

1. One novel from this modern country centers on a "ghost caught in Individualism's blind alley", a peasant nicknamed "Camel" who moves to the capital to work. An author from this country presented a dilemma involving sleepers in an iron house in the preface to his *Call to Arms*, which includes a Gogol-inspired story that ends with the line "Save the children" and is called "A Madman's Diary". A rider of Red Hare joins two other men to swear the Peach Garden Oath in one of this nation's Four Great (*) Classical Novels; that novel also features the Battle of Red Cliffs, a clash between the armies of Wei, Wu, and Shu. For 10 points, name the origin of *Romance of the Three Kingdoms*, a country whose native authors include Lao She, Lu Xun, and the Nobel-winning Gao Xingjian. ANSWER: China [or Zhongguo; or Zhonghua Renmin Gongheguo; or the People's Republic of China]

<Mukherjee>

2. This province's Ruskin Dam is currently being renovated. In February 2012, Mitsubishi purchased a stake in this province's Cutbank Ridge field to explore shale gas opportunities. First Nations advocates in this province have denounced an oil pipeline near its city of Kitimat. Wetlands in its city of Mission are threatened by plans to build a (*) container port to relieve the burden on existing facilities on the Burrard Inlet of the Strait of Georgia and at the mouth of the Fraser River; those ports are located in this province at the western terminus of the Canada Pacific Railway. For 10 points, name this westernmost Canadian province, which contains Victoria and Vancouver.

ANSWER: British Columbia

<Haddad-Fonda>

3. After persuading two scorpions to allow him into a tunnel, this man emerges on the other side and meets a tavern keeper who fails to dissuade him. A series of progressively decaying bread loaves proves that this hero failed to stay awake for seven consecutive nights. This man is caught sneaking into a bride's chamber, causing him to (*) wrestle a man who was tamed by having sex with a temple prostitute. Anu convoked the gods in order to punish this man's friend for his role in killing the Bull of Heaven, which was sent against this man because he spurned Ishtar. This two-thirds divine hero slew the beast Humbaba with the help of his wild-man friend Enkidu. For 10 points, name this king of Uruk, hero of a namesake Mesopotamian epic.

ANSWER: Gilgamesh

<Jose>

4. He's not Raphael, but he created a bust of a bearded Bindo Altoviti. An effete nude touches his left hand to his curly hair as he looks down and to his right in this artist's *Narcissus*. After fleeing Italy in the Sack of Rome, he was commissioned to make *The Nymph of Fontainebleau*. One of his works sees a man seated on a sea shell drawn by four horses. A nude with wings coming out from his feet and head holds a sword and the head of his foe in a work by this man now in Florence's Loggia dei Lanzi. His best known work, sculpted in gold, shows (*) Ceres grabbing her left breast while a trident is held by a mannerist Neptune. For 10 points, name this artist of *Perseus Beheading Medusa* and *The Salt Cellar of Francis I*.

ANSWER: Benvenuto Cellini

<Bentley>

5. An Aeginian contingent at this battle successfully employed the *diekplous* maneuver. Prior to this battle, Sicinnus was sent as a false messenger to an enemy commander. The victorious commander in this battle funneled the enemy fleet through a strait in the Saronic Gulf. It was fought near the port of (*) Piraeus. Participants in this battle included Artemesia of Caria, the Queen of Halicarnassus. The losing commander watched this battle from a throne on a nearby island and saw over two hundred of his triremes sunk. Prior to this battle, Athens was evacuated and the Spartans lost at Thermopylae. For 10 points, name this naval battle, where the Persian fleet of King Xerxes I was handily defeated by the Greeks under Themistocles.

ANSWER: Battle of Salamis

<Bentley>

6. Hennie and Stearns proved more complex forms of these mathematical constructs were at most log T more efficient. The "o" variant of these constructs rely on an outside oracle. These constructs correspond to type 0 grammars, and they were put forth in a paper about the Entscheidungsproblem (ent-SHY-dungs-proh-blem). When they can have more than one rule at each stage, they are called (*) non-deterministic. The question of whether an arbitrary one of these objects ever stops is called the halting problem. These objects have a read-write head and an infinitely long tape, while universal ones can run any known algorithm. For 10 points, name these models of computation devised by a British computer scientist.

