MLK 2016: Amusing Subtitle

Packet 15

## **Tossups**

0. In a movie featuring these title animals, its protagonist interrupts a soccer game by mocking his daughter's inactivity with the line "OMG, I'm too ADD to play with D-A-D! Frowny face!" One of these animals tells Edward Norton's character to "slide" during a cave scene in *Fight Club*. A wise one of these animals nearly choked to death from having his head stuck in the plastic rings of a six-pack. One of these animals, named (\*) Mumble for his inability to sing, breaks these animals' tradition of using a "heartsong" to attract a mate. A Jim Carrey-played character named Popper receives one of these animals named Captain. Skipper, Rico, Kowalski and Private, a group of these animals, end up in Madagascar after attempting to steer a ship to Antarctica. For 10 points, name these animals, the protagonists of *Happy Feet*.

ANSWER: penguins <KG>

1. In a piece by a composer from this country, eight voices recite the first page of Beckett's *The Unnameable* and pay homage to Martin Luther King Jr. in the movement "O King." A composer from this country set farewell letters written by resistance fighters on the eves of their executions by the Nazis in a work whose title translates to "The Suspended Song." The former composer from this country is best known for his fourteen *Sequenza*. Another composer from this country depicted his visit to a snake research facility in his (\*) *Brazilian Impressions* and composed three suites based on Renaissance lute pieces. That composer from here incorporated a phonograph recording of a nightingale in the second entry of a "trilogy" that also depicts the "festivals" and "fountains" of this country's capital. For 10 points, name this country, home to Luigi Nono, Luciano Berio, and Ottorino Respighi.

ANSWER: Italy [or Italia; or Italian Republic; or Republica Italiana] <AG>

2. The title character of this poem can take out some objects "in bunches like big birds' nests." The characters in this poem stop to see if a "small sailing cloud / Will hit or miss the moon." This poem opens with a woman "tip-toe[ing] down a darkened passage" to warn a man to "Be Kind." This poem's setting is "thirteen little miles / As the road winds" away from "a somebody - director in the bank," whose brother disapproves of a boy who "studied (\*) Latin like the violin," named Harold Wilson. The sight of the title character of this poem collapsed against the barn door prompts the remark "Home is the place where, when you have to go there, they have to take you in." For 10 points, name this dialogue poem in which Warren and Mary disagree about how to treat their ex-employee Silas, written by Robert Frost.

ANSWER: "The Death of the Hired Man" <AG>

3. This figure had a relationship with a trickster who hid a bristly back with a cape and could take the form of many different fishes. This figure promised not to destroy a sacred grove of trees belong to her sister, who hatched from an egg kept warm in this figure's armpit. However, after believing that sister had stolen the youth Lohi'au for herself, this deity destroyed the grove and killed a dancer named Hopoe. One of this deity's brothers, the god of (\*) sharks, Kamohoali'i, resides on a cliff near this goddess's home, which is in Halema'uma'u Crater at the summit of Kīlauea. While in disguise, this daughter of Haumea challenged her chief rival, the snow goddess Poli'ahu, to a sled race on Mauna Kea. For 10 points, name this Hawaiian goddess of lightning, volcanoes, and fire.

ANSWER: <u>Pele</u> [or Madame <u>Pele</u> or Tūtū <u>Pele</u>; accept <u>Pele</u>-honua-mea] <JM>

4. At the ripe old age of twenty-one, a ruler of this dynasty was gored to death while playing with his pet cows. The early history of this dynasty was chronicled by the diminutive Mohammad al-Baydhaq. In a

conscious parallel to the life of Muhammad, the founder of this dynasty undertook a spiritual retreat to the Cave of Igiliz. This dynasty arose out of a puritanical movement within the Masmuda confederacy, led by ibn (\*) Tumart. The Marinids conquered the core territory of this dynasty, whose caliph Muhammad al-Nasir lost a decisive battle to a coalition of Navarrese, Castilian, Portuguese, and Aragonese kings at Las Navas de Tolosa. For 10 points, name this twelfth and thirteenth century caliphate that supplanted the Almoravids in Spain and Morocco. ANSWER: Almohads <AG>

5. For fields outside a good conductor, approximate boundary conditions named for this quantity are that E equals the normal vector cross H times this quantity at the surface. The transverse magnetic field in a waveguide is equal to the direction of propagation cross the transverse electric field over this quantity. This value is equal to the square root of the permittivity over permeability, and for free space it's equal to about (\*) 377 of a certain unit. When this quantity for a load is equal to the complex conjugate of this quantity for the source, power transfer to the load will be maximal. For an inductor it's i times frequency times inductance and for a capacitor it's one over i times frequency times capacitance. For 10 points, name this complex quantity whose imaginary part is reactance and whose real part is resistance.

