

## ACF Nationals 2018

Editors: Jordan Brownstein, Andrew Hart, Stephen Liu, Aaron Rosenberg, Andrew Wang, Ryan Westbrook  
Packet by the editors (14)

### Tossups

1. This thinker's major work is treated as "political anthropology" in an Etienne Balibar book titled for him "and Politics." This "subversive" philosopher is the subject of *The Savage Anomaly* by an author who used one of his terms to title a book about the "monstrosity" of the "living social flesh." This thinker is placed between Duns Scotus and Nietzsche as theorizers of the univocity of being in *Difference and Repetition* by Deleuze, who called him the "prince of philosophers" and wrote *Expressionism in Philosophy* about him. He's not Machiavelli, but Michael Hardt and Antonio Negri's *Multitude* takes its title concept from a work by this author, in which aristocracy, monarchy, and his preferred model of democracy are described as the three types of government. Judith Butler's "The Desire to Live" treats this philosopher's idea that a thing wants to "persevere in its being," his *conatus* principle. For 10 points, name this thinker, the subject of the 1780s Pantheism controversy and the author of *Tractatus Theologico-Politicus* and *Ethics*.

ANSWER: Baruch **Spinoza** [or Benedict **Spinoza**; or Baruch de **Spinoza**; or Benedictus de **Spinoza**]

2. A servant girl notes that this substance could have caused "that ugly monkey Smythe" to crash a cart and claims it's "good for the complexion" after another character expresses her love for it. Speaking about this substance, a character remarks "it was like walking on the bottom of the sea; as if I had drowned long ago" in a monologue preceded by his quoting of Ernest Dowson's "They Are Not Long." The title character claims that this substance is "funny and still; I feel as if I was—out of things altogether" in the second act of *Anna Christie*, which ends with her father Chris ranting against seeing this substance "all bloody time." This substance, which titles the first one-act play by Eugene O'Neill put on by the Provincetown Players, surrounds the setting of a play in which it necessitates the repeated sounding of an offstage horn that keeps the morphine-addicted Mary Tyrone awake. For 10 points, name this cloudy substance that symbolically enshrouds the coastline setting of *Long Day's Journey into Night*.

ANSWER: **fog** [prompt on "**mist**" or "water **vapor**"; prompt on "**clouds**" before "cloudy"]

3. A method for demonstrating this result involves constructing Riemann surfaces for algebraic functions and comparing the properties of the monodromy group of that function to a permutation group; that method was discovered by Vladimir Arnold. In 1771, Lagrange argued that his method of resolvents would not be sufficient to prove this fact. The first successful argument for this result involved writing a function  $y$  in terms of linear combinations of some lower-order function  $R$  raised to multiples of 1 over a prime  $p$ ; an expanded version of that proof was published in the first volume of Crelle's journal in 1826. A common modern proof of this result relies on the alternating group on five letters being simple in combination with the theorem that a polynomial's splitting field  $K$  over  $F$  has a solvable Galois group if and only if the polynomial is solvable by radicals. For 10 points, name this result that makes it impossible to find a general formula for the roots of polynomials above a certain degree, sometimes named for a Norwegian.

ANSWER: **unsolvability** of the **quintic** [or **Abel-Ruffini theorem** or **Abel's impossibility theorem**; accept any descriptive answer indicating "there is **no** algebraic **solution** to polynomial equations of degree **five** or higher"]

4. This author wrote a text whose second book opens by retelling the story of Narcissus gazing at his own reflection to compare his own profession with "embracing" the "surface of the pool." Anthony Grafton's book about this author discusses his tendency to "personalize" his "ancient sources" in his written works, such as one in which this author cites the story of a cobbler antagonizing Alexander the Great's personal portraitist. This man suggested that artists populate their works with a "variety of things" so that the "soul of the viewer" will be moved through a narrative mode called *historia*. He was inspired by Vitruvius to write *De Re Aedificatoria*, a ten-book treatise on architecture. This architect designed the facade for the Santa Maria Novella, and he wrote a 1435 book that was the first to suggest that artists use a vanishing point to create illusionistic perspective. For 10 points, what Florentine architect wrote the first post-classical treatise on painting, *Della Pittura*?

