1. **Modern editors of these writings think the "Bordeaux copy" fits edition B of their A, B, and C editions. One of these works doubts that Atlantis is the same as the New World, and opens by noting Pyrrhus's disdain for invaded Italians. Emerson called their author "the Skeptic" in** *Representative Men*. **They include an address to Diane de Foix on education. One notes that all peoples call unfamiliar customs barbaric, and another argues that to study philosophy is to learn to** (*****) die. Their author defended a theologian and asked "What do I know?" in *Apology for Raymond Sebond*, and they include "Of Cannibals." For 10 points, name these short prose writings by Michel de Montaigne, who coined their French name meaning "attempt."
ANSWER: the *Essays* of Michel de Montaigne [or *Essais*; accept general answers indicating the writings of Michel de **Montaigne**]

<Jackson>

2. **The corpse of Henry, Count of Niebla, was hung from a basket after he drowned trying to take this location in 1436. During World War II, Polish leader Wladyslaw Sikorski died mysteriously when his plane plunged into the sea after taking off from this place. The Marquis de Salines blew up his own fortifications here to defend against an attack on the Old Mole in 1704, when Admiral George Rooke took it for Britain. It officially became a British** (*****) possession through the Treaty of Utrecht. Lying just west of Algeciras, this peninsula is supposedly the site of the northern Pillar of Hercules, whose counterpart lies across a namesake strait in Tangier, Morocco. For 10 points, name this peninsula at the Southern tip of Spain, dominated by a massive "Rock."
ANSWER: **Gibraltar** [or Rock of **Gibraltar**; prompt on "Iberia"]

<Bentley>

3. **In Podospora, the HET-S one of these molecules regulates heterokaryon incompatibility in its normal state. The PSI-plus type in yeast is generated from Sup35p. A thirty-minute wash with one-N sodium hydroxide is required to kill them. Startle myoclonus and high 14-3-3 protein in the cerebrospinal fluid are diagnostic of one disease caused by them. They were described by Stanley Pruisner and Carleton Gajdusek. They cause a transition from an alpha-helix-dominated form to a** (*****) beta-sheet-dominated form. These molecules are responsible for GSS, Scrapie, Creutzfeld-Jacob disease, and kuru, the last of which was discovered due to the Fore people eating the brains of their dead. For 10 points, name these misfolded proteins that in bovines cause Mad Cow Disease.
ANSWER: **prion**s [prompt on **protein**s or **peptide**s]

<Mukherjee>

4. **A holy figure in this tradition has a snake's hood shading his head in almost all images. Its sacred texts include Agam literature. This tradition believes in an Upper, Middle, and Lower World within a roughly torso-shaped universe, and its symbols include a raised hand with a wheel on the palm. A historical founder of this faith was presaged by fourteen dreams and is symbolized by a lion. Adherents believe that humans live shorter lives by orders of magnitude as the cycle of time turns, and take** (*****) "five vows." This religion's "ford-builders," twenty-four holy figures also called *tirthankaras*, inspire monks who carry brooms to sweep their paths and revere Mahavira. For 10 points, name this Indian religion committed to *ahimsa*, or nonviolence.
ANSWER: **Jain**ism [or **Jain**s; or **Jain** dharma]

<Jackson>

5. **This writer conjectured that Ashkenazi Jews were actually descended from the Khazars in his much-panned book *The Thirteenth Tribe* and coined the term "holon" to describe entities that represent both a part and a whole in another book. The protagonist of one of his novels believes in a "law of historical credit" and uses a "five by five" method of communication involving pencil taps to communicate with his (*)** cellmates. This author of *The Ghost in the Machine* wrote a novel whose protagonist is interrogated by the brutal Gletkin after being imprisoned for speaking out against Number One. For 10 points, name this Hungarian-born author who wrote about Nikolai Rubashov in his novel *Darkness at Noon.*
ANSWER: Arthur **Koestler** [or **Kösztler** Artur; accept names in either order]

<Jose>

6. **This man returned from exile in Turbaco, Colombia to unite the conservative and liberal governments of Lucas Alaman and Sebastian Lerdo de Tejada. Early in his career he saved his country from Isidro Barradas, earning him the nickname of the "Hero of Tampico". This man sent his forces to join with the Cherokee at the Dawson massacre to repudiate the Treaty of Velasco. With Guadalupe Victoria, this man signed the Plan of (*)** Casa Mata to overthrow his patron, Agustin Iturbide. An angry crowd once dug up and desecrated the leg this man lost in the Pastry War. This commander at the Goliad Massacre was defeated by Sam Houston at the Battle of San Jacinto. For 10 points, name this 11-time president of Mexico who defeated William Travis at the Battle of the Alamo.
ANSWER: Antonio Lopez de **Santa Anna**