ANSWER: impedance [prompt on "resistance"] <BM>

- 6. During the Soviet era, one of these places named Popigai was sealed off after the discovery of nearby diamonds. Richat in Mauritania was long thought to be one of these places. One of these places named after Daniel Barringer can be found a few miles east of Diablo Canyon. The Murray Mine was established in one of these places, paving the way for (\*) Sudbury, Ontario's nickel industry. Many of the largest examples of these places were formed by bolides. The largest of these places lies near Vredefort in South Africa, and the northern Yucatán Peninsula is home to another named Chicxulub. The Tunguska event notably failed to produce one of these locations. For 10 points, name these places formed when meteorites hit the Earth's surface.

  ANSWER: impact craters [accept impact structures or astroblemes; prompt on "basins," "depressions," and other similar answers] < KG>
- 7. A scientist with this last name investigated pyrrole chemistry, which led him to the syntheses of pyrrole pigments like bilirubin and heme, for which he won the 1930 Nobel Prize. Another scientist with this last name accidentally discovered phenylhydrazine and also developed a total synthesis of caffeine. That scientist with this last name established the stereochemistry of (\*) sugars and names a method along with Kiliani to synthesize monosaccharides, as well as an indole synthesis. Removing water via a Dean-Stark trap improves the yield of an acid-catalyzed reaction of carboxylic acids with alcohols named for him. That man also gives his name to molecular diagrams consisting of horizontal and vertical lines that indicate atoms pointing toward or away from the viewer, respectively. For 10 points, give this last name of Nobel Prize winner Emil, who names an esterification and a projection.

ANSWER: Fischer [accept Hans Fischer or Hermann Emil Fischer] <SD>

8. A man with this surname visited Jerusalem in 1883, after which he proposed the Garden Tomb near Skull Hill as an alternative site for Golgotha. One of the first missions of the Royal Sussex Regiment attempted to rescue that man, but they arrived two days after his death. Reactions to an event led by a man with this surname devastated the popularity of John Wilkes. During that event, the message (\*) "His Majesty, King Mob" was inscribed on the walls of a ransacked Newgate Prison. A man with this surname died during the Siege of Khartoum against the forces of the Mahdi in 1885, and another gave speeches opposing the Papists Act. For 10 points, give this surname of the British officer who led the Ever Victorious Army against the Taiping Rebellion and a man who inspired anti-Catholic riots against George III.

ANSWER: <u>Gordon</u> [accept George <u>Gordon</u> or Charles George "Chinese" <u>Gordon</u>] <KG>

9. An abortive journey on a ship belonging to this country, followed by a raid on one of its forts, is described in the novel *Two Thousand Seasons*. Three women from this country commit suicide after having their hearts broken by Mustafa Sa'eed, who stabs his eventual wife, also from this country, to death while having sex in Tayeb Salih's *Season of Migration to the North*. An authority from this country orders the destruction of several guns and arbitrates a dispute in favor of (\*) Okperi. Kihika murders the warden of a detention camp run by this country in *A Grain of Wheat*. An authority from this country tries to prevent Elesin from committing suicide in honor of his deceased master in *Death and the King's Horsemen*. For 10 points, name this colonial power whose rule of Nigeria provides the backdrop for writings by Wole Soyinka and Chinua Achebe.

