

STIMPY 2015: we barely wrote the tournament, so there was no time to write a subtitle

Editors Packet 3

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Tossups

1. **This poem describes a figure who “looks the whole world in the face, For he owes not any man.” The title character of this poem wipes tears from his eyes in church after recalling the voice of his deceased daughter. The poem “From my Arm-Chair” was written by the author of this poem to commemorate the gift of a wooden chair he received in response to this poem. The labor of the the title character of this poem is witnessed by (*) “children coming home from school” who “catch the burning sparks that fly, Like chaff from a threshing-floor.” The title character of this poem is described as a “mighty man” with “large and sinewy hands” who works “under a spreading chestnut-tree.” For 10 points, name this Henry Wadsworth Longfellow poem about an ironworker.**

ANSWER: “The Village Blacksmith”

2. **A noted interpreter of a role in this two-act ballet was the first person to stage *La Bayadère* in the West; that woman starred in a televised 1977 American Ballet Theater production of this ballet with Mikhail Baryshnikov. As part of Natalia Makarova’s signature non-Odette role in this ballet, she plucks petals off a daisy and tears off a necklace. In this ballet, originally created as a vehicle for Carlotta Grisi, Berthe often loosens her daughter’s bun before the Act I Finale, which features a (*) “mad scene.” Wilfred’s master poses as Loys in this ballet, causing him to be targeted by the vengeful Queen Myrta. The title character of this ballet joins the undead Wilis after Hilarion reveals Duke Albrecht’s deceit, breaking her heart. For 10 points, identify this ballet about a peasant girl who dies before Act II, with music by Adolphe Adam.**

ANSWER: Giselle

3. **A laser from this molecule has a peak at about 10.6 micrometers and attains population inversion by energy transfer from excited N₂ molecules. The first step of the Solvay process involves reacting sodium chloride, ammonia, water, and this compound. This molecule’s relatively low critical temperature of 304 kelvins allows its use as the mobile phase in supercritical chromatography. Its supercritical form is also forced through (*) coffee beans to extract caffeine. Hemoglobin’s affinity for oxygen in the blood is inversely related to the concentration of this gas in the Bohr effect. It is the major cause of ocean acidification and is produced, along with water, in combustion reactions. For 10 points, name this molecule whose solid form is dry ice.**

ANSWER: carbon dioxide [or CO₂]

4. **In Egyptian mythology, one of these creatures fertilizes land with his tears. Another one of these creatures is guarded by Kashima, who restrains it with a stone to prevent earthquakes. In addition to Rem and Namazu, one of these creatures slew Hayagriva after warning Manu of an impending flood. Väinämöinen constructed the first kantele from the jawbone of one of these creatures, and Finn Eces spent seven years trying to (*) catch another one of these. After the death of Baldr, Loki took the form of one of these creatures and hid in Fránangr’s Falls. Vishnu’s first avatar is one of these called Matsya. Finn McCool gained his wisdom after he burned his thumb while cooking one of these. For 10 points, name these creatures that include the giant pike from the Kalevala and the Salmon of Knowledge from Irish mythology.**

ANSWER: fish [accept specific answers like pike or salmon or catfish before mentioned]

5. **Varieties of this type of structure include the angioportus and the decamanus. These structures were sometimes built on aggers, and places called *mutationes* and *mansios* were often built adjacent to them. Many of these structures are depicted on the Peutinger table. A man who commissioned one of these structures was**

known as “Caecus” for his blindness. One of these structures names a battle at which Gaius Suetonius Paulinus defeated the (*) Iceni under Boudica. One of these structures was called “Salaria” for its role in the salt trade. These structures were depicted on Itineraria and were used by the cursus publicus. Crassus crucified 6,000 of Spartacus’s followers along one of these structures. For 10 points, name this type of transportation route exemplified by the Via Appia.

