Chicago Open 2016: "An Insatiable Kingpin of International Meme-Laundering"
Packet by "You Were Making Out During Schindler's Lit?!" (Sam Bailey, Trevor Davis, Stephen Liu, Max Schindler) and *Just What Is It That Makes Today's Illinois Players So Different, So Appealing?* **(Jason Asher, Mike Etzkorn, Adam S. Fine, Matthew Lehmann)**
Edited by John Lawrence, Mike Cheyne, Matt Jackson, Adam Silverman, Mike Bentley, Aaron Rosenberg, Jake Sundberg, and Shan Kothari, with contributions from Ewan Macaulay and Jonathan Magin

Tossups

1. **The total for this quantity is proportional to the sum of two hyperbolic sine functions at the Helmholtz limit when the symmetry factor is one-half, but is instead logarithmic when the Chang-Jaffe boundary conditions hold. If this quantity is zero, then the difference between the peaks in a CV experiment is just 57 over n. The Stern-Geary equation explains how this quantity arises from polarization resistance. This quantity multiplies two different charge transfer coefficients in both the positive and negative exponentials of an equation that gives the** (*) current density as a function of the exchange current density. This quantity symbolized eta increases linearly with the log of the current on a Tafel plot. The Butler-Volmer equation accounts for it being nonzero. For 10 points, name this quantity neglected by the Nernst equation, which is the number of volts beyond equilibrium at which a redox reaction is actually observed.
ANSWER: **overpotential** [prompt on eta until it is read; prompt on electric **potential**; do NOT accept or prompt on "cell potential" or "redox potential" or "reduction potential" or any other modifiers of "potential"]

2. **J. S. Bach wrote a manuscript that contained this number of canons based on the first eight notes of his** *Goldberg Variations*. **A string quartet with this non-opus number has a third movement that lasts only eleven measures, meant as a transition into a long fourth movement that contains seven variations on an A major theme, which is initially passed between the two violins. That string quartet of this non-opus number begins with a fugue marked** *Adagio ma non troppo e molto espressivo* **in** (*) C-sharp minor. Another string quartet with this non-opus number concludes with a D-minor tarantella, and is named for its composer's setting of a Matthias Claudius poem, which forms the basis for its second movement. A piano sonata with this number opens with the right hand playing ascending triplets of G-sharp – C-sharp - E in its *Adagio sostenuto* first movement. For 10 points, name this number of Schubert's *Death and the Maiden* string quartet, and Beethoven's *Moonlight Sonata*.
ANSWER: **14**

3. **In 2008, the artist Vik Muniz went to one of these places to produce works depicting** *catadores*. **In 1995, Rio de Janeiro began a system of granting licenses to people who worked at that one, Jardim Gramacho. The water brand Bonafont has a project devoted to helping Mexicans who make their living at these places called** *pepenadores*. **The Camorra organized crime group modifies documents called waybills to help maintain illicit control of these places in the** (*) Campania region of Italy. In 2000, about three hundred people died at the Payatas one of these in Manila where a homeless community had gathered. After shutting down a huge one called Bordo Poniente in 2011, Mexican officials began plans to build a power plant nearby using available methane. Until 2000, and then briefly again after 9/11, the Fresh Kills area of Staten Island served as, for 10 points, what sort of municipal site where garbage is put?
ANSWER: **landfill**s [or garbage **dump**s; accept obvious equivalents]

4. **This mythical character underwent "epic compression" according to a 2002 book by Casey Dúe, which situates "Homeric Variations on" this character in wider context. In book 3 of an epic by Quintus of Smyrna, this character scratches at her breasts so fiercely that they drip blood and milk. Though the poem is in Latin, this woman claims to be writing Greek with "barbarian hand" in the third letter of Ovid's** *Heroides*. **In an older text, her only speech is a lament which leads surrounding women to grieve on the same pretense as her, but "each for their own sorrows." This widow of Mynes lost three brothers during the siege of** (*) Lyrnessus, her home city. The heralds Talthybius and Eurybates seize this prisoner to compensate for a similarly-named daughter of Chryses, a priest of Apollo. Patroclus was especially kind to, for 10 points, what woman whose seizure by Agamemnon makes Achilles really mad at the start of the *Iliad*?
ANSWER: **Briseis** [or the **daughter** of **Brise**us][Chryses's daughter was named Chryseis]

5. **In a dream sequence in this film, the camera pans upwards for minutes past a Christian icon, a gun, and other sunken debris before finally arriving at a man's clenched fist. One character in this film answers a telephone and gloats about an object he found hidden in "the old building, bunker four." Many dream scenes in this film feature a mysterious black dog which follows the characters home. It ends as a handicapped girl named** (*) Monkey telekinetically moves glasses across a table. An ambient soundtrack is used in a scene where three characters in this film ride a trolley to a place rendered in full color rather than sepia. Its title character throws metal nuts tied to bandages to mark the path through a dangerous industrial wasteland for the Writer and the Professor, who are on a journey to "The Room", located in "The Zone." For 10 points, name this 1979 Soviet science fiction film directed by Andrei Tarkovsky.
ANSWER: *Stalker*