ANSWER: <u>British</u> Empire [or Great <u>Britain</u>; or <u>United Kingdom</u>; or <u>UK</u>; or I guess <u>England</u>, whatever] <AG>

10. Many of this artist's drawings and models were turned into sculptures by the Norwegian artist Carl Nesjar. The sci-fi author Algis Budrys placed a giant pickle on the future site of a sculpture by this artist. He made six versions, one of which incorporates a real spoon, of his bronze sculpture of an absinthe glass. He also made a bronze sculpture of a man holding a (\*) lamb. This artist welded together a bicycle seat and handlebars to make his sculpture *Bull's Head*. He made cardboard and sheet metal versions of a sculpture of an instrument with its sound hole projecting outwards, his *Guitar*. People like to climb on a large sculpture by this artist in Daley Plaza, Chicago. His *Head of a Woman* is a bust of his lover, Dora Maar. For 10 points, name this cofounder, with Georges Braque, of cubism.

ANSWER: Pablo Picasso [or Pablo Ruiz y Picasso] <WN>

11. During the period between the two Anglo-Dutch Wars, the Dutch admiral Michiel de Ruyter fought in a war between these two countries that was ended by the Treaty of Roskilde. To bypass the tolls charged by one of these two countries, the other built a canal through Lakes Vänern and Vättern. One of these two countries underwent the March Across the Belts and eventually won Scania from the other. The (\*) "Sound Dues" levied by one of these two countries prompted the other to build the Göta Canal, whose western end lies near Gothenburg. These two countries are separated by the Øresund, and, with Norway, were part of the Kalmar Union. For 10 points, name these two Scandinavian countries joined by a bridge from Malmö to Copenhagen.

ANSWER: Kingdom of <u>Sweden</u> and Kingdom of <u>Denmark</u> [accept <u>Sverige</u> for "Sweden" and <u>Danmark</u> for "Denmark"; accept <u>Denmark-Norway</u> or <u>Danmark-Norge</u> in place of "Denmark" until "Göta Canal" is read] <KG>

12. A ten chapter text in this language presents converse pairs of questions about psychological phenomena. A text in this language opens by twice asserting that "All that we are is the result of what we have thought." The Fragile Palm Leaves project aims to preserve several inscriptions in this language, and was initiated by the "Text Society" devoted to this language established by Thomas William Rhys Davis. Five "nikayas" of varying length make up a text in this language. This language was used to write the sacred (\*) Jataka folktales. Several works from this most famous language in the Prakrit family were committed to writing as a result of a 1st century BC council held in Sri Lanka. The Abhidhamma, Sutta, and Vinaya are three "baskets," or pitaka, of texts in this language. For 10 points, the Tripitaka is another name for a "canon" of texts in what sacred language of Theravada Buddhism?

ANSWER: Pali <AG>

13. This country was the subject of the presidential address at the 1980 meeting of the American Folklore Society, which was so ill-received that people draped the speaker in toilet paper. An orientalist from this country edited a 50-volume set of English translations of religious texts called Sacred Books of the East. This country's folklore is the subject of the essay "Life is Like a Chicken Coop Ladder," in which Alan Dundes argued that this country is obsessed with (\*) scatology. Two poets from this country collected its folksongs in a collection whose name means "The Boy's Magic Horn." Some animals decide to become town musicians in a

folktale from this country, which was collected along with tales like "The Frog Prince" and "Snow White" by a pair of brothers from here. For 10 points, name this country home to Max Müller and the Brothers Grimm.

ANSWER: Germany [or Federal Republic of Germany; or Bundesrepublik Deutschland] < WN>

14. This character, though popularized by a 20th-century work, originally came from a novel by Hans Jakob Christoffel von Grimmelshausen. This character sings a song about how "the new year's come" and "the watchmen shout" at both the beginning and end of the work in which she appears. This character tells her daughter to heed Yvette's story about falling in love with the cook Pieter, only to have him leave with the (\*) army. This character argues with a cook about the price of a capon which she claims knew how to count. This character runs a canteen out of her covered wagon and has a mute daughter named Kattrin and sons named Eilif and Swiss Cheese. For 10 points, name this woman who loses all of her children in the Thirty Years' War in a play by Bertolt Brecht.

