

Michigan Winter Tournament

"The Holy Roman Empire of Tournaments"

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Packet 15

Tossups:

1. **Rulers with this title employed a series of lash-bearers to patrol the streets while ruling a city where they stripped voting rights from everyone except a group called "the Included." After overthrowing the Bacchiadae, Cypselos took this title, as did his son Periander. Harmodius and Aristogeiton planned an attack targeted a ruler with this title at the 514 BC Panathenaic Festival, where they killed Hipparchus but failed to kill the final holder in a line of rulers who took this title, Hippias.** (*) Thrasylbulus led a 403 BC uprising to overthrow a regime whose rulers took this title. That regime whose leaders took this title was imposed on a city after its defeat in the Peloponnesian War. For 10 points, give this title, held by "Thirty" rulers in a pro-Spartan oligarchy that ruled Athens.

ANSWER: **tyrant** <Ranganathan, Other History>

2. **They're not relative clauses, but parts of these expressions can undergo pied-piping, a process that can result in preposition stranding. Adjunct clauses and left branch clauses are among the so-called "islands" which can prevent the syntactic movement of words marking these expressions. Speakers wishing to hedge or be polite might append statements or commands with the (*) "tag" variety of these expressions. Some Western European languages form these expressions by reversing the order of the verb and the subject. Words marking these expressions are known as "wh-words", because in English most such words begin with the letters "wh".** For 10 points, what sorts of expressions might involve interrogative verbs?

ANSWER: **questions** [or **interrogative** phrases until mentioned] <Thompson, Linguistics>

3. **This body of water is the subject of an international dispute over the dredging of the Martín Garcia Canal, named for a diplomatically contentious island in it. One city on this body of water is home to a 22-kilometer avenue running along it called the "Rambla". The Jorge Newberry Airport, which abuts this body of water, is the domestic airport serving the largest city on it. The so-called "Superclásico" soccer rivalry is contested between Boca Juniors and a team (*) named for this body of water, which is fed by the Paraná River. Silver trinkets acquired from indigenous people gave this river its name. Montevideo and Buenos Aires lie on, for 10 points, what large estuarine body of water separating Uruguay and Argentina?**

ANSWER: **Rio de la Plata** [or the **River Plate** or the **Plate River**] <Thompson, Geography>

4. **To determine the effects of oil, surface pressure, and grooving patterns, Grambo and others developed a method of calculating two different forms of this value. This value corresponds with the force that moves a ship forward in the calculation of the Bollard pull. Another version of this quantity relates a torque and the the associated relative angular velocity when comparing values named after (*) Stribeck and Coulomb. This value is multiplied by the mass, the acceleration due to gravity and the cosine of an angle to calculate the force in a common setup. For 10 points, identify this quantity with both static and kinetic forms, which is higher for rougher surfaces and gives the ratio of its namesake force to the normal force.**

ANSWER: **coefficient of friction** [prompt on **mu** before mention; accept **coefficient** of static or kinetic **friction**; accept end point static **friction coefficient** or breakaway static **friction coefficient** or viscous **friction coefficient**] <Bunker, Physics>

5. **An ophthalmology appointment is used as a pretense to confront death squad members in this country in the documentary *The Look of Silence*. That documentary is a sequel to Joshua Oppenheimer's first documentary about this country, in which Anwar Congo re-enacts murders he perpetrated as a death squad member; that documentary is *The Act of Killing*. Communists were purged by paramilitary squads named for the "five principles" of this country's (*) New Order regime, Pancasila. The conference that led to the establishment of the Non-Aligned Movement took place in this country's city of Bandung. Jose Ramos-Horta won a Nobel Peace Prize for opposing this country's invasion and subsequent occupation of East Timor. For 10 points, name this country that purged communists at the start of the Suharto regime.**

ANSWER: **Indonesia** <Laurie, World History>

6. In his most recent major book, by using the example of someone watching someone use a toothpick, this thinker argues that the experience of seeing requires both a subjective and objective "visual field." This philosopher attempted to refute property dualism by considering consciousness as a state of the brain. This coiner of "biological naturalism" differentiated between Anscombe's notion of (*) "brute facts" and "social facts" in *The Construction of Social Reality*. This thinker attempted to prove "syntax by itself is neither constitutive nor sufficient for semantics" by considering a step-by-step program that outputs a language without understanding it. For 10 points, name this philosopher who attempted to refute the strong AI position in his Chinese Room thought experiment.

