DEES 2014: Desperate Editors Elicit Support
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Tossups

1. This work's first chapter observes that all thought is founded on a demand for order, and that unlike science, magic postulates a "complete and all-embracing determinism." This book notes that the Warramunga prohibit paternal totems and that the Arabanna adopt the Aranda's kinship system for reincarnated spirits. This book claims that totemism results only from a necessary impulse toward distinguishing members of a larger group. Its section on "The Science of the Concrete" compares the title entity to a person who is ingenious but limited to using the objects and materials that he already has, referred to as a *bricoleur*, to be contrasted with the engineer. For 10 points, identify this anthropological work by Claude Lévi-Strauss about primitive thought.
ANSWER: The *__Savage Mind__* [or La *__Pensée sauvage__*]

2. A process named after six times this value can be expected to have only 3.4 defects per million opportunities. A rule of thumb in correcting bias changes a 1 to a 1.5 in calculations of this value. One inequality bounds the probability that the magnitude of X minus mu is greater than a constant times this quantity, and is named for Chebyshev. For the uniform distribution, this quantity is a minus b over the square root of 12. For discrete data, it equals the square root of the average of the square of the distance of each point from the mean. For ten points, name this quantity that is the square root of the variance and that measures, on average, how far things are from the mean.
ANSWER: __standard deviation__ [prompt on sigma]

3. This man describe customs as a tree is cut from the forest and decked with silver and gold; that represents "the way of the heathen", which he instructed the people of his city not to learn. When he first hears the word of God, he is told, "Before I formed you in the womb, I knew you". He's not John, but his namesake book contains the passage upon which the doctrine of the New Covenant is based. A book written by him has five poems, four of which are acrostics, and is read by Jews on Tisha B'Av. This man wears a yoke on his neck as he prophesies destruction for his city and his annoyingness got him beaten up and thrown into a cistern by King Zedekiah. For ten points, name this prophet who complains about the sack of Jerusalem and destruction of the temple by Nebuchadnezzar in his Lamentations.
ANSWER: __Jeremiah__

4. An artist from this country won a 1993 lawsuit that hinged on the plaintiffs falsely claiming to be the couple depicted in his *Kiss by the Hotel De Ville*. Another artist from this country collected some of his works in the books *The Face of Asia* and *The Decisive Moment*, but is more famous for a depiction of a man leaping past a ladder over a huge puddle behind a train station. An artist from this country commissioned the construction of an enormous balloon called "The Giant" in the same year in which he was caricatured by a countryman "elevating photography to art". A bootblack and his customer became the first people captured on film in a work by a man from this country who used iodized silver plates in his namesake type of photography. For 10 points, name this country home to Nadar, Henri Cartier-Bresson, and Louis Daguerre.
ANSWER: __France__ [or the __French__ Republic; or Republique __Francaise__]

5. A king of this place claims to make a goddess "shriek like a duckling" in a story that also tells of a sorceress from this place defeating a magician in a fish spawn-triggered animal-summoning contest. Another king of this place meets Zangara in the form of a bull while lying ill in a cave, after which he is granted super-speed that allows him to take part in the siege of Aratta after helping out the Anzu bird. In another story, the *me*s are brought to this city by its tutelary deity, Inanna. The most famous king of this city goes to the bottom of the sea to retrieve an immortality-granting plant on the advice of Utnapishtim after killing Humbaba with the help of his friend Enkidu. For 10 points, name this Sumerian city ruled by Enmerkar, Lugalbanda, and Gilgamesh.
ANSWER: **Uruk** [or **Unug**-Kulaba; or **Erech**; or **Eresh**; do not accept "Ur"]

6. This man's website features an ad for McGill and McGill Menswear, after this man's birth name. He hires "Jimmy In-and-Out" to help clear another man of a crime and claims that he caught his second ex-wife sleeping with his stepfather. This man offers to be a Tom Hagen to another man whom he compares to Fredo, and later offers to send a man to Belize. His complicity in Brock's poisoning is revealed when another character realizes that Huell pickpocketed his pack of cigarettes. In his last appearance, this man claims that he is going to manage a Cinnabon in Omaha after Heisenberg's identity is revealed. For 10 points, name this sleazy lawyer played by Bob Odenkirk, an advisor to Jesse Pinkman and Walter White.
ANSWER: **Saul** **Goodman**