6. **John Adams called a member of this family "another Sir John Falstaff." It's not Otis, but that member of this family inherited his father's estate after he was killed by lightning while trying to shut a window in 1745. John Trumbull used the likeness of the son of a member of this family to depict the latter prominently seated at a left table during the signing of the Declaration of the Independence. One of its members infamously noted that his obesity would result in him dying quicker when hanged as compared to his fellow patriot Elbridge Gerry. A campaign song praising a member of this family featured the line "he had no** (*) ruffled shirt, wirt-wirt" and was accompanied with the spitting of tobacco juice. Beginning in 1791, the Berkeley Hundred plantation in Virginia was controlled by this family, which produced the first governor of the Indiana territory. For 10 points, what family included President William Henry?
ANSWER: **Harrison**

7. **This poet described a building whose doors are "untaught to shut," because they know that the house "never didst deserve a foe." One poem by him tells a woman proud of her beauty: "That killing power is none of thine, / I gave it to thy voice, and eyes." This author of "To Saxham" adapted the "bower of bliss" from** *The Faerie Queene* **into a euphemism for a woman's cleavage in a poem in which he claims that his lips will write a "tract for lovers on the printed snow" of a woman's flesh. He wrote: "Here lies a King that rul'd as hee thought fit / The universall Monarchy of Wit" in the epitaph concluding his elegy upon the death of John** (*) Donne. He is not Ben Jonson, but many of his most famous poems are addressed to Celia, whom he asked to fly with him "to Love's Elysium," in a poem that closes by asking why "this goblin Honour, which the world adores, / Should make men atheists, and not women whores?" For 10 points, name this Cavalier poet, the author of "A Rapture."
ANSWER: Thomas **Carew** [pronounced "carey," but accept a phonetic pronunciation]

8. **During a nighttime blackout in this country, a commander named Harry George Smart was injured in a car accident and forced to evacuate, leading to a faux pas when his country's leader sent him a telegram reading "Keep it up!" A Ford company agent and scrap dealer here named Shafiq Ades was killed in a show trial. The "Habforce" was created during a war in this country, which was immediately followed by the deaths of almost 200 Jews in a pogrom known as the** (*) "Farhud." An insurgency here was supported by ambassador Fritz Grobba, whose aerial squadron failed to keep Rashid Ali as Prime Minister. In 1941, a coup in this country by the Golden Square resulted in a pro-Nazi regime taking over and a brief war with the British. For 10 points, name this Middle Eastern country where 1958's 14 July Revolution overthrew Faisal II.
ANSWER: Kingdom of **Iraq**

9. *NOTE: The correct answer to the is tossup is a formula; we're looking for something like "n-squared plus 1".*
Granville and Ramare proved Erdős' conjecture that this function of n is never squarefree for n greater than four. A graph with this many vertices whose edges are two-colored will necessarily have a monochromatic clique of size n plus one. The maximum size of Sperner family of sets over 2n elements is this function of n. Numbers of this form have generating function one over the square root of quantity one minus four times x. Asymptotically, this function of n approaches four-to-the-n divided by the square root of quantity pi times n. This function of n divided by the quantity n plus one yields the nth (*) Catalan number. The sum from k equals zero to n of the squares of binomial coefficients of the form n choose k is equal to to this function of n. Numbers of this form appear in the center of the even rows of Pascal's triangle. For 10 points, how many ways are there to select n people, regardless of gender, from a group of n boys and n girls?
ANSWER: **2n choose n** [accept any answers with different variables in place of "n", accept quantity **2n factorial divided by** quantity **n factorial squared**", also accept synonyms of division in place of "divided by"]

10. **In one of this author's stories, Batman and Commissioner Gordon begin conversing in French, after it is revealed that Robin is doing badly in French at Andover. In another of his stories, a man wrangling porcupines is confronted by a Gatling gun-wielding dean, who doesn't want them to enroll at his university. He wrote a story in which a teacher has sex in a cloakroom with a sixth-grader who is constantly worried about his height, because he's actually a thirty-five-year-old insurance claims adjuster. The protagonist is betrayed by his love Sylvia to the Comanches in his story "The** (*) Indian Uprising." In another story by him, every living thing adopted by a school—including trees, tropical fish, and a Korean orphan—dies mysteriously. Although he repeatedly said: "fragments are the only forms I trust," he wrote novels, including a retelling of Snow White. For 10 points, name this American postmodernist, whose collections include *Come Back, Dr. Caligari, Sixty Stories,* and *Forty Stories*.
ANSWER: Donald **Barthelme**