ANSWER: Mother Courage [or Mutter Courage; accept either name of Anna Fierling] <WN>

15. A member of this family avoided being thrown in a river by a mob by protesting that according to Baptists, baptism cannot be administered before the receiver gives his experience. That member of this family wounded his fellow Kentuckian Henry Clay in a duel fought in Indiana. A member of this family named Louis co-founded the American Jewish Committee. Two members of this family, including (\*) Humphrey, voted yes in the Virginia Ratifying Convention. Talleyrand tried to bribe Charles Cotesworth Pinckney, Elbridge Gerry and a member of this family in the XYZ Affair. That member of this family decided cases like *Gibbons v*. *Ogden* and *Marbury v. Madison*. For 10 points, name this family whose member John was the fourth Chief Justice of the United States.

ANSWER: Marshall family <WN>

- 16. The object ALH84001 contained magnetite crystals which were speculated to be signs of the existence of this phenomenon. The SERENDIP project to look for this uses radio data from the Arecibo L-Band Feed Array. This phenomenon was searched for by observing tau ceti and epsilon eridani at the 21 centimeter wavelength in project Ozma. A promising signal found in the search for this was circled and the (\*) word "Wow!" written next to it. The amount of this in our galaxy was estimated as the product of seven terms including birth rate of stars, the fraction of stars with planets, and the fraction of planets which are habitable. SETI looks for, and the Drake equation describes, for 10 points, what phenomenon of life outside the earth?

  ANSWER: extraterrestrial life [accept anything about how we're looking for intelligence or life in outer space]
- 17. In On Certainty, Wittgenstein discusses the different possible meanings of the sentence "I know that that's [one of these objects]." Early in I and Thou, Martin Buber lists five different relations that one can have with one of these objects. Hilary Putnam pointed out that he does not know the difference between two types of these objects, but nonetheless uses their names to refer to different things, as an argument for semantic externalism. An objection to Berkeley's idealism is presented in a (\*) limerick about one of these objects in the quad. William James imagined a man running around one of these objects, who may or may not also be running around a squirrel, in Pragmatism. For 10 points, name these objects which may or may not make a sound if they fall in a forest and nobody's there.

ANSWER: trees <WN>

18. Predation and this other process are hypothesized to explain the release of the chemical alarm signal schreckstoff in minnows. This process favors both Wilsonian and Hamiltonian spite. Populations with low rates of dispersal in which this process is thought to occur are termed "viscous." A trait with a perceptible phenotype, recognition of that trait, and this process happen in the green-beard effect. This phenomenon

**happens when** (\*) rb is greater than C via Hamilton's rule, meaning that the reproductive benefit of an action times the relatedness of the recipient to the actor outweighs the reproductive cost. For 10 points, name this altruistic behavior in which organisms enhance the reproductive success of their relatives.

ANSWER: kin selection [prompt on "selection"; prompt on "altruism" until mentioned] <AG>

19. A work by this artist originally had six fish sellers and two dogs in the foreground, but a much larger crowd was added to the foreground for the second edition. In another work by this artist, people on a wooden bridge run for cover during a sudden shower, which is represented by black lines covering the canvas.

Vincent Van Gogh made a copy of that work, which was part of a (\*) series finished after this artist's death by his student, who adopted his name. A series by this artist depicts various locations on one of the Five Routes. Like Hokusai, this member of the Utagawa school painted *Thirty-Six Views of Mount Fuji*. For 10 points, name this ukiyo-e artist of *The Fifty-Three Stations of the Tokaido*.

ANSWER: Utagawa Hiroshige [or Ando Hiroshige] <WN>

20. A novel by this author ends with a couple telling their memories of each other to a boatman, who then refuses to ferry both of them to an island at the same time. In that novel by him, Wistan rescues a boy named Edwin who is thought to have been bitten by a monster, and the setting is a land covered by a mist which makes people unable to remember the past. The protagonist of a novel by this author tries to conceal the sentimental romance novel he's reading from a woman, and listens to the radio show *Twice a Week or More* to help improve his (\*) bantering skills. That novel by him is about a man who has to deal with his father William's stroke and his unexpressed desire for Miss Kenton. This author of *The Buried Giant* wrote a novel about a butler at Darlington Hall named Stevens. For 10 points, name this author of *The Remains of the Day*.