ANSWER: Leon Battista **Alberti**

5. Lloyd Hamilton negotiated the concession agreement that led to the formation of this organization. After visiting this organization, Matthew Simmons wrote *Twilight in the Desert*, a skeptical look at its future potential. In 1988, John Kelberer became the last U.S. chairman of this organization, which in 2012 was the main target of the Shamoon computer virus. In January 2016, a leader of this company claimed it was valued at two trillion dollars while announcing a future IPO to finance plans for “Vision 2030.” In 1950, the U.S. government offered this company a tax break called the “golden gimmick” after it was pressured into sharing half of its profits by King Abdulaziz. This company is headquartered in Dhahran, and secures much of its revenue from the Ghawar field. For 10 points, what energy company provides most of the revenue for the rulers of a country founded by Ibn Saud?  
ANSWER: Saudi **Aramco** [or the **Saudi Arabian Oil** Company; or the **Arabian American Oil** Company]

6. This man knows that he is about to get a “veritable proper name” in a semi-fictionalized treatment of his situation presented in the “second plateau” of Gilles Deleuze and Félix Guattari’s *A Thousand Plateaus*. Those authors mock the importance placed on this man, emphasizing a child’s tale in which the only goat of seven to survive has hidden in a grandfather clock. Nicholas Abraham and Maria Torok described how this man’s multilingualism might have led him to link a German word for “six” to a Russian word for “sister” in an essay titled for this man’s “magic word.” His analyst used his case to discuss the effect of the “primal scene” on this man, which, when coupled with the story of Reynard the Fox getting his tail caught in the ice, precipitated this man’s castration anxiety. The 1914 essay “From the History of an Infantile Neurosis” analyzes, for 10 points, what patient of Sigmund Freud, who was nicknamed for a dream in which he saw several white canines in a tree?  
ANSWER: **Wolf** Man [or Sergei Konstantinovich **Pankejeff**; or der **Wolfsmann**]

7. A collection that takes both its title and structure from one of these events begins with the poem “spooky berries,” which states, “Edgar Allan Poe / has written a very eerie poem this month.” Makeup-inspired sections such as “Powder” and “Gloss” comprise that book by Sam Riviere titled for an event of this kind involving Kim Kardashian. In a poem praising an event of this kind, a tree is engraved with the words “worship me: I am Helen’s tree.” That poem, which imitates Stesichorus, is Theocritus’s 18th *Idyll*. Edmund Spenser’s experience of an event of this kind led him to pen a poem addressed to “ye learned sisters which have oftentimes / been to me aiding.” That poem contains the refrain “the woods shall to me answer and my Echo ring,” and was published alongside *Amoretti*. Catullus 64 exemplifies a genre of Ancient poetry that celebrates these events and often includes the exclamation “Hymen! O Hymenee!” For 10 points, name these events that are the subject of the epithalamium, a genre that celebrates recent brides.  
ANSWER: **marriages** [or **weddings**; or **nuptials**; accept **epithalamium** before “epithalamium”]

8. A piece by a composer from this country, mostly in six parts, unusually begins with a four-part SATB setting of “Taedet animam meam” from the second lesson of Matins. That composer from this country inserted a dramatic pause before a homophonic statement of the words “O Beata Virgo” within a mostly contrapuntal motet. The all-time best-selling album of Gregorian Chant, simply titled *Chant*, was recorded by a Benedictine monastery in this country. It is not Bohemia or Belgium, but the Requiem mass appears as a piece-within-a-piece in the *Officium Defunctorum* by a composer from this country, who also wrote a mass based on his four-part setting of *O Magnum Mysterium*. This country was home to a genre of song whose name now exclusively refers to Christmas carols, and which were often accompanied by the vihuela. For 10 points, name this country home to the monks of Santo Domingo de Silos, the composer Tomás Luiz de Victoria, and the *villancico*.  
ANSWER: **Spain** [or **España**]