ANSWER: Turing Machines

<Butler>

7. The last of these passages asks "What is a man, if his chief good and market of his time be but to sleep and feed?" and begins "How all occasions do inform against me." The second one considers that "the devil hath power to assume a pleasing shape" and laments "what a rogue and peasant slave am I!" The first of these passages compares the world to an "unweeded garden," and begins "O that this too too (*) solid flesh would melt, thaw, and resolve itself into a dew!" The third one declares that "conscience does make cowards of us all" and contemplates suffering "the slings and arrows of outrageous fortune". For 10 points, name these speeches given by the protagonist of a Shakespearean tragedy, which include one that begins "to be or not to be."

ANSWER: the soliloquies of Hamlet [prompt on partial answer; prompt on "speeches of Hamlet" or "monologues of Hamlet" or equivalents; the word "soliloquoy" is required to get points]

<Magin>

8. Many versions of this technique use polarization transfer to enhance signals. Sequential walking is used to correlate cross-peaks in two-dimensional forms of it. This technique can be used instead of X-ray diffraction on small proteins in solution. TMS is used as a standard in this technique, in which J-couplings split signals and the integration gives the number of equivalent atoms. This technique relies on the fact that atoms in different chemical environments (*) oscillate at different frequencies. It operates by subjecting a solution of a molecule to a series of radio frequency pulses, and a variation of it used in medicine is the MRI. For 10 points, name this type of spectroscopy that uses very high powered magnets to determine chemical structures.

ANSWER: NMR spectroscopy [or Nuclear Magnetic Resonance spectroscopy; prompt on "MRI" or "Magnetic Resonance Imaging" before mention]

<Mukherjee>

9. During this man's presidency, the Revenue Cutter Service was formed. One controversy during his term involved the arming of the *Little Sarah*. The constitutionality of one policy advanced by this leader was debated by the Pacificus and Helvidius letters; that policy was prompted by the Citizen Genet affair. During his tenure, the territory of the United States was expanded in the Treaty of (*) Greenville. This president's Secretaries of the Treasury and State agreed to have the federal government assume the debt of states in exchange for a more southern capital. He issued the Proclamation of Neutrality and warned against entangled alliances in his Farewell Address. For 10 points, name this only-ever unanimous winner of the Electoral College.

ANSWER: George Washington

<Bentley>

10. While in England, this artist painted a portrait of Sir Theodore Turquet de Mayerne, the physician of Charles I. One work by this artist shows Hermes rushing in to give the central figure a caduceus; that central female is being tutored by the three graces. A work by this artist for the Antwerp Cathedral shows Saint Longinus and a group of heavily muscled men struggling to (*) raise the central object. He painted himself and his wife Isabella Brant seated in a honeysuckle bower. Henry IV is pulled toward heaven by Jupiter in the central work of a series this artist created that also featured the Disembarkation at Marseilles of his patron, Marie de' Medici. For 10 points, name this Flemish artist best known for his voluptuous female nudes.

ANSWER: Peter Paul Rubens

<Bentley>

11. In a novella by this man, the citizens of Terralba have to deal with "The Good Un" and "The Bad Un", the parts that remain after Medardo is hit by a cannonball. Another novel by this author sees two men in a train station exchange the password "Zeno of Elia" but not their suitcases. That novel by this man describes a conflict between the fictional countries of Cimmeria and Cimbria and contains a section set "Outside the town of Malbork". His novels include *The (*) Cloven Viscount* and one starring Kublai Khan and Marco Polo, his *Invisible Cities*. Every other chapter of his most famous novel is in the second person. For 10 points, name this Italian author of a work featuring Ludmilla and the Reader called *If on a winter's night a traveler*.

ANSWER: Italo Calvino

<Bentley>

12. "Kettle polish" is a type of empirical evidence for this phenomenon, which William Arens called an anthropological myth. Christy Turner argued that this practice drove the evacuation of Chaco Canyon's settlements, and coprolite samples from Cowboy Wash suggest the Anasazi engaged in this practice before their society collapsed. A Marvin Harris book pairing its practitioners with "Kings" posits that it served as a sort of luxury good in Aztec society due to the lack of abundant (*) protein. The Fore tribe in Papua New Guinea was ravaged by the brain disease kuru as a result of engaging in this practice, which transmitted misfolded proteins from the dead to the living. For 10 points, name this often-taboo act, the savory consumption of human flesh.

ANSWER: cannibalism [or anthropophagy, or colloquial equivalents such as eating people or cooking people; accept eating human brains; prompt on just "cooking," "eating meat," etc.]