ANSWER: Kazuo **Ishiguro** <WN>

Tiebreaker: Henry VIII offered to fund a scholarship for the university at this city after reading the theses of John Calvin, who studied law there. An effort to intercept a supply convoy headed to this city sparked the so-called "Battle of the Herrings." An extravagant play about a battle in this city was staged by the notorious child-killer Gilles de Rais. The so-called "grandfather of Europe," the flamboyantly gay son of Louis XIII Philippe I, was (\*) duke of this city, and founded a cadet branch of the House of Bourbon named for it. A battle fought at this city was the first major French victory after Agincourt during the Hundred Years' War. For 10 points, name this city on the Loire which Joan of Arc became the "maid" of for her role in lifting a siege.

ANSWER: Orleans <AG>

MLK 2016: Amusing Subtitle

Packet 15

## **Bonuses**

1. This event allowed the government contractor Alan Gross to return to the United States. For 10 points each: [10] Identify this December 2014 event in which five men who infiltrated groups like Alpha 66 and Brothers to the Rescue were returned to their home country.

ANSWER: the United States <u>prisoner exchange</u> with <u>Cuba</u> [prompt on "<u>prisoner exchange</u>" with "what country?"]

[10] This man facilitated U.S.-Cuba talks that eventually led to the prisoner exchange. During his September 2015 visit to the U.S., he attracted ire for meeting with Kim Davis.

ANSWER: Pope <u>Francis</u> [or Jorge Mario <u>Bergoglio</u>; prompt on "the <u>Pope</u>"]

[10] This Senator from New Jersey criticized Obama's efforts to improve relations with Cuba, even though he himself is Cuban-American. Before the 2014 Senate elections, he was the chairman of the U.S. Senate Committee on Foreign Relations.

ANSWER: Bob Menendez [or Robert Menendez] <KG>

- 2. The orchestral suite from this ballet includes a "Rag-Mazurka" followed by an "Andantino" featuring a woodwind opening. For 10 points each:
- [10] Name this ballet in which three male athletes, two lesbians, and a blue velvet-clad girl named La Garconne attend a house party hosted by a woman carrying a cigarette holder. Its composer, Francis Poulenc, titled it for a slang term for coquettish women.

ANSWER: Les <u>Biches</u> [or *The <u>Does</u>*; do not accept the wrong, but highly amusing, English translation of "The Bitches"]

[10] This Polish-Russian choreographer of *Les Biches* collaborated with Stravinsky on *Les Noces*. She joined Ballet Russes like her brother, the most talented dancer for that company.

ANSWER: Bronislava Nijinska [do not accept "Nijinsky," since Russian names don't work like that]

[10] Some productions of *Les Biches* incorporate this tone poem by Debussy, which begins with a famous flute solo depicting the namesake mischievous mythical creature.

ANSWER: Prelude to the Afternoon of a Faun [or Prélude à l'après-midi d'un faune] <AG>

- 3. Name these composers of piano sonatas who miraculously haven't come up as answers yet, for 10 points each.
- [10] Even though Niels Gade frequently dissed his works, this man dedicated his E minor piano sonata to him anyway. Other solo piano pieces by him include "Butterfly," "March of the Trolls," and "Wedding Day at Troldhaugen."

ANSWER: Edvard Grieg [or Edvard Hagerup Grieg]

[10] This composer's third piano sonata in B minor ends in a major key and is very difficult, making it less popular than the work it succeeded, nicknamed "The Funeral March." This composer of many mazurkas is Polish.

ANSWER: Frederic Chopin [or Frederic Francois Chopin; or Fryderyk Franciszek Chopin]

[10] Beethoven's fate motif figures into three of the whopping five movements of this composer's third piano sonata in F minor.

ANSWER: Johannes Brahms <AG>

- 4. Growth factors that promote this process bind to the receptor tyrosine kinases Tie1 and Tie2. For 10 points each:
- [10] Name this physiological process, promoted by VEGF, in which new blood vessels form from old ones.

ANSWER: angiogenesis

[10] Angiogenesis often marks the transition between the "benign" and "malignant" forms of these abnormal masses of tissue seen in cancers. Metastasis refers to the spread of these clumps to other tissues.

ANSWER: **tumor**s [or **neoplasm**s]

[10] Angiogenesis is negatively regulated by delta-like ligand 4, a transmembrane protein in this signaling pathway whose namesake protein activates transcription by complexing with CBF1 and Mastermind.