<Bentley>

7. **This modern-day country was the site of the Staburags Cliff, a travertine rock formation that was flooded by the Plavinas hydroelectric plant. That cliff was the site of a battle against the Black Knight in this country's national epic, a work written by Andrejs Pumpurs about the "Bear-Slayer." A June 2013 election victory by Harmony Center threatens this country's plan to adopt the Euro in 2014. Semigallia and Courland are historical regions of this country, whose western coastline is home to the last speakers of the endangered (*)** Livonian language. Aside from Russia, this country's population has the highest Russian percentage of any post-Soviet state. The Gulf of Riga indents, for 10 points, what Baltic country between Estonia and Lithuania?
ANSWER: Republic of **Latvia** [or **Latvijas** Republika]

<Hoppes>

8. **One of this author's plays features a scene in which one character is challenged to lift a chair over his head; that character fails, but Marco succeeds. In that play by this man, the discovery that Rodolfo is romantically involved with Catherine angers the protagonist, an Italian-American longshoreman. In another of his plays, a storm blows over a tree memorializing Larry, who died in World War II due to faulty (*)** airplane parts manufactured by his father Joe Keller. Thomas Putnam is accused of "reaching for land" by Giles Corey in a play by this man in which Abigail Williams and the slave Tituba are accused of witchcraft. For 10 points, name this playwright of *A View From the Bridge*, *All My Sons*, and *The Crucible*.
ANSWER: Arthur Asher **Miller**

<Bentley>

9. **One building this man worked on required the design of a "geometrical flat floor" roof, as it was originally based on the Theatre of Marcellus which lacked a roof. This man designed a fluted Doric column with an interior staircase that allows visitors to reach the urn of fire on top; that sculpture is usually called "the Monument." Though he is definitely the designer of the Sheldonian theater, credit for many of his other works are now given to members of his office like** (*) Nicholas Hawskmoor. He may be most famous for a building with woodwork by Grinling Gibbons, domes inspired by Mansart's Val-de-Grace, and a facade with sets of paired Corinthian columns. For 10 points, name this architect behind the current St Paul's Cathedral.
ANSWER: Sir Christopher **Wren**

<Chonai>

10. **In a semiconductor, one form of this quantity is raised to the three-halves power in order to find the density of states. Along with spin, this quantity provides the index of unitary irreducible representations of the Poincare group. A "gap" named for this quantity is the difference in energy between the vacuum state and the next lowest energy state. The inertial and gravitational forms of this quantity are equal according to the** (*) equivalence principle. The binding energy of a nucleus is found by calculating the defect in this quantity, and it is multiplied by the gravitational acceleration and height to find gravitational potential energy. For 10 points, name this quantity which is multiplied by the square of the speed of light in order to find energy.
ANSWER: **mass** [or **m**; accept **effective mass** or **mass gap**]

<Mukherjee>

11. **For a q-ary code, the terms in denominator of the sphere packing bound are these numbers time a function of q. The nth Catalan number is calculated by multiplying one over n plus one times one of these numbers. The number of trials times the success rate time the failure rate is the variance for a** (*) distribution that uses and shares a name with these numbers. The sum of all of these numbers when the row index is held constant is 2 to the n. These numbers make up the entries in Pascal's triangle and can be derived from a different function by dividing by k factorial. For 10 points, name these numbers that give n choose k and are used in their namesake expansion of the powers of a size two polynomial.
ANSWER: **binomial** coefficients [accept **combination** numbers before "choose"; accept **choose** numbers before "choose"; prompt on entries in "Pascal's" triangle]

<Butler>

12. **This state was home to the long-serving "Silent Senator" who, with Wilburn Cartwright, co-sponsored the Federal Highway Act of 1956; that man was Carl Hayden. A justice from this state wrote the majority opinion allowing limited affirmative action at the University of Michigan in *Grutter v. Bollinger*. A senator from this state joined with Bill Nichols to increase the power of the Chairman of the Joint Chiefs years after being targeted by the** (*) Daisy Ad by the Lyndon Johnson campaign. Wyatt Earp was injured at the Gunfight at the O.K. Corral in this state. Sandra Day O'Connor joined the Supreme Court from this state, the namesake of a Battleship that sunk with 1,177 crew during Pearl Harbor. For 10 points, name this home state of John McCain.
ANSWER: **Arizona**

