum dots are made from this type of material, which has electrical properties that are intermediate between an insulator and a conductor.

ANSWER: semiconductor [or semiconducting]

[10] Highly conjugated organic molecules also behave like particles-in-a-box and can fluoresce.

Conjugation usually requires this type of bond, which forms when p orbitals overlap parallel to the bonding axis.

ANSWER: pi bonds

<Silverman>

16. Answer the following about legal education and certification in the United States, for 10 points each.

[10] This university in northern Manhattan hired the first American professor of law, James Kent, in 1793. Alexander Hamilton attended it while it was called Kings College.

ANSWER: **Columbia** University in the City of New York [or **Columbia** College]

[10] After law school, an aspiring lawyer must take this comprehensive test to be certified to practice law in a given state.

ANSWER: **bar** examination

[10] This man passed the bar in New York in 2004 and California in 2014, but has been denied a law license due to a controversial invocation of the "good moral character" test, after *The New Republic's* 1998 repudiation of thirty-six investigative journalism pieces that he fabricated.

ANSWER: Stephen Randall **Glass**

<Jackson>

17. This critic argued that imperfection was the key ingredient in Gothic art in "The Nature of Gothic", which was published independently by William Morris after earlier appearing as a chapter in a larger work. For 10 points each:

[10] Identify this art critic who coined the term "pathetic fallacy" and wrote the multi-volume *Modern Painters*.

ANSWER: John **Ruskin**

[10] "The Nature of Gothic" originated in Ruskin's three-volume work on the architecture of this Italian city, titled for its "stones". It was home to artists like Titian and Canaletto, the latter of whom painted many *vedute* of its Grand Canal.

ANSWER: **Venice** [or **Venezia**]

[10] Ruskin controversially accused James McNeill Whistler of "flinging a pot of paint in the public's face" with this painting, prompting a libel lawsuit which resulted in Whistler being awarded one farthing.

ANSWER: **Nocturne in Black and Gold: The Falling Rocket** [accept either underlined portion]

<Bentley>

18. Since the 1950s, many trade treaties have included provisions that disputes between countries and companies would be resolved by independent arbitrators. For 10 points each:

[10] In 2003, CPI, Cargill and ADM sued the government of Mexico for levying a tax on products that contained this substance. Pepsi Throwback replaces this now-common sweetener with sugar.

ANSWER: **high fructose corn syrup** [or **HFCS**; or **glucose-fructose**; or **isoglucose**; or **corn sugar**]

[10] A 2009 Australian law that mandated plain-paper packaging for these products sparked a multi-billion dollar arbitration case from an American company. Companies that manufacture these products were once obligated to fund TheTruth.com in the US.

ANSWER: tobacco **cigarettes**

[10] Vattenfall, a company in this industry, is suing Germany for Germany's 2012 plan to phase out this industry. Watts Bar 1 in Tennessee was the last investment in this industry to go online in the United States.

ANSWER: **nuclear** power [or **nuclear** energy; prompt on **energy**]

<Bentley>

19. A small degree of self-government was allowed in this system by the Minto-Morley Reforms of 1909. For 10 points each:

[10] Identify this system whose last Viceroy was Lord Mountbatten. Under this system, "Pukka Sahib" British bureaucrats isolated themselves from India's population with whites-only private clubs.

ANSWER: British **Raj** System [prompt on "British Empire" or "Indian empire"]

[10] The Raj System began under this monarch, who oversaw the transfer of India from the British East India Company to the crown after the Sepoy mutiny in 1857.

ANSWER: Queen **Victoria** [or Alexandria **Victoria**]

[10] In this city, a "pact" between the Indian National Congress and the Muslim League committed both to opposing the British Raj. Colin Campbell relieved a pre-Raj siege of this city during the Sepoy mutiny.

ANSWER: **Lucknow**

<Bentley>

20. Al-Ghaffar and Al-Fattah are among of the ninety-nine names, each evoking a different characteristic, of this being. For 10 points each:

[10] Name this being who is invoked in the Shahada, which reads that there is no God but him, and that Muhammad is his messenger.

ANSWER: **Allah** [prompt on answers like "God"]

[10] Worshiping any god but Allah produces this sin, which is divided into "greater" or "lesser" forms depending on whether the idolatry is blatant or concealed.

ANSWER: **shirk**

[10] Muslims often express guarded optimism about future events by invoking this phrase, which means "if God wills."

ANSWER: **insha'Allah**

<Gupta>

21. This law restricts the efficiency of a Carnot engine to less than or equal to one. For 10 points each:
[10] Name this law which states that the change in internal energy of a system is equal to the heat added plus the work done on it. This law is a restatement of the conservation of energy.

ANSWER: **first law** of thermodynamics

[10] On a temperature-entropy diagram, the adiabatic expansions and compressions are this kind of transition.

ANSWER: **vertical** transitions [or **isentropic**; or obvious equivalents, such as they go **up** and **down** or the occur with **no change** in **entropy**]

[10] In contrast to the adiabatic expansion and compression steps of the Carnot cycle, the expansion and compression steps described by this term are horizontal transitions on a T-S diagram.

ANSWER: **isothermal**

<Mukherjee>

22. Three bishops were killed at this battle by forces of the Earl of Surrey, whose army used polearms with curved blades called bills. For 10 points each:

[10] Name this 1513 rout of pike-wielding Scottish forces. It resulted in the death of King James IV.

ANSWER: Battle of **Flodden** Field [or Battle of **Branxton**; or Battle of **Brainston** Moor]

[10] The Earl of Surrey served this English king, whose first of six wives was Catherine of Aragon.

ANSWER: **Henry VIII**

[10] Henry finally got a healthy son through his marriage to this woman, his third wife. After she died giving birth to the future Edward VI, Henry found Anne of Cleves.

ANSWER: Jane **Seymour** [prompt on "Queen Jane"]

<Bentley>

23. Uncle Billy strands the title group of this story by stealing their horses and mules. For 10 points each:

[10] Name this short story in which a snowstorm traps Piney Woods and Tom Simson in a cabin in the Sierra Nevada.

ANSWER: "The **Outcasts of Poker Flat**"

[10] "The Outcasts of Poker Flat" is by this American author and editor of the *Overland Monthly*, whose second issue published his story "The Luck of Roaring Camp".

ANSWER: Bret **Harte** [or Francis Bret **Harte**]

[10] The protagonist of "The Outcasts of Poker Flat" is this gambler, who writes his own epitaph on the two of clubs and pins it to a tree.

ANSWER: **John Oakhurst** [accept either]

<Mehigan>