

Michigan Winter Tournament

"The Holy Roman Empire of Tournaments"

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Packet 10

Tossups:

1. **Daniel Harrington claimed that this event was "among the most certain" events in the New Testament to have actually happened, because it assumes a "dependence" of its central figure on another man and was unlikely to have been invented. The person who performed this action claimed that he was unworthy to untie the sandals of its subject, whom he described as "the one who comes after me". Matthew uniquely describes how the person who performed this action initially (*) objected and asked that it be performed *on* him instead. A voice from the heavens proclaiming its subject was one "with whom I am well pleased" followed this event, after which the Spirit of God descended like a dove. For 10 points, identify this event in which the Son of God was dunked in the Jordan River.**

ANSWER: the **baptism** of **Jesus Christ** [accept obvious equivalents; prompt on **baptism** by asking "who was baptized?"]
<Thompson, Religion>

2. **The "progressive" form of this procedure includes T-Coffee and MAFFT. The program HMMER ["hummer"] performs this process by creating a set of M states as part of a hidden Markov model. The results of one algorithm used for this procedure are displayed over a line showing periods and colons to represent conservative and semi-conservative positions. The "multiple" form of this procedure can be run using (*) Clustal. The "basic local" version of this procedure hosted by NCBI typically takes in FASTA files for the query sequence. This procedure is used to find conserved regions, and its result is useful in constructing phylogenetic trees. Programs that perform this task include BLAST. For 10 points, what bioinformatics procedure compares similarities between sequences?**

ANSWER: sequence **alignment** [accept **BLAST** until mention; accept structural **alignment** or multiple sequence **alignment**;
prompt on **MSA**] <Tsai, Biology>

3. **In a founding myth of the Lombards, Frigg advised the Winnili women to use this body part to grab the attention of Odin, so he would grant them victory over the Vandals. In Japanese mythology, a Harionago is a beautiful woman who smiles at young men and attacks them with this body part. Pryderi got a nickname from his foster father Teyrnnon referring to this golden body part. Minos was able to conquer Megara after Scylla betrays (*) Nisus, who had a purple section of this body part. In *Skáldskaparmál* ["scowld-skah-pahr-mowl"], Gungnir and Skíðblaðnir ["skeeth-blath-neer"] are also made by the Sons of Ivaldi when Loki has them make a golden replacement for this body part of Sif. For 10 points, name this body part of Medusa that is made of snakes.**

ANSWER: **hair** <Ranganathan, Mythology>

4. **At the mention of one character in this play, a character says her mouth "fill[ed] with mud," even though the character was only eight "at the time of the troubles." The mother of this play's male lead says to "cure all" knives and "the wretch who invented them." While a woman in this play is cradling a child, two women repeat "sleep my rose" and "sleep my flower" during a song about an injured horse. In Act III of this play, three (*) woodcutters describe how a search party went into the forest before a beggar woman asks the Moon for more light. After Leonardo runs away with the Bride in this play, he and the Groom kill each other. For 10 points, name this first play in Federico Garcia Lorca's "rural trilogy."**

ANSWER: **Blood Wedding** [or **Bodas de sangre**] <Bunker, European Literature>

5. A ruler with this name began his dynasty's use of the motto "A.E.I.O.U." which he would print on all of his belongings. According to legend, a ruler of this name will rise from his long-lasting sleep when ravens stop circling Kyffhäuser Mountain. Innocent IV feuded with an Emperor of this name whose death triggered the Great Interregnum of the Holy Roman Emperors. A ruler with this name attempted to increase his power at the (*) Diet of Roncaglia, which catalyzed the creation of the Lombard League, which opposed him. That ruler with this name drowned in the Saleph River while on a military expedition against Saladin's forces. For 10 points, give this name shared by two Hohenstaufen Holy Roman Emperors, the first of which was nicknamed "Barbarossa."

ANSWER: **Frederick** [accept **Frederick** III or **Frederick** II or **Frederick** I or **Frederick** Barbarossa; accept **Friedrich** instead of **Frederick**] <Laurie, European History>

6. Erich Fromm posited that authoritarianism, destructiveness, and [this concept] were used as escape mechanisms in his book *Escape from Freedom*. One effect related to this concept was studied in an experiment that involved confederates wagging their feet while observing a photograph with a participant. This concept was observed in a study that measured the perceived change in the distance of a light in a (*) dark room. That study was conducted by Muzafer Sherif and explored the role the autokinetic effect has on this concept. Solomon Asch's line experiment is a classical study in, for 10 points, what social phenomenon that is defined as matching one's beliefs to group norms?