<Bentley>

13. **A scholar from this place published the Semiramis legend in his *Bibliotheca historia*. Arethusa became a fountain on Ortygia, a neighbor islet to this home of Diodorus. Acestes lives in its town of Eryx, where he shoots an arrow that catches fire, and frenzied women burn a fleet of ships that previously picked up Achaemenides here. Galatea's lover Acis was crushed by a boulder in this place. The giant Enceladus was buried under its (*)** tallest peak, where Virgil located Polyphemus. Chains keep Typhon under this landmass, the end goal of Icarus's failed flight. In the water to its northeast, ships tried to avoid the churning Charybdis and six-headed Scylla. For 10 points, name this island where Hephaestus channeled the fires of Mount Etna.
ANSWER: **Sicily** [or **Sicilia**]

<Jackson>

14. **Rival factions serving a king of this name fought the 1520 Cleanse the Causeway skirmish. The first king of this name wrote *The Kingis Quair* and spent 18 years in captivity after being captured by pirates in 1406. An exploding cannon killed another king of this name during his siege of Roxburgh Castle. Sir Robert Graham assassinated the first king of this name in 1437. Another king of this name ruled during the North Berwick witch trials and wrote (*)** *Daemonologie* and *The True Law of Free Monarchies*. The fourth king of this name was killed facing troops commanded by the Earl of Surrey at the Battle of Flodden Field. For 10 points, give this common name of Scottish kings, the sixth of whom ruled England as the first Stuart monarch.
ANSWER: **James**

<Bentley>

15. **This author wrote of a preacher who calls off his own crucifixion when people try to stone him and a carpenter who relentlessly pursues "the thing with no name" in a novel fictionalizing a slum in his hometown. He created a character whose father drowns while trying to rescue a calf he thinks is his son. In one of his novels, the magician Zabeth patronizes (*)** Salim's shop in an unnamed country ruled by the Big Man. In a controversial 2011 interview, he claimed that women's writing was "unequal" to his own. In his most famous novel, a polydactylic man marries into the Tulsi family in his quest to obtain his own property. For 10 points, name this Indo-Trinidadian author of *Miguel Street*, *A Bend in the River*, and *A House for Mr. Biswas*.
ANSWER: Sir Vidiadhar Surajprasad "V. S." **Naipaul**

<Gupta>

16. **The Lüscher test attempts to determine compatibility of personality based on a preferential ordering of eight of these things. An attempt to explain the ability to perceive these things was put forth by Ewald Hering in the opponent-process theory, and they are also the subject of Young-Helmholtz theory. Defects in the perception of these can be detected using circle-shaped Ishihara plates. The time delay in reading the names of these things when they are (*)** printed in an unexpected way constitutes the Stroop Effect. Protanopia and Daltonism are two forms of the inability to distinguish these things. For 10 points, identify these visual phenomena that are perceived by rod and cone cells and include red and green.
ANSWER: **color**s [or **hue**s, I guess]

<Weiner>

17. **This artist included no nails or crown of thorns in his painting of a crucified Jesus floating above the water,** *Christ of St. John of the Cross***. A skeleton this artist painted in** *The Atavism of Twilight* **takes the stance of a farmer from Millet's** *The Angelus***, a painting this man insisted was about a dead child. This artist met Paul Eluard while working on** *Lugubrious Game* **and subsequently married Eluard's wife. This artist included two (*)** jumping tigers and a pomegranate in one of his paintings about his wife Gala. His best-known work depicts a bare tree covered by drooping clocks. For 10 points, name this Spanish surrealist who painted*The Persistence of Memory*.
ANSWER: Salvador Domingo Felipe Jacinto **Dali** i Domenech

<Morlan>

18. **People attempting to adopt this profession are described as standing "as if they were stretched outside The Oval or Villa Park...as if it were all An August Bank Holiday lark" in a Philip Larkin poem. In another poem about these people, one remarks on the "jolly old rain" before another wonders "when the Allemands would get busy". A poem about former members of this profession notes that they "shall not sleep, though (*)** poppies grow" above them. One of these people asks the reader to remember that "there's some corner of a foreign field that is for ever England" in a poem by Rupert Brooke. For 10 points, name these people who participated in the events of Siegfried Sassoon's "Counter-Attack", many of whom were buried "In Flanders Fields."
ANSWER: **soldier**s in World War I [accept **troop**s or **people in the military** or **veteran**s other reasonable synonyms]

