ACF Regionals 2015: A Livable Community

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Tossups

- 1. The narrator of this story points out that the initials on a silver teaspoon are regretfully not the giver's; that teaspoon, along with other donations like a 5 pound banknote and a silver tobacco box, is placed in a hat next to a candle-box. The arrival of this story's title character results in "Tuttle's grocery" importing a carpet and mirrors in order to look nicer. A satirist called "Boston" plans a facetious christening in this story that is interrupted by a short speech by Stumpy. Another character in this story has his finger "rastled" by a baby, leading him to repeat the phrase "The damned little cuss!" At the end of this story, the North Fork floods the title location and Kentuck is found dying with the body of the title child of Cherokee Sal. For 10 points, name this short story by Bret Harte. ANSWER: "The **Luck of Roaring Camp**"
- 2. Enzymes that degrade this molecule can be inhibited by cilomilast and piclamilast. This molecule activates the Rap guanine nucleotide exchange factors, which fall under the Epac family of proteins. Levels of this compound are increased by forskolin. This molecule binds to an enzyme that phosphorylates CREB, which then binds to this molecule's namesake "response element." This compound is degraded by phosphodiesterase 4. In *E. coli*, this molecule binds to its namesake receptor protein to regulate the *lac* operon. In signal transduction pathways, this molecule activates protein kinase A after the production of this molecule is catalyzed by adenylyl cyclase. For 10 points, name this "second messenger" derived from ATP.

ANSWER: cyclic AMP [or cyclic adenosine monophosphate; or cAMP]

- 3. One of these people was made to sit on hot iron plates as burning-hot sand was poured over his body before his execution the next day by drowning in a river. A boy who got this title at age five identified a real queen in a test by sitting on her lap as she was dressed as maidservant, then died at nine from smallpox. The ritual for transferring this title involves five copper coins and a coconut. The most recent one has promulgated the *Mul Mantar* verse. The last in a set of these leaders called five volunteers to undergo mock-beheading in his tent. The dead body of the first one vanished amid flowers. This title is now and forever held by the *Granth Sahib*, a holy book. For 10 points, name this religious title whose tenth human holder was Gobind Singh, which was ascribed to Nanak as he began the Sikh faith. ANSWER: Sikh **gurus**
- 4. Anarchist Emídio Santana organized an assassination attempt on this man that failed when a bomb hidden in an iron case exploded near his Buick. An anti-communist counter-insurgency group formed under this man was called the Aginter Press. This man had one of his generals court-martialed for disobeying an order to fight to the death in defense of colonies like Daman and Diu. The "Camp of the Slow Death" was a nickname for a prison this man built at Tarrafal. This employer of the PIDE police force lost some colonies during Operation Vijay, in which India annexed Goa. Originally a professor of economics, this dictator was succeeded by Marcelo Caetano, who was in turn brought down by the Carnation Revolution. For 10 points, name this founder of the Estado Novo of Portugal. ANSWER: António de Oliveira Salazar

- 5. A "beveled" style of decorative carving emerged from this dynasty, as did a code of literary etiquette called *adab*. This dynasty oversaw the failure of its irrigation system in the "black land," or Sawab, south of its capital. Three brothers serving this dynasty sketched many hydraulic automata in a *Book of Ingenious Devices*. This dynasty briefly persecuted heretics at its *mihna* court. This dynasty's capital had four gates spaced 90 degrees apart around perfectly round walls. The Barmakid family advised this dynasty early on. A book on solving linear equations, the *Al-Jabr*, was written by al-Khwarizmi under this dynasty among translators of Greek at its House of Wisdom. For 10 points, name this dynasty of Harun al-Rashid, a caliphate centered at Baghdad which overthrew the Umayyads. ANSWER: **Abbasid** caliphate [or '**Abbasid** dynasty]
- 6. This thinker decried the "social" realm as that in which the "life process" of the private realm is made public. This thinker, who used the phrase "the rule of nobody" to describe the regime of bureaucracy, edited posthumous papers of Walter Benjamin into the book *Illuminations* after his suicide, and proposed a trichotomy between labor, work, and action, three components of the *vita activa*. This thinker described how the mistreatment of stateless persons fed into a period of "radical evil" in "Ideology and Terror," the last chapter of a book which analyzed camps as paradigmatic of a new type of regime. For 10 points, name this German-Jewish author of *The Human Condition*, a sometime lover of Martin Heidegger who wrote *The Origins of Totalitarianism* after she fled the Nazis.