ANSWER: John Rogers **Searle** (the lead-in is from *Seeing Things as They Are*) <Tsai, Philosophy>

7. In a short story by this author, a group visits the ornery Uncle N'ba N'ga and talks about the first vertebrates from the Carboniferous period. A ruler created by this author wonders if his empire is "nothing but a zodiac of the mind's phantasm" while playing chess. A novel written by this author describes a place with "three hundred houses and seven hundred chimneys," named Dorothea. In that novel by this author, which consists of 55 narrative poems, the title entities are described to (*) Kubla Khan by Marco Polo. A novel by this author contains a description of the fictional country of Cimmeria, which is located somewhere near the Gulf of Bothnia. In that novel by this author, the protagonist encounters Ludmilla at a bookstore. For 10 points, what Italian author of *Invisible Cities* created the convoluted second person novel *If on a winter's night a traveler*?

ANSWER: Italo **Calvino** <Bunker, European Literature>

8. A "convective overturn" model of one type of these events was proposed by Bethe and Wilson. The beginning of that form of these events is notoriously difficult to model due to matter travelling at one-fourth the speed of light before neutron degeneracy pressure causes matter to "bounce". Another type of these events produces a spectrum distinguished by the presence of singly ionized silicon. The generally uniform light curves of that type of these events allow them to be used as "standard (*) candles" for measuring distance. Those varieties of these events occur when a white dwarf accretes matter until it surpasses the Chandrasekhar limit, and is designated the "Ia" ["I-a"] type of them. For 10 points, name these events in which stars explosively stop existing.

ANSWER: **supernovae** [accept **type II supernovae** before "silicon", do not accept or prompt on "nova"] <VanZandt, Astronomy>

9. Andre Breton attached a cutout of this painting to the quote "Düsseldorf was bombed yesterday for the fiftieth time" in his *First Papers of Surrealism*. Both extant versions of this painting, including the smaller van Buren Museum version, are now considered to be early copies, with notable differences including a sunset near white mountainous islands in the background. In this painting, a (*) shepherd with a brown dog leans on his staff to look upward, and is situated lower than a ploughman in red. A fisherman ignores the title figure in a green tinged sea, who is rendered as only a flailing pair of legs in this painting. For 10 points, what painting attributed to Pieter Bruegel the Elder shows the fate of a figure that flew too close to the sun?

ANSWER: *Landscape with the **Fall of Icarus*** [or *Landschap met de **Val van Icarus***] <Tsai, Painting>

10. *Description acceptable*. The method of "double translation" was used by a person serving in this role, Roger Ascham. While serving in this role, Vasily Zhukovsky made massive amounts of German translations, primarily of Goethe. George Davys was among the people who served in this role who executed the strict schedule of the Kensington System. Frederick William executed a person serving in this role, Hans Hermann von Katte, after Frederick the Great's failed escape to Britain. In addition to founding a scientific academy, serving in this role spurred (*) Rene Descartes to move to Sweden, though he died before doing much there. For 10 points, give this role, responsible for the education of young monarchs.

ANSWER: **tutor** of a **ruler** [accept equivalents for **tutor** like **teacher**; accept equivalents for **ruler** like **Emperor** or **Queen**; prompt on **tutor** with "of whom?"] <Laurie, European History>

11. In this country, a popular street food that is used as a threat against sons-in-law are deep fried hard boiled eggs. A savory dumpling from this country is known for its indigo skin dyed with butterfly pea flowers. The festive "nine auspicious desserts" in this country include a Portugese-influenced dish made by boiling thin strands of egg yolk in sugar, known as *foi thong*. Evaporated milk and condensed milk are used in this country's namesake (*) iced tea. Galangal, lemongrass and kaffir lime are common spices found in a spicy and sour soup from this country, as well as its green curry. Tamarind paste and peanuts are used in this country's stir fry, called "pad". For 10 points, what Southeast Asian country is home to tom yum and tom kha kai?