ANSWER: **conformity** [anti-prompt on **obedience** and **compliance**, as these are more specific types of conformity] <Rodriguez, Psychology/Sociology>

7. The motto of one city in this state, "We'll Try," alludes to its rebuilding in the aftermath of an 1843 fire. This state was home to the national champion soccer club Ponta Delgada S.C. This state is home to the annual Feast of the Blessed Sacrament, celebrating the culture of its Portuguese immigrants who originally arrived in its whaling centers of New (*) Bedford and Fall River. The unusually high rate of deafness on an island in this state led to its development of a unique form of sign language. This state's Myles Standish State Forest lies near the historical Plymouth Plantation. For 10 points, identify this New England state in which the Mayflower landed.

ANSWER: Commonwealth of **Massachusetts** <Thompson, Geography>

8. In a shot in this film, the camera zooms in on the main characters watching as money flies out of a car approaching them on a distant dusty road. The camera pans up in one shot of this film to show a barn fire reflected in the shades of an emotionless sheriff. This film was the first to be entirely color corrected digitally, done by cinematographer Roger Deakins. One figure in this film is a one-eyed fake Bible salesman who is crushed by a flaming cross during a (*) Klan rally. Early in this film, a blind handcar operator tells a prophecy to the trio of main characters. The racist Homer Stokes interrupts a performance of "Man of Constant Sorrow" by the Soggy Bottom Boys in this film. For 10 points, the *Odyssey* inspired what bluegrass-heavy film starring George Clooney, directed by the Coen brothers?

ANSWER: ***O Brother, Where Art Thou?*** <Tsai, Other Visual>

9. Negative values of this quantity for Earth's atmosphere tend to correspond to La Niña events. Wigner 3j symbols are sometimes used as an alternative to one framework for summing this quantity, and one form of this quantity was first proposed by Uhlenbeck and Goudsmit. The square of this quantity is quantized proportional to n times quantity $n + 1$, where n is an integer. The (*) gyromagnetic ratio of a particle is the ratio of the magnetic dipole moment to a form of this quantity. Kepler's second law roughly states that this quantity is constant for planetary orbits, while gyroscopes work due to the conservation of this quantity. For 10 points, name this quantity equal to moment of inertia times angular velocity, symbolized L .

ANSWER: **angular momentum** [accept specific types like total **angular momentum** orbital **angular momentum**, or **spin**; prompt on L , \mathbf{L} , or \mathbf{S} ; do not accept or prompt on "momentum"] <Graham, Physics>

10. Richard Wright called this novel's prose "cloaked in that facile sensuality that has dogged Negro expression since the days of Phillis Wheatley" in a review. A character in this novel explains her religious views by declaring "Half gods are worshipped in wine and flowers. Real gods require blood." This novel opens with the line "Ships at a distance have every man's wish on board." Interest in this novel was largely revitalized by an Alice Walker essay titled (*) "Looking for" this novel's author. This novel is framed by a conversation between the protagonist and her friend Phoebey after the protagonist has returned home. This novel's protagonist shoots her husband after he contracts rabies in the aftermath of a hurricane. For 10 points, name this novel set in Eatonville about Janie Crawford, written by Zora Neale Hurston.

ANSWER: ***Their Eyes Were Watching God*** <West, American Literature>

11. **After the conclusion of this event, some participants in it founded the Rolling Jubilee, in which the organization Strike Debt buys student debt and cancels it. During this event, police destroyed over 5000 books that had been kept at the ad-hoc library run by Betsy Fagin called *The People's Library*. Adbusters proposed the idea for this event, which they promoted with a poster of a ballerina on a sculpture of a bull under the phrase (*) "what is our one demand."** This event's slogan is sometimes credited to David Graeber, who helped organize it in the beginning. Until a forced eviction, much of this event took place in Zuccotti Park. The slogan "We Are the 99%" was used by protesters during, for 10 points, what 2011 event, which saw protests in New York's financial district.

ANSWER: **Occupy** Wall Street <Laurie, American History>

-- This packet contains 22 tossups. Halftime is after tossup 11. --

12. **In parameterized complexity, weft is defined by counting large examples of these entities on a given path. An arbitrary one of these things can be efficiently approximated from a "universal" set of them by the Solovay-Kitaev theorem. A doubly-controlled one of them is named for Tomaso Toffoli. In general, these things represent (*) unitary operators on a quantum computer. An SR latch is made from two of these objects, as is a half-adder. An FPGA relies on an array of these things, which were usually implemented with a pair of relays or vacuum tubes before the advent of CMOS logic. Boolean circuits are composed of, for 10 points, what objects which carry out logical operations like XOR ["ex-or"], NOR, and NAND?**

ANSWER: logic **gates** [accept quantum logic **gates**; accept specific types of **gates** like **CNOT**, **AND**, and **NOR** before giveaway; accept unitary **operator**s before read] <Mitchell, Computer Science>