 ANSWER: Hannah **Arendt** [or Johanna **Arendt**]
- 7. In her response to a question about "falling in space," Laura claims that these individuals have "all gone away" in a scene from *Fire Walk With Me*. The choreographer Joe Gideon flirts with a veil-wearing character of this type in Bob Fosse's *All That Jazz*. A shift from monochrome to color occurs when a character of this type decides to act on his love for a lonely trapeze artist in a film by Wim Wenders. Marlene Dietrich had her breakout role in a Josef von Sternberg film titled for a "blue" one. Characters of this type are protected by Methuselah and help the title character build the Ark in Darren Aronofsky's *Noah*. For 10 points, name these beings exemplified by Clarence, who intervenes in George Bailey's Christmas near the end of *It's a Wonderful Life* in order to earn his wings.

 ANSWER: angels [or angels of death; or fallen angels; or guardian angels; accept Nephilim or Watchers after "Methuselah" is read]
- 8. A poem by this man claims that "Untended, will the she-goats then bring home / Their udders swollen with milk, while flocks afield / Shall of the monstrous lion have no fear" thanks to a boy who is exhorted "Assume thy greatness, for the time draws nigh." A medieval mode of fortune-telling consisted of picking a random line from this man's longest work. A "child of gods," interpreted by early Christians as Jesus, appears in a work by this man often referred to as "Messianic." This poet writes in a pastoral poem that bees "undergo labour, storing their gains for all," and in another work uses apiary similes to describe the construction of a city "whose walls already rise." For 10 points, name this poet of the *Eclogues* and the *Georgics*, the author of Rome's national epic, the *Aeneid*. ANSWER: <u>Virgil</u> [or Publius <u>Vergil</u>ius Maro]
- 9. Using electrostatic interactions known as Circe effects, systems modeled by this equation that exhibit "kinetic perfection" can overcome diffusion-based limitations. When this equation is applied empirically to microbial growth, it is known as the Monod equation. It can be derived either by assuming that the reactants immediately equilibrate to form the intermediate complex which decays irreversibly into product, or equivalently by applying a steady-state approximation to that intermediate's concentration. The reactant concentration at which the reaction rate is half of V-max is given by this equation's constant, K-sub-m; both V-max and K-sub-m can be read off of a Lineweaver-Burke plot. For 10 points, name this equation named for two scientists, that describes the rate of an enzyme-catalyzed reaction.

ANSWER: Michaelis-Menten equation

10. As of 2002, this country is the largest user of a sodium fluoroacetate-derived pesticide called 1080. The timber industry in this country was historically driven by logging of its kauri tree. This country is home to the only living sphenodont, whose survival is threatened by the kiore rat and which has an unusually well-developed photoreceptive third eye, complete with lens and retina. That lizard-like "living fossil" is named for the crested spine on its back. This country, whose only native land mammals are bats, is home to the reptilian tuatara and an enormous insect called a weta. The extinct Haast's eagle hunted the equally extinct moa in this country, whose human residents are outnumbered by sheep ten to one. For 10 points, name this island nation, the home of the kiwi bird.

ANSWER: **New Zealand** [or **Aotearoa**]

11. The House and Senate versions of this legislation were proposed by Martha Griffiths of Michigan and Birch Bayh of Indiana, respectively. *Idaho v. Freeman* concerned this legislation, which inspired the opposing catchphrase "specific bills for specific ills" from former Labor Secretary Esther Peterson. The Eagle Forum was first founded to oppose this legislation. Its original proponent, who lived to see claims that it would greatly expand the Selective Service, was Ph.D sociologist Alice Paul. Due largely to opposition led by Phyllis Schlafly, five of this measure's 35 ratifications were rescinded, and it never reached the required 38 to become law. For 10 points, name this stalled Constitutional amendment intended to prohibit sex discrimination.