ANSWER: Kingdom of **Thailand** [or Ratcha-anachak **Thai**; or **Siam**] <Tsai, Other Academic>

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

12. **The unnamed narrator of a novel by this author is a university student who has a neurotic fear of syphilis and of sex. A character created by this author rose from his roots as a slave laborer in Shikoku to become the richest man in his village. In a novel by this author, the brother of a one-eyed former English professor begins organizing the youth of his home village by teaching them how to play American football. In that novel by this author of *Outcries*, the (*) Emperor's supermarket is looted, partially because he is ethnically Korean. In a semi-autobiographical novel by this author, Bird comes to grips with raising his son, who was born with a brain hernia. For 10 points, name this Japanese Nobel laureate, who wrote *The Silent Cry* and *A Personal Matter*.**

ANSWER: Kenzaburo **Oe** [or **Oe** Kenzaburo] <O'Rourke, World/Other Literature>

13. **An exhibit subtitled *Mayhem* showcased the life's work of an artist who worked in this city; that artist had some of her works seized by the family of Walker Evans after she exhibited a series of rephotographed versions of his photography at the Metro Pictures Gallery in this city. A photographer who worked primarily in this city photographed Eddie Carmel, who was known as the "Jewish Giant," at *Home with his Parents*. "Pictures Generation" artist Sherrie (*) Levine primarily worked in this city. A photograph taken in this city depicts eleven workers eating lunch on a suspended crossbeam. Colin Wood was photographed holding a toy hand grenade in this city. For 10 points, name this city which contains the landmark where Diane Arbus took that photograph, Central Park.**

ANSWER: **New York** City [or **NYC**] <West, Other Visual>

14. **This organ is derived from splanchnopleuric mesenchyme in the neural plate during embryonic development. Tendon-resembling fibrous cords of connective tissue in this organ connect the papillary muscles to openings in this organ; those cords are called chordae tendineae. An oval-shaped depression in the wall of one section of this organ is a remnant of an opening in the same area called (*) the foramen ovale. Metoprolol is one drug in a class of medications that slows down this organ by blocking the effects of epinephrine; those medications are beta blockers. The tricuspid valve in this organ allows for fluid flow between its right atrium and right ventricle. For 10 points, name this muscular organ with four sections that pumps blood through the vessels in the circulatory system.**

ANSWER: **heart** <Phadnis, Biology>

15. *Note to players: both composer and genre required.* **This composer almost destroyed a piece in this genre when a quotation of Beethoven's *Coriolan Overture* was pointed out to him. The right hand plays a recurring [*read slowly*] "F-A-F-E-D-E" motif in one piece in this genre; another piece in this genre opens with the piano playing rapid ostinato triplet G notes. A piece in this genre was the basis for the composer's A major (*) Piano Quintet. The soloist cries out "mein vater" in one of these pieces, where a boy on horseback is beckoned by the title figure based on a Goethe poem. For 10 points, identify the composer and genre of vocal pieces including "Gretchen am Spinnrade", "Die Forelle"["dee for-ell-uh"], and "Erlkönig" ["airl-cur-nig"].**

ANSWER: **lieder** by Franz **Schubert** [or **songs** by Franz **Schubert**] <Hadley, Classical Music>

16. **At the start of this novel, the relationship of two characters is revealed to have begun after one ordered orange soda and refused to accept a beer. When referring to the supposed purity of one man, a character in this novel claims "man is conceived in sin and born in corruption" to his confidant. A bribe during a man's attorney general stint lead to Mortimer Littlepaugh's suicide in this novel. One man in this work claims that all human actions are caused by (*) "an itch in the blood," laying the ground for his "Great Twitch" theory. Adam Stanton shoots this novel's protagonist after discovering that man's affair with his sister, Anne. For 10 points, name this novel about the rise of Willie Stark and Jack Burden, written by Robert Penn Warren.**

ANSWER: ***All the King's Men*** <Rodriguez, American Literature>

17. **When the river god Asopus was looking for his daughter, this man revealed that he had seen Zeus, in the form of an eagle, carry Aegina to a nearby island. This man's wife and niece Tyro killed their sons after she learned of a prophecy that they would kill her father Salmoneus. In some stories, this man fathered Odysseus by Anticleia after recovering his stolen cattle with marked hooves from (*) Autolycus. This man asked his wife to throw his naked body into a public square when he died, and he convinced Persephone to let him return to life to scold Merope for not burying him. No one could die after this man tricked Thanatos into chaining himself. For 10 points, name this man eternally attempting to push a boulder up a hill.**

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

18. In his "Colloquy with [this poet]," the fake poet Ern Malley asks why this man never finished his retelling of the Titanomachy. Earl Wasserman incorporated this man's metaphor of the "Mansion of Many Apartments" when critiquing one of his poems, which outlines the transformation of a melody into a "plaintive anthem." In that poem by this man, the word "forlorn" prompts the speaker to claim "the very word is like a bell to toll me back from thee to my sole self!" In that poem, this poet of *Hyperion* talks about a desire to (*) die "upon the midnight with no pain." The speaker of one of his "Great Odes" of 1819 asks "do I wake or sleep" after declaring that "thou wast not born for death, immortal Bird!" For 10 points, name this British Romantic poet of "Ode to a Nightingale" and "Ode on a Grecian Urn."

