1. This country's Lapua Movement succeeded in banning Communist activities, and a 1918 civil war saw Gustav Mannerheim's government forces emerge victorious. The Continuation War, which saw this country aid Germany's invasion of the Soviet Union, was a sequel to the Winter War in which the Soviet Union preemptively invaded this country. The 1975 Conference on Security and Cooperation in Europe led to some "Accords" named after this country's capital. For 10 points, name this country led by Tarja Halonen, whose major city is Helsinki.
ANSWER: **Finland**

2. In a namesake reaction, some of them can react with the bases of methyl ketones to create carboxylic acids. The heaviest example is the rarest naturally occurring element on Earth, and the deficiency of another member is often the cause of a goiter. Normally featuring odd-numbered oxidation states, these elements all have an outer shell electron configuration of $ns^2 np^5$ (N S 2 N P 5). For 10 points, name these elements that lack one electron in their outer shell, examples of which include bromine, chlorine, and fluorine.
ANSWER: **halogen**s [or **Group 7A**; or **Group 17**]

3. Skye Sweetnam ponders "maybe I should change my world" while contemplating this action, which "could be the cure." The initiator of this action strikes after the singer lets his guard down, causing the singer to lament "why do I do these things I do to myself" in a Something Corporate song. This action's recipient was the singer's "experimental game" in another song, which notes that this action "felt so wrong, it felt so right," and notes that it is accentuated by the recipient's cherry Chapstick. For 10 points, name this activity performed and enjoyed in a Katy Perry song.
ANSWER: **kissing a girl** [accept equivalents and word forms; prompt on less specific answers]

4. One character in this story expresses his delight at a casserole and fails to notice that a tablecloth has been in use for three days. After a party, the main character is unable to find a cab until she reaches the Seine. Although they assure Madame Forestier that the title object is being repaired, the central characters must purchase a new one which takes a decade to pay off, although the original is a fake. For 10 points, name this short story about Matilde, who loses the title piece of jewelry at a ball, written by Guy de Maupassant.
ANSWER: "The **Necklace**" [or "La **Parure**"]

5. Cycads are some of the only plants to have them, and they are unique to eukaryotes. Like a longer structure, they have a 9+2 arrangement of constituent structures which make up the axoneme. The Fallopian tubes use them to conduct eggs from ovary to uterus and the trachea has a lining of them for cleaning purposes. Rotifers have a crown of them, which in some species makes them spin like wheels, and several of them are also found on paramecium. For 10 points, identify these short organelles which allow many eukaryotic cells to move.
ANSWER: **cilia** [or **cilium**]

6. This character was given gold necklaces by Peitho, clothing and instruction on sewing by Athena, and speech by Hermes. Her name in fact refers to the gifts she received from all the gods. She was given as a wife to a man whose name means "afterthought," Epimetheus, as a revenge for the theft of fire by Epimetheus's brother Prometheus. For 10 points, name this primordial Greek woman who was only able to prevent the escape of hope after opening a jar given to her by Zeus that contained all the world's evils.
ANSWER: **Pandora**

7. Juan Padilla founded the first settlement in what is now this state, and its notable political leaders have included the vice-president of Herbert Hoover, Charles Curtis, and Senator Nancy Kassebaum. The 1936 Republican presidential nominee, Alfred Landon, was from this state, where Bushwhackers massacred over two hundred people in 1863. Border Ruffians entered this state to support the Lecompton Constitution, and this state was the site of the Pottawatomie Massacre. For 10 points, name this state that bled in a fight over slavery in the mid-1850s.
ANSWER: **Kansas**

8. Much of his employment was in the artistic faculty of the foundling home Ospedale della Pietà. His innovations include the regular use of the ritornello form and standardizing the "fast, slow, fast" structure of the concerto. "The Hunt" and "Storm at Sea" are among the lesser works from his cycle *The Contest Between Harmony and Invention*, which also depicts such images as heat-induced fatigue and freezing rain in such movements as "La Primavera." For 10 points, name this Italian composer of the calendar-themed "The Four Seasons."
ANSWER: Antonio Lucio **Vivaldi**