7. A character in this book is about to be executed, but a birthmark that resembles a bloody arrow under his shoulder reveals him to be the son of a priest. Another character in this book recounts how he got a big-ass sword when a dying hermit near Joppa instructed him to dig underneath the seventh tree to the left of a cave. It was supposedly translated into English by William Marshall, based off of the original work of Onuphrio Muralto. This work opens on the wedding day of Isabella and Conrad, who is killed by a falling helmet. Father Jerome's son ends up marrying the daughter of the Knight of the Gigantic Sabre in this novel, who possesses a sword with an inscription demanding the blood of Manfred to atone for his sins. For 10 points, identify this early Gothic novel by Horace Walpole.
ANSWER: *The **Castle of Otranto***

8. Two months after this event, Rhinelander Waldo was moved into the different but related job of Police Commissioner. In speaking about this event, Rose Schneiderman said she couldn't "talk fellowship" because "too much blood has been spilled." Afterwards, a committee led by Frances Perkins pushed for a shorter work week, while the ILGWU began organizing a series of mass protests. Many of the deaths in this event were caused by the doors being locked from the outside by the company owners, and most killed were female Jewish or Italian immigrants. For 10 points, name this 1911 disaster when over a hundred garment workers were killed at an inferno at their factory.
ANSWER: **Triangle Shirtwaist** Factory Fire

9. Mutations in PIEZO1 cause a condition that dehydrates these cells called xerocytosis. Echinocytes and acanthocytes result when the membrane of these cells become spiculated. An abnormal increase in the production of these cells in the bone marrow is called polycythemia. Glucose-6-phosphate dehydrogenase deficiency leads to the destruction of these cells. An inability to handle the breakdown of these cells results in jaundice, and fragile spherical ones are present in spherocytosis. Their production is called erythropoesis. For 10 points, name these cells which are deformed in sickle cell anemia.
ANSWER: **red blood** cells [or **erythrocyte**s]

10. One character in this play declares that "Man is by instinct a lover, a hunter, a fighter", only to be met by the argument that Christian adults want "Superior things! Things of the mind and the spirit!" A character observes that "nowadays the world is lit by lightning" near the conclusion of this play, which opens with a character comparing himself to a stage musician that turns back time. That character ends this play by asking his sister to blow out the candles. A character in this play is nicknamed "Blue Roses" by a man who appears to court her. That man is welcomed as a "gentleman-caller" and breaks a figurine of a unicorn belonging to Amanda. For 10 points, identify this play that ends with Tom Wingfield abandoning his family, a work of Tennessee Williams.
ANSWER: The __Glass Menagerie__

11. An account of this empire describes one of its cities being surrounded by a moat and a statue of a nine-headed snake, and said that all trade in it was undertaken by women. This empire used giant reservoirs called *baray* to manage its canal system. The Terrace of the Leper King is located in this empire's religious complex at Bayon. At its height, this empire conquered the Mon kingdom and its western border was with the Pagan kingdom. Zhou Daguan gave an account of this empire, which built a Vaishnavite complex modeled on Mount Meru whose Ramayana-inspired reliefs show an army led by Suryavarman II. For 10 points, name this Southeast Asian empire that built the Angkor Wat.
ANSWER: __Khmer__ empire [or __Kambujadesa__ empire/kingdom; or __Kampuchea__; accept __Angkor__ empire until "Angkor Wat" is read and prompt thereafter]

12. The main melody of this work's penultimate movement begins with the following six quarter notes in 6/4 time: descending "G - F-sharp - B", followed by a descending "E - D - G". A solo double bass quotes the "Dance of the Sylphs" from *The Damnation of Faust* in this work's fifth movement. One movement in this piece is scored for the unusual combination of flute, muted strings, two pianos, and glass harmonica. This work's fourth movement includes a humorously slow rendition of the can-can from *Orpheus in the Underworld.* The xylophone part mimics the composer's own *Danse macabre* in its twelfth movement, which is titled "Fossils". For 10 points, name this orchestral suite by Camille Saint-Saëns that includes "The Elephant", "Tortoises", and "The Swan."
ANSWER: The __Carnival of the Animals__ [or Le __carnaval des animaux__]