ANSWER: Roman roads [or streets; or vias; or ways]

6. The no-show paradox of Fishburn and Brams concerns the lack of a certain criteria in a type of this process. Glen Weyl came up with a method whereby the price of this process increases quadratically. The Hare rule and Coombs rule for this process both involved redistribution. Donald Saari showed that of all scoring rules for this process, the method least susceptible to manipulation is the (*) Borda count method, and runoff methods for this are among the simplest to violate monotonicity. This process can fail to be transitive even when each individual is transitive according to the Condorcet paradox. No system exists for this process which is Pareto efficient, and non-dictatorial, and has unrestricted domain and independence of irrelevant alternatives according to Arrow’s impossibility theorem. For 10 points, name this process used to elect officials.

ANSWER: voting

7. Torbjörn Caspersson’s introduction of the fluorescent dye quinacrine was an improvement on previous methods of this technique but was replaced because quinacrine is easily quenched. *In situ* hybridization techniques are often used in conjunction with this technique in the analysis of a chorionic villi sample or amniocentesis. G-bands are created by the application of the stain Giemsa in this technique after (*) colchicine has been administered to arrest the cell cycle in metaphase. Creating one of these involves lining up autosomes from longest to shortest, and this technique can be used to detect disorders like Turner’s, Klinefelter’s, or Down syndrome. For 10 points, name this technique which makes a picture of an organism’s chromosomes.

ANSWER: karyotype [accept word forms]

8. A novel from this country includes a “post-prologue” by the author that disagrees with the prologue written by the character Victor Goti; that novel from this country ends with a funeral oration by the dog Orfeo. In another work from this country, the protagonist of “The Deceitful Wedding” overhears the title “Colloquy of the (*) Dogs.” The title character of a novel from this country thinks his brain is melting after putting a barber’s basin full of curds on his head, thinking it was the helmet of Mambrino. Near the beginning of that novel from this country, a priest and a barber burn the title character’s books, after which he attacks some windmills. For 10 points, name this country home to Miguel de Cervantes, who wrote *Don Quixote*.

ANSWER: Kingdom of Spain [the first novel is Miguel de Unamuno’s *Mist*; the other works are some of Cervantes’ *Novelas ejemplares*]

9. A king of this name got rid of rules that did not allow men and women to eat together during the Free Eating. Another king of this name abolished feudalism in his lands through “The Great Partition.” A king of this name gave a speech declaring that “the life of the land is perpetuated in righteousness” following the conclusion of the Paulet Affair. After getting his foot stuck in a rock, a king of this name promulgated a law granting every person “the right to be free and lie in the road without fear of harm,” in his Law of (*) the Splintered Paddle. That king supposedly was the first to move the Naha Stone and was the first mo‘i to unite islands including Lana‘i and Maui. For 10 points, give this regnal name, including the first one known as “the Great,” a name of many kings of Hawai‘i.

ANSWER: Kamehameha

10. This work notes that “the word ‘definition’ has come to have a dangerously reassuring sound.” This work imagines science as a force field with experience at the boundary and “recalcitrant truths” closer to the edges. Inspired by issues with Carnap’s *Aufbau*, this work claims that sense-data can only confirm statements about

the world as a “corporate body” and it discusses how interchangeability *salva veritate* is not enough to imply “cognitive synonymy.” This work discusses how a certain class of statements are the limiting case which are confirmed no matter what in the (*) verification theory of meaning. This work identifies two classes of statements exemplified by “unmarried men are unmarried” and “bachelors are unmarried.” This work’s title concepts are reductionism and the distinction between analytic and synthetic statements. For 10 points, name this essay that attacks logical positivism, written by W. V. O. Quine.

ANSWER: Two Dogmas of Empiricism

11. One of the two criteria for a system to have this property is that for any two neighborhoods U and V in the space, the iteration will eventually make the intersection of U and V non-negative. Though the Arnold cat map has this property, the discrete cat map does not. Devaney characterized this type of system as having dense periodic orbits, topological transitivity, and having the property that there exists a positive number d such that for any two points x and y , the orbits will eventually be (*) farther than d apart. This property is characterized by a positive Lyapunov exponent, and the logistic family has this property for a parameter between about 3.57 and 4. The Lorenz attractor and double pendulum display, for 10 points, what property of a dynamical system that is very sensitive to initial conditions?