<Jackson>

13. **This person performed his most famous feat immediately after dismounting from a water buffalo. He was conceived by his mother as she gazed upon a pole star while leaning against a plum tree and stayed in her womb for 62 years. This man taught that "we join spokes together in a wheel, but it is the center hole that makes the wagon move." This man, who formed a close relationship with a sentry in the frontier after escaping the moral decay of city life, came up with an idea known as "as-it-is-ness," or (*) ziran. His major work was commissioned by Yinxi, opens by saying "A name that can be named is not the Name," and teaches inaction, or wu wei. For 10 points, name this figure who wrote the *Dao Dejing*, the founder of Daoism.**

ANSWER: Lao-tzu [or Laozi; or Laocius; or Lao-tan]

<Gupta>

14. **A contemporary of this composer claimed that his second piano concerto in G minor "begins with Bach and ends with Offenbach." This composer wrote a violin showpiece for his friend Pablo Sarasate, his *Introduction and Rondo Capriccioso*. One of his operas features a "Danse Bacchanale" of celebrating (*) Philistines. A harp plays a D twelve times to open a tone poem by this composer, in which the solo violin has its top string tuned *scordatura* to E-flat to represent Death playing his fiddle at midnight. This composer of the opera *Samson and Delilah* also composed a suite which begins with "the royal march of the lion." For 10 points, name this French composer of *Danse Macabre* and *Carnival of the Animals*.**

ANSWER: Camille Saint-Saens

<Rosenberg>

15. **In one conflict between these two countries, one side retreated to the Saltoro ridge after the other took the Siachen glacier. Jack Anderson won a Pulitzer for exposing the U.S.'s role in one conflict between them. During one conflict between these countries, one side annexed a princely state in Operation Polo. Another war between them began after one side launched Operation Gibraltar and ended with the Tashkent Declaration. Another conflict began after one side infiltrated the (*) Kargil District, and the Line of Control was created after another conflict between them. The last conflict between them was the first ground war between two nuclear states. For 10 points, name these two countries who often fight over Kashmir.**

ANSWER: India and Pakistan [both answers required, order does not matter; do not prompt on partial answer; accept Republic of India or Bharat Ganarajya for India, and the Islamic Republic of Pakistan or Islami Jumhuri-ye Pakistan for Pakistan]

<Mukherjee>

16. **Dividing the dynamic viscosity by this quantity gives the kinematic viscosity. The drag force is proportional to the product of the square of velocity, the drag coefficient, the cross sectional area, and *this*. One term of Bernoulli's principle has pressure divided by this quantity, and this quantity varies in (*) compressible flows. Archimedes' principle states that ratio of the weight of an object to the weight of displaced fluid is equal to the ratio of this quantity for the object to this quantity for the fluid. The gauge pressure is equal to this quantity times little-g times height in accordance with Pascal's law. This value is symbolized rho. For 10 points, name this quantity of a fluid, equal to the mass per unit volume.**

ANSWER: mass density

<Mukherjee>

17. A ruler of the Kingdom of the Two Sicilies with this name was derisively called King Bomba. Another king of this name was known as the “Desired One” after he was deposed in favor of Napoleon’s brother Joseph during the Peninsular War. A Holy Roman Emperor of this name was deposed as King of Bohemia in favor of Frederick the Winter King at the start of the (*) Thirty Years War. One monarch of this name took as a second wife Germaine de Foix and was the father of Joanna the Mad; that same king with this name jointly expelled the Jews from his country via the Alhambra Decree. For 10 points, give this name shared by a king of Aragon who unified his kingdom with that of Isabella of Castile.

ANSWER: Ferdinand

<Bentley>

18. In one work, this thinker contrasted a poetic description of the Rhine with the power generated by a hydroelectric plant on the river. He defined an inauthentic person's failure to properly orient towards Death as a cause of Angst and wrote that a human’s existence is a “thrownness” into the “there” of the world. This author of "The Question Concerning Technology" taught (*) Hannah Arendt and served as a rector of the University of Freiburg. He conceived of an ontological form of being he termed "Dasein" in his magnum opus. For 10 points, name this Nazi Party member, a German philosopher who wrote *Being and Time*.

ANSWER: Martin Heidegger

<Gupta>

19. This structure encodes a tetrameric protein that binds to O1, O2, and O3 sites. One part of this system is joined to the UAS sequence in a common two-hybrid assay reporter. It is activated using IPTG. It is positively regulated by the Catabolite Activator Protein, which binds to cAMP. Its mutations include one which stops the binding of a repressor protein, leading to constitutive activation, and a super-repressor mutation in which the repressor fails to disassociate. It encodes a (*) transacetylase, permease, and galactosidase as part of a polycistronic RNA. It is minimally activated when glucose is high. It was first characterized by Jacob and Monod in E. Coli. For 10 points, name this prototypical gene expression system which regulates lactose metabolism.