13. The Silver Throne was crafted for this ruler's coronation. This ruler founded the Order of Amarante, which consisted of knights who, like this ruler, chose to never marry. This non-Scottish ruler invited the Vossius brothers and Hugo Grotius as part of an effort to make the capital "The Athens of the North." This ruler's rigorous tutoring sessions are sometimes blamed for the death of Rene Descartes. After abdicating, this ruler moved to Rome and converted to Catholicism. This ruler acceded to the throne at age 6 after her father was killed at the Battle of Lützen. For 10 points, name this daughter of Gustav Adolf, a queen of Sweden during the Thirty Years' War.
ANSWER: __Christina__ Alexandra (of Sweden) [or __Kristina__ Augusta]

14. This functional group has an adjacent methylene group inserted in the Arndt-Eistert homologation. A molecule containing this functional group is produced along with phenol in the Dakin reaction. The infrared spectra of them shows three peaks: a strong 1710, a medium 1200, and a strong, broad 2700 peak. A mixture of sulfuric acid and chromium trioxide will convert a primary alcohol to this functional group. Simple, dry heating of them reduces them to an alkane, evolving carbon dioxide. For 10 points, identify this functional group which combines with an alcohol to form an ester in the Fischer esterification.
ANSWER: __carboxylic acid__s [or R__COOH__]

15. A leader of this political party dismissed a question about pepper-spraying protesters by saying "pepper, I put it on my plate." A famous séance-participating and table-rapping leader of this party became his nation's first citizen. The infamous "face" ad asked the question "Is this a Prime Minister?" of a leader of this party who had Bell's Palsy. The resulting backlash helped that leader of this party win a 1993 election against the nation's only female Prime Minister, Kim Campbell. Official bilingualism was instituted by a leader of this party who said "just watch me" while dealing with the October Crisis. For 10 points, name this Canadian party led by father-son pair Justin and Pierre Trudeau.
ANSWER: **Liberal** Party of **Canada** [accept clear-knowledge equivalents; accept **Grits**]

16. In one epistle, this writer discusses finding the perfect language to compose a "Hymn to the Sun" so that one can "speak a few degrees more deeply … where silence reigns." In another letter, this writer urges a military cadet "dig into yourself for a deeper answer" as an answer to the question "must I write?" Stephen Mitchell translated a poem by this author with the lines "His vision, from the constantly passing bars, has grown so weary that it cannot hold anything else." Another poem by this author maintains "beauty is nothing but the beginning of terror" and asks the reader if he has "remembered Gaspara Stampa sufficiently?" At the beginning of that poem, this author of "The Panther" asks "who among the angelic orders would hear my cry?" For 10 points, name this author of *Letters to a Young Poet* and *The Duino Elegies*.
ANSWER: Rainer Maria **Rilke** [or René Karl Wilhelm Johann Josef Maria **Rilke**]

17. This man is accompanied by Trevor Ray Hart on a trip aboard the Indian Pacific railway that is related in a book whose third section opens with Allan Sherwin offering this man all his urine for a journey across the Outback. Another of this man's books opens with a shopping expedition guided by Dave Mengle and contains a passage in which his worries about an encroaching bear are mocked by his companion, the pseudonymous Stephen Katz. A tour of a rectory in Norfolk inspires a series of historical digressions in his *At Home: A History of Private Life*. This author of *Down Under* wrote about hiking the Appalachian Trail in *A Walk in the Woods*. For 10 points, name this humorist and travel writer who wrote about Great Britain in *Notes from a Small Island* and penned *A Short History of Nearly Everything*.
ANSWER: Bill **Bryson** [or William McGuire **Bryson**]