ANSWER: John Keats [or "Colloquy with John Keats"] <Rodriguez, British Literature>

19. The fourth scene of an opera by this composer includes arias for Venetian and Varangian merchants singing about their homelands. Tommy Dorsey adapted an aria by this composer into the jazz standard "Song of India". In one opera by this composer, the title character wins a bet by catching three golden fish. This composer wrote an opera in which the chorus sings the "Dance of the Tumblers" after Mizgir swears to win the heart of the title character. In addition to (*) *Sadko* and *The Snow Maiden*, this composer included an interlude with rapid chromatic sixteenth-notes to depict Prince Gvidon's transformation by the Swan-Bird into an insect. For 10 points, name this Russian composer, whose opera *The Tale of Tsar Saltan* includes the "Flight of the Bumblebee."

ANSWER: Nikolai Rimsky-Korsakov <McMaken, Other Auditory>

20. A 1902 law made it illegal for these events to be conducted outdoors in the United Kingdom. The Rigveda describes the wind receiving the Prana of the subject of these events. Sesame seeds and rice are placed inside one part of the central object of these events. Lines representing Kala and Yama are drawn on the ground for one of these events. These events traditionally take place at locations called shmashanas next to rivers or other bodies of water. The subject of these events is usually (*) wrapped in a white cloth if they are a man or a widow, and a red cloth otherwise. The leader of these events carries an earthen pot with water while circumambulating the subject. For 10 points, name this ritual in which the central figure is placed on a pyre.

ANSWER: Hindu funerals [or antyeshti or cremations or equivalents] <Ranganathan, Religion>

21. A 1940 paper by C. V. Theis states that these structures approximate dynamic equilibrium prior to development. When two cones of depression intersect in these structures the combined drawdown can be used to extract pollutants. If one of these structures with non-zero gradient is confined, it exhibits positive pressure. Flow in these structures is directed towards decreasing head according to Darcy's law. These structures are separated from the aeration zone by the (*) capillary fringe. When these natural structures are artesian, a certain resource can be extracted without pumps. These natural features can be exhausted through excessive irrigation. For 10 points, groundwater is stored in what layers of permeable rock, such as the Ogallala?

ANSWER: aquifers <Hadley, Earth Science>

22. A leader of this tribe's namesake "Triumvirate" feuded with a man he called "Babykiller," Doublehead, after Doublehead ordered the killing of the Brown Party. Early leaders of this tribe took the title "First Beloved Man." While led by John Jolly, this tribe took care of teenage Sam Houston. The Ridges and Elias Boudinot were members of this tribe's unofficial Treaty Party, which feuded with John Ross. (*) Stand Watie was among those targeted for signing the Treaty of New Echota on behalf of this tribe. The Dahlenega Gold Rush preceded a force movement of this tribe. Literacy among this tribe increased after Sequoyah designed its name syllabary. For 10 points, name this tribe, forced to move to Oklahoma during the Trail of Tears.

ANSWER: Cherokee [or Cherokee Nation or Tsalagi or Aniyunwiya] <Laurie, American History>

Bonuses:

1. The title character of this story is said to put the eyes of children "into a bag," so that he can carry them to his children on the crescent moon. For 10 points each:

[10] Name this story, whose title character is conflated by the protagonist with Coppélius and Giuseppe Coppola. At the end of this story, Nathanael jumps to his death after yelling "Ah, pretty eyes – pretty eyes!"

ANSWER: "The **Sandman**" [or "Der **Sandmann**"]

[10] E.T.A. Hoffman, the author of "The Sandman," considered this story to be his best story. In this story, after seeing a lily growing in the title object, the student Anselmus claims that the lily represents "knowledge of the sacred harmony of all things."

ANSWER: "The **Golden Pot**" [or "Der **goldne Topf**. Ein Märchen aus der neuen Zeit"]

[10] "The Sandman" begins with Nathanael writing one of these items to Lothar, which is intercepted by Clara. In epistolary novels, these items are used to tell the story.

ANSWER: **letters** <O'Rourke, European Literature>

2. Hassall's corpuscles are structures found in the medulla of this organ, and are formed from eosinophilic type VI epithelial cells arranged concentrically. For 10 points each:

[10] Name this lymphoid organ of the immune system. This organ is composed of two identical lobes and is located in front of the heart and behind the sternum.