ANSWER: **Equal Rights Amendment** [or **ERA**]

- 12. In this painter's portrait of his wife, she wears a cobalt blue gown and is brightly illuminated, contrasting with the dark instrument at which she sits as her right hand rests on the keys. This artist of *Emma at the Piano* created another work that served as the frontispiece for a 1913 issue of the socialist journal *The Masses*. That work depicts a crowd of poor children and their tired mothers on the street, below various clotheslines hanging between tenement buildings. In a more famous work by this artist of *The Cliff Dwellers*, a referee is pushed aside as an athlete charges into his opponent, blurring their heads and arms together. Like William Glackens and Robert Henri, this painter was part of the Ashcan School. For 10 points, name this American famous for boxing scenes like *Stag at Sharkey's*. ANSWER: George Wesley **Bellows**
- 13. One novel by this author begins as Neville Chamberlain and other politicians wait to meet with Hitler in the eight days leading up to the Munich Agreement. In another novel by this man, Brunet is a communist friend of Mathieu, who resolves to steal 5000 francs to pay for Marcelle's abortion. This author included *The Reprieve* and *The Age of Reason* in an unfinished tetralogy. One of this man's protagonists meets the Autodidact in a local library as he researches the Marquis de Rollebon. That novel by this author of *The Roads to Freedom* consists of diary entries by Antoine Roquentin, whose contemplation of everyday objects makes him feel sick about the absurdity of life. For 10 points, name this author of *Nausea*, who included the line "Hell is -- other people!" in his play *No Exit*. ANSWER: Jean-Paul Charles Aymard Sartre
- 14. Due to this rock's metastability, no specimens older than the Cretaceous era have been observed. Once the past temperature of this rock is known, the SIMS-SS profile can be used to determine its age because this rock absorbs water at a constant rate. The appearance of the "fire" variety of this rock is due to nanoparticles of magnetite, while the appearance of its "snowflake" variety is due to gray spherulites centered on locations where crystallization has begun. This rock is commonly formed by the cooling of relatively viscous, silica-rich granitic magmas; because of the rapidity of cooling, it exhibits few to no crystals. This rock's conchoidal fracture made it ideal for use in surgical blades and stone tools. For 10 points, name this usually-black extrusive igneous rock, a volcanic glass.

ANSWER: obsidian

15. A book on the "art" of the playing this instrument was written by Philip Farkas. The third section of Telemann's *Tafelmusik* includes a concerto in E-flat for two violins and two of these instruments. A solo for this instrument opens the second "Promenade" of Maurice Ravel's orchestration of *Pictures at an Exhibition*. Shostakovich included a solo for this instrument over the strings in the fourth movement of his *Fifth Symphony*. A pair of these instruments is featured in *Brandenburg Concerto No. 1*. This instrument was played by Joseph Leutgeb, for whom Mozart wrote three concerti. In marching bands, the mellophone typically replaces this related instrument. For 10 points, name this coiled brass instrument, into whose bell a player places one hand to change its pitch.

ANSWER: French **horn** [or natural **horn**]

16. A stanza in this poem compares "horsemen's scimitars" to "sphereless stars / thirsting to eclipse their burning." One figure in this poem is "arrayed in mail/brighter than the viper's scale" and appears after a "maniac maid" named Hope lays in the street "right before the horses' feet." This poem's title personification has a mark on his brow stating "I AM GOD, AND KING, AND LAW!" and is a deathly pale figure riding a white horse. A refrain in this poem commands "Rise like Lions after slumber / In unvanquishable number" and notes that "Ye are many - they are few." In this poem, the personified Hypocrisy, Fraud, and Murder represent Sidmouth, Eldon, and Lord Castlereagh. For 10 points, name this allegorical response to shootings by police at Peterloo, a poem by Percy Bysshe Shelley. ANSWER: "The Masque of Anarchy"