18. In a novel by this author, Prince Ping Pong Pang, Grand Duke Vodkakoff and the Mad Mullah invade Britain, but they are thwarted by a boy scout named Clarence Chugwater. This author, who satirized the genre of invasion literature in *The Swoop,* never returned to his country of birth after he delivered a series of radio broadcasts from Germany during World War 2. He wrote novels in which George Cyril Wellbeloved abandons his master to protect the Queen of Matchinham, who is owned by Sir Gregory Parsloe-Parsloe. This author's recurring characters include Clarence Threepwood, the Lord of Emsworth that owns a pig named the Empress of Blandings, as well Rupert Psmith and Sir Bertie Wooster. For 10 points, name this comical author who created the butler Jeeves.
ANSWER: Sir Pelham Grenville **Wodehouse**

19. A paper by Wald claims that this quantity is the Noether charge associated with diffeomorphism invariance. One formula for this quantity has a term proportional to the natural logarithm of volume times mass and internal energy both raised to the three halves power. The fluctuation theorem governs this quantity's dynamics when at non-equilibrium conditions, and it's proportional to the area of the event horizon for black holes. The differential of internal energy equals P dV plus mu dN plus temperature times the differential of this quantity. This quantity is zero for a perfect crystal at absolute zero according to the third law of thermodynamics and it doesn't change in a reversible process. For 10 points, name this quantity which always increases according to the second law of thermodynamics.
ANSWER: **entropy** [accept specific things like Wald **entropy**, Bekenstein **entropy**, Black hole **entropy**]

20. This artist created a portrait of the creator of the Abraham Lincoln statue in the Capitol Rotunda, Vinnie Ream, playing a harp. A family pleads with a group of "redleg" troops who plan to burn their house in a painting this man created to attack General Thomas Ewing, who forcibly depopulated part of this man's home state with his *Order No. 11*. A jovial man wears three hats while another man reads off of a piece of paper in the third painting in a series by this man that also includes *Stump Speaking* and *The County Election.* In his most famous painting, the viewer is stared at by a man wearing a Phrygian cap, a half-Native American boy leaning on a pile of pelts, and a rather feline- looking bear on a leash. For 10 points, name this self-taught luminist who painted *Fur Traders Descending The Missouri.*
ANSWER: George Caleb **Bingham**

21. One character in this work analogizes his situation to Zeus, noting Zeus's actions against Cronus and Cronus's punishment of Uranus. Another character in this work proposes that the central concept is a species of justice, but dismisses the suggestion that it is the kind of justice concerned with attending to the gods. One character attributes the assembly's mockery of his soothsaying to jealousy, and imputes the same motive to Meletus's attacks on his interlocutor for claiming to be guided by a "familiar divine sign." This work's title character seeks to bring suit against his father for the murder of his field labourer. For 10 points, name this Platonic dialogue whose namesake dilemma asks whether pious actions are pious because they are loved by the gods, or loved by the gods because they are pious.
ANSWER: ***Euthyphro***

Bonuses

1. Answer some questions about Jewish holidays. For 10 points each:
[10] This Jewish festival commemorates the story of the Israelites' exodus from Egypt after being freed from slavery. Jews traditionally eat only unleavened bread during it because the Israelites were said to have left in such a hurry that they could not wait for the bread dough to rise.
ANSWER: **Passover** (or **Pesach**)
[10] Including traditions such as the consumption of dairy products and decorating homes and synagogues with greenery, this Jewish holiday celebrates the day that God gave the Torah to the Israelites as they were assembled on Mount Sinai.
ANSWER: **Shavuot** (or **Feast of Weeks**)
[10] Passover, Shavuot, and Sukkot are the Three Pilgrimage Festivals. Historically commemorating the forty-year period during which the Israelites wandered the desert, one tradition during Sukkot is to carry out a waving ceremony with this collective of plants.
ANSWER: **Four Species** (or **Arba'at Ha-minim**)