9. This poet wrote a collection with his brother entitled *Poems by Two Brothers*. One of his poems deals with a woman unable to leave her tower who weaves a tapestry inspired by a reflection in a mirror. In another of his poems, a classical hero resolves "To strive, to seek, to find, and not to yield." In addition to "The Lady of Shallot" and "Ulysses," the death of Arthur Hallem prompted this man to write *In Memorium A.H.H*. For 10 points, identify this poet, the author of "Crossing the Bar" and "The Charge of the Light Brigade."
ANSWER: Alfred, Lord **Tennyson**

10. This jazz performer's first recorded solo is on the Dizzie Gillespie track "We Love to Boogie," and his avant-garde recordings near the end of his career include *Intertsellar Space* and *Stellar Regions*. This man, who recorded *Impressions*, was part of Miles Davis' first great quintet, and developed his fast "sheets of sound" technique on recordings like *My Favorite Things.* His first album of original recordings was *Giant Steps*. For ten points, identify this jazz saxophone player of *A Love Supreme*.
ANSWER: John **Coltrane** [or **Trane**]

11. This author criticized how the Bible is taught in his early work *Daybreak*, and tackled veracity in *On Truth and Lies in a Nonmoral Sense*. He appended an "Attempt at Self-Criticism" to his first work, which divided the title concept into Apollonian and Dionysian aspects. This author of the *The Birth of Tragedy* claimed that "God is dead" in *The Gay Science*. For 10 points, name this German philosopher of *Thus Spake Zarathustra* and *Beyond Good and Evil*.
ANSWER: Friedrich Wilhelm **Nietzsche**

12. This country's highest peak, Mount Nyangani, is located in its Nyanga National Park. Despite such governmental operations as "Drive Out Trash" and "Roundup," homelessness is a major problem in its cities, which include Chitungwiza and Bulawayo. Electric fences mark this country's border with Botswana, while the more pleasant Victoria Falls are on its border with Zambia. For 10 points, name this landlocked South African country where fancy new 100-billion-dollar bills can buy you things in its capital, Harare.
Answer: **Zimbabwe**

13. This man signed the Treaty of Eternal Peace with Khosrow I, and sent a fleet to defeat the Ostrogoth king Witigis. The eunuch Narses was one of his trusted generals, and his two ministers were Peter Barsymes and John of Cappadocia. He attempted to quell the Monophysite controversy by imprisoning Pope Vigilius, and he fought the Green and Blue factions during the Nika revolt. For 10 points, name this Byzantine Emperor who oversaw the building of the Hagia Sophia; the husband of Theodora whose most well known general was Belisarius.
ANSWER: **Justinian** I

14. The Maki-Nakagawa-Sakata matrix predicts the oscillations of one group of these, a behavior which gives them mass. The Koide formula gives a possibly serendipitous relationship between the masses of another group of them, while the Michel parameters give the distribution of decays that occur within that group. Particles from both groups are produced in beta decay. Incapable of interaction via the strong nuclear force, for 10 points, identify this class of fundamental particles which include the neutrino and the electron.
ANSWER: **lepton**s

15. Older works in this language are referred to by their predominant letters, such as the "N Poem" and the "Great Poem on T." A landmark work of nonfiction in this language was the memoir *The Days*, and it was also used for the novel *Season of Migration to the North*. It is the vernacular of the poet Adonis and of the author of *Children of the Alley*, *Sugar Street*, and *Palace Walk*. For 10 points, identify this tongue, whose most influential writings may be the records of certain sayings known as the *hadith* and the text said to be dictated by the angel Gabriel, the Quran.
ANSWER: **Arabic**

16. Ithiel Town commissioned this artist's painting of a man looking at a pyramid, a Greek temple, and a Gothic cathedral, *The Architect's Dream*. He was unable to finish *The Cross of the World*, but did complete two cycles of paintings, one based on Volney's *Ruins*, the other depicting mankind as a figure journeying down a river. In addition to *The Voyage of Life* and *The Course of Empire*, he painted a storm passing over a bend in the Connecticut River in *The Ox-Bow*. For 10 points, name this American painter, the founder of the Hudson River School.
ANSWER: Thomas **Cole**