ANSWER: chaos

12. In the last movement of the “Eroica” symphony, a famously difficult chromatic solo for one of these instruments begins by arpeggiating an A7 chord. Beethoven’s Fourth is scored with only one of these instruments. Mozart wrote four quartets for this instrument and strings. Mozart’s D major second concerto for this instrument is an arrangement of his oboe concerto, and he wrote a concerto for this instrument and (*) harp. This instrument plays a nightingale call in the second movement of Beethoven’s “Pastoral” symphony. Four of these instruments respond to the trumpet in *The Unanswered Question*. It is played by Jean-Pierre Rampal and James Galway. For 10 points, name this woodwind instrument, a lower cousin of the piccolo.

ANSWER: flutes

13. The death of a worker in this industry was the subject of the “haystack murder” trial, at which the minister Ephraim Avery was controversially acquitted. Workers in this industry formed “improvement circles” to contribute to the periodical *The Offering*. William M. Wood faced a strike in this industry during which Rose Schneiderman coined the term “Bread and Roses.” The technology of Samuel Crompton and (*) Richard Arkwright was used to develop this industry, which was the subject of the Waltham System. The growth of this industry in the US was aided by Samuel Slater, who memorized plans and brought them to Rhode Island. For 10 points, name this industry in which “Lowell girls” were employed in factories to card, spin, and weave cotton.

ANSWER: textile industry [or apparel industry; or garment industry; or cloth industry; accept other obvious equivalents]

14. A character in a novel written in this language exchanges his rug for sex with Jean Morris, who he later marries and stabs in the chest. William Hutchins is known for his translation of a series of novels in this language. A novel in this language opens with the narrator returning home after seven years in England and encountering a strange man who angers him at a party by reciting “In Flanders Fields.” A character in a novel in this language publishes a scientific article entitled “The Origin of Man” and is denounced by his (*) father as atheistic for suggesting that humans did not descend from Adam. Amina is injured by a car while away from her domineering husband’s house in a novel written in this language entitled *Palace Walk*. For 10 points, name this language used to write Tayeb Salih’s *Season of Migration to the North* and Naguib Mahfouz’s *Cairo Trilogy*.

ANSWER: Arabic

15. In December 2014, this leader appointed a new vice president whom he said was there just so he could “give [him] work to do.” This leader was opposed by Archbishop Pius Ncube, who in 2007 called for a British

invasion to oust him. This leader, who won his seventh term as president in 2013, is opposed by the Movement for Democratic Change. This leader's claim that he was "fit as two fiddles" was recently tested when he fell down some (*) stairs after returning home from a trip to Ethiopia. In January of this year, this leader was named Chairman of the African Union and gave a speech justifying his policy of confiscating the land of white farmers. This man has led the ZANU-PF party since 1975. For 10 points, name this current dictator of Zimbabwe.

ANSWER: Robert Mugabe

16. One of these institutions appears in a 1958 painting that depicts a revolving door behind a woman in blue bathed in a ray of sunlight. A white Chevelle appears on the roadside in front of one of these institutions in a painting by John Baeder, who, along with Ralph Goings, is known for his photo-realistic depictions of these institutions. A painting of one of these institutions features a radiator to the left of a seated woman staring down into a (*) teacup, who was modeled on the artist's wife Jo. Two large coffee decanters appear behind a man in white serving people at a bar in a painting of one of these institutions which features an advertisement for Phillies Cigars. For 10 points, name these institutions, which were depicted by Edward Hopper in *Automat* and *Nighthawks*.

ANSWER: diners [or cafeterias or cateries or restaurants or cafés]

17. The voice of a woman in this story is compared to that of a barn swallow. A character in this story is described as unassuming and "lyke a mayden meke for to see" and owns a psaltery on which he sings the "Angelus ad Virginem" and the now lost "Kynges Noote." That character in this story feigns madness by sitting up in bed and staring at the wall. An upset character visits the smith Gerveys in this story, whose prologue is interrupted angrily by the Reeve. At the climax of this story, a branded man shouting (*) "Water!" causes a carpenter to sever the ropes tying his bathtub to the ceiling and crash to the floor. In this story, the parish clerk Absolon vies for the hand of Alisoun with Nicholas, a student who is living with John. For 10 points, name this Canterbury Tale, told immediately after the Knight's Tale by the drunk flour-maker Robyn.