2. Answer the following about people disproving the notion that all Canadians are nice, for 10 points each:
[10] This farcical duo made their way into the spotlight in the fall of 2010, when they won Toronto municipal elections. One of them refused to apologize for the other's anti-Semitic remarks and defended himself by saying that he has a "Jewish doctor, [...] Jewish dentist [and] Jewish lawyer."
ANSWER: The **Ford** Brothers [or **Rob and Doug Ford**]
[10] This Conservative Senator became a national embarrassment earlier in 2014 when the RCMP charged him with thirty-one counts of fraud, bribery and breach of trust.
ANSWER: Mike **Duffy**
[10] The federal NDP recently spoke out against the Conservative party for their recommendation not to conduct a full inquiry on crimes against this group of people. The campaign "Am I Next?" was used to push for awareness of the issue.
ANSWER: **indigenous women** [or **aboriginal** or **native**, must include **women** or equivalents, prompt on partial answers]

3. Answer the following about pesticides and herbicides, for 10 points each.
[10] This organochlorine pesticide acts upon the sodium channels in insects, causing uncontrollable firing of neurons and eventual death. It was widely criticized in *Silent Spring* for its effects on bird eggs, in particular those of the bald eagle.
ANSWER: **DDT** [or **dichloro-diphenyl-trichloroethane**]
[10] Organophosphate pesticides are preferable to organochlorine compounds in that they degrade faster, however, they pose a greater risk because they affect this neurotransmitter, which is deficient in myasthenia gravis.
ANSWER: **acetylcholine** [or **ACh**]
[10] This herbicide marketed as "Roundup" binds to the EPSP synthase enzyme instead of phospho-enol-pyruvate, inhibiting amino acid synthesis.
ANSWER: **glyphosate**

4. Answer the following about portrayals of lawyers in Mark Twain's literature, for 10 points each.
[10] Probably the most famous Twain lawyer is this titular antebellum Missouri man from Dawson's Landing, whose love of fingerprints allows him to expose Tom Driscoll as Roxy's son Chambers and a murderer, after which the murderer is "sold down the river."
ANSWER: Puddn'head **Wilson** [or David **Wilson**]
[10] Shadbelly Billson and Lawyer Wilson are the first two to have their incorrect answers read by Reverend Burgess in this Twain story, which revolves around $40,000 in gold, a vengeful but fair stranger, and the Richards family in the titular location.
ANSWER: "The **Man that Corrupted Hadleyburg**" [do not accept "The Man Who Corrupted Hadleyburg"]
[10] This lawyer is not in town when the fraudsters the Duke and the Dauphin first attempt to swindle the Wilks estate in *The Adventures of Huckleberry Finn*, but returns in time to demonstrate their dishonesty by tricking them into providing a writing sample proving their false identity.
ANSWER: **Levi Bell** [Accept either]

5. When a system is in this state, photons perturb excited electrons, which then release more photons as they relax back to the ground state. For 10 points each:
[10] Name this situation in which a greater number of atoms are in an excited state than in the ground state.
ANSWER: **population inversion**
[10] A saturable absorber is used in the passive type of this technique, where the phases of the various waves that oscillate within the laser are fixed to periodically interfere constructively, allowing the laser to emit short, periodic pulses of light.
ANSWER: **mode-locking**
[10] A Fabry-Perot laser has one of these diodes sandwiched between two mirrors. Amano, Asaki, and Nakamura won the 2014 Nobel for figuring out how to get blue ones to work efficiently.
ANSWER: **Light-emitting** diode [or **LED**]

6. Answer some questions about tort law, for 10 points each.
[10] Tort law and the law of these entities both usually involve duties that may be breached. They differ in that these entities involve a formal agreement, either written or oral, between two or more parties.
ANSWER: **contract**s
[10] This common tort concerns harm caused by failure to exercise a reasonable degree of care. It involves proving that the defendant had a duty of care to the claimant that was breached.
ANSWER: **negligence**
[10] Translating as "the thing speaks for itself," this doctrine implies that the very nature of an incident can sometimes be used to prove breach of duty of care.
ANSWER: **res ipsa loquitur**

Note to moderator: do not read anything besides "Pachacuti" if a correct answer is not given to the first part.