- 17. Commoners in this country protested the restoration of the aristocracy by burning tax archives in the Bourla-Papey uprising. Under the command of Karl Josef von Bachmann, a last stand of soldiers from this country occurred on the 10th of August, 1792, an event commemorated by the Danish sculptor Bertel Thorvaldsen. David Frankfurter killed the founder of this nation's branch of the Nazi party, Wilhelm Gustloff. Earlier, Frédéric-César de La Harpe worked with the French Directory in establishing a republic here. A federal state was established in this country after Henri Dufour won the Sonderbund War; earlier wars fought in this country included the Kappel Wars, in which Huldrych Zwingli died. For 10 points, name this country whose cantons supply the Vatican's soldiers and guards. ANSWER: Switzerland [or Swiss Confederation]
- 18. This quantity's eigenfunctions are complex exponentials with a constant factor of one divided by quantity "2 pi times h-bar" all raised to the three-halves power. In Planck units, this quantity is given by the square root of h-bar times speed of light cubed divided by the universal gravitational constant. The time derivative of its expected value appears on one side of Ehrenfest's theorem. This quantity is squared in the quantum operator for kinetic energy; its own operator is equal to h-bar divided by *i* times the gradient. For massless particles, special relativity gives this quantity as energy divided by the speed of light. If position is precisely known, this quantity cannot be according to Heisenberg's uncertainty principle. For 10 points, name this conserved quantity equal to mass times velocity. ANSWER: linear momentum [do not accept or prompt on "angular momentum"]
- 19. The dual form of this concept was introduced by David Luenberger. In incomplete markets, a constrained version of this concept is used instead. The Scitovsky paradox results when this concept is extended using a compensation principle. In an Edgeworth Box, this condition occurs when the marginal rates of substitution are identical, which happens along a contract curve. This condition is equivalent to Walrasian equilibrium according to the fundamental theorems of welfare economics. Kaldor and Hicks extended this concept to situations where a redistribution of wealth could result in greater total utility. For 10 points, name this term for an allocation in which no person can be made better off without making another worse off, named for an Italian economist.

 ANSWER: Pareto optimality [or Pareto efficiency; accept word forms]

20. According to the 10th-century reference book *Suda*, this person killed himself after being taken to Crete by Minos. Nonnus records that this person judged a game of cottabus between Hymen and Eros; in the *Argonautica*, he plays dice with Eros. Artistic depictions of this figure often show him holding a rooster or pushing a hoop. After the disappearance of this brother of Assaracus and Ilus, a golden vine and two horses that could run on water were given to his father, Tros. Unlike Endymion and Tithonus, this person was granted eternal youth without complications. Later turned into the constellation Aquarius, this youth replaced Hebe after he was taken from Mount Ida by a god taking the form of an eagle. For 10 points, name this youth loved by Zeus who became cupbearer to the Greek gods. ANSWER: **Ganymede** [or **Ganymedes**; or **Catamitus**]

TB. Terms with indices that are powers of two are used in this mathematician's namesake condensation test to check for convergence of a series. With Hadamard, this mathematician names a formula that calculates the radius of convergence of a power series. He's not Lagrange, but he names a theorem stating that if a prime p divides the order of a group, then the group contains an element with order p. Partial differential equations that give a necessary and sufficient condition for a complex function to be holomorphic are named for him and Riemann. Sequences named for this man, by definition, converge inside complete metric spaces. For 10 points, name this French mathematician who names an inequality relating the dot product of two vectors and their magnitudes along with Hermann Schwarz. ANSWER: Augustin-Louis <u>Cauchy</u>

Bonuses

- 1. In quantum mechanics, this quantity can be written as the trace over the state space, i.e. the exponential of the negative of the thermodynamic beta times the Hamiltonian. For 10 points each:
- [10] Name this quantity that is calculated by summing the Boltzmann factors for all of a system's microstates. The probability that the system occupies a given microstate is its Boltzmann factor divided by this quantity.

ANSWER: canonical **partition function** [prompt on **Z**]

[10] Another important value in thermodynamical systems is the chemical potential, which is the conjugate variable to this quantity. This quantity is 6.02 times 10 to the 23rd for a mole of gas.

ANSWER: **particle number** [accept any answer referring to the **number** of particles, molecules, or atoms; prompt on "N"]

[10] In the canonical ensemble, the expected value for this quantity is given by the negative partial derivative of the logarithm of the partition function with respect to the thermodynamic beta.