ANSWER: *The* Miller's Tale

18. An interferometer undergoing this process produces shifted interference fringes in the Sagnac effect. Although it is not contraction, an object traveling at high velocity appears to undergo this process, the extent of which depends on the angle at which the object is seen; that effect is named for Terrell and Penrose. Reference frames undergoing this process may be described using Born coordinates, as in the (*) Ehrenfest paradox. The angular momentum operator is the generator of these. Symmetry with respect to this operation corresponds to conservation of angular momentum, according to Noether's theorem. Any orientation can be obtained by composing three of these, and they are described by the Euler angles. For 10 points, name this process whose rate is given by angular velocity, the circular movement of an object about a central axis or point.

ANSWER: rotation

19. Shuray details that after a thief stole this man's suit of armor, this man let him keep the armor and the thief converted. This man's sayings are collected in the *Way of Eloquence*, and the massive cemetery, the Valley of Peace, is located in the city that contains this man's shrine in Najaf. This man was murdered with a poisoned sword by a man from a group he had defeated at the Battle of Nahrawan, the (*) Kharijites. He defeated a rebellion by a woman at a battle named after the animal that woman, Aisha, rode during it, the Battle of the Camel. The successor to Uthman, this man was the last of a group that began with Abu Bakr. For 10 points, name this husband of Fatima, the first Shia Imam and fourth Rightly Guided Caliph.

ANSWER: Ali Ibn Abi Talib

20. This prime minister presided over a food and coal shortage that was mocked with the slogan "Starve with Strachey and shiver with Shinwell." His government passed the first New Towns Act and created the National Parks Commission. His Health Minister, Aneurin Bevan, resigned after the austerity measures of Hugh Gaitskell. As the first Deputy Prime Minister, he received the (*) Beveridge Report, which he followed by

creating the National Health Service. His government nationalized the Bank of England and saw Burma and India gain independence. He met with Stalin and Truman in the Potsdam Conference. For 10 points, name this Labour prime minister of Great Britain who succeeded, and was succeeded by Winston Churchill.

ANSWER: Clement **Attlee**, 1st Earl Attlee

Bonuses

1. Perhaps the earliest example of this literary genre is Pausanias' *Description of Greece*, which was published in the 2nd century CE. For 10 points each:

[10] Name this genre, in which an author writes about his or her experiences journeying in a foreign country. Paul Theroux is a prominent contemporary writer of books in this genre.

ANSWER: travel literature [or travelogue]

[10] This British journalist and author of *The Return of the Soldier* compiled a comprehensive history of the Balkans during a six-week visit to Yugoslavia entitled *Black Lamb and Grey Falcon*.

ANSWER: Dame Rebecca West

[10] This Mark Twain travel book details his journey into the Nevada Territory alongside his brother Orion. It was published as a prequel to another of his travel books, *Innocents Abroad*.

ANSWER: Roughing It

2. This architect built a namesake house that contains chrome stairs in Lincoln, Massachusetts, and collaborated with Adolf Meyer on an unselected design for the Chicago Tribune Tower. For 10 points each:

[10] Name this architect of the Fagus Factory.

ANSWER: Walter Adolph Gropius

[10] Walter Gropius served as the first head of this school in Germany that also had teachers like Mies van der Rohe and Paul Klee.

ANSWER: The Staatliches Bauhaus

[10] Gropius worked with and for this advocate of Stereotomie and contemporary of his. This architect is perhaps most famous for a building which features a large gable similar to a barn, the AEG Turbine Factory in Berlin.

ANSWER: Peter Behrens

3. The increasing tendency towards this trait in subdivided populations is called the Wahlund effect. For 10 points each:

[10] Name this trait which may confer benefits, as in the case of mutations for cystic fibrosis and sickle cell anemia.

ANSWER: heterozygous [accept word forms]

[10] Heterozygosity occurs in an individual when both of these are different for a gene. These represent different copies of the same gene and may produce different phenotypes.

ANSWER: alleles

[10] This term refers to a geographic gradient in the frequency of an allele. An example due to Mullen and Hoekstra is the gradient in mouse pigmentation due to difference in the color of soil where they live.