9. The presence of a member of this class of proteins, like CD27, can distinguish naive B cells from transitional and memory B cells. Pharmaceuticals containing the suffix -dar inhibit a member of this family of proteins that contain a pair of coupling helices containing an EAA loop. The Walker A and B motifs were discovered in these proteins. Thiazole orange modulates the activity of these proteins in the light-up cell system, which, like the calcein-AM assay, visualizes fluorescent substrates of these proteins. A common form of cancer cell multidrug resistance is due to the overexpression and promiscuity of a protein in this family named p-glycoprotein 1. The namesake motif of these proteins is bound to a transmembrane domain and serves as nucleotide-binding domains. Proteins in this family are the only bacterial efflux pumps that don't rely on secondary transport. For 10 points, name this superfamily of proteins that use ATP hydrolysis to transport substrates across membranes.

ANSWER: **ATP-binding cassette transporters** [or **ABC transporters**; prompt on "**MDRs**" or "**multidrugresistance proteins**"]

10. A religious reformer in this state published a 1540 legal tract called the "Rules for Judges," but was arrested for criticizing the king's taxation policy. That king's son promulgated a crypto-Catholic liturgy called the Red Book, resulting in a 20-year religious struggle in this state. An unstable king of this state died after being served a poisoned bowl of pea soup in prison, after the guards were instructed to poison him if he tried to escape. The New Testament was translated to this state's language by one of the Petri brothers, while the other, Laurentius Petri Nericius, was this kingdom's first Protestant archbishop. This state's province of Dalarna, or the Dales, revolted several times against the nobility, taking sides in the Dacke War and later supporting the Caps against the Hats. The body of Sten Sture the Younger was exhumed and burned during a certain "bloodbath" in this state. For 10 points, name this kingdom whose Lutheran clergy are headed by the Archbishop of Uppsala.

ANSWER: **Sweden** [or Kingdom of **Sweden**; Konungariket **Sverige**]

11. This metaphor appears in the title of a James Barker book that uses the case study of "ISE Communications" to examine a shift to "concertive control" from the method that this metaphor describes. A 1983 paper titled for this metaphor "revisited" by Paul DiMaggio and Walter Powell proposes "coercive," "mimetic," and "normative" "isomorphic processes" to explain why so many organizations are structured similarly. This metaphor was originally invoked as the updated version of the English Puritan Richard Baxter's image of a "light cloak" that can "be thrown aside at any moment" and represents "the care for external goods." Talcott Parsons's translation provides the more familiar two-word formulation of this metaphor, although more recent scholars sometimes render the original German *stahlhartes Gehäuse* using the word "shell." For 10 points, what metaphor, used by Max Weber to refer to the bureaucratization of society, describes a structure that people are trapped inside because of rationality?

ANSWER: **iron cage** of rationality [accept **iron shell** of rationality or **shell as hard as steel**; accept other answers mentioning **iron cage** such as **iron cage** of bureaucracy; accept "The **Iron Cage Revisited**" or **Tightening the Iron Cage**]

12. In a novel by this author, the narrator walks in on the masochistic title character polishing Anni's boots and gleefully begging for mercy while Olga whips him. In that novel by this author, a baron who avidly reads novels such as *Billy the Castaway* and *The Seven Who Got Lost* travels with the protagonist to a Swiss hotel for a rendezvous with a financier who goes by "Margot" in telegrams to the title character. This author followed the fraught relationship of Peter Wilkinson and Otto Nowak in the chapter "On Reugen Island" of one novel. That novel by this author opens with the narrator looking at the "deep solemn massive street" from his window before declaring "I am a camera with its shutter open, quite passive, recording, not thinking." This author created the singer Sally Bowles in a novel that was indirectly adapted into the musical *Cabaret* and is usually published with *Mr. Norris Changes Trains*. For 10 points, name this author who included *Goodbye to Berlin* in his book *The Berlin Stories*.