ANSWER: **total energy** [prompt on "energy"]

2. Ingres depicted this ruler in a rich red and white robe, bearing the scepter of Charlemagne in one hand and the Hand of Justice in the other while sitting on his imperial throne. For 10 points each:

[10] Name this French emperor who was shown on a rearing horse during his crossing of the Alps by Jacques-Louis David. Antoine-Jean Gros showed him visiting a plague house in Jaffa.

ANSWER: Napoleon I Bonaparte [or Napoleon I Buonaparte; prompt on "Bonaparte"]

[10] This man, who also depicted Napoleon, painted a monk lifting a dead woman while her Native American lover hugs her feet in *The Burial of Atala*. He also painted *The Sleep of Endymion*.

ANSWER: Anne-Louis Girodet de Roucy-Triosson

[10] Girodet portrayed actress Mademoiselle Lange as this mythological woman with a mirror, a turkey, and a pile of gold coins. Gustav Klimt showed her curled up asleep, with her knee pulled up close to her red hair.

ANSWER: Danaë

- 3. In this story, the protagonist sells a colt and half of his bees to buy twenty acres. For 10 points each:
- [10] Name this short story, in which the peasant Pahom's greed leads to his untimely death.

ANSWER: "How Much Land Does a Man Need?" [or "Mnogo li cheloveku zemli nuzhno"]

[10] "How Much Land Does a Man Need?" was written by this Russian author. Other characters of his who meet unpleasant ends include Ivan Ilyich and Anna Karenina.

ANSWER: Leo **Tolstoy** [or Lev Nikolayevich **Tolstoy**]

[10] Pahom dies after trying to walk around a huge swath of land in a single day. A play following this set of instructions will confine its action to a single day, in which a single main plot unfolds in one place.

ANSWER: classical unities [or Aristotelian unities; or three unities]

- 4. This work presents social interaction in the language of theater performances. For 10 points each:
- [10] Name this work, which describes the author's aforementioned dramaturgical model of social interaction, and analyzes such concepts as manner and appearance in social interaction.

ANSWER: The Presentation of Self in Everyday Life

[10] The Presentation of Self in Everyday Life is a work by this Canadian sociologist who also wrote Asylums.

ANSWER: Erving Goffman

[10] In a 1986 book, Goffman introduced this sociological technique, which considers how individuals "organize experience" through the use of specific salient details. Todd Gitlin applied this technique to news coverage.

ANSWER: <u>frame</u> analysis [or <u>framing</u> analysis; accept <u>Frame Analysis</u>: An Essay on the Organization of Experience]

- 5. This ruler had author Aleksander Radishchev exiled for publishing the anti-serfdom book *Journey from St. Petersburg to Moscow*. For 10 points each:
- [10] Name this Russian ruler who succeeded her husband Peter III after his assassination. The rising serfdom issue resulted in Pugachev's rebellion against this female "enlightened despot."

ANSWER: <u>Catherine the Great</u> [or <u>Catherine II</u> of Russia; accept <u>Yekaterina Alexeevna</u>]

[10] Catherine became the lover of this future Polish king at age 26. He could not prevent the partitions of Poland, which ended with this man's abdication and the end of the Polish-Lithuanian Commonwealth.

ANSWER: Stanislaw August Poniatowski [or Stanislaw II] August; prompt on partial answers]

[10] In 1783, Russia annexed this region under the direction of Catherine's diplomat Grigory Potemkin. During Catherine's visit to this region and New Russia, Potemkin apocryphally erected fake villages to impress her.

ANSWER: Crimean Peninsula

6. For 10 points each, name these mythological figures who struggle with apples.

[10] Zeus tasked this Trojan prince with awarding an apple inscribed "to the fairest" to one of Aphrodite, Athena, or Hera. Aphrodite offered this doofus the world's most beautiful woman, sparking the Trojan War.

ANSWER: Paris

[10] In a Russian myth, the firebird steals golden apples from a tsar until he tasks this son with guarding the apples. In one version of the story, this man eventually catches the firebird with the help of a grey wolf.

ANSWER: Ivan Tsarevich [or Prince Ivan]

[10] In an Irish tale, a redheaded prince of this name disappears with a fairy after a single apple feeds him for a month. In a duel, Cuchulainn unknowingly kills his son of this name, whom he fathered with Aife.