11. **A ghostly rendition of this woman stands between two red curtains in a Gustave Moreau painting. This character extends her head upwards in a self-portrait and sculpture by Elisabet Ney inspired by Ney's troubled relationship with her son. Oscar Wilde quipped that this character "takes care to do all her own shopping in Byzantium" in his takedown of a John Singer Sargent portrait. Sargent's portrait renders her in gold, blue and green and lifting a** (*) crown over her head and was modeled by Ellen Terry. This character, modeled on Hannah Pritchard, holds her finger to her mouth in a shushing gesture as a crazy-eyed companion holds two daggers in his hands. In a different painting by the same artist, this redhead holds a lantern below a Tudor arch. For 10 points, name this character whom Henry Fuseli depicted sleepwalking in his illustration of the Shakespeare play she appears in.
ANSWER: **Lady Macbeth** [do not accept just "Macbeth"]

12. **Squid lens crystallins are homologous to a human enzyme with this compound as its substrate. Griffith devised an assay to detect this compound by reacting it with vinyl-pyridine; other classic methods either recycle this compound in a reaction with DTNB, forming a yellow acid, or just detect roGFP. This compound reacts with metallothionein to release zinc and form a four-member ring. Mercapturic acids are conjugates of this compound to toxic metabolites. Combined, it and ascorbate detoxify hydrogen peroxide. RNR's catalytic cycle uses either thioredoxin or a** (*) redoxin named for this compound. This compound has a gamma-peptide bond where a glutamate side chain is linked to a free amino. Its transferases are fused as 220-residue tags for pull-downs in protein purification, during which this tripeptide is immobilized on beads. For 10 points, name this regulator of cellular redox state, symbolized GSH or GSSG.
ANSWER: **glutathione** [or **GSH** or **GSSG** until they are read; or **glutathione**-S-transferase; or **glutathione peroxidase**]

13. **This ethnic group traditionally divided winter into nine sets of nine days known by descriptive phrases such as "the tail of a 3 year old ox freezes and falls off". Because these people regard fire as sacred to the divine Qurmusata King, it is taboo to stamp out or douse a fire within their dwellings. Many religious sites among these people feature a heap of stone or wood called an** *ovoo*. **Sacred sports called** *danshig* **are played at the yearly Naadam festival of this ethnicity, whose traditional pantheon consists of 99** (*) sky spirits. A missionary *to* a leader of this ethnic group designed the Phags-pa script. It is believed that these people's near-total religious toleration was once enshrined in a secret law code called the *Yassa*. For 10 points, name this ethnicity whose nation ended atheistic Communist rule in 1990, and which has since seen revivals of Buddhism, Tengriism, and shamanism.
ANSWER: **Mongol**s [or **Mongol**ians; prompt on Turkic peoples]

14. **A man who lived in the ancient version of this city was mythically beheaded on a hill, but one of his executioners' eyes popped out of his head so that the heathen could not rejoice. After Thomas Kyriell and William Bonville were captured in this city, a woman asked her seven-year-old son "what death shall these knights die?" despite pleas for mercy from her husband. The ancient historian Matthew Paris lived in this city. Once the Roman city of (*)** Verulamium, it was where John Grey of Groby, the first husband of Elizabeth Woodville, was killed. At a battle fought in this city, Edmund Beaufort, the Duke of Somerset, was killed. During another battle fought here, a ruler sat under a tree, singing and ignoring the defeat of Warwick's forces. Henry VI was both captured and released at battles fought here. For 10 points, what city was the site of two battles in the Wars of the Roses?
ANSWER: **St. Albans** [or **Verulamium** until it is read]

15. **One character in this work tells the story of an Austro-Hungarian shoemaker whose body is found by Russian soldiers in a crypt, after he spends years making Heroes' Hill. In this work, a dove that is released during a sporting ceremony is killed by falcons that are trained to kill pigeons that are damaging churches by shitting on them. This work's protagonist takes a trip to Europe after being inspired by the literary critic Farewell. In this work, a literary salon is discredited when a torture chamber is found in its basement; that salon was run by Maria Canales, based on the real-life Mariana (*)** Callejas. This work's protagonist is hired by Pinochet to teach the precepts of Marxism to the military. This novella was its author's first work to be translated into English, after his 2003 death. For 10 points, name this work narrated by Opus Dei member Father Urrutia on his deathbed, a novella by Roberto Bolaño.
ANSWER: *By Night in Chile* [or *Nocturno de Chile*]