ANSWER: lac operon [prompt on "operon" or "lac"; accept LacZ, LacA, LacY, or LacI]

<Mukherjee>

20. This author wrote "To live in mankind is far more than to live in a name" in his elegy upon the death of John Altgeld, "The Eagle That is Forgotten." This author helped Langston Hughes become famous by trumpeting his discovery of Hughes in a Washington D.C. restaurant. However, this poet was accused of racism for writing a poem which repeats the refrain "Mumbo-jumbo will (*) hoo-doo you" and describes the title river "creeping through the black / cutting through the jungle with a golden track." Another of this author's poems repeatedly asks "Are you washed in the blood of the lamb?" and describes the founder of the Salvation Army arriving in Paradise. For 10 points, name this American poet who wrote "The Congo" and "General William Booth Enters Into Heaven."

ANSWER: Vachel Lindsay [or Nicholas Vachel Lindsay]

<Magin>

21. In this organism, the MSL complex localizes to the X chromosome. During its development, the anterior is specified by hunchback and bicoid and the posterior by nanos and caudal. Gap genes activate pair-rule genes in their larvae, and lines of them carrying some recessive lethal mutations are maintained using the TM3 balancer. This organism's salivary glands are a source of polytene chromosomes, and a common transposon in these organisms is the P-element. Mutants of this organism include ones with forked (*) bristles, bar-shaped eyes, and white eyes. This organism was used to create the first linkage maps by Alfred Surtevant, a student Thomas Hunt Morgan. For 10 points, identify this common model organism, an insect more commonly known as the fruit fly.

ANSWER: Drosophila melanogaster [or D melanogaster; accept fruit fly before mention; prompt on "fly", prompt on "melanogaster"]

<Mukherjee>

22. A minor character in this novel insists that she keep a toy cannon for herself rather than share it with her son. That son, whose funeral concludes this novel, falls ill after feeding a dog a piece of bread with a pin inside. The protagonist regains his faith through a dream of the Wedding at Cana, having lost it when his master's body decayed and exuded a stench. Its chapter "Pro and Contra," which introduces the (*) Parable of the Grand Inquisitor, precedes a chapter on Father Zosima's life. In this novel, conflicts over Grushenka and three thousand rubles ultimately lead to Fyodor's death. For 10 points, Dmitri, Ivan, Alyosha, and Smerdyakov are the title characters of which Fyodor Dostoevsky novel?

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

<Ueda>

23. One historian argued against this policy by recounting the story of a siege during which a soldier was punished for throwing a stone by being killed by a catapult. After this policy was officially enacted, an angry mob lynched a single soldier who had been sent to enforce it. This policy was greenlit after the removal of patriarch Germanos. This policy was enacted for a second time after a series of defeats by Krum and his Bulgars, having earlier been reversed by (*) Irene. Supporters of it erroneously believed that it would result in military victories against Arabs. Occurring from 814-842 and 730-787, for 10 points, name this policy sanctioned by two emperors named Leo, in which images were destroyed across the Byzantine Empire.

ANSWER: Byzantine iconoclasm [or the destruction of icons in the Byzantine Empire and synonyms]

<Gupta>

24. This character is briefly employed as a mute mourner by the undertaker Mr. Sowerberry. After this character's mother is called a "a regular right-down bad 'un", he flies into a rage and beats up Noah Claypole. Edward Leeford, who had taken the pseudonym "Monks", is revealed to be this character's half-brother. He is abandoned by Toby Crackit and a colleague after being shot by the butler Giles, but is nursed back to health by (*) Rose Maylie. This character is taken in for a time by Mr. Brownlow, but is kidnapped by Nancy and her boyfriend Bill Sikes. While traveling to London, he is recruited to work for Fagin by the Artful Dodger. For 10 points, name this orphan who asks "Please, sir, I want some more" in a scene from his namesake Charles Dickens novel.

ANSWER: Oliver Twist [accept either underlined portion]

<Carson>

1. This phrase was first used by Charles Moskos to describe a compromise policy that he helped formulate. For 10 points each:

[10] Name this controversial U.S. military policy which has not been enforced since September 2011.

ANSWER: **Don't Ask, Don't Tell** [prompt on "DADT"]

[10] "Don't Ask, Don't Tell" became an official policy during the administration of this U.S. President.

ANSWER: Bill **Clinton** [or William Jefferson **Clinton**]

[10] Name either of the two "don'ts" that were commonly appended to "ask" and "tell." They prohibited unfounded investigations of orientation and antagonistic treatment.