13. **A song sung by a character with this name was originally written for an adaptation of *Flowers for Algernon*. A character with this name cheerfully says "I'm doing alright" at the end of "I Got the Sun in the Mornin'"; after winning a contest, that character is told "there's no business like show business." In one musical of this name, Rooster and Lily's scheme is thwarted by (*) Franklin D. Roosevelt, who was inspired by the title character to create the New Deal. Frank Butler engages in a back and forth of "no you can't/yes I can" in "Anything You Can Do" in an Irving Berlin musical titled [*this name*] *Get Your Gun*. For 10 points, "Tomorrow" and "It's the Hard Knock Life" are songs from a musical about a little redheaded orphan girl with what name?**

ANSWER: **Annie** [or **Annie** Oakley, or Little Orphan **Annie**; accept **Annie Get Your Gun**] (the first line is about "Tomorrow") <Tsai, Other Auditory>

14. **A woman in this novel remembers meeting her husband at a Christmas party where, after she refused to dance with him, he sat down and talked to her instead. This novel's protagonist is given a birthday present of some paints by a group of coworkers organized by the hunchbacked Fanny. A love interest of this novel's protagonist is disliked so much by her coworkers at Thomas Jordan's warehouse that they give her the nickname the "Queen of Sheba." In this novel, Miriam (*) Leivers realizes she loves the protagonist when she sees him alone on the road following a trip to the Hemlock Stone. After ending his relationship with Clara Dawes, the protagonist of this novel returns home to Nottinghamshire to find his mother Gertrude dead. For 10 points, name this novel about Paul Morel, written by D. H. Lawrence.**

ANSWER: **Sons and Lovers** <Rodriguez, British Literature>

15. **Edward Gibbon claimed a King who would defeat these people was guided by a "flaming meteor" above the Cathedral of Poitiers. They're not the Huns, but to bury their first King, these people diverted the Buseuto River, buried the King, undiverted the river, and massacred the workers who had dug the grave. These people re-allied with Rome under Atahualf, who made peace with Honorius, who had avoided one of these peoples' attacks by staying in nearby (*) Ravenna. These people established a Kingdom at Toledo after a defeat at the Battle of Vouillé forced them to flee Toulouse. A King of these people who allied with Flavius Aetius died fighting Attila the Hun at the Battle of Chalons. For 10 points, name these people who sacked Rome in 410 AD under Alaric I.**

ANSWER: **Visigoths** [accept Kingdom of the **Visigoths** or **Visigothic** Kingdom; prompt on **goth**] <Laurie, Other History>

16. **Models which try to predict this quantity may assume a Weibull distribution where the alpha parameter determines increasing or decreasing hazard. The output of those models, which measure this quantity, is equal to the variable's PDF divided by one minus its CDF. In model selection where this quantity is an independent variable, the partial (*) ACF function can help find parameters sometimes labeled p and q which are used in ARIMA models. This quantity is the target of survival models. This variable changes for each term in an auto regressive or moving average model. Stock or financial data is usually visualized with this quantity on the horizontal axis. For 10 points, what variable is seen in its namesake "series" form of data and is typically measured in days or seconds?**

ANSWER: **time** [or **t** or big **T** ; or **duration** or survival **time**] <Bunker, Mathematics>

17. In an NPR interview, Utah Phillips explained that these groups used music because "when people were singing together, they weren't throwing punches." One early anthem of these groups was Harry McClintock's "Hallelujah, I'm a Bum." One song exalting these groups plays over the closing scenes of the 2014 film *Pride*, about a gay activist group formed to (*) help members of one of them. One song claims that "yet what force on earth is weaker than the feeble strength of one / but [this type of organization] makes us strong". One of these organizations collected political songs in the *Little Red Songbook*. Billy Bragg claimed "There is Power In," for 10 points, what organizations which were the subject of Ralph Chaplin's "Solidarity Forever"?
ANSWER: trade **union** [or labor **unions**] <Thompson, Other Academic>

18. In one lecture, this philosopher claimed that "Self-realization is the ultimate fact of facts" in relation to his idea of pure potential. This philosopher's idea of "extensive abstraction" tried to re-introduce the concept of absolute positions to space. This thinker rejected both Humean and Newtonian conceptions of science by advocating a radical empiricism of observable related subsystems. One work by this philosopher furthers his ontology of "the philosophy of organism" which can help understand both nature and lifeless matter. With one of his former (*) students, this thinker wrote a work which developed a theory of types and tried to ground all of mathematics in axiomatic set theory. For 10 points, name this author of *Process and Reality* who, with Bertrand Russell, wrote *Principia Mathematica*.
ANSWER: Alfred North **Whitehead** <Bunker, Philosophy>