ANSWER: cline

4. Supporters of this man led Rallies of Truth during the Anti-Bureaucratic Campaign, and he was opposed by an organization symbolized with a black fist. For 10 points each:

[10] Name this leader opposed by the Otpor! organization and overthrown on March 5, 2000.

ANSWER: Slobodan Milošević

[10] Milošević is perhaps best known for helping to instigate a conflict over this region with the Gazimestan Speech, among other actions. Ethnic Albanians were targeted in this region, now a Republic, where NATO led bombing raids on Serbian forces in the late 1990s.

ANSWER: Kosovo

[10] Milošević was overthrown in a revolution commonly named after one of these items, which was driven by Ljubisav Đokić.

ANSWER: bulldozer

5. Answer the following about the geography of South Africa. For 10 points each:

[10] This longest river in South Africa flows south from the Drakensberg Mountains to Alexander Bay in the Atlantic Ocean. It is named for a royal house from the Netherlands.

ANSWER: Orange River

[10] An 1899 conference held in this judicial capital of South Africa failed to prevent the Second Boer War.

ANSWER: Bloemfontein

[10] The Swartberg mountains divide this semi-desert region in the southwest of South Africa. This region is populated with namesake “koppies,” or flat-topped hills created by erosion of dolerite sills.

ANSWER: the Karoo

6. This man has a namesake synagogue in Worms, and his commentaries are printed using his namesake script. For 10 points each:

[10] Name this French rabbi who made important commentaries on the Tanakh and another Jewish text.

ANSWER: Rashi [or Rabbi Shlomo Yitzchaki; or Salomon Isaacides]

[10] Rashi made the most notable commentary on this Jewish text, a collection of rabbinic law containing the Mishnah and the Gemara. Its name is Hebrew for “learning.”

ANSWER: Babylonian Talmud [accept Talmud Bavli or Shas]

[10] Rashi’s commentary on the Book of Nahum, which prophesies the destruction of this city, contains very helpful comments, like when the book describes an army is dressed in crimson, it means that they are dressed in crimson. This city’s founding is normally attributed to Ninus.

ANSWER: Nineveh

7. This king spent much of his early reign under the influence of Pierre de la Broce. For 10 points each:

[10] Name this king of France, who succeeded Louis IX.

ANSWER: Philip III of France [or Philip the Bold; or Philippe le hardi; prompt on just “Philip”]

[10] Philip III supported his uncle Charles I of Naples during this conflict, an Easter 1282 rebellion triggered by Peter III.

ANSWER: Sicilian Vespers [or Vespri siciliani; or Vespri siciliani]

[10] Peter III ruled this kingdom, where Philip died on a “Crusade.” Ferdinand II of this kingdom later married Isabella I of Castile, leading to the creation of modern Spain.

ANSWER: Kingdom of Aragon [accept Aragonese Crusade]

8. Just after this sentence appears, the narrator discusses taking the two o’clock bus to the Home for Aged Persons in Marengo. For 10 points each:

[10] Name this sentence that opens a novel by Albert Camus. The speaker of this sentence cannot recall its veracity, later claiming “I can’t be sure.”

ANSWER: “Mother died today.” [accept “Today, mother is dead” or “Aujourd’hui, maman est morte.”]

[10] That aforementioned novel is this one, in which Meursault is put to death after shooting an Arab on the beach.

ANSWER: *The Stranger* [or *L’Étranger*]

[10] Meursault blames his shooting of the Arab on this phenomenon. This phenomenon had earlier caused the elderly Thomas Perez to pass out after crying during the funeral of Meursault’s mother.

ANSWER: heatstroke [or the heat; accept reasonable equivalents]

9. A member of this couple noticed that the wine she poured into her guest’s cups kept refilling. For 10 points each:

[10] Name this gracious couple, who left out their meager belongings as fare for the visiting Jupiter and Mercury.

ANSWER: Baucis and Philemon

[10] After the gods’ visit, they repaid Baucis and Philemon by allowing this to happen to them when they died. This happened to Daphne after she was caught by Apollo.