17. On the urging of his doctor Moses Hamon, this ruler issued a decree denouncing anti-Semitic blood libels. His admiral Barbarossa won the Battle of Preveza over the Holy League, and he defeated Louis II of Hungary to win the Battle of Mohacs. Due to the influence of his wife Roxelana, he had his longtime grand vizier Ibrahim Pasha murdered. The son of Selim the Grim, he twice unsuccessfully attempted to besiege Vienna. For 10 points, name this Ottoman sultan who ruled from 1520 to 1566, known as "the Magnificent."
ANSWER: **Suleiman I** [or **Suleiman the Magnificent** or **Suleiman the Lawgiver** or **Kanuni**]

18. Paul Samuelson illustrated this concept with a man who is both the best attorney and secretary in Chicago. First introduced in an essay by Robert Torrens, this concept is modeled by the Hecksher-Ohlin theorem. Another economist explained this concept in *On the Principles of Political Economy and Taxation*, which used the example of the trade between British cloth and Portuguese wine. For 10 points, name this theory developed by David Ricardo, which states that countries should export goods that have the lowest opportunity costs, unlike absolute advantage.
ANSWER: **comparative advantage**

19. The Huemul project was supposed to achieve a controlled version of this process, but met with little success. The Shiva and ultimately the Nova lasers attempted to contain this process, though more mainstream attempts include producing heat by inducing a current running through a toroidal magnetic field in a tokamak. It occurs in sufficiently large stars through the C-N-O cycle, and it no longer returns additional energy after iron. For 10 points, identify this phenomenon in which at sufficient temperatures, several small nuclei form a larger one.
ANSWER: nuclear **fusion**

20. In this novel, an intimate dinner party is ruined when one character's prized wedding gift, an unused pickle dish, is broken. The unnamed narrator is intrigued about the "ruin of the man" when he first meets the title character at the post office, and later learns more about him from Harmon Gow and Ruth Varnum. The title character cheats on his wife Zeena with Mattie Silver, and ends up paralyzed from a failed suicide attempt. Set in Starkfield, for 10 points, name this novel about a man injured in a tragic sledding accident, written by Edith Wharton.
ANSWER: ***Ethan Frome***

21. An apparatus named for Kugelrohr performs one type of it over short paths. One type of this process exploits Raoult's law to increase or decrease the vapor pressure of the substance, and may be more useful than another type which produces better results when the number of theoretical plates are increased, but cannot separate azeotropes. Those are the "steam" and "fractional" varieties of this process. For 10 points, identify this lab procedure where pure vapors of a liquid are captured and condensed, which is used to obtain a pure liquid from a mixture.
ANSWER: **distillation** [do not accept specific types, like "fractional distillation"]

22. One character in this play steals a pen after he discovers that Bill Oliver has forgotten him, making his plan to sell sporting goods in Florida impossible. The title character becomes jealous when he hears that Bernard will argue a case before the Supreme Court, and his son recounts his visit to Boston, where he witnessed his father's affair with an unnamed woman. The protagonist's son, Biff, is far more skeptical of the American Dream than Happy. For 10 points, name this play which ends shortly after the suicide of the title character, Willy Loman, written by Arthur Miller.
ANSWER: ***Death of a Salesman***

1. A prostitute in this story is named after the British mystic Mother Shipton. For 10 points each:
[10] Name this story, in which gambler Tom Oakhurst and the young accordionist Tom Simson are among the group who die in the snow after being expelled from the title town for immorality.
ANSWER: "The **Outcasts of Poker Flat**"
[10] "The Outcasts of Poker Flat" is one of many Western-themed stories by this author of "Plain Language From Truthful James" and "The Luck of Roaring Camp."
ANSWER: Francis Bret **Harte**
[10] Harte adapted "Plain Language from Truthful James" into the play *Ah Sin*, in collaboration with this creator of Tom Canty, Jim Baker, and Huckleberry Finn.
ANSWER: Mark **Twain** [or Samuel Langhorne **Clemens**]