<Mehigan>

19. **This man names a type of matter in which ions with circular orbits are suspected in a delocalized sea of electrons. This man names highly excited, approximately hydrogenic electronic states. He is the first namesake of a principle which says that some spectral lines are the sum or difference of others. His constant is equal to one-half of the hartree energy, or about 13.6 electronvolts. One of his namesake equations, which can be used to predict the (*)** Lyman and Balmer series, sets reciprocal wavelength equal to his constant times the difference in inverse squares of initial and final principal quantum numbers. For 10 points, name this man who developed that equation to validate the Bohr model of the atom and explain electronic transitions in hydrogen.
ANSWER: Johannes **Rydberg**

<Eltinge>

20. **The last of these works opens with the chiming of a glockenspiel and solo flute, and quotes the "William Tell" overture. In one of these works, the solo bass and chorus recount how rulers of the world tried to kill humor. That work laments the lack of any monuments in the title locale, while the tenth of these compositions uses notes to spell the name (*)** "Elmira." The fifth of these is in D minor and was designed to restore the composer's reputation and is called "A Response to Justified Criticism." The 13th one tells of the massacre at Babi-Yar while another of them contains an ostinato theme taken to represent the German invasion. For 10 points, identify these orchestral works by a Soviet composer, the seventh of which is called *Leningrad*.
ANSWER: **symphonies** of Dmitri **Shostakovich** [accept obvious equivalents, such as **Shostakovich's symphonies**]

<Rosenberg>

21. **This ruler helped restore a pope imprisoned in the Castel Sant'Angelo by the Campanian count Rofred, and launched several campaigns to subjugate the Bohemian kingdom of Boleslav I. After the death of his first wife, the daughter of England's Edward the Elder, he married a captive of Berengar of Ivrea named Adelaide. This man annexed Franconia after squashing a rebellion led by Thankmar and Eberhard. He transferred control of Lorraine to his brother,** (*) Bruno the Great, after another uprising led by his son-in-law, Conrad the Red. This man defeated Lel, Sur, Bulcsu and other Magyars at the Battle of Lechfeld. Pope John XII crowned this son of Henry the Fowler in Rome in 962. For 10 points, name this first Holy Roman Emperor, known as "the Great."
ANSWER: **Otto the Great** [or **Otto I** or **Otto II of Saxony**; do not prompt on just "Otto II"]

<Bentley>

22. **This enzyme is used to add a dimer to a probe in Applied Biosystems' SOLID sequencing technology, and eukaryotic examples of these proteins have a catalytic site with an NTase and OB-fold domains. One of these enzymes extracted from the T4 phage is often used for cloning. The XLF and XRCC4 proteins complex with one of these enzymes to catalyze a repair pathway, which joins** (*) non-homologous ends. These enzymes often require NAD+ to function. After RNAse H removes primers on the lagging strand, this protein is responsible for joining Okazaki fragments. These enzymes catalyze the formation of phosphodiester bonds. For 10 points, name these proteins that seal breaks in DNA.
ANSWER: DNA **ligase**

<Mukherjee>

23. **This author wrote a story in which the protagonist claims his mother is an "angel of Gawd" to a hitchhiker, who responds by saying "my old woman is a flea bag." In that story, the protagonist marries Lucynell, but abandons her at a restaurant on their honeymoon. That story ends with Tom Shiftlet driving into a rainstorm after reading the title** (*) phrase on a billboard. This author also wrote a story in which a car accident is caused by a cat named Pitty Sing on a trip to Florida. That story by this author ends with an entire family, including a grandmother, being slain by an escaped criminal called the Misfit. For 10 points, name this Southern Gothic author of such stories as "The Life You Save May Be Your Own" and "A Good Man is Hard to Find".
ANSWER: Flannery **O'Connor** [or Mary Flannery **O'Connor**]

<Cheyne>

24. **In one of this man's novels, an aged writer fantasizes about getting revenge on the women of his youth by having sex with a young man who himself is trapped in a sham marriage. This author's widow forbade Paul Schrader from dramatizing that novel, *Forbidden Colors*, in a biographical film about this man "in four chapters." A version of the "Nansen kills a kitten" story is related by Father Dosen in one of his novels, whose narrator befriends the** (*) clubfooted acolyte Kashiwagi. Attempting to protect reincarnations of Kiyoaki Matsugae eventually ruins Shigekuni Honda in this man's tetralogy *The Sea of Fertility*. For 10 points, name this Japanese author of *The Temple of the Golden Pavilion*m who killed himself after a failed right-wing coup.
ANSWER: Yukio **Mishima** [or Kimitake **Hiraoka**]