16. **A man with this royal title had his enemies embalmed in their familiar clothes and put on display in his "museum of mummies." Another man with this title continually extorted protection money from Pope Innocent VII and was named in honor of an ideal Hungarian ruler. Due to his illegitimacy, a man's claim on this non-Spanish title was temporarily opposed by his former tutor, Pope Callixtus III, and a war over it was fought when the childless queen (*)** Joanna II disowned her adopted heir. In 1442, Rene of Anjou lost this title to the invading Alfonso the Magnanimous, who signed the Treaty of Gaeta, established Trastamara rule, and passed it on to his son, Ferdinand I. Skanderbeg pledged himself a vassal to a man with this title, who also temporarily reunified it with an island kingdom. For 10 points, what title was held by rulers whose domain formed part of the Kingdom of Two Sicilies?
ANSWER: **King** of **Naples** [or **Queen** of **Naples**; or any sort of **ruler** of **Naples**; accept "**Sicily and Naples**" for "Naples"; prompt on Two Sicilies for "Naples"; do NOT accept or prompt on "King of Sicily"—while Naples' kings claimed to have this title, that is categorically *not* how historians refer to them]

17. **Harry Atwater's group investigates the modulation of these waves in field-effect devices. These waves are excited by coupling to a totally internally reflected wave in a prism in the Otto configuration. These waves exhibit a hyperbolic sine or cosine profile in the central layer of IMI structures, where they can propagate for longer distances than usual. Because flat geometries are generally unable to support these waves in the (*)** Terahertz range, periodically corrugated structures have been used to "spoof" them instead. These waves enable confinement of energy beyond the dielectric diffraction limit because their fields are strongest at the interfaces and decay as one moves into the bulk. For 10 points, name these propagating waves that exist at the interface between a metal and a dielectric, which arise due to oscillations of the sea of electrons in the metal.
ANSWER: **surface plasmon** polaritons [accept **surface plasmon resonance**, prompt on plasmon or polariton]

18. **This thinker compared human society to organized systems like "a tree with all its branches"; and he separated out the "private good" of self-interest from the "real good" that benefits all of humanity. Charles Taylor, in *Sources of the Self*, argues that this thinker's use of the term "natural affection" shows the Enlightenment transformation of the Stoic ethic of harmony into an ethic of benevolence. He is the subject of the third dialogue of Berkeley's *Alciphron*, following that text's attack on (*)** Bernard de Mandeville. Against his teacher's conception of externally-imposed morality, he argued that to be virtuous is to recognize and follow the objective ordering of the world in his treatise *The Moralists*, which joins *An Inquiry Concerning Virtue or Merit* in his major collection of five treatises. For 10 points, name this author of *Characteristics of Men, Manners, Opinions, and Times*, a student of John Locke, and the grandson of Locke's aristocratic patron.
ANSWER: Anthony **Ashley** Cooper, 3rd Earl of **Shaftesbury** [accept either underlined portion]

19. **This character states that "the leaves are falling from the trees - and for me too it is autumn" and asks "Was it not he who sang me the siren song?" upon seeing the corpse of a conspirator against him. In one scene, this character ponders why men succeed when they imitate ants, but fail when imitating gods. While others sleep, this character strums a lute and sings both parts in a duet about Brutus and Caesar. Shortly thereafter, he realizes that death levels a hero with a coward while holding a gun to his temple. He then uses that gun to wake up the camp after he discovers** (*) Hermann bringing food to his father in a dungeon. He assigns Schweitzer to kill the brother who disinherited him, but his brother commits suicide with a golden cord from his hat. The play he appears in concludes with him killing his beloved Amalia to honor his oath to his men. For 10 points, name this character who leads the title band of robbers in a Schiller play, the brother of Franz.
ANSWER: **Karl** Moor [accept **Charles**, prompt on "Moor"]

20. **Olivier Blanchard and Nobuhiro Kiyotaki showed this feature alone could not explain how aggregate demand affects output. A 1977 model of this scenario includes a utility function with a parameter *p* that controls the preference for diversity. In this scenario, the long-run demand and average cost curves must be tangent while their slopes are negative, causing equilibrium prices to be higher than marginal cost. Increasing returns to scale create this scenario in a Paul Krugman paper that modifies the** (*) Dixit-Stiglitz model to explain trade between countries with similar factor endowments. It was first analyzed in the 1930s by Joan Robinson and Edward Chamberlin, who set out assumptions such as free market entry and many firms. For 10 points, name this type of imperfectly competitive market in which firms can set prices because they produce differentiated products.
ANSWER: **monopolistic competition** [prompt on imperfect competition; do not prompt on or accept "oligopoly" or "monopoly"]

21. **Artifacts found in this city are the only information about the warlord Labaya, who is potentially the biblical king Saul. A ruler living in this city was the addressee of numerous pleas from Rib-Hadda, who compared himself to a "bird in a trap." The sculptor Bek constructed many of the buildings here, which is where the Coregency Stele was found, a piece of art that potentially suggests a** woman may have ruled from this city. An art movement named for this city emphasizes elongated necks and large hips and is atypical within its kingdom's history because of its feminized sculptures. The court sculptor Thutmose had his studio here, and it was largely abandoned when the capital moved back to Thebes, abandoning this center of a new form of worship. For 10 points, name this city, the capital constructed by Akhenaten, which also names a set of letters describing New Kingdom diplomacy.
ANSWER: **Amarna** [or Tell el-**Amarna**; or **Akhetaten**; do not accept "Akhenaten"]
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Bonuses