ANSWER: **thymus**

[10] This type of white blood cell matures within the thymus. These cells can be divided into their namesake "killer" and "helper" types.

ANSWER: **T** cells

[10] One of the major characteristics of vertebrate immunology is this process, the shrinking of the thymus with age. This process results in a decreased output of naïve T lymphocytes over time.

ANSWER: thymic **involution** <Phadnis, Biology>

3. A sexually explicit Rupert Bear cartoon was among the allegedly obscene features of the schoolchildren-edited edition of Oz Magazine that prompted an obscenity trial in this country. For 10 points each:

[10] The "No to the Cane" protests, organized by the children-led Schools Action Union, resulted in 10,000 students walking out of London schools in this country.

ANSWER: **United Kingdom** [or Great **Britain**; accept **England**]

[10] The SAU entered its most successful phase after this Prime Minister promised to crack down on unions and wildcat strikes. He was PM during Britain's entrance to the European Communities.

ANSWER: Edward "Ted" **Heath**

[10] Corporal punishment was eventually banned in all schools under this Prime Minister, who, earlier on, claimed his top three priorities were "education, education, and education." This man coined the term "New Labour."

ANSWER: Tony **Blair** <Laurie, Other History>

4. For 10 points each, answer the following about the many horrifying monsters of Japanese mythology.

[10] The eight-headed dragon Yamata no Orochi was defeated by this Shinto god of storms who then obtained the Kusanagi. This deity was born from the snot of his father Izanagi.

ANSWER: **Susanoo**-no-Mikoto

[10] A yokai named Jorogumo was usually depicted as a half-woman and half-this animal who lured men back to her dwelling to kill them. In West African folklore, a trickster god who took the form of this animal distributed the knowledge of all stories.

ANSWER: **spider** (the unnamed mythological character was Anansi)

[10] The Akkorokamui is one of these animals from Ainu folklore. In one legend, that monster of this type was formed when the half-spider Yaoshikepu caused massive destruction and was then transformed by the kami Repunkami.

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

5. This lake is overlooked by Oldoinyo Lengai, an active volcano that uniquely produces white sodium- and potassium-based lavas. For 10 points each:

[10] Identify this Tanzanian lake, an important flamingo breeding ground located just south of the border with Kenya. It is noted for its unusual bright red waters, caused by cyanobacteria that thrive in its highly alkaline environment, whose pH can exceed 12.

ANSWER: Lake **Natron**

[10] Another highly alkaline lake is Lake Van, a large endorheic lake found in this country's Kurdish-speaking southeast. This country's Lake Tuz is divided between its Aksaray, Konya, and Ankara provinces.

ANSWER: **Turkey** [or **Türkçe**]

[10] This saline lake, the largest lake in California, was created when an irrigation canal was overwhelmed, causing water to flow into the Imperial Valley for two years before repairs could be completed. Its surface is 236 feet below sea level.

ANSWER: **Salton** Sea <Thompson, Geography>

6. Name some artists who appropriated comic book motifs. For 10 points each:

[10] This Pop artist basically built his whole corpus by using Ben-Day dots to reproduce imagery from 1960s comic books, such as in his *Drowning Girl* and *Sleeping Girl*.

ANSWER: Roy (Fox) **Lichtenstein**

[10] This artist created a series of bronze sculptures based on an inflatable toy of the Hulk. He also sculpted Odie from *Garfield* as part of his *Banalities* series, which includes a golden porcelain statue of Michael Jackson and his chimpanzee Bubbles.

ANSWER: Jeff(rey) **Koons**

[10] Inspired by childhood comics, and because it "seemed to have a certain comedic value to them," this artist painted in yellow against a blue background, the three-letter onomatopoeic word *OOO*.

ANSWER: Ed **Ruscha** ["roo-SHAY"] <Tsai, Painting>

7. Given any of these algebraic structures, it can be extended to another one of them consisting of polynomials. For 10 points each:

[10] Identify these algebraic structures which consist of a set endowed with two binary operations, usually identified with addition and multiplication, such that they form an abelian group over addition and a monoid over multiplication.

ANSWER: **rings**

[10] These subsets of rings are the equivalents of normal subgroups of groups. A subset S of a ring R is one of these things if it is closed under addition and, given any element x of S , $g \cdot x$ is in S for all g in R .