ANSWER: Notch <AG>

- 5. This novel's sequel follows the protagonist's daughter Lucy. For 10 points each:
- [10] Name this novel whose title character is seduced and abandoned by John Montraville. It was written by Susanna Rowson.

ANSWER: *Charlotte Temple* [or *Charlotte*: A Tale of Truth]

[10] *Charlotte Temple* has been called the most popular American novel before the publication of this anti-slavery novel by Harriet Beecher Stowe.

ANSWER: *Uncle Tom's Cabin* 

[10] In *Uncle Tom's Cabin*, this daughter of Augustine St. Clare convinces him to set Uncle Tom free, although that doesn't end up happening.

ANSWER: Evangeline St. Clare [or Little Eva] <WN>

- 6. A number is in this set for an operator if the operator minus the number times the identity operator is not invertible. For 10 points each:
- [10] Name this set which is the complement of the resolvent set for a linear operator.

ANSWER: **spectrum** [prompt on "**eigenvalues**"]

[10] The spectrum of an operator on a finite dimensional vector space is the set of eigenvalues, which are all real if the operator is of this type. This type of matrix is equal to its own conjugate transpose.

ANSWER: **Hermitian** [or **self-adjoint**]

[10] For lambda to be in the resolvent set of T, T minus lambda I must have this property in addition to invertibility. A function with this property has a max and a min value, and this property plus closed implies compact.

ANSWER: bounded

- 7. The thrice-married Barney Panofsky is acquitted of murdering Boogie in this author's novel *Barney's Version*. For 10 points each:
- [10] Name this author who wrote about a poor Jewish boy from Montreal obsessed with land ownership in *The Apprenticeship of Duddy Kravitz*.

ANSWER: Mordecai Richler

[10] Duddy Kravitz enlists the blacklisted avant-garde filmmaker Peter John Friar to help him film these events.

ANSWER: bar mitzvahs

[10] Barney's Version won the Giller Prize the year after this author's Alias Grace. Her dystopian novels include The Handmaid's Tale and the MaddAddam trilogy.

ANSWER: Margaret Atwood [or Margaret Eleanor Atwood] <WN>

- 8. Baldassare Bonaiuti's *Cronaca Fiorentina* chronicles this event. For 10 points each:
- [10] Name this plague, caused by *Yersinia pestis*, that ravaged Europe in the 1300s.

ANSWER: Black Death [prompt on "bubonic plague"]

[10] Jews were falsely accused of causing the Black Death by doing this. This is sometimes employed as a scorched earth tactic in warfare.

ANSWER: poisoning wells

[10] Eric XII, the son of the fourth Swedish king of this name, probably died of the Black Death. That king of this name was nicknamed "the Caresser" because of his rumored affair with Duke Benedict.

ANSWER: Magnus <WN>

- 9. The ground in this painting is an unnatural orange color. For 10 points each:
- [10] Name this 1888 painting which is nearly bifurcated diagonally by a tree, with Breton women on the bottom left watching the scene on the top right.

ANSWER: Vision After the Sermon [or Jacob Wrestling with the Angel]

[10] Vision After the Sermon is by this painter, who spent much of his time in Tahiti.

ANSWER: Paul Gauguin [or Eugène Henri Paul Gauguin]

[10] In February 2015, this Gauguin painting, which is inscribed with a question in Tahitian, became the world's most expensive artwork.

ANSWER: When Will You Marry? [or Nafea faa ipoipo] <WN>

10. This country's three main political parties signed the Punto Fijo Pact in 1958 after Marcos Pérez Jiménez was ousted. For 10 points each:

[10] Name this country that was reformed into a Bolivarian Republic by Hugo Chávez.

ANSWER: Venezuela [or Bolivarian Republic of Venezuela]

[10] In 1992, Chávez unsuccessfully tried to overthrow this president who accepted IMF funds mere months after bashing the IMF and World Bank. He was impeached the next year for embezzlement.

ANSWER: Carlos Andrés <u>Pérez</u> [or Carlos Andrés <u>Pérez</u> Rodríguez]

[10] An earlier, more democracy-friendly ruler of Venezuela, Rómulo Betancourt, survived a car bomb planted by this leader's SIM secret police. The Mirabal sisters opposed this leader.