ANSWER: Christopher **Isherwood**

13. The force exerted by these devices is often calculated by fitting the power spectrum of the noise level to a Lorentzian profile. Position detection in these devices can be improved with the back focal plane detection method, which typically relies on a quadrant photodiode. One class of these devices uses a quadrupole magnetic field to induce Zeeman splitting in atomic energy levels, and then makes electrons jump to the split levels at certain distances from the center of the setup. These devices achieve stability when the gradient force is stronger than the scattering force, which forces the test sample toward the center of the Gaussian beam profile. These devices were invented by Arthur Ashkin, and they were later used to cool and trap individual atoms by Steven Chu. For 10 points, name these devices that use focused laser beams to hold atoms in place via radiation pressure.

ANSWER: **optical tweezers** [or **optical traps** or magneto-**optical trap** or **optical molasses**; accept **single-beam gradient force traps** before “gradient force” and prompt thereafter; prompt on “**laser cooling** devices”]

14. This man hoped to meld an osteria with a cyber café in his late 1990s idea for a project called the Multimedia Arcade. In one of his essays, he argues that Giorgio Napolitano is ultimately to blame for Christ’s crucifixion. Independent of Edward Mendelson, this man claimed that the “Macintosh is counter-reformist and has been influenced by the ‘ratio studiorum’ of the Jesuits” in an essay declaring that Macs are Catholic and PCs are Protestant. A collection of essays by this man on such topics as Harry Potter and Stephen Hawking originally appeared in his column “Minerva’s Matchbook” and takes its title from a mysterious saying of Pluto from Dante’s *Inferno*. This author of the recent collection *Chronicles of a Liquid Society* wrote an essay in which a computer glitch at a hotel causes a delay in him putting a fish he bought in Stockholm in a minibar fridge. “How to Travel with a Salmon” is an essay by, for 10 points, what author of *The Name of the Rose*?

ANSWER: Umberto **Eco**

15. The inventor of the first known globe, Crates of Mallos, founded a school for this discipline at Pergamon under Attalus II. This discipline is represented by an old woman with a knife who serves as a bridesmaid in an allegory written around the time of the AD 410 sack of Rome. In the late 13th century, the University of Paris was home to a group of philosophers called the Modists who posited that this discipline was vital to the study of metaphysics. The first popular teacher of this discipline in Rome was Saeivus Nicanor according to the opening section of Suetonius’s *On Famous Men*, which is about its practitioners. Apollonius Dyscolus was called the prince of this study in a monumental work titled for the “institutes” of this discipline written by Priscian, which was the primary textbook used to teach Latin throughout the Middle Ages. Along with logic and rhetoric, this discipline was part of the trivium. For 10 points, name this subject, the set of structural rules that govern the composition of language.

ANSWER: **grammar** [prompt on “**language**”; do not accept or prompt on “rhetoric”]

16. One track on this album takes its name from its artist’s pronunciation of the residence of his patron, a member of the Rothschild family known as the “Bebop Baroness.” This album’s first track features an unorthodox 22-bar chorus that is first played slowly and then repeated in double time. The recording of that title track for this album reportedly caused Ernie Henry to nearly have a breakdown and was assembled from 25 different takes. The iconic cover art for this album features its artist sitting, back-to-back and in a circle, with four copies of himself. This album’s track “Pannonica” marks the only time its creator played the celesta on a recording. Both Max Roach and Sonny Rollins appear on every track on this album except for “I Surrender, Dear,” a solo piano track for this album’s main artist. It was recorded ten years after its artist’s first Blue Note sessions, which included tracks such as “Round Midnight.” For 10 points, name this 1957 album considered the magnum opus of Thelonious Monk.