ANSWER: Don't **Pursue** OR Don't **Harass** [accept either underlined portion]

<Thompson>

2. Complex numbers have a term containing this value multiplied by a real number. For 10 points each:

[10] Identify this value important in defining the imaginary numbers, which is equal to the square root of negative one.

ANSWER: **i** [or **j** from electrical engineering partisans]

[10] For a complex number z equals a plus b times i , this value is equal to a minus b times i . It is symbolized by a horizontal bar over the z , or sometimes by an asterisk next to the z .

ANSWER: complex **conjugate**

[10] These are the complex solutions of the equation $x^n - 1 = 0$. They can be arranged on the complex plane in a circle and generate cyclotomic polynomials.

ANSWER: **roots of unity** [or **De Moivre** numbers]

<Mukherjee>

3. The Biltmore proclamation opposed the 1939 British plan to create this. For 10 points each:

[10] Name this entity that some wanted to place in Uganda. The Churchill White Paper reaffirmed Great Britain's commitment to the creation of this entity, which conflicted with the promise made in the Sykes-Picot Treaty.

ANSWER: creation of a **Jewish homeland** [accept **homestate** for **Jewish people** or equivalents; prompt on "Israel"]

[10] This author of *Der Judenstaat* opposed the Uganda Project and established the First Zionist Congress.

ANSWER: Theodor **Herzl**

[10] During this man's term as Israel's prime minister, Israel fought a war against the Arab League which included the assassination of Count Folke Bernadotte, the UN-appointed mediator.

ANSWER: David **Ben-Gurion**

<Hothem>

4. This dance's characteristic rhythm is a longer step followed by two shorter steps. For 10 points each:
[10] Name this nationalistic dance in 3/4 time. It was popularized by a composer who wrote one in A minor nicknamed "Military" and one in A flat major nicknamed "Heroic."

ANSWER: **polonaises**

[10] This Romantic composer wrote the Military and Heroic polonaises. He also composed fifty-eight mazurkas and the Minute Waltz.

ANSWER: Frederic **Chopin**

[10] Contemporary performers of Chopin's pieces often play using this technique, in which the performer speeds up or slows down the tempo instead of playing in strict time. Its name comes from the Italian for "stolen."

ANSWER: **rubato**

<Magin>

5. Josephine Lowell, inspired by Richard Dugdale's account of the Jukes family, is considered the first American to institute measures in accordance with this idea. For 10 points each:

[10] Name this movement to better the human race through selective breeding of the fit and preventing reproduction of the unfit.

ANSWER: **eugenics**

[10] The term eugenics was coined by this polymath, who first defined the standard deviation and invented a fingerprint classification system. This cousin of Charles Darwin also wrote a letter to the *London Times* suggesting that China should colonize Africa.

ANSWER: Francis **Galton**

[10] One proponent of preventing crime through government-controlled reproduction was Johann Spurzheim, who applied this "discipline" to his studies. Spurzheim was an assistant to this discipline's founder, Franz Joseph Gall.

ANSWER: **phrenology**

<Wynne>

6. One of this man's works attacked censorship by excising all of the words except for "The German Censors -- Idiots". For 10 points each:

[10] Identify this German poet of "Die Lorelei" (dee LOHR-eh-"lye"), whose *Book of Songs* is divided into sections like "Lyrical Intermezzo" and "The North Sea".

ANSWER: Heinrich **Heine** [or Harry **Heine**; or Christian Johann Henrich **Heine**]

[10] Another prominent poet writing in German was Ranier Maria Rilke, who wrote the *Sonnets to Orpheus* while living in this country. A 16th century chronicle of this country contains the legend of William Tell.

ANSWER: **Switzerland** [or the **Swiss Confederation**; or **Confoederatio Helvetica**; or die **Schweiz**; or **Suisse**; or **Svizzera**; or **Svizra**]

[10] In a 1902 poem, Rilke described one of these creatures pacing "in cramped circles", noting that "it seems to him there are a thousand bars; and behind the bars, no world". One of these creatures replaces the titular hunger artist in a story by Franz Kafka.

ANSWER: a **panther** [prompt on things like "cat" but do not accept or prompt on any other type of cat]

<Bentley>

7. This man hastily carried an old woman, really Hera in disguise, across a river, leaving behind a sandal in the mud. For 10 points each:

[10] Name this student of Chiron, who successfully yoked fiery bulls and sowed dragon's teeth at the behest of King Aetes while on a journey to Colchis.