19. One dictator of this country issued 5 million dollars known as the "papeletas de Lilís" that led to the collapse of its economy. That dictator, Ulises Heureaux, gained the support of the 1868 Restoration War hero Gregorio Luperón by pitting this country's Bolos party against then-president Francisco Billini. In the aftermath of hurricane San Zenón, this country's capital was renamed after another dictator known as El Jefe. A resistance group in this country known as (*) "the Butterflies" was named for the Mirabal sisters. A dictator from this country ordered a botched assassination attempt on Rómulo Betancourt. That dictator of this country carried out the Parsley massacre as part of his program of anti-Haitianism. For 10 points, name this Caribbean nation once led by Rafael Trujillo.
ANSWER: **Dominican Republic** [or **República Dominicana**; do NOT prompt or accept "Dominica"] <Hadley, World History>

20. Miguel Otero Silva shows tourists a Tuscan castle and tells of a man named Ludovico in a Gabriel Garcia Marquez story named after this type of character "of August." Before becoming one of these characters, a woman tells the nurse Justina "I only believe in hell." In a novel, a man travels to Comala to meet the title character after the death of his mother, where he encounters this type of person. That book is Juan (*) Rulfo's *Pedro Páramo*. In a novel named after this type of person, one visits Alba after she is raped by Colonel Esteban García and tells her to not wish for death before Alba is freed by her lover Miguel and her grandfather Esteban. For 10 points, name these apparitions that title a novel about the Trueba family written by Isabel Allende.
ANSWER: **ghosts** [or **spirits**, or **espantos**, or **espíritus**; or *The House of the Spirits*; or **Ghosts** of August; accept obvious equivalents like **apparitions** before mention; or "**conjurations of the dead**"] (The Garcia Marquez story was "Espantos de Agosto") <Bunker, World/Other Literature>

21. In this composer's final symphony, the cymbals are only used for a single three-measure appearance in the final movement. Joseph Joachim never performed an A minor violin concerto by this composer despite working closely with this composer on it, because he hated the orchestral parts. This composer's sixth symphony utilizes the *furiant* dance in its scherzo third movement. This composer refused to let Hanuš Wihan ["Han-ush vi-han"] write his own cadenza in a piece written while he directed the (*) National Conservatory of Music; that piece is his Cello Concerto in B minor. In this man's final symphony, a cor anglais solo plays the main theme in a *Largo* second movement inspired by American spirituals. For 10 points, name this Czech composer of the "New World" Symphony.
ANSWER: Antonín Leopold **Dvořák** <Tsai, Classical Music>

22. Scholar Alexander Nemerov argued that a buoy in this artist's painting *Ground Swell* represented Americans' growing fears about World War II. This artist depicted a woman in blue leaning against a wall while her view of the screen is blocked in his *New York Movie*. A small yellow lamp sits on the right side of a painting by this artist near a red sign which contains that painting's second (*) title word. A woman in a green coat stares into the cup she is holding in another painting by him. A Banksy parody of this artist's most famous painting depicts a man throwing a chair into the window of an establishment which was famously painted without a door. For 10 points, name this American artist of *Chop Suey*, *Automat*, and *Nighthawks*.
ANSWER: Edward **Hopper** <West, Painting>

Bonuses:

1. Upon hearing that a member of this family hadn't fatally stabbed John Comyn, Roger de Kirkpatrick yelled "I'll be sure," ran back in the church, and finished the job. For 10 points each:

[10] Name this family. Roger Mortimer was sent to Ireland to fend off an invasion by a member of this family who died at the Battle of Faughart ["fah-heart"].

ANSWER: **Bruce** [accept Robert the **Bruce** or Edward **Bruce**; accept **Brus**; accept Clan **Bruce** or Clann **Brus**]

[10] Robert the Bruce originally seized power by defeating John Balliol, who had been chosen by an English King with this name. Other English Kings with this regnal name include one nicknamed "Longshanks" and one nicknamed "the Confessor."

ANSWER: **Edward** [accept **Edward II** or **Edward** of Carnarvon; accept **Edward I** or **Edward** Longshanks; accept **Edward** the Confessor]

[10] Edward Bruce's invasion of Ireland also attempted to do away with *Laudabiliter*, a papal bull that ostensibly granted Ireland to this dynasty. Edward II was from this British royal house, whose first ruler was Henry II.

ANSWER: House of **Plantagenet** [or **Angevins**] <Laurie, Other History>

2. Compiled by Guyer and Wood, the Cambridge Edition of a notable work by this philosopher aims to have the reader engage in understanding as much as in English as they would in the original German. For 10 points each:

[10] Identify this philosopher who used the word "Anschauung" ["awn-shau-ung"] to mean something like "intuition." The Cambridge edition of his *Prolegomena to Any Future Metaphysics* was edited by Gary Hatfield.