<Gupta>

1. For 10 points each, name some cold bodies you'll find in the Solar System.
[10] Vesta and Ceres are the two largest types of these planetoids that orbit a namesake region in between that of Mars and Jupiter in the Solar System. Near-earth ones may be potentially dangerous.
ANSWER: **asteroids** [accept the **asteroid** belt]
[10] This type of asteroid, or rather any orbiting object, occupies the L4 or L5 Lagrangian points of a two-body orbit. For the Jupiter-Sun system, they may reside in the Greek node or within a different, namesake node.
ANSWER: **Trojans**
[10] Classified as neither entirely asteroid, nor entirely comet, these bodies include Hidalgo and Chariklo and have orbits that cross the semi-major axis that lies between Jupiter and Neptune.
ANSWER: **centaurs**

<Jose>

2. In one scene in this play, Kinesias becomes increasingly frustrated while Myrrhine fetches a bed, a mattress, a pillow, and some other items, before eventually locking herself in the Acropolis again. For 10 points:
[10] Identify this play in which Kalonike, Lampito, and the title character lead a conspiracy of women to end the Peloponnesian War by withholding sex from their husbands.
ANSWER: *Lysistrata*
[10] *Lysistrata*, like *The Birds* and *The Frogs*, is a comedy by this foremost comic playwright of classical Athens.
ANSWER: **Aristophanes**
[10] At the end of the play, Lysistrata brings out this silent character, completely nude, in order to distract the men and impel them to quickly sign a truce.
ANSWER: **Peace** [or **Reconciliation**]

<Carson>

3. Answer the following about the works of Wolfgang Amadeus Mozart, for 10 points each.
[10] One of Mozart's most popular works is this sprightly serenade in G for strings, which opens with a unison G-major-arpeggio-based theme.
ANSWER: *Serenade No. 13* in G major, *"Eine Kleine Nachtmusik", K.525* [or "**A Little Night Music**"]
[10] Another of Mozart's serenades was written for this Salzburg family, which also lends its name to Mozart's Symphony No. 35 in D.
ANSWER: **Haffner**
[10] The finales for most of Mozart's serenades, concertos, and sonatas are in this form, in which a refrain alternates with contrasting episodes. A typical piece in this form might be structured: ABACA.
ANSWER: **rondo** [or **rondeau**]

<Rosenberg>

4. This author's sister Sarah wrote such pioneering works of children's literature as *The Governess*, while he himself wrote plays like *The Covent Garden Tragedy* and novels like *Amelia*. For 10 points each:
[10] Identify this founder of the Bow Street Runners, an English satirist best known for a novel about the foundling Tom Jones.
ANSWER: Henry **Fielding**
[10] Fielding wrote this 1741 epistolary novel whose protagonist attempts to seduce her employer, Squire Booby. It is an extended parody of a Samuel Richardson novel about "virtue rewarded".
ANSWER: *Shamela* [or *An Apology for the Life of Mrs. Shamela Andrews*]
[10] Mr. Thwackum and Mr. Square both disdain Tom Jones in favor of this Fielding character, Tom's dastardly half-brother and rival for the hand of Sophia Western.
ANSWER: Master **Blifil** [do not accept "Captain Blifil"]

<Carson>

5. Identify the following about some pursuits of the upper class in Ancien Regime France, for 10 points each.
[10] A political cartoon depicted this Austrian in the form of a rat and a goat giving his namesake hypnosis sessions to unsuspecting French noblewomen. This charlatan proposed a theory of animal magnetism.
ANSWER: Franz-Anton **Mesmer**
[10] Madame Necker ran a celebrated one of these institutions, which gathered luminaries for intellectual dinner parties.
ANSWER: **Salon**s
[10] France's aristocracy enthusiasm for tax-dodging led Louis XV to try to strip power from these legislative bodies. The first phase of the Fronde is named after them.
ANSWER: **Parlement**s