2. Its foothills extend nearly to Santiago in Chile, but its peak, the highest in the Western Hemisphere, is in the Mendoza province of Argentina. For 10 points each:
[10] Name this mountain.
ANSWER: Mount **Aconcagua** [or Cerro **Aconcagua**]
[10] Aconcagua is part of the southern branch of this mountain chain, which runs the entire length of western South America and includes the Cordilleras Oriental and Occidental.
ANSWER: the **Andes** Mountains [or Cordillera de los **Andes**]
[10] The Andes were formed from, the convergence of the continental South American Plate and this oceanic plate that shares its name with an ancient South American people who made namesake "lines."
ANSWER: **Nazca** Plate

3. Identify the following about blood vessels, for 10 points each.
[10] These blood vessels carry oxygenated blood from the heart to other organs.
ANSWER: **artery**
[10] This term refers to hardening of arteries due to buildup of plaque and loss of elasticity of arteries.
ANSWER: **arteriosclerosis**
[10] This word describes the artery that carries deoxygenated blood from the heart to the lungs, where the blood is oxygenated in the alveoli.
ANSWER: **pulmonary**

4. Identify the following about an event that led directly to World War I, for 10 points each.
[10] This archduke and heir to the throne of the Austro-Hungarian Empire was assassinated in 1914. This led Count Berctold to issue the Austrian Ultimatum, which led to the War.
ANSWER: **Franz Ferdinand** [or **Francis Ferdinand**]
[10] This nationalist and member of the Black Hand secret society assassinated Franz Ferdinand and his wife Sophie. He died of tuberculosis in prison in 1918.
ANSWER: Gavarillo **Princip**
[10] This city was the site of the assassination of Franz Ferdinand. This city hosted the 1984 Winter Olympics and was devastated by civil war at the end of the Cold War.
ANSWER: **Sarajevo**

5. She danced independently after 1913, but went on a tour with the Ballets Russes in 1909. For 10 points each:
[10] Name this Russian ballerina, who choreographed *Autumn Leaves* along with performing excerpts from *Giselle* and *Oriental Impressions*.
ANSWER: Anna Pavlovna **Pavlova**
[10] Anna Pavlova gained fame for performing a depiction of one of these birds dying. The evil sorcerer Von Rothbart turns Odette into one of these animals in a ballet named for its "lake."
ANSWER: **swan**s
[10] Pavlova was managed by this impresario during her time with the Ballets Russes. He worked with Folkine and his most famous dancer was probably Vaslav Nijinsky.
ANSWER: Serghey Pavlovich **Diaghilev**

6. This author referred to his shorter works as "palm-of-the-hand stories." For 10 points each:
[10] Identify this author of *Snow Country* and *The Sound of the Mountain*.
ANSWER: **Kawabata** Yasunari
[10] This other author wrote *Nip the Buds, Shoot the Kids* and *A Personal Matter*.
ANSWER: **Oe** Kenzaburo
[10] Yasunari Kwabata and Kenzaburo Oe are both from this country, which was also home to authors like Natsume Soseki and Haruki Murakami.
ANSWER: **Japan** [or **Nippon**]

7. This artist's self-portraits include one "as the man of sorrows." For 10 points each:
[10] Name this German artist and engraver of *St. Jerome in His Study* and *Knight, Death, and the Devil*.
ANSWER: Albrecht **Durer**
[10] In this Durer woodcut, the title figures trample humans in their path. Its name comes from a passage in Revelation about the figures of Pestilence, War, Famine, and Death.
ANSWER: The ***Four Horsemen of the Apocalypse***
[10] This engraving by Durer contains a magic square, a pensive angel, and a truncated rhombohedron. Its title refers to one of the body's humors.
ANSWER: ***Melencolia I***

8. Identify the following about New York politics in the 19th century, for 10 points each.
[10] Nicknamed the "Red Fox", this governor of New York was a major figure of the Albany Regency political machine and was elected president in 1836.
ANSWER: Martin **van Buren**

[10] Van Buren later became a member of this radical faction of the New York Democratic Party that opposed the conservative Hunkers. Their name came from an extreme method of killing rats.
ANSWER: **Barnburners**

[10] This New Yorker, a major figure of the early Republican Party, formulated the Higher Law principle against slavery and, as Secretary of State, engineered the purchase of Alaska.
ANSWER: William **Seward**