ANSWER: turning into a tree

[10] Ovid claimed that Baucis and Philemon were from this region of Anatolia. Ganymede was abducted by Zeus on a mountain in this region.

ANSWER: **Phrygia**

10. One of these numbers approximates the size of the molecules considered, and the other multiplies a factor meant to correct for the existence of attractive forces. For 10 points each:

[10] Name these numbers that represent a departure from ideal behavior.

ANSWER: the **coefficients** in the **van der Waals** equation of state [or equivalents like **a** and **b** in the **van der Waals** equation]

[10] Van der Waals loops, which are regions where the pressure *increases* with temperature, may be replaced with straight lines in the construction named for this man. He also names a set of relations between mixed partial derivatives of thermodynamic quantities.

ANSWER: James Clerk **Maxwell**

[10] The van der Waals equation is this type of equation which describes relations between variables such as pressure, temperature, and volume. Others include the ideal gas law and the virial equation.

ANSWER: **equation of state**

11. This law was preceded seventeen years earlier by the Law of the Free Womb. For 10 points each:

[10] Name this 1888 promulgation supported by Joaquim Nabuco's New Liberal Party.

ANSWER: **Golden Law** [or **Lei Aurea**]

[10] The Lei Aurea was issued by this last emperor of Brazil, the husband of Teresa Cristina, who was overthrown by Deodora de Fonseca.

ANSWER: Dom **Pedro II** [prompt on "Pedro"]

[10] Escaped Brazilian slaves lived in cities called *quilombos*, with this city ruled by Ganga Zumba is normally credited as the largest. Treasure seeking *bandeirantes* from São Paulo conquered this city in 1694.

ANSWER: Quilombo dos **Palmares**

12. This value is the coefficient a sub negative one of the Laurent series expansion of a function. For 10 points each:

[10] For a meromorphic function f , this is the unique value R at an isolated singularity a such that f of z minus R over the quantity z minus a has an analytic antiderivative in a punctured disk about a .

ANSWER: **residue**

[10] The residue of a function can be computed in this person's namesake integral formula. With Riemann, he names conditions that ensure complex differentiability, and with Schwarz, he names a generalization of the triangle inequality.

ANSWER: Augustin-Louis **Cauchy**

[10] This result is a special case of the open mapping theorem, and states that a holomorphic function cannot display the namesake behavior on its domain. Thus, a holomorphic function is either constant or each point in its domain has nearby points preventing the namesake behavior.

ANSWER: **maximum modulus** principle [or **minimum modulus** principle]

Commented [1]: too hard

13. Gerry Mulligan helped usher in this style with his baritone sax playing in Miles Davis's nonet. For 10 points each:

[10] Name this laid-back jazz style, exemplified by a Miles Davis album titled for the *Birth* of it.

ANSWER: **cool** jazz [accept **Birth of the Cool**]

[10] Cool jazz musician Stan Getz is probably best-known for massively popularizing Brazilian bossa nova with his version of this song.

ANSWER: "The **Girl From Ipanema**" [or "**Garota de Ipanema**"]

[10] This cool jazz band often integrated classical music, especially Bach, into performances. Its members were bassist Percy Heath, vibraphonist Milt Jackson, pianist John Lewis, and drummer Connie Kay.

ANSWER: the **Modern Jazz Quartet**

14. This man's sister Bridget marries Captain Blifil, who later dies of apoplexy. For 10 points each:

[10] Name this owner of a Somerset estate who takes in Jenny's child at the beginning of the novel in which he appears.

ANSWER: Squire **Allworthy**

[10] Squire Allworthy fires this groundskeeper for helping Tom kill a bird on his neighbor's land. Tom later impregnates this man's daughter Molly.

ANSWER: Black **George** Seagrim

[10] Squire Allworthy appears in *Tom Jones*, a novel by this English novelist. He parodied a Samuel Richardson novel in *Shamela*.

ANSWER: Henry **Fielding**

15. This economist's namesake law describes the rationale for competitors making their products as similar as possible and is also known as the principle of minimum differentiation. For 10 points each:

[10] Name this American economist and statistician, the namesake of a *T*-squared distribution.