ANSWER: **ideals**

[10] If the product of two elements of a ring R being in an ideal I implies that at least one of those elements must also be in I , the ideal is said to have this property, by analogy with the ideals of the ring of integers generated by numbers with this property, which have no factors other than themselves and 1.

ANSWER: **prime** <Thompson, Mathematics>

8. Answer the following questions related to consumer theory, for 10 points each.

[10] In microeconomics, this quantity is usually assumed to be diminishing under convex preferences according to Gossen's First Law. At the consumer equilibrium, the ratio of the prices of two goods should be equal to their ratio for this quantity.

ANSWER: **marginal utility** [prompt on **utility** or **marginal benefit**]

[10] Finding the first order conditions after plugging in the consumer's budget constraint into the utility function allows one to find the Marshallian version of this quantity. This quantity is how much good a consumer wants at each price.

ANSWER: **demand** [accept **Marshallian demand** or **Hicksian demand**]

[10] This identity says that the Marshallian demand is equal to the negative ratio of the partial derivative of the indirect utility function with respect to price divided by the partial with respect to income. This identity can be used to derive Slutsky's equation.

ANSWER: **Roy's Identity** <Bunker, Economics>

9. In the third of these poems, the speaker confronts God by demanding that he "return him to my arms or remove him from my flower." For 10 points each:

[10] Name this series of three poems, which were inspired by the 1909 suicide of a railway worker.

ANSWER: "The **Sonnets of Death**" [or "Los **Sonetos de la Muerte**"]

[10] This female Chilean poet was inspired by the suicide of Remelio Ureta to write the "Sonnets of Death." She took the surname of her pen name from the Occitan author who won the 1904 Nobel Prize.

ANSWER: Gabriela **Mistral** [or Lucila **Godoy** Alcayaga; or Lucila Godoy **Alcayaga**]

[10] Mistral read the poems of this author after she moved to his hometown of Temuco. This Chilean poet described being able to write "the saddest lines" in the last poem in his collection *Twenty Love Poems and A Song of Despair*.

ANSWER: Pablo **Neruda** [or Neftali Ricardo **Reyes** Basoalto] <Rodriguez, World/Other Literature>

10. One ruler of this country renamed the month of January after himself, and another attempted to suppress video footage after falling off a horse during a race. For 10 points each:

[10] Name this Central Asian country ruled by Saparmurat Niyazov until 2006.

ANSWER: Republic of **Turkmenistan**

[10] This current president of Turkmenistan succeeded Niyazov. As president, he has deadlifted during cabinet meetings and ordered that all black cars in Ashgabat be painted white.

ANSWER: Gurbanguly **Berdimuhamedow**

[10] Much of the Turkmen government's wealth comes from the export of this resource composed primarily of methane, which is sometimes extracted via hydraulic fracturing.

ANSWER: **natural gas** [prompt on **gas**] <Mitchell, Other Academic>

11. Buddhapālita and Chandrakīrti are important early commentators of this philosopher. For 10 points each:

[10] Name this Buddhist philosopher that founded the Madhyamaka school, who argued *svabhāva*, or an object's intrinsic essence of being, does not truly exist.

ANSWER: **Nagarjuna**

[10] Nagarjuna's focus on doctrine of emptiness, or *śūnyata*, is linked to this other concept regarding existence in Buddhism. Along with suffering and impermanence, this is one of the three marks of understanding in Buddhism.

ANSWER: **non-self** [or *anatta*, or *anatman*; accept anything indicating there is no soul or permanent self]

[10] Nagarjuna belonged to this larger branch that means "Great Vehicle", a dominant branch of Buddhism along with Theravada Buddhism. Other schools in this branch include Zen and Pure Land Buddhism.

ANSWER: **Mahayana** Buddhism <Tsai, Philosophy>

12. This phenomenon first appeared in 1899 in Johannes Thiele's "Partial Valence Hypothesis" to explain the stability of benzene. For 10 points each:

[10] Name this phenomenon that occurs in molecules with delocalized pi bonds. Its presence gives the carboxylate anion more stability than carboxylic acid, its conjugate acid.

ANSWER: **resonance**

[10] Similarly to resonance, this effect occurs when the electrons in a sigma bond interact with an adjacent unpopulated p orbital, increasing electron delocalization in the system.

ANSWER: **hyperconjugation**

[10] Hyperconjugation and bent bonds are the two main explanations for this effect, where a namesake conformation is more stable than the anti conformation. 1,2-difluoroethane is a typically studied example of this effect.