ANSWER: Immanuel **Kant**

[10] This other philosophical translator critiqued mainstream Protestantism in his *Critique of Religion and Philosophy*. This scholar is more notable for his translations and research on Friedrich Nietzsche.

ANSWER: Walter **Kaufman**

[10] Modern readers of Descartes' *Meditations*, may notice that it was not first written in French but in this older language. Seneca and Cicero wrote in this language.

ANSWER: **Latin** <Bunker, Philosophy>

3. This distinction separates languages in which labiovelars merged with plain velars from those in which palatovelars did so. For 10 points each:

[10] Identify this distinction in Indo-European linguistics, named for corresponding words for the number 100 in Latin and Avestan. It corresponds generally to an eastern-western divide, except that Tocharian, the easternmost of the Indo-European families, is part of the "western" group.

ANSWER: **centum-satem** ["kent-um-sate-um"] distinction [accept any answer mentioning both **centum** and **satem**]

[10] Despite being centum ["kent-um"] languages, the word for 100 in most of this family's languages starts either with an "s" sound or a "ch" sound, including Spanish cien ["see-en"] and Italian cento ["chen-toh"]. This language family contains languages descended from Vulgar Latin.

ANSWER: **Romance** languages

[10] Some linguists claim that this language is neither a centum nor a satem language because none of the velar series merged. Its dialects include Tosk, on which the standard version is based, and Gheg, and it is often grouped together with Greek and the now-extinct Illyrian.

ANSWER: **Albanian** [or **shqip** ["sh-cheep"], or gjuha **shqipe** ["joo-hah sh-chee-peh"]] <Thompson, Linguistics>

4. A factor corresponding to this phenomenon is equal to $\frac{1}{c} \pi R^2 F$ divided by the mass times the speed of light, and is used to quantify an effect often contrasted with the YORP effect. For 10 points each:

[10] Name this physical quantity equal to $\frac{1}{c} \pi R^2 F$ divided by the mass times the speed of light. In proposed solar sail designs, this phenomenon from the sun will propel the sail through space.

ANSWER: **radiation pressure** [prompt on partial answer]

[10] This effect competes with radiation pressure for non-spherical bodies with albedo variations. This effect explains how a body moving through space is affected by the heating on one side and the cooling of the other.

ANSWER: **Yarkovsky** effect

[10] The tails of these astronomical bodies are affected by both solar wind and radiation pressure as the dust flies away from the sun. Eponymous examples of these icy bodies that can be seen from Earth include ones named for Halley and Hale and Bopp.

ANSWER: **comets** [accept specific examples such as **Halley's Comet** or Comet **Hale-Bopp**] <Bunker, Astronomy>

5. In a 2007 novel by this author, one character refuses to be known as anything but Black Man, and the CIA operative Skip Sands narrates a story which starts in 1965 Vietnam. For 10 points each:

[10] Name this American author of *Tree of Smoke*, who also wrote about a drug-addicted hitchhiker in the first story of his most notable collection.

ANSWER: Denis **Johnson**

[10] While Johnson was at the Iowa Writers' Workshop, he took classes from this author who wrote the short story "Cathedral." Mel, Terri, Nick, and Laura sit around a table and drink gin in another of his stories.

ANSWER: Raymond **Carver** (the latter story is "What We Talk About When We Talk About Love")

[10] Jane Smiley, another Iowa Writers' Workshop alumni, adapted this Shakespeare play into her Pulitzer Prize winning novel *A Thousand Acres*. In this play, the title ruler divides his kingdom among his backstabbing daughters.

ANSWER: **King Lear** <Bunker, American Literature>

6. In August 1999, a short conflict broke out in this region when a secessionist army attacked Namibian forces. For 10 points each:

[10] Name this 280-mile long narrow "strip" of Namibia that separates Botswana from Angola and Zambia.

ANSWER: **Caprivi Strip** [accept **Caprivizipfel**, **Itenge**, **Lyiyeyi**, **Diyeyi**, or **Zambezi**; accept but do NOT reveal **Okavango Strip**]

[10] After flowing south through the Caprivi Strip, this river empties into an inland delta in the Kalahari Desert in northern Botswana.

ANSWER: **Okavango River** [or Rio **Cubango**]

[10] Just east of the Caprivi Strip and north of Victoria Falls is this Zambian city named for a Scottish physician and missionary whom Henry Morton Stanley "presumed" he found on the shore of Lake Tanganyika on November 10, 1869.

ANSWER: **Livingstone** <Higgins, Geography>

7. This author repeatedly mentions locations such as a "modern museum" and "my very heart" in his "Endless Poem." For 10 points each:

[10] Identify this German-born poet, who wrote a "prayer for the dead" in his "God Full of Mercy." A poem by this man, which notes that "I wasn't one of the six million who died in the Shoah," includes a line which titles his collection *Open Closed Open*.