ANSWER: **Jason** [or **Iason**]

[10] These irate winged creatures were driven off from King Phineas by two of Jason's Argonauts, Calais and Zetes, who used their own ability to fly to scare these bird-women away.

ANSWER: **harpies** [or the singular **harpy**]

[10] Jason sent a dove to help the *Argo* navigate through this dangerous set of rocks which clashed together whenever anything traveled through them.

ANSWER: the **Symplegades** [or **Cyanean Rocks**]

<Jackson>

8. This party's 1940 Presidential candidate, Roger Babson, explained his lifelong quest to build an anti-gravity machine in the essay "Gravity: Our Enemy Number One." For 10 points each:

[10] Name this single-issue party, which achieved fourth place finishes in several elections from the 1880s through 1940s with such candidates as John St. John, Silas Swallow, and Eugene Chafin.

ANSWER: **Prohibition** Party

[10] The Prohibition Party achieved its goals with the ratification of this Constitutional amendment in 1919. Its enforcement was outlined in the Volstead Act.

ANSWER: **Eighteenth** Amendment

[10] In 1916, Sidney Catts was elected governor of this state on the Prohibition Party ticket. Other governors of this state included Lawton Chiles, in office for most of the 1990s, and John Milton, its Confederate governor, who killed himself by gunshot shortly before the end of the Civil War.

ANSWER: **Florida**

<Weiner>

9. The complete reduction of this molecule produces cyclohexane, and its Lewis structure contains three alternating double bonds, resulting in a true structure with all carbon-carbon bonds of equal length. For 10 points each:

[10] Name this simple aromatic organic compound with formula C₆H₆.

ANSWER: **benzene**

[10] Adding a single hydroxyl group to benzene produces this carcinogenic compound, which is also known as carboic acid.

ANSWER: **phenol** [or **phenic acid**]

[10] This rule states that a planar cyclic compound with $4n + 2$ pi electrons will be aromatic. It is named for a German chemist.

ANSWER: **Huckel**'s rule

<Mukherjee>

10. This novel's protagonist befriends the Jacobite rebel Alan Breck after helping him fight off Mr. Shuan and Captain Hoseason. For 10 points each:

[10] Name this novel, partly inspired by the Appin Murder, in which David Balfour is abducted by the crew of the Covenant on the orders of his miserly uncle Ebenezer.

ANSWER: Kidnapped

[10] This British author of *Kidnapped* wrote about Gabriel John Utterson's investigation into the nature of the title characters in *The Strange Case of Dr. Jekyll and Mr. Hyde*.

ANSWER: Robert Louis **Stevenson**

[10] At the beginning of *Treasure Island*, this elderly sailor receives a note marked with the "Black Spot" and, before he dies, confesses to Jim that he used to work for the infamous pirate Captain Flint.

ANSWER: **Billy Bones** [accept either underlined portion]

<Gioia>

11. The second law of thermodynamics deals with the increase of this quantity. For 10 points each:

[10] Name this thermodynamic quantity, sometimes loosely described as the disorder of a system. Claude Shannon extended it to information theory.

ANSWER: **entropy**

[10] The change in entropy, delta-S, is multiplied by *this quantity* and subtracted from the change in enthalpy in order to calculate the change in Gibbs Free Energy for a reaction.

ANSWER: **temperature** [or **T**]

[10] Entropy is equal to Boltzman's constant times the natural logarithm of the number of these, which is symbolized omega. The fundamental postulate of statistical mechanics states that systems in equilibrium have equal probability of being in each of these.

ANSWER: **degeneracy** [or number of **microstates**; prompt on "states"; do NOT accept "macrostates"]

<Neithalath>

12. This country's Communist Party used "salami tactics" to divide and conquer the Independent Smallholders Party. For 10 points each:

[10] Identify this country, which implemented some free-market policies under Secretary Janos Kadar, who was installed after the USSR put down the 1956 revolution here.

ANSWER: **Hungary** [or **Magyarország**]

[10] This Chairman of the Council of Ministers came to power during the Hungarian Revolution but was deposed by the USSR after he announced Hungary's withdrawal from the Warsaw Pact.

ANSWER: Imre **Nagy** (NAJ)

[10] Janos Kadar's particular brand of communism was given this name, reflecting the mixture of market economy and socialism used.

ANSWER: **Goulash** communism [or **Gulyáskommunizmus**]

<Mukherjee>

13. A suite based on this ballet includes sections depicting "the Revivalist and his flock" and the "solo dance of the Bride." For 10 points each:

[10] Name this ballet by Aaron Copland which includes variations on the Shaker hymn "Simple Gifts."