1. Answer the following about Lisa McGirr's book *Suburban Warriors*. For 10 points each:
[10] McGirr's book explores how voters from this state supported Barry Goldwater in 1964. Two years earlier, Richard Nixon lost a race for the governorship of this state and claimed he had given his "last press conference."
ANSWER: **California**
[10] McGirr notes how many budding California conservatives got turned on to right-wing thinking after reading this 1951 William F. Buckley book that bashes the title university for being overly liberal and secular.
ANSWER: ***God and Man at Yale***
[10] McGirr also notes the impact of religion on Orange County residents. This pastor of Calvary Chapel and early leader in the Jesus movement baptized hundreds of people at a time in the Pacific Ocean. Among his more troubled legacies is the creation of one of the first Christian rock record labels.
ANSWER: Charles "Chuck" **Smith**

2. A Foreword justifying this literary project uses the example of Mozart adding to Handel's *Messiah* to justify the author's own "meddling with masterpieces." For 10 points each:
[10] Name this reworking of Act V of a pre-existing play, which cuts a report of the Queen's death from the doctor Cornelius. In it, Guiderius chooses to go back to his cave rather than return to court.
ANSWER: ***Cymbeline Refinished**: A Variation on Shakespear's Ending* [do NOT accept or prompt on "Cymbeline"]
[10] This Irish author of *Cymbeline Refinished* called excessive praise of Shakespeare "bardolatry" in his preface to *Three Plays for Puritans*. His *Plays Pleasant* includes the comedy *Arms and the Man*.
ANSWER: George Bernard **Shaw**
[10] In the original *Cymbeline,* Iachimo spots a tapestry of this historical political figure while creeping in Imogen's room. In a Shaw play*,* Ftatateeta is a nurse and maidservant to this character.
ANSWER: **Cleopatra** VII Philopator

3. The Russian forces which successfully besieged this city were led on land by the Irish Jacobite Peter Lacy and on sea by the Scottish Jacobite Thomas Gordon. For 10 points each:
[10] Name this city that fell to a Russian siege in 1734 in spite of a French relief force sent by Cardinal de Fleury. Several sources claim that siege was the first time Russian and French troops met as foes in battle.
ANSWER: **Danzig** [or **Gdansk**]
[10] The Siege of Danzig occurred during the War of Polish Succession, in which the claim of Frederick Augustus II of Saxony was supported by Charles VI, who issued what 1713 edict stating that Hapsburg possessions could be inherited by a daughter, such as Maria Theresa?
ANSWER: **Pragmatic Sanction** of 1713
[10] To secure Russian support, Frederick Augustus renounced his right to incorporate this Baltic duchy into the Polish crown. Prior to succeeding Peter II, the future Empress Anna of Russia ruled as duchess of this region.
ANSWER: Duchy of **Courland** and Semigallia

4. Get into the Mixed_Pure_Academic groove and answer the following about some things with a common name, for 10 points each.
[10] This realm from Norse mythology, which contains Odin's throne and Valhalla, is connected to Midgard by the rainbow bridge Bifrost.
ANSWER: **Asgard**
[10] Asgard is the name of a "wonder-city" built by half a million serfs in this 1908 dystopian novel, in which the Nashville Massacre is committed against weavers.
ANSWER: *The **Iron Heel*** [by Jack London]
[10] A yacht called the *Asgard* took part in a 1914 gun-running to this port town, where 900 Mauser rifles were picked up by the Irish Volunteers. It is located on a promontory northeast of Dublin.
ANSWER: **Howth** [accept **Howth** gun-running]

5. A popular piece in this genre is Zequinha de Abreu's "Tico-Tico no Fubá." And many notable works in this genre were recorded by the group Oito Batuta, led by Pixinguinha [pee-shin-GEE-nya]. For 10 points each:
[10] Name this style of music popular in late 19th century and early 20th-century Brazil, characterized by fast tempos and improvisation. It emerged as a synthesis of European and African influences.
ANSWER: *choro*s
[10] A *choro* ensemble traditionally features one of these traditional small Portuguese or Brazilian guitars. Its four strings are typically tuned D-G-B-D.
ANSWER: *cavaquinho*
[10] This other Brazilian popular genre was popularized by people like João Gilberto and Stan Getz, recording such hits as Antônio Carlos Jobim's "The Girl from Ipanema."
ANSWER: **bossa nova**