<Bentley>

6. Name these entities that filed for bankruptcy in 2012, for 10 points each:
[10] This long-tenured photography company based in Rochester, New York, filed in January, marking its exit from the printer and camera businesses. It plans to repay creditors by selling off 525 million dollars' worth of digital imaging patents to Apple and Google.
ANSWER: Eastman **Kodak**
[10] This Japanese vehicle manufacturer, which produced the Samurai, Aerio, and Swift for the American market, announced that its American arm had gone bankrupt and would no longer sell automobiles, focusing only on motorcycles and the parts market.
ANSWER: **Suzuki** Motor Corporation
[10] In June, this city in the Central Valley of San Joaquin County, California became the largest city in American history to declare bankruptcy; it did so on the heels of San Bernardino's filing.
ANSWER: **Stockton**

<Weiner>

7. Answer these questions about the mythical Chinese woman Chang'e, who floated up to the moon one day and is still there, for 10 points each.
[10] This animal accompanies Chang'e on the moon. Many Asian countries say the patterns on the moon's surface resemble this animal rather than a man.
ANSWER: a **rabbit** [or **hare**; or **bunny** rabbit]
[10] The rabbit pounds out an elixir granting this property using a mortar and pestle. Chang'e floated to the moon after eating one of Xi Wangmu's pills granting this property, which all Olympian gods had.
ANSWER: **immortal**ity [or **eternal life**; or **deathless**ness; accept any common-sense answer noting that the being in question will never die]
[10] This man, the husband of Chang'e, failed to stop her from floating up to the moon. This archer had previously shot down nine of the ten suns that were scorching the earth.
ANSWER: Hou **Yi** [or Shen **Yi**]

<Jackson>

8. This country left the United Nations after Malaysia was granted a seat. For 10 points each:
[10] Identify this island nation led by Suharto and Sukarno, the most populous Muslim country in the world.
ANSWER: **Indonesia**
[10] This man negotiated an end to a conflict between Indonesia and the Netherlands over possession of West New Guinea. This Burmese native became the third U.N. Secretary General after the death of Dag Hammarskjold.
ANSWER: Pantanaw U **Thant**
[10] Dag Hammarskjold died en route to meet with this man, who led the breakaway African state of Katanga. Before this man's mostly ex-Nazi mercenaries could organize for one last coup, he was mysteriously skyjacked and taken to Algiers.
ANSWER: Moise-Kapenda **Tshombe**

<Bentley>

9. This man collaborated with his pupil Giulio Romano on the painting *The Fire in the Borgo*. For 10 points each:
[10] Identify this artist of *Disputation of the Sacrament* who showed his mistress in *La Fornarina* and also painted the *Mond Crucifixion*. Pope Julius II commissioned him to decorate four rooms in the Vatican, including the Stanza della Segnatura.
ANSWER: **Raphael** [or **Raffaello** Sanzio da Urbino]
[10] In this Raphael work, painted for the papal apartments, Plato points to the sky as Aristotle motions his hand downwards. The two philosophers walk among other artists and thinkers from ancient Greece.
ANSWER: *The **School of Athens*** [or *Scuola di Atene*]
[10] The apostles try to expel a demon from a possessed boy in the bottom half of this last Raphael painting, whose upper section shows Jesus in shining white.
ANSWER: *The **Transfiguration***

<Bentley>

10. Answer the following about laboratory separations techniques, for 10 points each:
[10] In this procedure, liquids are separated by boiling point in a column attached to a condensing tube. The "fractional" form of it can improve yield.
ANSWER: **distillation**
[10] In this other technique, liquids are separated based on their relative solubilities into an aqueous and an organic layer. When an organic product is purified by removing other species, this procedure is called "washing."
ANSWER: liquid-liquid **extraction**
[10] Liquid-liquid extraction makes use of the "separatory" type of these devices. Another of these devices named for Buchner uses vacuum suction rather than simple gravity to separate mixtures.
ANSWER: **funnel**s

<Silverman>

11. Identify the following about some female European poets, for 10 points each.
[10] This author of "Poem without a Hero" and "Lot's Wife" wrote "Today I have so much to do: I must kill memory once and for all" in her poem "Requiem". The Cheka executed her first husband, Nikolai Gumilev, while her third husband, Nikolai Punin, died in the Gulag.
ANSWER: Anna **Akhmatova** [or Anna Andreyevna **Gorenko**]
[10] Nelly Sachs, a poet writing in this language, penned the poem "Signs in the Sand" and the play *Eli*. The Romanian poet Paul Celan used this language to write his poem "Todesfuge" (TOH-dess-FOO-guh), or "Death Fugue".
ANSWER: **German** [or **Deutsch**]
[10] This author of "A Death-Scene" wrote a number of poems about the fictional land of Gondal, which she and her sister Anne created as children. She is better-known, however, for her novel *Wuthering Heights.*
ANSWER: **E**mily **Bronte** [prompt on partial answer]