ANSWER: Yehudah **Amichai**

[10] In an Amichai poem, the speaker asks to "let my blood be forgotten" if he were to forget this holy city. A poem by a Palestinian author describes walking "from one epoch to another" in this holy city.

ANSWER: **Jerusalem**

[10] This Palestinian poet, who greatly admired Amichai, wrote that poem about walking in Jerusalem. His poem "Identity Card" repeats the line "write down! I am an Arab."

ANSWER: Mahmoud **Darwish** <Bunker, World/Other Literature>

8. The fourth and fifth of this composer's quartets uses his typical arch form, while his sixth and final quartet starts each movement with a slow *Mesto* melody. For 10 points each:

[10] Name this composer, who also wrote the increasingly difficult *Mikrokosmos*.

ANSWER: Béla **Bartók** [or **Bartók** Béla Viktor János]

[10] This composer's first string quartet was heavily inspired by the Bartok quartets, but his later works were focused more on his theory of micropolyphony, such as in his *Lontano*.

ANSWER: György **Ligeti** [or **Ligeti** György Sándor]

[10] Both Bartok and Ligeti are from this country. A series of "Rhapsodies" based on folk tunes in this country was written by its country's most famous composer, Franz Liszt.

ANSWER: **Hungary** [or **Magyarország**] <Tsai, Classical Music>

9. This dish originated as salted fish stored in fermented rice for a few months, though modern variants typically use fresh fish served on vinegared rice. For 10 points each:

[10] Name this dish often eaten by hand rather than with chopsticks in Japan. Western variants such as the California roll may include avocado and imitation crab meat.

ANSWER: **sushi**

[10] Inarizushi, a variety of sushi named for a Shinto god, consists of rice wrapped in this foodstuff. Versions of that dish with additional fillings are popular in Hawaii.

ANSWER: **fried tofu** [or **abura-age**, or **tofu pouch**; prompt on **tofu**]

[10] The Shinto god Inari is said to use these animals, known as *kitsune* in Japanese, as his messengers. Inarizushi is named for Inari because the peaked corners of the fried tofu pouches are said to resemble these animals' ears.

ANSWER: **foxes** <Hadley, Other Academic>

10. Until recently, this form of cell death was thought to be an unregulated process. For 10 points each:

[10] Name this form of cell death, which results in premature autolysis. Tissue that has undergone this process is debrided to prevent infection.

ANSWER: **necrosis**

[10] In contrast with necrosis, this form of cell death is highly regulated and often provides beneficial effects to the organism. Both the intrinsic and extrinsic pathways of this form of programmed cell death activate caspases.

ANSWER: **apoptosis**

[10] This cytokine is produced mainly by activated macrophages and is the major extrinsic mediator of apoptosis. This cytokine was originally named based on its ability to kill fibrosarcoma L-929 cells.

ANSWER: **TNF-alpha** [or **tumor necrosis factor alpha**] <Phadnis, Biology>

11. This poet is the primary target of John Gibson Lockhart's "On the Cockney School of Poetry," which manages, at its kindest, to say that this poet's *The Story of Rimini* is "not wholly undeserving of praise." For 10 points each:

[10] Name this poet and leader of the Cockney School. In another poem, he wrote that although "health and wealth have missed me" it was okay, because "Jenny kiss'd me."

ANSWER: Leigh **Hunt** [or James Gordon Leigh **Hunt**]

[10] Lockhart is appalled that Hunt insulted this poet by dedicating *The Story of Rimini* to him. In another poem, he wrote that "all that's best of dark and bright / Meet in her aspect and her eyes."

ANSWER: George **Gordon**, Lord **Byron** [accept either]

[10] Lockhart's attacks may not have been entirely his own, as this man, his father-in-law, was possibly involved. This author wrote *Ivanhoe* and *Rob Roy*.

ANSWER: Sir Walter **Scott** <Laurie, British Literature>

12. This album's cover is now a blurred version of the original painting, and was censored by iTunes. For 10 points each:

[10] Name this album, whose five different covers were all painted by George Condo, including one which depicts a winged nude woman straddling this album's artist. An alternate cover depicts this album's artist with a sword through his head.

ANSWER: **My Beautiful Dark Twisted Fantasy** (by Kanye West)

[10] An alternate cover for *My Beautiful Dark Twisted Fantasy* features a person with this occupation holding up a small glass. Edgar Degas often painted girls with this profession and sculpted a bronze one "aged fourteen."

ANSWER: **ballerina** [or **dancer**; accept any answer indicating a person who **dances**]

[10] Condo's painting *Skinny Jim* features a smoking puppeteer dressed in clothing featuring this pattern. Yayoi Kusama frequently paints this pattern on objects like pumpkins.