ANSWER: Rafael Trujillo [or Rafael Leónidas Trujillo Molina; or El Jefe] <KG>

- 11. The enzyme IDO catalyzes this molecule's degradation to kynurenine, which is the first intermediate in the synthesis of niacin. For 10 points each:
- [10] Name this amino acid that is the only one coded for by the codon UGG. This amino acid's namesake hydroxylase is the first enzyme in the pathway that converts it to serotonin.

ANSWER:  $\underline{tryptophan}$  [or  $\underline{W}$ , or  $\underline{Trp}$ ]

[10] Tryptophan possesses this property, as do phenylalanine and tyrosine, as they possess a planar ring that obeys Hückel's 4n+2 rule.

ANSWER: aromaticity

[10] Bacteria use this pathway to make aromatic amino acids. An intermediate called chorismate undergoes a Claisen rearrangement to prephenate, which becomes hydroxyphenylpyruvate, which is transaminated to tyrosine.

ANSWER: shikimate pathway [or shikimic acid pathway] <SD>

- 12. Answer the following about problems concerning identity in philosophy, for 10 points each.
- [10] A popular thought experiment concerns one of these objects belonging to Theseus, whose planks are replaced one by one until none of the original planks remain.

ANSWER: a ship

[10] Donald Davidson's "Swampman" thought experiment imagines Davidson being killed in this manner at the same moment that a being identical to Davidson is created in this manner.

ANSWER: being struck by a bolt of lightning

[10] This philosopher believes that people do not have personal identity apart from their physical components. He argued that utilitarianism strictly applied leads to a "repugnant conclusion" in his book *Reasons and Persons*.

ANSWER: Derek Parfit <WN>

- 13. Jim Sinclair's essay "Don't Mourn for Us" argues that this condition shouldn't be cured. For 10 points each:
- [10] Name this disorder which was fraudulently claimed to be caused by the MMR vaccine by Andrew Wakefield.

ANSWER: autism

[10] People with autism can have deficits in this ability, defined as the ability to attribute mental states to others.

ANSWER: theory of mind

[10] This psychologist extended his empathizing-systemizing theory to hypothesize that autism is characterized by an "extreme male brain." He created a 50-question test for self-diagnosis of autism.

ANSWER: Simon Baron-Cohen <WN>

- 14. Answer some questions about stories involving wax from Greek myth, for 10 points each:
- [10] Laodamia used either wax, or more commonly bronze, to make a sculpture of this husband of hers after he died. He was killed by Hector after being the first Greek to touch land after arriving at Troy.

**ANSWER: Protesilaus** 

[10] Needing to win a chariot race for the hand of Hippodamia, this man bribed the charioteer Myrtilus to replace bronze linchpins with wax ones, leading to Oenomaus's defeat and death.

ANSWER: Pelops

[10] This son of Daedalus ignored his father and flew too close to the sun, causing his constructed wax wings to melt. He then plummeted to his death.

ANSWER: Icarus <SD>

15. This organization moved its base to Königsberg after signing the Second Peace of Thorn. For 10 points each-

[10] Name this organization that surrendered its fortress of Marienburg Castle following the Thirteen Years' War.

ANSWER: <u>Teutonic Knights</u> [or <u>Teutonic Order</u>; or <u>Order of Brothers of the German House of Saint Mary in Jerusalem</u>]

[10] The Teutonic Knights signed the Second Peace of Thorn in 1466 with this Polish king, the son and successor of Władysław II.

ANSWER: <u>Casimir IV</u> [or <u>Kazimierz IV</u>; prompt on "<u>Casimir</u>" or "<u>Kazimierz</u>"]

[10] Casimir IV was a member of this royal house that his father founded.

ANSWER: **Jagiellonian** Dynasty <JM>

16. Answer the following about dream visions in literature, for 10 points each.

[10] Scipio Aemilianus looks down at Earth from the stars in a dream vision from *De Re Publica*, a dialogue by this Roman orator, who delivered speeches against Catiline and in defense of Milo.

ANSWER: Marcus Tullius Cicero

[10] Guillaume de Lorris and Jean de Meun wrote this medieval French dream vision about courtly love.