ANSWER: Connla

- 7. This poem contains an exhortation to "Pull in your ladder road behind you / and put a sign up CLOSED to all but me." For 10 points each:
- [10] Name this poem that concludes, "Here are your waters and your watering place / Drink and be whole again beyond confusion."

ANSWER: "Directive"

[10] In this poem by the author of "Directive", Warren and Mary remember Harold Wilson, who "studied Latin like the violin," and discuss the title person, who has returned for the last time.

ANSWER: "The Death of the Hired Man"

[10] "Directive" and "The Death of the Hired Man" are poems by this man, whose collection *Mountain Interval* contains a poem which ends "I took the one less traveled by, and that has made all the difference."

ANSWER: Robert Frost

- 8. This disease's main symptoms include vomiting and diarrhea, and it is treated with oral rehydration salts. For 10 points each:
- [10] Name this disease characterized by increased secretion of chloride and sodium ions into the small intestine. It is typically caused by the consumption of contaminated water resulting from poor sanitation practices.

ANSWER: cholera

[10] Cholera is caused by the *cholerae* species of this genus. Its other species causing gastrointestinal infection include *parahaemolyticus* and *mimicus*.

ANSWER: Vibrio

[10] The cholera toxin attaches to its targets by binding to the GM1 class of these compounds, which generally consist of a ceramide and a sialic acid bonded to a sugar chain.

ANSWER: gangliosides [prompt on "glycosphingolipids" or "sphingolipids"]

- 9. Since the 1970s, this sculptor of the installations *Apple Core* and *Knife Slicing Through Wall* has collaborated on most of his work with his wife Coosje van Bruggen. For 10 points each:
- [10] Name this Swedish-born American sculptor of *Lipstick (Ascending) on Caterpillar Tracks*, who participated in the Pop Art movement.

ANSWER: Claes Oldenburg

[10] Oldenburg's *Lipstick* is in a courtyard at this university, whose buildings include a free-of-charge art gallery designed by Louis Kahn and a hockey rink designed by Eero Saarinen nicknamed "The Whale."

ANSWER: Yale University

[10] Many of Oldenburg's sculptures depict distorted household objects described by this adjective. His subjects modified by this adjective include a toilet, a screw, a bathtub, and a shuttlecock.

ANSWER: soft

10. In 1623, this organization waterboarded several Englishmen accused of a conspiracy to overthrow its holdings on the spice island of Amboyna, then massacred twenty of them, raising tensions with England. For 10 points each: [10] Name this joint-stock organization which exported lots of brutally-produced coffee from its hub at Batavia.

ANSWER: <u>Dutch East India</u> Company [or <u>VOC</u>; or <u>Vereenigde Oostindische Compagnie</u>]

[10] A handful of these masterless samurai were hired by the Dutch East India Company as mercenaries on islands as far from Japan as Amboyna, in what's now Indonesia.

ANSWER: ronin

[10] This admiral kicked the Dutch East India Company off Taiwan by successfully besieging Fort Zeelandia. He died soon after making Taiwan a personal naval base in the name of the recently-fallen Ming dynasty.

ANSWER: <u>Coxinga</u> [or <u>Koxinga</u>; or <u>Guoxingye</u>; or <u>Zheng</u> Chenggong]

- 11. Most paperback editions of this book preface it with a "Memoir" by Gerhard Leibholz, which relates that the author was executed by the Nazis at Flossenburg. For 10 points each:
- [10] Name this work of Christian theology. It implores its readers to reject "cheap grace," which it defines as "the grace we bestow upon ourselves."

ANSWER: The <u>Cost of Discipleship</u> [or <u>Nachfolge</u>]

[10] Dietrich Bonhoeffer, the author of *The Cost of Discipleship*, was of this denomination before helping found the anti-Nazi Confessing Church. It includes the Missouri Synod.

ANSWER: Lutheran Church [or Lutheranism]

[10] Much of *The Cost of Discipleship* analyzes the Beatitudes in this speech, which Jesus delivers early in the Gospel of Matthew.

ANSWER: Sermon on the Mount [or Sermo in monte]

12. The chief wife Sadiku is sent to convince this woman to marry a man nicknamed "the Lion." For 10 points each: [10] Name this belle of Ilujinle, who is also wooed by the vapid schoolteacher Lakunle.