ANSWER: Appalachian Spring [prompt on "Ballet for Martha"]

[10] Copland composed Appalachian Spring for this "mother of modern dance," who choreographed ballets such as *Deaths and Entrances* and *Lamentation*.

ANSWER: Martha Graham

[10] Copland wrote this piece for narrator and orchestra in response to a commission for a musical portrayal of a "great American." The first line of its narration is "Fellow citizens, we cannot escape history."

ANSWER: Lincoln Portrait

<Thompson>

14. A major subplot in this work details the romance between the Christian Bradamante and the Saracen Ruggiero, who were supposedly the ancestors of the d'Este family, its author's patrons. For 10 points each:

[10] Identify this epic by Ludovico Ariosto, in which the paladin Rinaldo and the title character vie for the hand of the pagan princess Angelica.

ANSWER: Orlando Furioso

[10] Miguel de Cervantes makes a number of allusions to *Orlando Furioso* in this novel, whose title chivalry-obsessed windmill-fighting fop recruits Sancho Panza as his squire.

ANSWER: Don Quixote [or *The Ingenious Gentleman Don Quixote of La Mancha*; or *El ingenioso hidalgo don Quijote de la Mancha*]

[10] Don Quixote mistakes a barber's basin for this legendary invisibility-granting item, which in *Orlando Furioso* protected Rinaldo from griffin attacks and a mighty strike from Gradasso.

ANSWER: Helmet of Mambrino [prompt on "helmet"]

<Wynne>

15. Folk legend says that this figure lived in the village of Al-Jura. For 10 points each:

[10] Name this figure, a man from Uz who is afflicted with the destruction of his health, riches, and family as part of a wager between God and Satan. Despite the advice of his friends, he refuses to admit he deserved any punishment.

ANSWER: Job

[10] Job has four friends who debate the righteousness of Job's affliction, including a younger man who does not join the conversation until chapter thirty-two. Name any of these four men.

ANSWER: Eliphaz, Bildad, Zophar, or Elihu

[10] In the final chapters of Job, God rhetorically asks Job whether or not he could catch this gigantic sea monster with a fishhook. In some Jewish traditions, Aaron sees this monster in the water beside the parted Red Sea.

ANSWER: Leviathan

<Cheyne>

16. Among the molecules that determine *this* are Kell, Duffy, and Landsteiner-Weiner, and when they are mismatched, agglutination occurs. For 10 points each:

[10] Name this quality which is determined by antigens on erythrocytes. The ABO system is the most well-known, and this quality is determined by cross-matching before transfusions.

ANSWER: **blood type** [or **blood group** or **blood factors**]

[10] The plus or minus after someone's blood type indicates the presence or absence of this antigen, which when mismatched between mother and fetus can cause hemolytic disease of the newborn.

ANSWER: **Rh** factor [or **rhesus** factor]

[10] This unusual blood type occurs when the H factor, which serves as the scaffold for both the A and B blood types, is absent. It's named for the Asian city in which it was discovered.

ANSWER: **Bombay** phenotype

<Mukherjee>

17. Its first section, "On God," begins with fifteen propositions that posit God as equal to and one with the entirety of Nature. For 10 points each:

[10] Name this philosophical text in five books, which use axioms and propositions by way of analogy to geometry. Its sections include "Of Human Bondage."

ANSWER: **Ethics** [or **Ethica**]

[10] This lens-grinder was pushed out of the Jewish community of Amsterdam for the pantheist views he expressed in the *Ethics*.

ANSWER: Benedict(us) de **Spinoza** [or Baruch **Spinoza**]

[10] This other pre-Enlightenment Dutch thinker, a legal scholar, argued that the oceans were international zones in his *Mare liberum*, and also wrote *On the Law of War and Peace*.

ANSWER: Hugo **Grotius** [or Hugo **de Groot**]

<Jackson>

18. This man's paintings include *Cupid Carving His Bow* and *Self-Portrait in a Convex Mirror*. For 10 points each:

[10] Identify this artist, well remembered for a work whose background contains a man unfolding a scroll while standing next to a large column.

ANSWER: **Parmigianino** [or Girolamo Francesco Maria **Mazzola**]

[10] Parmigianino is best known for an aforementioned painting named for the long neck of this woman. She is the only woman depicted in *Pieta* scenes.