ANSWER: The Romance of the Rose [or Roman de la Rose]

[10] An acrostic suggests that Francesco Colonna was the author of an allegory in which this man pursues Polia through a dream world filled with lavish architecture. That allegory is his namesake "hypnerotomachia."

ANSWER: **Poliphilus** [or **Poliphilo**] <WN>

17. This event frequently draws crowds of over 20 million every year. For 10 points each:

[10] Name this religious gathering in which devotees visit a shrine in Karbala dedicated to Husayn ibn Ali.

ANSWER: Arba'een Pilgrimage

[10] Arba'een is held this many days after the Day of Ashura. Jesus spent this many days fasting in the desert, which is why Lent is this many days long.

ANSWER: forty

[10] Iran banned a form of this practice called tatbir undergone by devotees on Ashura. The 11th-century monk Peter Damian popularized this practice, which some devout Christians underwent during the Black Death.

ANSWER: self-<u>flagellation</u> [accept any answers that indicate someone <u>hitting oneself</u>; or mortification of the flesh] <KG>

18. The speaker of the ninth poem of this collection dreads the moment when his soon-to-be-hanged friend will "hear the stroke of eight / and not the stroke of nine." For 10 points each:

[10] Name this 1896 collection which contains the poems "On moonlit heath and lonesome bank," "With rue my heart is laden," and "Loveliest of trees, the cherry now."

ANSWER: A Shropshire Lad

[10] This author collected those poems and others, such as "To an Athlete Dying Young," in *A Shropshire Lad.* ANSWER: A. E. **Housman** [or Alfred Edward **Housman**]

[10] Give either the first line or the unofficial title of the fortieth poem in *A Shropshire Lad*, whose speaker asks "What are those blue remembered hills, what spires, what farms are those?" and realizes that they are the "happy highways where I went / And cannot come again."

ANSWER: "Into my heart on air that kills" [or "The Land of Lost Content"] <AG>

- 19. The collisionless form of this equation is just derived by setting the total time derivative of the distribution function to zero, which is the basis for the Vlasov equation. For 10 points each:
- [10] Name this equation which considers external forces and collisions to describe the time evolution of the particle density function.

ANSWER: **Boltzmann transport** equation [accept either underlined part]

[10] The probability of collision in the Boltzmann transport equation is a function of one over the number of scattering centers times their cross section, which is a good approximation for this quantity.

ANSWER: mean free path

[10] Usefulness of the Boltzmann equation comes from its ability to describe transport in situations in which this condition is not met, such as a gas expanding into a vacuum. Stationary solutions are this kind of situation which can be stable or unstable.

ANSWER: equilibrium

- 20. Answer some questions about political scandals in the 1980s, for 10 points each:
- [10] This Senator from Colorado withdrew his campaign for the Democratic nomination shortly after photos were released of him and Donna Rice on a yacht named *Monkey Business*.

ANSWER: Gary Hart

[10] This man's Secretary of Defense, Caspar Weinberger, was indicted following the Iran-Contra scandal that occurred during his second term as President.

ANSWER: Ronald Reagan [or Ronald Wilson Reagan]

[10] This FBI sting operation ultimately convicted six Representatives and one Senator of political corruption, although the first politician to be caught was Camden mayor Angelo Errichetti.

ANSWER: Abscam <SD>

Extra: The main theme of the orchestrated version of this piece is stated first by the horns, and then by a flute and oboe duet. For 10 points each:

[10] Name this piece, originally for solo piano, that evokes a member of the Spanish court dancing in olden times.

ANSWER: <u>Pavane for a Dead Princess</u> [or <u>Pavane pour une infante défunte</u>]

[10] This composer of *Pavane for a Dead Princess* repeated an ostinato rhythm played by snare drums in his piece *Bolero*.

ANSWER: Maurice Ravel [or Joseph Maurice Ravel]

[10] Ravel also orchestrated this suite of eight pieces in ¾ time into the ballet *Adelaide: The Language of Flowers*. Its title is an homage to two separate collections by Schubert.

ANSWER: <u>Valses nobles et sentimentales</u> [or <u>Noble and Sentimental Waltzes</u>] <AG>