<Mehigan>

12. Leucippus and Democritus devised the ancient theory of these objects, and Epicurus held that voids called *metakosmia* exist wherever these objects do not interact. For 10 points each:
[10] Name these basic particles of the universe, whose name comes from the Greek for "indivisible."
ANSWER: **atom**s [or **atom**os; or **atom**oi]
[10] The atomists countered this older Greek's idea that the universe was one and unchanging. A young Socrates debates this man in a namesake dialogue.
ANSWER: **Parmenides**
[10] This Latin poem by Lucretius informed its Renaissance re-discoverers of atomic physics, and talks extensively about the random "swerve" in atomic movements.
ANSWER: *On the Nature of Things* [or *De Rerum Natura*]

<Jose>

13. For 10 points each, name these photographers.
[10] This photographer's works included photographs of residents of the Manzanar Relocation Center and a still entitled *Migrant Mother*.
ANSWER: Dorothea **Lange**
[10] This fan of readymades and friend of Marcel Duchamp photographed Alice Prin for his *Le Violon d'Ingres*.
ANSWER: Man **Ray** [or Emmanuel **Radnitzky**]
[10] While he took the photograph used for the album cover of Patti Smith's *Horses*, he's better known for an early 1990s controversy related to his explicit photographs shown in the National Endowment of the Arts-funded *The Perfect Moment* exhibition.
ANSWER: Robert **Mapplethorpe**

<Morlan>

14. This man's grandnephew, known as "Colonel", wrote staunchly conservative editorials for the *Chicago Tribune* in the 1920s. For 10 points each:
[10] Identify this man who partnered with William Ogden to sell a grain-harvesting device consisting of a vibrating blade, a reel, and a collecting platform.
ANSWER: Cyrus Hall **McCormick**
[10] The harvesting of this other crop was improved by a device developed by the International Harvester Company and by a "gin" created by Eli Whitney.
ANSWER: **Cotton**
[10] Grain sheaf innovator John Appleby earned $500 for a patent on this type of gun. Rounds are placed into a slot close to the rear of the barrel in these weapons, making them faster to reload than requiring loading directly down the muzzle.
ANSWER: **Breech**-Loading Rifle [or **Breech**-Loading Gun]

<Bentley>

15. On an Eightfold Way diagram, the quantity is the same for any particle that are on the same horizontal line. For 10 points each:
[10] Name this property of certain particles, such as hyperons, which decayed much more slowly than expected when first observed.
ANSWER: **strangeness** [accept word forms]
[10] The Eightfold Way was developed by Gell-Mann and extended by Ne'eman to explain the formation of these subatomic particles, which come in three generations. Examples of them include the top, down and charm.
ANSWER: **quark**s
[10] Quarks, gauge bosons, and the Higgs boson are brought together in this theory, which is sometimes called the theory of almost everything. This prevailing unifying theory unites electromagnetic, weak and strong forces.
ANSWER: **Standard Model**

<Jose>

16. Although this man refused his people's offers to become king, his son Abimelech accepted, with disastrous results. For 10 points each:
[10] Name this man who led his people to victory over the Midianites. He lends his name to a group known for distributing Bibles.
ANSWER: **Gideon** [or **Gedeon**; or **Jerobaal**; or **Jerubbaal**]
[10] Gideon was one of these twelve Biblical figures. These namesakes of a Biblical book include Deborah and Samson.
ANSWER: **Judge**s [or **Shoftim**]
[10] This people allied with the Midianites against Gideon's army. In the Torah, God commands the killing of all these people, whose kings included Agag, to punish their sneak-attack on the wanderers in the desert.
ANSWER: **Amalek**ites

<Bentley>

17. Identify the following short stories by O. Henry, for 10 points each.
[10] In this story from *The Four Million*, likely O. Henry's most famous, Della sells her hair to Madame Sonofrie to buy a watch chain for her husband Jim, who has sold his watch to buy combs for Della.
ANSWER: "The **Gift of the Magi**"
[10] In this story, also from *The Four Million*, Rudolf Steiner is handed a card bearing the name of the title object, behind which he meets and befriends a hungry woman. Later, though, it turns out the card was merely an advertisement for a play.
ANSWER: "The **Green Door**"
[10] This story from *Whirligigs* ends with Ebenezer Dorset demanding money in order to take back the title character after Sam and Bill's kidnapping plan goes awry.
ANSWER: "The **Ransom of Red Chief**"