6. The transfer function for one of these devices is given by the gain times quantity: one, plus a time constant times s, plus one over a different time constant times s. For 10 points each:
[10] Name these simple controllers, the basis of most industrial feedback control systems. Their three namesake modes respectively determine the speed of the response, eliminate offset to a setpoint, and reduce oscillations.
ANSWER: **proportional-integral-derivative** controllers [or **PID** controllers]
[10] Derivative action is named because applying the inverse of this operation to the tau s term in the transfer function gives a derivative. This operation applied to a function in the time domain gives one in the s domain, which is often used to convert ODEs into algebraic equations.
ANSWER: **Laplace** transform [or inverse **Laplace** transform]
[10] The Ziegler-Nichols rules for tuning a PID controller suggest that the controller gain should be set to 0.8 times this quantity. This quantity is the gain at which a P-only controller undergoes constant cycling.
ANSWER: **ultimate** gain [or **K**c,**ult**; or **Ku**; prompt on critical gain]

7. In a William Jennings Bryan-edited translation of this speech, the speaker says a man spent his youth "sponging the school] benches" and getting "reward tarts and biscuits." For 10 points each:
[10] Name this speech, much of which is a vicious assault on Aeschines, who is mocked for growing up in poverty and for possibly being corrupt. It should not be confused with a speech about "false embassy."
ANSWER: "**On the Crown**"
[10] "On the Crown" is sometimes considered the masterpiece of this Greek orator, who delivered the Philippics against Philip of Macedon.
ANSWER: **Demosthenes**
[10] Another Demosthenes oration was delivered against this wealthy Athenian, who slapped him during the Great Dionysia festival. In the speech against this man, Demosthenes argues democracy suffers if the wealthy undermine the law.
ANSWER: **Meidias**

8. This man makes a kite out of the goat Andoar, which his companion understands as representing the destruction of the companion's old identity. For 10 points each:
[10] Name this character, who destroys his friend's attempts at civilization with a case of gunpowder. In another novel, this man recognizes similarities between Benamuckee and the Christian God but is unable to comprehend the devil.
ANSWER: **Friday** [or **Vendredi**]
[10] Friday appears in *Friday, or, The Other Island*, a novel by this French author. Abel Tiffauges believes himself to be saving innocent children by recruiting them for a Nazi military academy in this man's *The Ogre*.
ANSWER: Michel **Tournier**
[10] Friday also appears as a character in this South African author's novel *Foe*. He also created the cleft-lipped gardener Michael K.
ANSWER: J(ohn) M(axwell) **Coetzee**

9. *Either prokaryotic or eukaryotic name acceptable.* E. coli strains used in laboratory cloning must have the gene encoding this protein knocked out to prevent undesirable genetic variation. For 10 points each:
[10] Name this protein, which senses DNA damage, binds to LexA, and initiates the SOS response. It also catalyzes branch migration and strand invasion at a synapsis, a process for which it gets its name in prokaryotes.
ANSWER: **RecA** [or **Rad51**, the eukaryotic version]
[10] Although homologous recombination is required for fixing some double-strand breaks, it also occurs during chromosomal crossover in the pachytene part of this phase of meiosis.
ANSWER: **prophase I** [prompt on prophase; prompt on meiosis I]
[10] In humans, the two proteins in this family bind single-stranded DNA and recruit Rad51 to the site of a double-strand break. They form heterodimers with the BARD proteins.
ANSWER: **BRCA**1 and 2 [or **BRCA1** and **BRCA2**]

10. In this artist's *The Painter's Window*, the title object is obscured by a guitar, a palette, a panel holding pears, and a few playing cards. For 10 points each:
[10] Name this artist, whose 1915 painting *Fantômas* shows half of *Le Journal* newspaper blending in with the table on which it rests.
ANSWER: Juan **Gris** [or José Victoriano **González-Pérez**]
[10] Two strips of orange wallpaper run down the left of a 1913 Juan Gris painting at the Columbus Museum of Art titled for playing cards and one of these objects. A blue silhouette is traced around this object in the aforementioned painting.
ANSWER: a glass of **beer**
[10] This other artist, also fond of painting harlequins, showed a harlequin playing a guitar alongside a Pierrot on clarinet and a monk holding sheet music in one of his versions of *Three Musicians*.
ANSWER: Pablo **Picasso** [or Pablo Ruiz y **Picasso** or Pablo Diego José Francisco de Paula Juan Nepomuceno María de los Remedios Cipriano de la Santísima Trinidad Ruiz y **Picasso**]

11. This thinker wrote that one must give up the ability to say "I" through a process of "decreation" in order to love God, and wrote often about a special, spiritual form of suffering she called *malheur*, often translated "affliction." For 10 points each:
[10] Name this Christian mystic. Her book *Gravity and Grace* was published after her early death from tuberculosis.
ANSWER: Simone **Weil** [VEY]
[10] Simone Weil wrote *The Need for Roots* as part of a resistance force in this war, during which Saint Maximilian Kolbe died a martyr. The extent to which Pope Pius XII was complicit in this war's atrocities is hotly debated.
ANSWER: **World War II** [or **Second World War**]
[10] Weil had her first of three mystical experiences in this town, the birthplace of Saint Clare. The encyclical *Laudato si',* about stewardship of the environment, extensively quotes a canticle by a saint from here.
ANSWER: **Assisi**, Italy [*Laudato si'* quotes from Saint Francis of Assisi.]