ANSWER: **gauche** effect <Phadnis, Chemistry>

13. In a poem inspired by this religion, the speakers "avarice cooled" upon hearing the Earth Song, a song inside the poem in which the Earth, speaking of dead humans, asks "How am I theirs, / If they cannot hold me, / But I hold them?" For 10 points each:

[10] Name this religion. Another poem by the same author, inspired by this religion, commands a "meek lover of the good" to find the title "red slayer."

ANSWER: **Hinduism**

[10] Both of those poems, "Hamatreya" and "Brahma," are by this Transcendentalist author of the essays "Self-Reliance" and "Nature."

ANSWER: Ralph Waldo **Emerson**

[10] Emerson was part of an 1858 venture to the Adirondacks known as the Philosophers Camp, which was led by a poet with this last name who wrote *A Fable for Critics*. Another poet with this last name described drained faces of Negro school-children that rise "like balloons" in a poem about a stature near a building that stands in a "Sahara of snow" in South Boston.

ANSWER: **Lowell** [accept James Russell **Lowell** or Robert **Lowell**; the unnamed poem is "For the Union Dead"] <Laurie, American Literature>

14. Junius Richard Jayewardene said, "if I starve the Tamils, Sinhala people will be happy" just two weeks prior to the ambush of the Four Four Bravo military patrol. For 10 points each:

[10] Name these 1983 riots in Sri Lanka that followed that ambush, in which up to 3,000 Tamil civilians were killed and around 150,000 were left homeless.

ANSWER: **Black July**

[10] This militant group carried out the ambush on Four Four Bravo, which is cited as the cause for the retaliatory riots and ethnic cleansing of Black July. This group was defeated in the Sri Lankan civil war in 2009.

ANSWER: **LTTE** [accept **Tamil Tigers**]

[10] A group set up by the Tamil Tigers, the Black Tigers, were responsible for the assassination of this foreign leader. His party took a major hit when it was revealed it took kickbacks from the Swedish arms manufacturer Bofors.

ANSWER: **Rajiv Gandhi** [prompt on **Gandhi**] <Ranganathan, World History>

15. The brutal crushing of a 17th century rebellion against a tax in this commodity by the Yakuts is estimated to have decimated the Yakut population by 70% in thirty years. For 10 points each:

[10] Name this commodity, collected by the *yasak* tax. This commodity spurred a conquest perpetrated by Yermak Timofeyevich.

ANSWER: **fur**

[10] The Russian conquest of Siberia began under this Tsar. This Tsar's feircesome reign included the use of the oprichniki secret police.

ANSWER: **Ivan IV** Vasilyevich [or **Ivan the Terrible** or Ivan Grozny or **Ivan the Formidable** or **Ivan the Fearsome**]

[10] The *yasak* was also a tax on non-Turkic inhabitants of a Khanate centered in this city. This city is the modern day capital of the Republic of Tatarstan.

ANSWER: **Kazan** [or Khanate of **Kazan**] <Laurie, European History>

16. This denomination is led from the Mother See of Holy Etchmiadzin, its most prominent church. For 10 points each:

[10] Identify this denomination whose first Catholicos was appointed in AD 301, making this the world's oldest Christian denomination to be a state religion.

ANSWER: **Armenian** Apostolic Church [or **Armenian** Orthodox Church, or just **Armenian** Church]

[10] In 2015, the Armenian Church performed one of these ceremonies for all the victims of the Armenian Genocide. It was the first such ceremony that the church had performed in four hundred years.

ANSWER: **canonization** [prompt on descriptive answers like making them saints]

[10] The Armenian Church rejects the Council of Chalcedon, which affirmed the position that this figure has two natures, both divine and human. Armenian adherents instead believe that this figure has one compound nature.

ANSWER: **Jesus Christ** [accept either underlined portion] <Thompson, Religion>

17. The Lagrangian of the Standard Model depends on a number of free parameters. For 10 points each:

[10] Both the CKM and PMNS mixing matrices, for quarks and neutrinos respectively, depend on three mixing angles and a parameter corresponding to this phenomenon, symbolized delta.

ANSWER: **CP violation** [or charge-parity symmetry **violation**]

[10] Another standard model free parameter is the vacuum expectation value of this scalar field. Coupling to this field gives gauge bosons mass, and its namesake particle was discovered at CERN in 2012.

ANSWER: **Higgs** field

[10] The SU(3) gauge coupling, another parameter, describes the strength of this interaction. This interaction's residual form is mediated by pions.