7. Pedro Sarmiento de Gamboa says that this man advised his son to not let anyone who raised two eyes against him live and gives his lifetime as an unrealistically long 125 years. For 10 points each:
[10] Name this ruler, who reorganized his empire into the *Tawantinsuyu*, or "Land of the Four Corners."
ANSWER: **Pachacuti** Inca Yupanqui [or **Pachacutec**; or **Pachacutiq** Inka Yupanki]
[10] Pachacuti was the greatest ruler of this Andean empire, which was conquered by Francisco Pizarro.
ANSWER: **Inca**n empire
[10] The Inca employed these runners to deliver messages along their extensive road system. These dudes would stop at stations called *tambos* for refreshments and could book it from Cusco to Quito in a week.
ANSWER: ***chasqui****s*

8. Don Diegue is slapped by the Count de Gormas after receiving an honor from the king which the younger Count covets. For 10 points each:
[10] Name this drama in which Don Rodrigue and Chimene are members of quarrelling families. Rodrigue avenges his father Diegue by killing Gormas, but spares Chimene's champion. They ultimately marry and Rodrigue sets off to become the titular character.
ANSWER: *Le **Cid*** [or *The **Cid***; Do NOT Accept *El Cid*]
[10] This French playwright authored *Le Cid,* and his other works include *Horace*, which he dedicated to Cardinal Richelieu, *The Liar*, and the story of an Armenian nobleman martyred for his conversion to Christianity, *Polyeucte*.
ANSWER: Pierre **Corneille**
[10] Pierre Corneille's *Le Cid* was criticized for not following this convention, which states that plays should have one main action, should be set in a single place, and should take place over the course of less than a day. They are sometimes named for Aristotle, who outlined them in *Poetics*.
ANSWER: classical **unities** or the [3 Aristotelian **unities**]

9. Several stars shoot out from Hera's breast as Heracles is pulled away from it in this man's painting *The Origin of the Milky Way*. For 10 points each:
[10] Identify this Venetian mannerist, also the painter of a famous diagonally-oriented *Last Supper*, whose common nickname translates as "little dyer".
ANSWER: **Tintoretto** [or Jacopo **Comin**; or Jacopo **Robusti**]
[10] In this Tintoretto painting, Saint Mark swoops down dramatically from the sky to prevent the execution-by- staking of the title naked figure.
ANSWER: *The **Miracle of the Slave*** [or *The **Miracle of St. Mark Freeing the Slave***; prompt on "*The **Miracle of St. Mark***"]
[10] Tintoretto's son Domenico helped him complete this late commission for the Doge's Palace, an unbelievably massive, 74-by-30-foot canvas that depicts tiers of people arranged around a golden light representing the entrance to heaven.
ANSWER: ***Paradise***

10. Answer the following about a filthy, disgusting traitorous fiend...or a hero, I guess, depending on your point of view, for 10 points each.
[10] This effective cavalry leader for the Confederacy during the Civil War was also, more notoriously,the first Grand Wizard of the Ku Klux Klan. He was involved in the deaths of black soldiers at the Fort Pillow Massacre.
ANSWER: Nathan Bedford **Forrest**
[10] Reportedly, Forrest was the only cavalryman feared by this Union general and victor at Shiloh. This man would later become President of the United States after Andrew Johnson.
ANSWER: Ulysses Simpson **Grant**
[10] Forrest fought with John Bell Hood at this disastrous, Tennessee-set 1864 battle in which the Confederates lost fourteen generals. Shortly after, the Army of Tennessee would be destroyed at Nashville.
ANSWER: Battle of **Franklin** [or Second Battle of **Franklin**]

11. This book claims that because God acts only of his own nature, miracles are lawlike events, of whose cause we are ignorant. For 10 points each:
[10] Name this "book forged in hell" that argues that right and power are coextensive, that Moses did not write the Pentateuch, and that state religions should be minimal.
ANSWER: ***Tractatus Theologico-Politicus***
[10] The *Tractatus Theologico-Politicus* was a pre-emptive defense of this Jewish Dutch philosopher's *Ethics*, in which he claimed that there is one substance which he called "God or Nature."
ANSWER: Baruch **Spinoza** [or Benedict de **Spinoza**]
[10] Spinoza used this term to refer to concepts that are rational, necessarily true, and that apprehend the essences of their subjects.
ANSWER: **adequate** ideas [or **adequate** knowledge]