<Bentley>

18. This hormone is produced by the beta cells of the Islets of Langerhans. For 10 points each:
[10] Name this pancreatic hormone that, unlike glucagon, decreases blood glucose levels.
ANSWER: **insulin**
[10] The primary structure of insulin was elucidated by this British scientist who won a second Nobel Prize in Chemistry for his "dideoxy" method of DNA sequencing.
ANSWER: Frederick **Sanger**
[10] This nonfunctional peptide is cleaved off of insulin during production and released in the same vesicle as the actual insulin molecule. It can be used to distinguish natural and synthetic insulin.
ANSWER: **C-peptide** [prompt on **C** protein; do not accept or prompt on "C-reactive protein"]

<Wynne>

19. This battle brought down Francesco Crispi's government. For 10 points each:
[10] Identify this 1896 battle where Italian forces commanded by Oreste Baratieri were routed by a force under Ras Makonnen.
ANSWER: Battle of **Adowa** [or Battle of **Adwa** or Battle of **Adua**]
[10] Italy avenged its defeat at the Battle of Adowa in a war started by this fascist dictator, known as "Il Duce."
ANSWER: Benito Amilcare Andrea **Mussolini**
[10] After occupying Ethiopia, Mussolini attempted to sign the "Pact of Blood" with Germany, but was urged to pick a less obviously crazy name. The pact was then named for this material, whose famous types in early history include Wootz and Damascus.
ANSWER: **Steel**

<Bentley>

20. In his dissertation *Mathematical Investigations in the Theory of Value and Prices,* this man provided diagrams for building a hydraulic computer to calculate equilibrium prices. For 10 points each:

[10] Name this economist, whose debt deflation model has recently been brought back to prominence as a way to explain financial crashes and recessions.

ANSWER: Irving **Fisher**

[10] The Fisher equation relates the real and nominal value of this value, the cost of borrowing money or other assets. Fisher claimed "impatience and opportunities" determined this value, which Keynes treated as the "marginal efficiency of capital."

ANSWER: **interest** rate

[10] In *The Purchasing Power of Money,* Fisher argues for this theory of money. His "equation of exchange" shows the price level to be directly proportional to the stock of money, and unimportant to economic output.

ANSWER: **quantity** theory of money

<Bailey>

21. Identify some mathematical concepts related to infinity, for 10 points each.

[10] Cantor's diagonal argument shows that this infinite set of numbers is not countable. This set consists of both the rational and irrational numbers.

ANSWER: **real** numbers

[10] The size of various infinite sets can be represented with a sequence of numbers named for this Hebrew letter.

ANSWER: **aleph**

[10] The continuum hypothesis asserts that the cardinality of the real numbers equals this number raised to the power of the cardinality of the natural numbers.

ANSWER: **two**

<Eltinge>

22. Answer the following about "The Tyger", for 10 points each.

[10] Its author was this English Romantic poet and illustrator, who paired it with a more innocent poem called "The Lamb". He also wrote a number of "prophetic books" based on his own mythos.

ANSWER: William **Blake**

[10] Its first stanza ends by asking "what hand or eye could frame" this two-word quality, which was used to title a 1947 study of Blake by the critic Northrop Frye.

ANSWER: "thy **fearful symmetry**"

[10] In its original publication, "The Tyger" was followed by a poem whose speaker dreams about being a "maiden Queen" guarded by one of these figures. The speaker of another Blake poem describes one of these beings singing "'Mercy, Pity, Peace' is the world's release."

ANSWER: an **angel** mild [accept "I Heard an **Angel**"]

<Carson>

23. Answer the following about slavery in Africa, for 10 points each:

[10] Afonso I, a king of this African empire, wrote letters to Portuguese king John III to curb abuses in the slave trade. It lends its name to a modern-day country that was renamed Zaire under Mobutu Sese Seko.

ANSWER: **Kongo** Empire [or Kingdom of **Kongo**]

[10] The namesake "bight" of this modern-day country was once known as the Slave Coast. This West African country was home to the Kingdom of Dahomey.

ANSWER: Republic of **Benin** [or République du **Bénin**]

[10] England's South Sea Company gained exclusive rights to provide slaves to Spanish colonies under an agreement of this name negotiated in the Peace of Utrecht.

ANSWER: **Asiento**

<Bentley>