ANSWER: Harold **Hotelling**

[10] Hotelling's lemma is applied in the economic study of these entities. The entities were analyzed in an influential 1937 paper by Coase that claimed they came about out of a need to minimize transaction costs.

ANSWER: **firms**

[10] This other economist studied statistics under Hotelling at Columbia University. He came up with the permanent income hypothesis and wrote *Capitalism and Freedom*.

ANSWER: Milton **Friedman**

16. Negative energy solutions to the Dirac equation predicted the existence of these particles. For 10 points each:

[10] Name these positively charged particles, the antiparticles of electrons. They were experimentally discovered in cosmic rays by Carl Anderson.

ANSWER: **positrons** [prompt on "antielectron"]

[10] These objects play the role of "coefficients" in the Dirac equation. They are mutually anticommuting and can be constructed by taking tensor products of the Pauli matrices and the identity.

ANSWER: **gamma matrices**

[10] This effect is derived by considering the time dependence in the Heisenberg picture of the position operator with respect to the Dirac Hamiltonian. The position operator is found to have an oscillation term with amplitude equal to the Compton wavelength.

ANSWER: **zitterbewegung** [prompt on "trembling motion"]

17. At one point, the speaker of this poem recalls losing her mother's watch, before remarking "my last, or next-to-last, of three loved houses went." For 10 points each:

[10] Name this villanelle whose speaker frequently claims "The art of losing isn't hard to master."

ANSWER: "**One Art**"

[10] "One Art" was written by this American poet, who authored the collection *North & South*. She described the title creature's "weak mailed fist clenched ignorant against the sky!" in the poem "The Armadillo."

ANSWER: Elizabeth **Bishop**

[10] Bishop wrote a poem about one catching of these creatures that had "brown skin hung in strips like ancient wallpaper." The speaker of that poem recalls seeing this creature's gills "breathing in the terrible oxygen" before ultimately letting it go.

ANSWER: a **fish**

18. Identify some things about what later philosophers have thought about Friedrich Nietzsche. For 10 points each:

[10] This thinker's two volume work on Nietzsche calls him the culmination of metaphysics. This philosopher is better known for discussing *dasein* in *Being and Time*.

ANSWER: Martin **Heidegger**

[10] Many have drawn comparisons between Nietzsche's *Übermensch* and this figure. This figure "resigned everything infinitely and then took everything back on the strength of the absurd."

ANSWER: the **Knight of Faith**

[10] This German thinker is best known as an interpreter and translator of Nietzsche. His works on existentialism include *Existentialism: From Dostoevsky to Sartre*, and he has also written an analysis on Hegel.

ANSWER: Walter **Kaufmann**

19. The Four Mothers Society was formed to oppose this legislation by Chitto Harjo, who later led the Smoked Meat Rebellion against it. For 10 points each:

[10] Name this law partly inspired by Helen Hunt Jackson's *A Century of Dishonor*, which was ostensibly intended to assimilate Native Americans by dividing reservations into allotments of land.

ANSWER: **Dawes** Severalty Act of 1887 [or **General Allotment** Act]

[10] Indians who complied with the Dawes Act were granted American citizenship by this act, which was proposed by a New York Republican and signed into law in 1924.

ANSWER: **Snyder** Act

[10] The Dawes Act was furthered by a law sponsored by Charles Curtis, a member of the Kaw Nation who became this man's vice president. This president lost the 1932 election to FDR due to his ineffectual handling of the Great Depression.

ANSWER: Herbert **Hoover**

20. This artist showed a woman with a large cello playing for two others in the foreground of his 1857 painting *Le concert champêtre*. For 10 points each:

[10] Name French landscape painter, known for his several depictions of his home commune of Ville d'Avray.

ANSWER: Camille **Corot**

[10] Corot depicted one of these structures over a river at Narni in an 1826 painting. Gustave Caillebotte depicted a dog walking toward a couple dressed in black in a painting titled for one of these structures "of Europe."

ANSWER: **bridge**

[10] Corot showed a group of women standing on a shore pointing at two men on horseback in a depiction of a scene from this play. A John Singer Sargent painting depicts Ellen Terry as a character from this play.

ANSWER: **Macbeth**

Commented [2]: fragment