ANSWER: **Brilliant Corners**

17. In this novel, a clairvoyant makes a business of offering meetings with Mephistopheles to rich people, the profits of which are taken by a blackmailer who knows her husband deserted his patrol in Korea. Recurring characters in this novel include a countess whose archaeologist husband committed suicide after searching for the city of Lebbit, and whose daughter was hunted down and killed by a Swede for letting his infant son drown. Each chapter of this novel lifts quotations from two authors determined by a system based on 42 lists of things. A character in this novel spends 20 years painting 500 seascapes of 500 ports and sends them to his neighbor Gaspard Winckler to be turned into puzzles, which he then spends 20 years completing and destroying. That man, Bartlebooth, reappears throughout this novel, which uses the knight’s tour sequence to move through the 10-by-10 grid of a Parisian apartment building. For 10 points, name this masterpiece of Oulipo fiction by Georges Perec.

ANSWER: **Life: A User’s Manual** [or *La Vie mode d’emploi*; prompt on “**Life**” or “*La vie*”]

18. In a Yoruba myth, Eshu repeatedly pours palm oil over an object of this type owned by Obatala, resulting in the latter's imprisonment by Shango for attempted horse theft. Tegau Gold-Breast, the wife of Caradoc, owned an object of this kind that could tell whether a woman was faithful to her husband, while Padarn Beisrudd was named for a red one that revealed a man's noble birth. In *The Tale of the Bamboo Cutter*, Princess Kaguya tasks her third suitor with retrieving an item of this kind that shone brighter each time it was placed over a flame, having been made from the fur of the legendary fire rats of China. After killing Schilbung and Nibelung, Siegfried defeated the dwarf Alberich to obtain an item of this type called the *Tarnkappe*. During his quest to rescue Idunn from Thiazi, Loki borrowed one of these items belonging to Freya in order to take the form of a falcon. For 10 points, name these articles of clothing, a type of outer garment that in many Germanic myths and folktales could make the wearer invisible.

ANSWER: **cloak**s [or **mantle**s; or **robes**; accept other synonyms or similar articles of clothing]

19. This substance can form a structure whose AB form is called the Bernal stack. The Staudenmaier, Hofmann, and Hummers methods are used to produce a precursor to this substance. This substance has a more intense and slightly downshifted G' band compared to a similar substance. After producing this substance with CVD it is commonly functionalized with a protective PMMA layer, which is used in order to transfer this substance. A tin compound with the structure of this compound has drawn interest as a potential topological insulator. The ability of this compound to form multiple hexahapto-metal complexes may have potential as an optical lattice. Potassium sandwiched between equivalents of this compound forms a strong intercalated reducing agent called KC<sub>8</sub>. In spite of the difficulty found in synthesizing this substance via epitaxy, it can be isolated using just scotch tape. For 10 points, name this 2D carbon allotrope consisting of a hexagonal lattice.

ANSWER: **graphene**

20. This general, who called Henry Clinton "droll" for the "novel" strategy of "communcat[ing] his full plan to the enemy," was later captured at White's Tavern while writing letters in his dressing gown. This man, who married a Mohawk princess in the 1750s, unsuccessfully tried to replace Colonel William Moultrie during the 1776 battle of Sullivan's Island in Charleston. This former officer in the English, Portuguese, and Polish armies was wounded in a December 1778 duel by John Laurens, whose second was Alexander Hamilton. This man wrote numerous letters to Congress during the New York campaign, seeking to replace his superior, George Washington. This general was court-martialed for ordering a controversial retreat at the battle of Monmouth, which some have argued was an attempt to betray the Americans to the British. For 10 points, name this general who is the namesake of the New Jersey borough, known as a "fort," that sits across the Hudson from Manhattan.

ANSWER: Charles **Lee** [accept Fort **Lee**]

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### Bonuses

1. Answer the following about expatriate British authors who lived in Paris's Left Bank area, for 10 points each.

[10] Sylvia Beach's Left Bank bookstore Shakespeare & Company published this novel set on June 16, 1904, while its author, James Joyce, was living in the city.

ANSWER: **Ulysses**

[10] This author published her story "Let Them Call it Jazz" in her 1927 collection *The Left Bank and Other Stories*. The alcoholic Sasha Jansen drifts through Paris in her novel *Good Morning, Midnight*.