ANSWER: **Madonna** [or the Blessed Virgin **Mary**; or Saint **Mary**, Mother of God; or Mother **Mary**]

[10] The two title winged figures grip the legs of Madonna, who is standing on a pedestal decorated with sphinxes, in this Italian artist's *Madonna of the Harpies*.

ANSWER: **Andrea del Sarto** [or Andrea **d'Agnolo**; accept any underlined answer]

<Bentley>

19. The protagonists of this novel encounter a runaway named Jimmy Blevins who rides an unusually fine bay, and they later find employment on a ranch near Cuatro Ciénegas. For 10 points each:

[10] Identify this 1992 novel about the aspiring cowboys Lacey Rawlins and John Grady Cole.

ANSWER: ***All the Pretty Horses***

[10] The author of *All the Pretty Horses* also penned this 2006 novel, in which an unnamed man and a boy trek across an ash-covered post-apocalyptic United States.

ANSWER: *The **Road***

[10] *The Road* and *All the Pretty Horses* were written by this author of *No Country for Old Men*, who wrote about the Kid's experiences with the Glanton gang and the immortal Judge Holden in *Blood Meridian*.

ANSWER: Cormac **McCarthy** [or Charles **McCarthy**]

<Carson>

20. One death that occurred on this vessel was perpetrated by Joseph Cinque [sin-kay], who led many captives onboard in an uprising that killed Ramon Ferrez. For 10 points each.

[10] Name this ship that was the site of a revolt, and eventually landed on Long Island, where the passengers were taken back into captivity.

ANSWER: the *Amistad*

[10] In the *Amistad* case, this man defended Cinque and his companions, who claimed the slaves were being transported illegally.

ANSWER: **John Quincy Adams** [prompt on "Adams"; do NOT accept or prompt on "John Adams"]

[10] This man delivered the opinion for the *Amistad* case. This Justice may be most influential for his opinion in *Martin v. Hunter's Lessee*, which stated the Supreme Court had the right to overturn decisions made by appellate courts.

ANSWER: Joseph **Story**

<Foster>

21. Economics major Art Beckstein develops an attraction for Cleveland Arning and Arthur Lecomte in a Michael Chabon novel titled for the *Mysteries* of this city. For 10 points each:

[10] Identify this city, also the setting of plays like *Joe Turner's Come and Gone* and *The Piano Lesson*.

ANSWER: **Pittsburgh**, Pennsylvania

[10] This word titles a play from August Wilson's *Pittsburgh Cycle* in which garbageman Troy Maxson has an affair with Alberta and prevents his son Cory from getting a football scholarship. According to Robert Frost's "Mending Wall", these things make for good neighbors.

ANSWER: **fences**

[10] In this other August Wilson play, a frustrated trumpeter named Levee stabs Toledo after Toledo steps on his new shoes. The title musician is joined by bandmates like Slow Drag and Cutler.

ANSWER: **Ma Rainey's Black Bottom**

<Bentley>

22. The Battle of Arsuf during this campaign began when a group of Hospitallers decided to break rank and charge the harassing archers. For 10 points each:

[10] Identify this military campaign that Leopold V of Austria and Philip II of France participated in.

ANSWER: **Third Crusade** [or the **Kings' Crusade**; prompt on "Crusades" or "the Crusades", I suppose]

[10] England raised funds for the Third Crusade through a tithe named for this Ayyubid ruler, Richard I's chief rival during the campaign. His victory at Hattin directly sparked the Third Crusade.

ANSWER: **Saladin** [or **Salah ad-Din** Yusuf ibn Ayyub]

[10] In 1188, Saladin signed a truce with Bohemond III of this city. It was razed by the Mamluks in 1268 and, like Jerusalem, Edessa, and Tripoli, lends its name to a crusader state.

ANSWER: Principality of **Antioch** [or Great **Antioch** or Syrian **Antioch** or **An?iokia** or **Antakya**]

<Bentley>

23. One of these objects is orbited by Hi'iaka and Namaka. For 10 points each:

[10] Name these celestial objects that include Haumea, Makemake, Ceres and one orbited by Dysnomia, Eris. These objects are in hydrostatic equilibrium, but have failed to clear their orbital path.

ANSWER: **dwarf planet**

[10] With the exception of Eris, this is the most massive dwarf planet. Discovered by Clyde Tombough, it used to be classified as the ninth planet in the solar system.

ANSWER: **Pluto**

[10] Eris and Sedna are found in this set of trans-Neptunian objects. Its inner region overlaps with the Kuiper belt, and this unstable area is the source of periodic comets.

ANSWER: **scattered disc** [or **scattered disc objects** or **SDOs**]

<Hothem>