12. The "everyday" form of this phenomenon was examined in the lives of poor Brazilian women in *Death Without Weeping,* by UC-Berkeley anthropologist Nancy Scheper-Hughes. For 10 points each:
[10] Name this phenomenon, whose "structural" form was defined by Johan Galtung as "the difference between the potential and the actual." Tacit complicity is a component of the "symbolic" form studied by Pierre Bourdieu.
ANSWER: **violence** [or everyday **violence**; or structural **violence**; or symbolic **violence**; do not accept or prompt on any synonyms]
[10] An early anthropologist of violence, Napoleon Chagnon, claimed that these Amazonian people were super duper violent, causing a huge shitstorm and leading waves of loggers and miners to start despoiling their land.
ANSWER: **Yanomamö** [or **Yanomami**]
[10] This giant database of ethnographic info from over 400 institutions is helpful for cross-cultural studies of violence, or really of anything. It is queried using three-digit OCM numbers for topics, such as 865 for "Aggression Training," and OWC codes for cultures.
ANSWER: **Human Relations Area Files** [or e**HRAF** World Cultures; or **HRAF** Collection of Ethnography]

13. The main goal of using a Ziegler-Natta catalyst in polymerization is to prevent one of these undesirable termination reactions. For 10 points each:
[10] Name this reaction which releases an alkyl group that is sigma-bonded to a metal as an alkene by transferring the metal to a hydrogen atom located two carbons away.
ANSWER: **beta-hydride elimination** [prompt on partial answer]
[10] A beta-hydride elimination occurs in the mechanism for the Heck reaction, just one example of the dozens of cross-coupling reactions catalyzed by this transition metal, which undergoes a catalytic cycle between its 0 and +2 oxidation states.
ANSWER: **palladium** [or **Pd**]
[10] On the other hand, all of the other cross-coupling reactions, like the Negishi, Kumada, Suzuki, etc., follow an identical catalytic mechanism involving these three steps. You must list them in order.
ANSWER: **oxidative addition**, **transmetallation**, and **reductive elimination** [must be in that order; prompt on partial answers for each individual part]

14. This poem is broken into three sections: "The Genesis," "The Passion," and "The Gloria." For 10 points each:
[10] Name this long poem by Odysseas Elytis, which is named for a Marian hymn from Greek Orthodox liturgy.
ANSWER: *To Axion Esti* – *It Is Worthy* [or The *Axion Esti*]
[10] Elytis wrote a set of poems of this type named for Oxopetra. Rilke wrote a set of poems in this genre that begins with the line "Who, if I cried out, would hear me among the Angelic Orders?"
ANSWER: **elegies**
[10] Elytis translated the works of many of his European poets, including this Italian poet of *L'Allegria* and *The Buried Harbor*. Along with Salvatore Quasimodo, he was a major figure in the Hermeticist movement.
ANSWER: Giuseppe **Ungaretti**

15. This man was able to run for office while imprisoned in James Fort, thanks to having three consecutive one-year sentences rather than one three-year sentence. For 10 points each:
[10] Name this leader of the Convention People's Party and the first president of his country. He promoted what he called "Positive Action," strikes and boycotts intended to force the British into giving his country self-governance.
ANSWER: Kwame **Nkrumah**
[10] Nkrumah's slogan of "Self-government now" was a direct reply to the slogan of the more gradualist United Gold Coast Convention, which called for self-government in what time frame?
ANSWER: "in the **shortest possible time**"
[10] This man was the leader of the United Gold Coast Convention, and was the first to suggest naming the new country Ghana. He ran against Nkrumah in 1960, and died in prison in 1965 under charges he was plotting to overthrow the president.
ANSWER: Joseph "J.B." **Danquah** [or Joseph Kwame Kyeretwie Boakye **Danquah**]

16. Cryptids! Yessssssssssss. For 10 points each:
[10] Some of these indigenous people report a massive red octopus, the Akkorokamui, in Funka Bay. This ethnic group especially reveres Kim-un Kamui, the patron spirit of bears.
ANSWER: **Ainu** people [prompt on indigenous Japanese or indigenous Hokkaidoans]
[10] A huge one of these winged creatures, the *ahool*, allegedly haunts the jungles of Java. In Tanzania, the incubus-like Popobawa has a shadow resembling these creatures.
ANSWER: **bat**s [or fruit **bat**s; or vampire **bat**s]
[10] Apparitions of this form and color, such as the Shuck of East Anglia, the Barghest of Yorkshire, the Gwyllgi of Wales, and the Skriker of Lancashire, appear across the British Isles.
ANSWER: **black dog**s [or **black hound**s; or **black mastiff**s; be lenient and accept **black wolf** or **black wolves**; prompt on answers which mention only black or dogs/canines of some type, but not both]