ANSWER: **polka dots** [prompt on **dots**] <Laurie, Painting>

13. Justice Potter Stewart, who coined the phrase "I know it when I see it" about this kind of material, was asked by a clerk whether he had ever, in fact, seen it, to which he responded "just once, off the coast of Algeria." For 10 points each:

[10] Name this type of material, defined in a 1973 case as material lacking "serious literary, artistic, political, or scientific value."

ANSWER: **obscenity** [accept word forms; prompt on **pornography** or **smut**]

[10] The current three prong test for obscenity was established by a case from this state. Paul Cohen's conviction in this state for disturbing the peace by wearing a jacket that said "Fuck the draft" was overturned by the Supreme Court.

ANSWER: **California** [accept *Miller v. California* or *Cohens v. California*]

[10] Prior to *Miller v. California*, the Court was guided by this case, which ruled obscenity was not protected if its "dominant theme" appeals to "the prurient interest." *Memoirs v. Massachusetts* modified this case by adding that obscene material had to be "utterly without redeeming value."

ANSWER: **Roth v. US** <Laurie, American History>

14. An author from this family was commissioned by the Committee of Public Instruction to author the French revolutionary law that enshrined protections against piracy. For 10 points each:

[10] Name this family, whose member Marie-Joseph authored the First French Empire's official national anthem. André, another member of this family, was guillotined in 1793 and became the subject of an Umberto Giordano opera.

ANSWER: **Chénier** [accept Marie-Joseph **Chénier** or André **Chénier**]

[10] André Chénier is the subject of an epilogue by Sully Prudhomme, the first winner of this literary prize. This prize, one of five established by a Swedish businessman, has been won in more recent years by Kazuo Ishiguro and Bob Dylan.

ANSWER: **Nobel** Prize in Literature

[10] Chénier's push for copyright occurred a few years after theatre directors agitated under the leadership of Pierre Beaumarchais, whose most famous plays center on this character. This character and Count Almaviva are the only ones who appear in all three plays.

ANSWER: **Figaro** [accept *The Barber of Seville* or *The Marriage of Figaro*] <Laurie, European Literature>

15. In North India, Dussehra is celebrated at the end of this festival with the burning of an effigy of Ravana. For 10 points each:

[10] Name this Hindu festival that lasts for nine nights in honor of the divine feminine Devi.

ANSWER: **Navaratri**

[10] Some regional celebrations of Navaratri involve this practice, although others now perform it only symbolically. The Muslim holiday of Eid al-Adha involves, and is named for, this practice.

ANSWER: **animal sacrifice** [accept answerlines indicating the sacrifice of specific animals, like **ram sacrifice**; prompt on answers that indicate **sacrifice** or **offering** by asking "what is being sacrificed?"]

[10] In the state of Gujarat, Navaratri is celebrated with a form of this action called garba, in which people either clap or use dandiyas as part of this action.

ANSWER: **dancing** <Ranganathan, Religion>

16. These two states besieged Marienburg during a conflict which had been temporarily, but unsuccessfully, pushed off by a truce organized by Wenceslas IV of Bohemia. For 10 points each:

[10] Name these two states, who defeated the Teutonic Knights at the Battle of Grunwald. These two countries were united in a medieval confederacy by the 1569 Union of Lublin, after which they were united under the Jagiellon Dynasty.

ANSWER: the Grand Duchy of **Lithuania** and the Kingdom of **Poland** [accept answer answer naming both **Poland** and **Lithuania**, including the **Polish-Lithuanian** union]

[10] At Grunwald, the Lithuanian forces were led by this Grand Duke of Lithuania. The Ostrów Agreement between this man and his cousin Jogaila ended the Lithuanian Civil War.

ANSWER: **Vytautas** the Great [or **Vytautas** Didysis or **Witold** Kiejstutowicz]

[10] Vytautas' father, Algirdas, led the Lithuanian conquest of a principality centered in this city, which was accomplished by the Battle of Blue Waters. Vladimir-Suzdal, Galicia-Volhynia, and Novgorod were the principal states to emerge following the collapse of a state centered on this city.

ANSWER: **Kiev** [or **Kyiv**; accept Principality of **Kiev** or **Kievan** Rus] <Laurie, European History>

17. For 10 points each, answer the following about the Dutch anthropologist Frans de Waal, who wrote about the origins of morality in his *The Bonobo and the Atheist*.

[10] De Waal studied how these primates responded to being compensated unequally when giving grapes versus some other food. These primates are considered the most intelligent New World monkey.

ANSWER: **capuchin** monkeys

[10] These primates were the subject of most of de Waal's early research. A research station at Gombe was used by Jane Goodall to study these primates.