ANSWER: Jean **Rhys**

[10] This author's friendship with Paul Robeson in Paris influenced her anthology of black writing, *Negro*. This author sent a questionnaire to 200 authors about the Spanish Civil War and compiled their responses in *Authors Take Sides on the Spanish War*.

ANSWER: Nancy **Cunard**

2. Current models predict that the melting of Greenland will contribute to a weakening of this system in the current decades, though a complete shutdown is unlikely. For 10 points each:

[10] Name this ocean current system that transports up to one quarter of the Earth's heat flux. The Gulf Stream forms part of this larger system, in which colder and denser water sinks as it nears Greenland.

ANSWER: **Atlantic Meridional Overturning Circulation** [or **AMOC**; prompt on partial answer, generously prompt on "thermohaline circulation"]

[10] The North Atlantic current and the Norwegian current combine to form a "subpolar" type of this current pattern, whose subtropical counterparts cause surface water to sink.

ANSWER: **gyres**

[10] The oceans are also suffering from climate change due to acidification, which reduces the available concentration of this chemical compound, which forms the skeleton of coral reefs and other marine animals.

ANSWER: **calcium carbonate** [or **CaCO3**; accept **aragonite** or **calcite**]

3. This country is where American security expert Dan Mitrione was killed by guerrillas after reportedly teaching police officers in this country to administer electric shocks in a training room set up in his cellar. For 10 points each:

[10] Name this country that planned an assassination attempt on Congressman Ed Koch in 1976 after he proposed to cut off American funding.

ANSWER: **Uruguay** [or Oriental Republic of **Uruguay**]

[10] Koch was targeted during this campaign officially begun in 1975 that targeted the enemies of various right-wing South American regimes, killing at least 60,000 people.

ANSWER: Operation **Condor**

[10] Two former presidents of the same country died in 1976 in incidents often blamed on Operation Condor assassins: João Goulart, who died of an apparent heart attack, and this man, who died in a car accident a few months earlier.

ANSWER: Juscelino **Kubitschek** [or Juscelino **Kubitschek** de Oliveira]

4. This series, made with the assistance of the artist's wife Gwendolyn Knight, was sold to the Phillips Collection and the MoMa, with the former buying the odd-numbered entries and the latter the evens. For 10 points each:  
[10] Name this series of 60 paintings, whose first entry depicts crowds at a station filtering through three entryways labeled "Chicago," "New York," and "St. Louis."

ANSWER: The **Migration Series** [or The **Migration of the Negro**]

[10] Jacob Lawrence, who painted the *Migration Series*, also created a series of works on the "legend" of this radical abolitionist, who is shown grasping a rifle and a Bible in front of a tornado in John Steuart Curry's Kansas Capitol building mural *Tragic Prelude*.

ANSWER: John **Brown** [accept The **Legend of John Brown**]

[10] This painter's magnum opus, *The Train Station*, which is held by the Art Institute of Chicago, was inspired by his own migration from Macon, Georgia in the early 1920s.

ANSWER: Walter **Ellison**

5. Kenneth MacCorquodale's 1970 rebuttal of this essay argued that the abstruse technical vocabulary that it derides was, in fact, an attempt to paraphrase vernacular terms and make them objective. For 10 points each:

[10] Name this 1959 essay arguing that, if a particular theory were taken literally, "train[ing] machine guns on large crowds of people who have been instructed to shout" a scientific idea would be proof of the idea's validity. This essay published in the journal *Language* was central to the "cognitive revolution" in psychology.

ANSWER: Noam **Chomsky's review** of B. F. Skinner's **Verbal Behavior** [or "**Review of Skinner's Verbal Behavior**"; prompt on less-specific answers mentioning "Avram Noam **Chomsky** and B. F. **Skinner**"]

[10] Three years before Chomsky's review, George Miller helped start the cognitive revolution by arguing that the "magical number of seven, plus or minus two" governed the "working" form of this faculty.

ANSWER: working **memory** [accept short-term **memory**]

[10] This German-American psychologist, considered the "father of cognitive psychology," wrote the 1967 book *Cognitive Psychology*. He advocated "ecologically valid" settings for experiments in *Cognition and Reality*.