9. The cost-push theory of this assumes that increasing costs are caused by a price-wage spiral. For 10 points each:
[10] Name this phenomenon whose hyper variety affected post World War I Germany.
ANSWER: **inflation**

[10] One measure of inflation is this index released by the Bureau of Labor Statistics each month. This measure often focuses on the change in cost of a basket of goods.
ANSWER: **Consumer Price** Index

[10] This economist argued that monetary policy, not fiscal policy, was the key towards curbing inflation. This member of the Chicago school wrote books such as *A Monetary History of the United States* as well as *Capitalism and Freedom.*
ANSWER: Milton **Friedman**

10. Silicon is one, but it does not emit light because its band gap is indirect. For 10 points each:
[10] Identify these materials, whose conductivity is enhanced above that of insulators by the presence of holes, among other properties.
ANSWER: **semiconductor**

[10] This process which sees the introduction of impurities to improve conductivity of the semiconductor. Depending on the type of elements used, it can be n type or p type.
ANSWER: **doping** [accept word forms]

[10] Fundamental to radios and computers, these elements use semiconductors to act as switches or amplifiers, or to replace vacuum tubes.
ANSWER: **transistor**s

11. He was worshipped from the city of Nubt in the predynastic period, but he fell out of favor until the ascent of Pharaoh Peribsen. For 10 points each:
[10] Name this Egyptian god, later identified with Typhon by the Greeks, who injured his mother Nut while being born and later committed a murder that was avenged by Horus.
ANSWER: **Set**h

[10] The murder Set committed was of this ruler of the underworld and father of Horus, whom Seth chopped into fourteen pieces.
ANSWER: **Osiris**

[10] Set is also described as cheating on this sister and wife of his, whose role in human death is to comfort the relatives of the departed.
ANSWER: **Nepthys**

12. One of the title characters in this play dances and prays to the god Hymen in a display of madness. For 10 points each:
[10] Name this play, meant to mirror an incident of the Peloponnesian War, in which the fates of Helen, Cassandra, Andromache, and Hecuba are tragically revealed.
ANSWER: The _**Trojan Women**_
[10] This playwright of *The Trojan Women* included it in a trilogy with the earlier works *Alexandros* and *Palamedes*, but is better known for writing *The Bacchae*.
ANSWER: **Euripides**
[10] The title character of this play devises the death of Glauce, whose robe she laces with a deadly drug. She then proceeds to kill the children of the Argonaut leader who dumped her.
ANSWER: _**Medea**_

13. It considers the Son subordinate to the Father. For 10 points each:
[10] Identify this heresy named after a Greek priest, which rejected the Holy Trinity, and claimed the inferiority of Jesus as he was created by God, the Father.
ANSWER: **Arianism**
[10] Arianism was declared heretical at this Church Council in 325, which has a namesake Creed.
ANSWER: Council of **Nicaea**
[10] The Council of Nicaea was called for by this Roman Emperor, who issued the Edict of Milan and made his empire tolerant of Christianity.
ANSWER: **Constantine I** [or **Constantine** the **Great** or **St. Constantine** or Flavius Valerius **Constantinus**]

14. Identify the following about a law from chemistry, for 10 points each.
[10] This law states that the change in enthalpy of a reaction is tge same regardless of the path the reaction takes and is named for a German chemist.
ANSWER: **Hess**'s Law
[10] Enthalpy is thus this type of quantity, which depends only on the present state of the system. Entropy and Gibbs Free Energy are also examples of these quantities.
ANSWER: **state function** [or **state quantity**]
[10] Hess's law can be used to calculate this quantity which is the amount of energy required to separate a crystalline compound into a gas of its constituent ions.
ANSWER: **lattice energy**

15. Identify the following European peoples from historical clues, for 10 points each.
[10] These peasant soldiers of the Ukraine were led by hetmen such as Stenka Razin. They were made a military caste in 1835 with special privalages in return for service to the Tsars.
ANSWER: **Cossacks** [or **Kazaki**]
[10] United by Kurt in 605, Bezmer and Asparukh led hordes of these peoples in the Volga and on a plain between the Danube and Balkan Mountains. Basil was a noted slayer of these peoples.
ANSWER: **Bulgars**
[10] Known for making an annual pilgrimage to Saintes-Maries-de-la-Mer, about 500,000 of this ethnic group were killed in Nazi concentration camps in what is known as The Devouring.
ANSWER: **Gypsies** [or **Roma**]