12. This poem imagines Orpheus heaving his head on a bed of Elysian flowers and wishes that Pluto would set free Orpheus's half regain'd *Eurydice*. For 10 points each:
[10] Name this pastoral poem that ends "These delights, if thou canst give / Mirth, with thee I mean to live".
ANSWER: ***L'Allegro***
[10] Unlike *L'Allegro*, which is cheerful and bright, its companion piece, *Il Penseroso* instead celebrates this pensive mood, which is called "musical" in the poem.
ANSWER: **Melancholy** [No other answer is acceptable]
[10] Both *Il Penseroso* and *L'Allegro* were written by this 17th century poet and author of *Paradise Lost*.
ANSWER: John **Milton**

13. An uprising in this city's ghetto began on April 19, 1943, and was led by Mordecai Anielewicz and the Jewish Fighting Organization. For 10 points each:
[10] Name this Polish capital.
ANSWER: **Warsaw** [or **Warszawa** or **Varshe**]
[10] The Jewish Fighting Organization was formed amidst mass deportations to this death camp northeast of Warsaw, near the village of Malkinia. It was second only to Auschwitz in the number of Jews killed.
ANSWER: **Treblinka** [accept **Treblinka I** or **Treblinka II**]
[10] The ghetto fighters were aided by two Polish resistance movements, one loyal to the government-in-exile and one loyal to the Polish Communist Party. Name either.
ANSWER: **Home Army** [or **Armia Krajowa** or **AK**] or **People's Guard** [or **Gwardia Ludowa** or **GL**]

14. This composer is often considered the pivotal figure in the transition from the Renaissance to the Baroque. For 10 points each:
[10] Name this Italian composer, whose 1607 opera *L'Orfeo* is the earliest in the standard repertoire. Only a "Lamento" survives from his second opera, *Arianna*.
ANSWER: Claudio (Giovanni Antonio) **Monteverdi**
[10] Though Monteverdi's *Orfeo* is sometimes erroneously called the first opera, this mythological music drama written for the 1598 Florentine Carnival by librettist Ottavio Rinuccini and composer Jacopo Peri came earlier.
ANSWER: *Dafne*
[10] Jacopo Peri popularized this form of speech-like singing, which commonly precedes arias in later styles of opera. It is divided into a "secco" or "accompagnato" styles, based on whether a continuo or a whole orchestra accompanies it.
ANSWER: **recitative** [or **recitativo**]

15. Autocorrelation in times series is measured by the Hurst parameter, which is .5 for this type of process. For 10 points each:
[10] Name these processes that model the probabilistic movement of an entity by discrete steps at discrete points in time. Brownian motion is a continuous analogue of one of these processes.
ANSWER: **random walk**
[10] This is the continuous limit of a random walk. Its namesake has been called the founder of cybernetics and names a theorem with Khinchin that the power spectral density is the Fourier transform of the autocorrelation function for certain processes.
ANSWER: **Wiener** process [or Norbert **Wiener**]
[10] For a random walk where its position increases by 1 with probability p at each time interval, the distance away at time t will have this distribution that models the number of successes from a series of t independent Bernoulli trials.
ANSWER: **binomial** distribution

16. In this work, the oil merchant Kuheiji swindles Tokubei out of money and is beaten up by his followers; that incident causes Tokubei and the courtesan Ohatsu to end their life at the Wood of Tenjin. For 10 points each:
[10] Name this play by Chikematsu.
ANSWER: The *Love Suicides at Sonezaki*[or *Sonezaki Shinjū*]
[10] *The Love Suicides at Sonezaki* is a play in this genre of Japanese puppet theatre.
ANSWER: **bunraku**
[10] The song "Dance of the 300 Gold Pieces" inspired this play by Chikematsu that is set on New Years Day and relates how Yojibei protects the thief Yohei, since the latter defended the honor of Azuma.
ANSWER: The *Uprooted Pine* Tree [or *Nebiki no Kadomatsu*]