ANSWER: Sidi

[10] Sidi is the title "Jewel" of this playwright's *The Lion and the Jewel*. He also described the delayed ritual suicide of Elesin in *Death and the King's Horseman*.

ANSWER: Akinwande Oluwole "Wole" Sovinka

[10] This Soyinka play incorporating Yoruba myth was commissioned to celebrate Nigeria's independence. Through reincarnated characters like Rola and Demoke, it warns against romanticizing the past rather than learning from it.

ANSWER: A Dance of the Forests

- 13. This piece's section "Of Science" features a chromatic fugue played by the cellos and double basses. For 10 points each:
- [10] Name this composition whose initial "Sunrise" section features a rising C-G-C brass fanfare. It concludes with the "Song of the Night Wanderer."

ANSWER: <u>Thus Spoke Zarathustra</u> [or <u>Also sprach Zarathustra</u>; or <u>Thus Spake Zarathustra</u>]

[10] *Thus Spoke Zarathustra* was written by this German composer, who also wrote tone poems about Don Juan and Macbeth. His operas include *Der Rosenkavalier*.

ANSWER: Richard Strauss [prompt on Strauss]

[10] Strauss composed this early symphonic poem after taking a trip recommended by Brahms. Its third movement is "On the Beach at Sorrento," and its last movement incorporates the popular song "Funiculi, funicula."

ANSWER: Aus Italien [or From Italy]

- 14. Answer the following about attempts to reduce or end lynchings in the early 20th century, for 10 points each.
- [10] This bill, introduced by a Missouri representative after the East St. Louis Riots, aimed to make lynching a federal felony, but was killed by filibuster in the Senate for three years in a row.

ANSWER: **Dyer** Anti-Lynching Bill

[10] This state's town of Marion enacted the last confirmed lynching north of the Mason-Dixon Line in 1930. Under the influence of D.C. Stephenson, this state was utterly dominated by the Ku Klux Klan in the 1920s.

ANSWER: Indiana

[10] Abel Meeropol wrote this anti-lynching song, which mentions "black bodies swinging in the southern breeze," after viewing a photograph of the Marion lynchings.

ANSWER: "Strange Fruit" [do not accept "Blood On the Leaves"]

- 15. Weird Al recorded the words of the *Beverly Hills* theme song to the music of this song, which features Sting singing the falsetto backing vocal, "I want my MTV." For 10 points each:
- [10] Name this song. Its lyrics, which take the perspective of disgruntled big-box store employees, include "we gotta install microwave ovens" and "we gotta move these color TVs."

ANSWER: "Money for Nothing"

[10] This Mark Knopfler-led band recorded "Money for Nothing" on the album *Brothers in Arms*. Their other songs include "Sultans of Swing."

ANSWER: Dire Straits

[10] *Brothers in Arms* also includes this hit with a catchy synthesizer riff, about an oldies singer named Johnny who possesses "dedication, devotion." The chorus claims "he do the song about the sweet loving woman, he do the song about the knife, he do" the title action.

ANSWER: "Walk of Life"

- 16. In this publication, Sir Roger de Coverley pursues a failed romance with a widow for forty years. For 10 points each:
- [10] Name this set of papers published daily from 1711 to 1712 in which Roger de Coverley is a recurring character, along with the rakish Will Honeycomb and the merchant Andrew Freeport.

ANSWER: The Spectator

[10] *The Spectator* was a collaboration between Richard Steele and this man, whose play about the tragic death of *Cato* includes the phrase "liberty or death."

ANSWER: Joseph Addison

[10] "Roger de Coverley" is also the name of a dance played at a party that the Ghost of Christmas Past shows to Scrooge in this Charles Dickens novella.

ANSWER: A Christmas Carol

- 17. In Book XI of his *Confessions*, Augustine gets utterly flummoxed in attempts to define this concept, though he is sure God exists beyond it. For 10 points each:
- [10] Name this concept which allows humans to order events in sequence and measure how long they take. The grandfather paradox could result from free travel of a person within it.

ANSWER: time

[10] J.M.E. McTaggart came to this conclusion about time after arguing that it makes no sense to mark events by tense in relation to the present via an "A-series" or to objectively order them in a "B-series."