17. The narrator of the novel it occurs in ascribes to Smolka the belief that guards "have fun with the prisoners" on Devil's Island by forcing them to undergo this situation. For 10 points each:
[10] Name this situation that befalls a protagonist after Bubbles Girardi gives up after counting to fifty. That character then imagines Jesus descending in a pink nightie and needing a seeing-eye dog.
ANSWER: having **semen** in your **eye** [or **inseminating** an **eye**; or **ejaculating** into your own eye; accept any obvious equivalent that describes one's own semen entering one's eye; prompt on "going blind"]
[10] That ejaculatory misfire occurs in this Philip Roth novel, in which the title character describes the warring of "strongly-felt ethical and altruistic impulses" with "extreme sexual longings" to Dr. Spielvogel.
ANSWER: *__Portnoy's Complaint__*
[10] Portnoy is horrified to discover that this character misspells "furget" with a "u." She has sex with Portnoy after he compliments her attempt to interpret the poem "Leda and the Swan."
ANSWER: The **Monkey** [or **Mary Jane** **Reed**; accept either underlined portion]

18. This piece's second movement is a series of five variations on a gavotte-like theme in E minor, first introduced by the flute and clarinet. For 10 points each:
[10] Name this piece by Sergei Prokofiev, which begins with an unassuming diatonic melody in A minor for unaccompanied clarinet. Prokofiev played the solo part throughout America during the 1920s.
ANSWER: **Piano Concerto No. 3** in C major, Op. 26 [prompt on partial answer; accept obvious equivalents such as **Third Piano Concerto**]
[10] Prokofiev's Fourth Piano Concerto is meant to be performed in this manner. It was written for Paul Wittgenstein, who was the dedicatee of a Ravel piano concerto also meant to be performed in this manner.
ANSWER: by the **left hand** alone [prompt on things like "with one hand"]
[10] Earlier, in the Soviet phase of his career, Prokofiev wrote this set of twenty short, mostly dissonant piano pieces, which received its title from a poem that Konstantin Balmont wrote upon hearing them.
ANSWER: *__Visions fugitives__*

19. For most optical spectroscopy, this mechanism is on the order of only 10 to the minus 7 eV. For 10 points each:
[10] Name this mechanism which prohibits a perfectly sharp spectral line, and is caused by the finite radiative rates of the upper and lower states.
ANSWER: **lifetime broadening** [accept **natural broadening** even though it's a stupid name]
[10] Lifetime broadening is a direct result of the energy and time version of this principle. It is often stated as the fact that position and momentum may not be known with arbitrary precision at the same time.
ANSWER: **Heisenberg uncertainty** principle [accept either underlined]
[10] While Lorentzians model lifetime broadening and Gaussians model Doppler broadening, this function models the combined effects of the two. It is obtained from the convolution of the Lorentzian and Gaussian profiles.
ANSWER: **Voigt** lineshape

20. A 2001 article by this man and Timothy Williamson argues that skills like riding a bicycle and knowledge of facts are not distinct concepts. For 10 points each:
[10] Name this former Rutgers professor, now at Yale. He investigated how the title form of communication works in liberal democracies in *How Propaganda Works*.
ANSWER: Jason **Stanley**
[10] Stanley's 2001 article is titled for this concept, as is a 2011 book by him. Stanley supports the "intellectualist" position that this sort of practical knowledge is just a form of the propositional knowledge with which it is commonly contrasted.
ANSWER: **knowing-how** [or **know**ledge-**how**; accept *__Know How__*]
[10] Stanley attributes the idea that knowing-how is an ability or disposition to this man, who argued treating it as a species of knowing-that would lead to an infinite regress in his 1949 book *The Concept of Mind*.
ANSWER: Gilbert **Ryle**

21. The total number of these things is proportional to the retention time squared over the peak width at half the height squared. For 10 points each:

[10] Name these idealized constructs which represent a single equilibrium stage in a stripping or absorption column.

ANSWER: **theoretical plate**s [or **theoretical tray**s; prompt on plates or trays; prompt on theoretical stages]

[10] The height required for a single theoretical plate is related to this quantity by the van Deemter equation. The equation unusually predicts that separation efficiency is optimized at a particular value of this quantity.

ANSWER: superficial **velocity** [or linear **velocity**; or **speed**; or **flow rate**]

[10] The middle term of the van Deemter equation measures the rate of this process, which is proportional to the gradient of concentration according to Fick's first law.

ANSWER: **diffusion** [prompt on mass transfer]