ANSWER: **chimpanzees** [accept **chimps**]

[10] De Waal was among the first to apply the work of this political thinker to chimpanzees and other primates. By comparing chimpanzee power politics to the work of this thinker, de Waal argues that chimps use thinking named after this man who helped develop the idea of *virtu*.

ANSWER: Niccolò **Machiavelli** <Bunker, Anthropology>

18. Max Trautz and William Lewis independently proposed a theory which allowed this eponymous equation to be developed. For 10 points each:

[10] Name this equation that contains a factor that is equal to the collision frequency of particles times the steric factor.

ANSWER: **Arrhenius** equation

[10] Alternatively, the Arrhenius equation can be written in terms of this constant. This constant, denoted k_B , relates the average kinetic energy of particles in a gas with the temperature of the gas and is equal to approximately 1.38 times 10 to the negative 23 joules per kelvin.

ANSWER: **Boltzmann** constant

[10] This other eponymous equation, similar to the Arrhenius equation, gives the reaction rate constant as a function of the Gibbs energy of activation, the transmission coefficient, Boltzmann's constant, and Planck's constant.

ANSWER: **Eyring** equation [accept **Eyring-Polanyi** equation] <Phadnis, Chemistry>

19. The basement of the Hirshhorn Museum is currently covered in this artist's 2012 installation "Belief + Doubt." For 10 points each:

[10] Slogans like "I shop therefore I am" or "We don't need another hero" are imposed on monochrome photographs by what contemporary feminist artist, whose signature style is bold white words on red backgrounds?

ANSWER: Barbara **Kruger**

[10] An untitled Kruger work imposes a phrase which ends with this word on a woman's face split in to a photo positive and photo negative. That work was made to support a 1989 women's march, and states that "your body is [one of these things]."

ANSWER: "(a) **battleground**" [or "Your body is a **battleground**"]

[10] Kruger mostly utilizes Futura and sometimes Helvetica, which are both this general type of font. Unlike typefaces like Times New Roman, these fonts lack small strokes at the end of larger strokes.

ANSWER: **sans-serif** [or **gothic**; do NOT accept or prompt on "serif"] <Tsai, Other Visual>

20. In the form of a snake, Veles went up the world tree where he was then killed in a divine battle. For 10 points each:

[10] Everything Veles stole returned to the Earth in this form. In the *Gylfaginning*, the Norse god Freyr is introduced as ruling over this phenomenon, sunshine, and the fruit of the earth.

ANSWER: **rain**

[10] Veles, along with the giver god Dazhbog, was one of the most notable gods of this Eastern European people. One of these people gave up their pagan ways after Vladimir accepted Christianity.

ANSWER: **Slavs** [accept specific **Slavic** people such as **Poles**, **Russians**, **Ukrainians**, Kievan **Rus** etc.]

[10] This chief thunder Slavic god slayed Veles at that divine battle. A necklace with a pendant of this god's axe was commonly worn among Slavic peoples and this god is associated with oak trees.

ANSWER: **Perun** <Bunker, Mythology>

21. This property is exhibited by materials named for Kelvin and Voigt, whose two components can be connected to form a Maxwell material. For 10 points each:

[10] Name this property exhibited by materials with a dynamic modulus equal to a real storage term and an imaginary loss component.

ANSWER: **viscoelasticity** [do NOT accept or prompt on "elasticity"]

[10] Viscoelastic materials exhibit this property in their stress-strain curves. A loop associated with this property is exhibited by ferromagnetic fields when exposed to an external magnetic field.

ANSWER: **hysteresis**

[10] When a viscoelastic material exhibits a linear stress-strain relationship, it becomes a material named after this British physicist who also formulated a namesake law of gravitation. A fluid named after this scientist exhibits a constant viscosity regardless of stress.

ANSWER: Isaac **Newton** [accept word forms like **Newtonian** fluid or **Newton's law** of universal gravitation] <Bunker, Physics>

22. This Kingdom's Pōmare dynasty rose to power largely because, when the British arrived, its leader Tu was nearby and declared himself King, then allied with the British and consolidated power. For 10 points each:

[10] Name this Kingdom, which achieved short-lived protectorate status via the 1847 Jarnac Convention. Its final King, Pōmare V, was forced to abdicate in 1880.

ANSWER: Kingdom of **Tahiti**

[10] Many residents of this island are of Tahitian descent. This island was populated following the mutiny on the *HMS Bounty*.

ANSWER: **Pitcairn** Island

[10] Multiple marriage alliances between the Tahitians and members of this Kingdom's royal house fell apart after possible matches died. This Kingdom, which existed briefly as a Republic led by Sanford Dole, was annexed by the United States.

ANSWER: Kingdom of **Hawai'i** <Laurie, World History>