ANSWER: Ulric **Neisser** [or Ulric Gustav **Neisser**; or Dick **Neisser**]

6. Albert Langen founded a satirical magazine named for this character. For 10 points each:

[10] Name this title character of a 17th-century picaresque novel, who becomes a rich bandit and a farmer before rejecting society and living like a hermit. After his family is murdered by soldiers, he meets a soldier who was forced to lick the asses of five peasants.

ANSWER: **Simplicius** **Simplicissimus** [accept either or both underlined names]

[10] In an allegorical episode, Simplicissimus travels with water nymphs through Lake Mummel to this location. In a book by Jules Verne, Professor Lidenbrock and his nephew Axel travel to this location by descending an Icelandic volcano.

ANSWER: the **center of the Earth** [accept equivalents like "the middle of the Earth"; prompt on answers indicating an **underground** or **subterranean** area]

[10] As a court page, Simplicius is taught how to perform this action "like a dog," producing disastrous results at a later banquet. One of Goethe's favorite tales from the *Arabian Nights* concerns Abu Hasan, who flees to India in shame after doing this action in front of his wife on his wedding night.

ANSWER: **farting** [accept answers indicating **flatulence** or **tooting** or similar]

7. In the presence of oxygen and UV light, chloroform will slowly convert into this compound. For 10 points each:

[10] Name this compound that is effectively formaldehyde with chloride in place of the hydrogens. Its structure makes it a convenient precursor for polyurethanes and polycarbonates.

ANSWER: **phosgene** [or **COCl<sub>2</sub>**]

[10] This subsidiary of Merck owns the phosgenation company Carbolabs. This chemical company was formed due to a 1975 merger, and its products feature a red logo containing a Greek letter and the letter 'A'.

ANSWER: **Sigma-Aldrich**

[10] When Aldrich was originally founded, it primarily produced this compound that, like Diazald and NMU, serves as a precursor for diazomethane. Due to its propensity to alkylate guanine and thymine, it is carcinogenic.

ANSWER: **MNNG** [accept **MNG** or **methylnitronitrosoguanidine**]

8. This weapon was invented by Captain Thomas Edgeworth Courtenay, who unsuccessfully tried to sell it to Great Britain after the war. For 10 points each:

[10] Name this goofy weapon used by the Confederate Secret Service to covertly destroy various Union ships. Its success is difficult to judge, as Courtenay claimed credit for incidents that may have simply been normal explosions.

ANSWER: **coal torpedo** [or **coal bomb** or **coal shell**, accept answers that include both coal and torpedo such as “torpedoes made to look like coal”]

[10] Robert Loudon dubiously claimed to use a coal torpedo to blow up the *Sultana*, a ship whose passengers were largely prisoners of war just released from this infamous Georgia camp commanded by Henry Wirz.

ANSWER: **Andersonville** [or Camp **Sumter**]

[10] The Confederate Secret Service may have also planned this raid by Confederate soldiers led by Bennett Young, who traveled from Canada to the namesake place in Vermont to rob three banks in an attempt to trick the Union army into frivolously defending the northern border.

ANSWER: **St. Albans** Raid

9. C. B. Martin introduced the idea of “finkish” properties of this type, which are lost when they are tested for. For 10 points each:

[10] Name these properties, which categorical monism holds are actually categorical properties. The brittleness of glass is an example of this sort of property given in *The Concept of Mind*, which contrasts these properties with “occurrences.”

ANSWER: **dispositions** [prompt on “propensities”]

[10] This philosopher presented the eyebrow-raising argument that the motives of actions are dispositional and shouldn’t be explained with reference to hidden mental processes in his aforementioned book, *The Concept of Mind*.

ANSWER: Gilbert **Ryle**

[10] *The Concept of Mind* discusses this type of practical knowledge as a “multi-track” disposition and attacks the “intellectualist legend” that it derives from the type of propositional knowledge with which it is usually contrasted.