16. This work was written right after *The Musical Offering*, and Busoni completed the final movement of it in his "Fantasia Contrappuntistica." For 10 points each:
[10] Name this collection of works written mostly for unmarked instruments that show off the namesake contrapuntal form, which ends with the composer introducing a theme on his name.
ANSWER: *The **Art of the Fugue*** [or *Die **Kunst der Fuge***]
[10] This composer of *The Art of the Fugue* also composed 6 concerto grosso for different combinations of instruments, *The Brandenburg Concertos*.
ANSWER: **J**ohann **S**ebastian **Bach** [prompt on **Bach**]
[10] J.S. Bach coupled one of these free form pieces, not a prelude or fantasia, with a fugue in D minor for organ. It roughly means "touch piece" in Italian.
ANSWER: **toccata**

17. This man reportedly uses an enormous painting of Napoleon winning the Battle of Friedland to intimidate visitors to his office in the GM Building. For 10 points each:
[10] Name this former owner of Texaco, USX, and TWA, who tried to break up Time Warner in 2005 and called himself a "shareholder activist" in his 2008 battles with Yahoo.
ANSWER: Carl **Icahn**
[10] Icahn strongly advocated that Yahoo accept a buyout bid from this Redmond, Washington based creator of such products as Clippy, Vista, and the XBox 360.
ANSWER: **Microsoft** Corporation
[10] Icahn, who controls fifteen percent of this company's stock, forced out CEO Ed Zander in 2007 and wants to spin off this cell phone technology producer into four separate companies.
ANSWER: **Motorola**

18. This novel begins with a section titled "The Window," and includes the impressionistic painter Lily Briscoe. For 10 points each:
[10] Name this novel about James Ramsey's desire to journey to the title structure.
ANSWER: ***To the Lighthouse***
[10] This writer of "A Room of One's Own" and *The Waves* wrote *To the Lighthouse*.
ANSWER: Virginia **Woolf**
[10] This Woolf novel juxtaposes the suicide of former soldier Septimus Smith with a party given by the title character, whose first name is Clarissa.
ANSWER: ***Mrs. Dalloway***

19. A "fast" version of this was developed by Tukey and Cooley. For 10 points each:
[10] Name this special case of the Laplace transform in which the variable *s* is replaced with the imaginary variable *i* omega.
ANSWER: **Fourier** transform
[10] The fast Fourier transform is efficient in computing this type of Fourier transform, rather than the continuous form. This type of Fourier transform is a special case of Z transforms.
ANSWER: **discrete** Fourier transform
[10] The Fourier transform switches from the time domain to the domain of this other variable, denoted omega, which is measured in Hertz.
ANSWER: **frequency**

20. His only novel is *The Notebooks of Malte Laurids Brigge*. For 10 points each:
[10] Name this poet of the *Sonnets to Orpheus* and the *Duino Elegies*.
ANSWER: Rainier Maria **Rilke**
[10] Rilke hailed from this country home to Novalis, Heinrich Heine, and the author of *An mein freunde*, Friedrich Klopstock.
ANSWER: **Germany** [or **Deustchland**]
[10] This late 18th century German literary movement emphasized violent emotion over rationality. Its characteristic works include Schiller's play *The Robbers*.
ANSWER: ***Sturm und Drang*** [or ***Storm and Stress***]

21. Its dialects include Scheme, and its fundamental unit is a two-element list, whose elements may be accessed by the use of car and cdr. For 10 points each:
[10] Identify this programming language developed by John McCarthy.
ANSWER: **Lisp**
[10] Lisp makes this sort of programming particularly easy, which embraces processes like tail recursion in favor of imperative programming conventions like loops.
ANSWER: **functional**
[10] Expressions in Lisp are written in this form, meaning that adding one and two is expressed as "plus one two" unlike the "postfix" notation used in the Reverse Polish notation.
ANSWER: **prefix** notation