17. The most well-known application of this catalyst is in the Mozingo reaction, where it is used to remove a thioketal from the alkane product. For 10 points each:
[10] Name this grey powdered catalyst that is derived from an alloy of aluminium and its namesake metal.
ANSWER: **Raney nickel** [prompt on nickel]
[10] Nickel is complexed with these molecules in the Mond process. Isoelectronic with nitrogen gas, its toxicity is due to an irreversible binding to hemoglobin.
ANSWER: **carbon monoxide**
[10] Carbon monoxide is consumed along with water to produce hydrogen gas and carbon dioxide in this important industrial reaction, often preceded by the steam reforming reaction.
ANSWER: **water gas shift** reaction

18. This composer's six Opus 20 string quartets helped define the Classical notion of the string quartet. For 10 points each:
[10] Name this Austrian composer, whose twelve *"London" Symphonies* include symphonies nicknamed "Clock" and "Surprise".
ANSWER: (Franz) Joseph **Haydn**
[10] This last complete set of string quartets by Haydn include the *"Fifths" Quartet* and the *"Emperor" Quartet*. The opening motif of the fourth of these is sometimes called the "sunrise" motif.
ANSWER: "**Erdödy**" String Quartets, **Op. 76** [accept either underlined portion]
[10] The melody of the second movement of Haydn's *"Emperor" Quartet* was later used as one of these pieces. Alexander Alexandrov, Claude Joseph Rouget de Lisle, and John Stafford Smith are best known for pieces of this kind.
ANSWER: **national anthem** [accept clear equivalents like "**national hymn**" or "**national song**"]

19. This emperor's nephew Germanicus may have been poisoned by Gnaeus Calpurnius Piso. For 10 points each:
[10] Name this Julio-Claudian emperor who succeeded his adopted father Augustus and ruled until 37 CE.
ANSWER: **Tiberius** Claudius Nero [or **Tiberius** Julius Caesar]
[10] This prefect of the Praetorian Guard was the *de facto* ruler of Rome while Tiberius spent time in Capri. He was summoned to the Senate, condemned, and executed in 31 CE.
ANSWER: Marcus Aelius **Sejanus**
[10] This only son of Tiberius' first marriage was probably murdered on orders of Sejanus, who may have been having an affair with this dude's wife and cousin, Livilla.
ANSWER: Nero Claudius **Drusus** [or **Drusus** Julius Caesar]

20. One of the few entirely tragic characters in this book receives a magic broadsword from Ukko that he uses to kill the entire tribe of Untamo and then, having achieved revenge, to commit suicide. For 10 points each:
[10] Name this compilation of Finnish mythology collected and edited by Elias Lönnrot. Its characters include the aforementioned Kullervo, the romantic Lemminkäinen, and the magician Väinämöinen.
ANSWER: *The **Kalevala*** [or *The New **Kalevala***; or *The **Land**(s) **of Kaleva***; or *The **Homestead of** the People of **Kaleva***; or ***Kalevia***]
[10] This brother of Vainamoinen, a blacksmith, is so entranced by the beauty of the Maid of Pohjola that he agrees to build a Sampo for her mother Louhi. Unfortunately, she refuses him.
ANSWER: Seppo **Ilmarinen**
[10] In another story, Vainamoinen acquires some runes necessary for shipbuilding by driving stakes into the stomach of this giant from the inside until he reveals them.
ANSWER: **Antero Vipunen**

21. The Big Bend National Park is named for the arc that this river cuts during its journey into the Gulf of Mexico. For 10 points each:
[10] Name this river that defines the border between Texas and four Mexican states.
ANSWER: the **Rio Grande** [or the **Río Bravo** del Norte]
[10] A series of killings termed *feminicidio* have taken place in this city on the Rio Grande, which is home to hundreds of *maquiladoras*. The Bridge of the Americas connects it to El Paso.
ANSWER: **Ciudad Juarez** [or **Paso del Norte**; or **Juarez City**; prompt on "Juarez"]
[10] This city near the mouth of the Rio Grande lies across it from the Mexican city of Matamoros. In 1906, 167 African-American soldiers stationed near this city were dishonorably discharged after they were falsely accused of a pair of shootings.
ANSWER: **Brownsville**, Texas