ANSWER: **strong** interaction [or **strong** nuclear force] <Mitchell, Physics>

18. One work created by this sculptor consists of a golden cylindrical shape atop two cubes and a boxy hourglass shape. For 10 points:

[10] Name this creator of *Torso of a Young Man*, who also took part in a lawsuit with the United States over the country's refusal to consider his *Bird in Space* a work of art.

ANSWER: Constantin **Brâncuși** ["bran-KOOSH"]

[10] This Brancuși work was created as a memorial for the WWI soldiers who defended the Romanian city of Târgu-Jiu. This structure is a large tower of rhomboid shapes and was commissioned by the Women's League of Gorj ["gorzh"].

ANSWER: **Endless Column**

[10] Brancusi's *Bird in Space* series is based on this earlier work of his. Its name is derived from the Romanian folktale of a golden bird who heals the blind, which is reflected in this golden sculpture of the same title.

ANSWER: **Măiastra** ["my-AH-strah"] <Rodriguez, Other Visual>

19. Nathaniel Bacon held the House of Burgesses at gunpoint, forcing them to issue the Declaration of the People of Virginia in the leadup to an attack on this town. For 10 points each:

[10] Name this town, burned in 1676. It was the first permanent English settlement in America.

ANSWER: **Jamestown**

[10] This colonial Governor was tasked with quelling Bacon's Rebellion. His friendly policies toward Native Americans triggered the revolt.

ANSWER: Wiliam **Berkeley**

[10] Many people from this Confederacy were enslaved in the aftermath of Bacon's Rebellion. Pocahontas, the son of its namesake leader, married John Rolfe.

ANSWER: **Powhatan** Confederacy [accept **Wahunsenacawh**] <Foos, American History>

20. The final obscene thing an unnamed soldier does to a character in this play is to suck out his eyeballs and eat them. For 10 points each:

[10] Name this Sarah Kane play, where the misogynistic, racist Ian attempts to seduce Cate in an expensive hotel room in a war-torn part of Leeds.

ANSWER: ***Blasted***

[10] Sarah Kane's *Blasted* was praised by this playwright, whose "comedies of menace" include *The Birthday Party* and *The Dumbwaiter*.

ANSWER: Harold **Pinter**

[10] *Blasted* is part of the "In-yer-face" movement, which focuses on using explicit sex and violence to shock audiences, like this other play also shocked audiences. In this John Osborne play, Jimmy reconciles with Alison by playing the "bear and squirrel game."

ANSWER: ***Look Back in Anger*** <O'Rourke, British Literature>

21. This man was likely fatally shot while fleeing a confrontation, a conclusion archaeologists reached when a CT scan of his body revealed an arrowhead lodged in his shoulder. For 10 points each:

[10] Name this oldest European mummy, whose body was discovered in a namesake Austrian mountain range by Helmut and Erika Simon.

ANSWER: **Ötzi** the Iceman [or **Similaun** Man, prompt on the **Iceman**]

[10] This practice was performed on Ötzi 61 times in places corresponding to the locations of his bodily injuries, suggesting it was done medicinally. Austronesian societies typically perform this practice on people using soot-based inks and needles made from plant or animal parts.

ANSWER: **tattooing** [accept any obvious equivalents, prompt on **acupuncture**]

[10] In 2013, DNA analysis of a 120,000 year old Neandertal mummy showed that this disease had affected its rib. In 2018, Egyptian mummies were studied using CT scans, demonstrating a man and a woman died of this disease over 1800 years BC

ANSWER: **cancer** [accept anything mentioning a **tumor** or **fibrous dysplasia**; or **breast cancer** or **multiple myeloma**]

<Thompson, Anthropology>

22. The titles of early pieces of this type often reflected the venues at which they were played, such as churches and chambers. For 10 points each:

[10] Name this type of piece. In this type of piece, the musical material is passed between a small group of soloists and the full orchestra.

ANSWER: **concerto grosso** [accept **concerti grossi**, do not accept "concerto" or "solo concerto" or anything indicating solo instrument concerto]

[10] This Italian baroque composer was the first major composer to use the term concerto grosso. After his death, a collection of 12 of his concerti grossi were published as his opus 6, the most famous of which is his *Christmas Concerto*.

ANSWER: Arcangelo **Corelli**

[10] The last movement of Corelli's *Christmas Concerto* is named this style. Other examples in Baroque music include the third movement from Vivaldi's *Spring* concerto and the Sinfonia that opens part 2 of Bach's *Christmas Oratorio*.

ANSWER: **pastorale** <Phadnis, Classical Music>