ANSWER: the <u>unreality</u> of time [or that time is <u>unreal</u>; or that time is an <u>illusion</u>; or that time is <u>illusory</u>; or that time <u>doesn't exist</u>; or that time is "mere <u>appearance</u>"; or that there is <u>no such thing</u> as time]

[10] This section of Kant's *Critique of Pure Reason* defines time as a "form of pure intuition" corresponding to "inner sense," as space does to "outer sense." In both major editions, it's the first section after the Preface.

ANSWER: <u>Transcendental Aesthetic</u> [accept <u>Transcendental Doctrine</u> of the <u>Elements</u>, the supersection of which the Transcendental Aesthetic is the first part]

- 18. In this process, three concentric tubes are inserted into an underground deposit, and superheated water is placed in the outermost tube. For 10 points each:
- [10] Name this process in which the superheated water then melts sulfur found in crustal deposits. The molten sulfur is then recovered through the middle tube.

ANSWER: Frasch Process

[10] At room temperature and pressure, the most common sulfur allotrope consists of this many atoms bonded in a molecular ring. This is also the maximum oxidation state of osmium.

ANSWER: **8** [or +**8**]

[10] Thiosulfate is a common sulfur-containing polyatomic ion that is commonly reacted with diatomic forms of this element in a titration. When pure, this halogen is a purple solid that sublimates when heated.

ANSWER: iodine

- 19. After Pietro Gradenigo's policies resulted in this city's excommunication, Bajamonte Tiepolo led a failed coup here which inspired its elites to establish the Council of Ten. For 10 points each:
- [10] Name this Italian city whose namesake maritime republic dominated the Adriatic and later the Eastern Mediterranean. It fought several wars with its Genoese rivals and played a central role in the Fourth Crusade.

ANSWER: Republic of **Venice** [or Repubblica di **Venezia**]

[10] Under Enrico Dandolo, Venice introduced one of these objects called the *grosso*. It was easily interchanged for the *basilikon* type of these objects, which built on the *hyperpyron* and *nomisma* in the Byzantine Empire.

ANSWER: **coins** [or gold **coins**; or silver **coins**; prompt on "money"]

[10] This Venetian ceremony, begun to commemorate Pietro Orseolo's conquest of Dalmatia, involved the procession of ships led by the bucentaur out to Lido, followed by the casting of a ring into the water.

ANSWER: <u>Marriage of the Sea</u> [or <u>Sposalizio del Mare</u>; accept <u>Marriage of the Adriatic</u> or similar translations; prompt on "Ascension Day, "Feast of the Ascension," "Sensa," or "Festa della Sensa"]

- 20. These objects have a square transition matrix where rows add up to one. For 10 points each:
- [10] Name these discrete-time finite or infinite-state stochastic processes where the probability of transition to the next state only depends on the current one.

ANSWER: Markov chain [or Markov process]

[10] This is the general term for any method that has a deterministic runtime but may have an incorrect output. The Metropolis algorithm is this kind of probabilistic algorithm contrasted with Las Vegas algorithms.

ANSWER: Monte Carlo algorithm

[10] This Monte Carlo sampling algorithm constructs a Markov chain whose stationary state is a target distribution by exploiting the detailed balance condition of Markov chains at equilibrium.

ANSWER: Metropolis-Hastings algorithm [prompt on "Markov chain Monte Carlo" or "MCMC"]

- 21. James II tried to consolidate many North American colonies into the Dominion of New England. Name things related to that, for 10 points each.
- [10] This Catholic governor ran the Dominion for most of its existence. His reviled tax and land reforms ended with his ouster, and the Dominion's breakup, right after the Glorious Revolution.

ANSWER: Edmund Andros

[10] From this capital city, Andros' Dominion attempted to govern land from New Jersey up to New Hampshire. The Sons of Liberty threw literal tons of tea into this city's harbor.

ANSWER: **Boston**, Massachusetts

[10] This lieutenant governor ran New York under Andros, and execute the Calvinist merchant rebel Jacob Leisler after the Dominion split up. He later governed Maryland, then Virginia, Nova Scotia, and South Carolina.

ANSWER: Francis Nicholson