ANSWER: **knowing-how** [or **knowledge-how**]

10. This neighborhood’s bakery La Joven Francesca claims to have invented a type of white bread loaf that unusually contains a small amount of fat from lard or shortening. For 10 points each:

[10] Name this neighborhood in Tampa, Florida that has historically had a large number of Spanish- and Italian-speaking immigrants who worked in cigar factories.

ANSWER: **Ybor City**

[10] Tampa’s Ybor City neighborhood and the city of Miami both claim to have invented this sandwich, whose traditional ingredients include ham, roasted pork, swiss cheese, pickles, mustard, and, in Tampa, salami.

ANSWER: **Cuban** sandwich [or **cubano**; accept **Cuban** mix or **mixto** or **Cuban** pressed sandwich]

[10] Ybor City has a number of social clubs dedicated to this form of social welfare, which was championed as “a factor in evolution” in a 1902 book by Peter Kropotkin.

ANSWER: **mutual aid**

11. A character discusses how 30 of these objects were found in an army footlocker in Bangor, Maine along a route he dubs the “The Underground Frailroad.” For 10 points each:

[10] Name this medium that Offred is revealed to have used to create the narrative of Margaret Atwood’s *The Handmaid’s Tale* in the novel’s “Historical Notes,” which takes the form of a lecture by the chauvinist Professor Piexoto.

ANSWER: cassette **tapes** [or **tape** recordings; prompt on “recordings”]

[10] Piexoto’s speech discusses the identity of this unnamed man from Offred’s account, suggesting he may have been B. Frederick Judd. Offred serves as the concubine of this husband of Serena Joy and plays Scrabble with him.

ANSWER: the **Commander**

[10] Piexoto mentions how Judd coined the terms for “Salvaging” and for this other murder-based ceremony, the name of which he lifted from an exercise program. In this form of execution, depicted in the novel’s penultimate chapter, a group of Handmaids beats the subject to death on the signal of an Aunt’s whistle.

ANSWER: **Particucution**



12. This 16,569-base-pair structure is inherited from the mother. For 10 points each:

[10] Name this DNA structure that, in humans, is oddly circular. NUMT is believed to have its origins from this structure, which codes for the 22 tRNAs.

ANSWER: **mitochondrial DNA** [or **mtDNA**; or **mitochondrial genome**]

[10] The replication of mtDNA uses this helicase coded for by PEO1, which works alongside the mitochondria's own SSBs and polymerase.

ANSWER: **Twinkle** protein

[10] In trypanosomes, their single mitochondrion contains this structure, which consists of several copies of the mitochondrial genome copied in either a maxicircles or minicircles. Because of the presence of this structure, *Crithidia luciliae* is used in the detection of anti dsDNA antibodies.

ANSWER: **kinetoplast**

13. A *New York Herald* correspondent claimed this event never happened, though he eventually admitted that 120 people were killed, which he insisted was not really a massacre. For 10 points each:

[10] Name this November 1894 event carried out by General Yamaji Motoharu's forces, which killed somewhere between 1,000 and 20,000 people.

ANSWER: **Port Arthur** massacre

[10] This *New York World* reporter extensively covered the Port Arthur massacre during the Sino-Japanese War. He is better known for his 1908 interview with Porfirio Diaz, in which the Mexican leader said he would not run in 1910 for reelection.

ANSWER: James **Creelman**

[10] A different Port Arthur massacre occurred in 1996 in this country when Martin Bryant killed 35 people, leading to strict gun control laws passed by its Prime Minister John Howard.

ANSWER: **Australia** [or Commonwealth of **Australia**]

14. The lower half of this work is mostly untouched by paint, other than flecks of white splattered over a set of light brown quilt squares whose design features red and blue stripes. For 10 points each:

[10] Name this early combine by Robert Rauschenberg for which, according to legend, he used his own pillow and blanket. Those items appear affixed to a canvas and splashed with abstract paint patterns in this 1955 work.

ANSWER: **Bed**

[10] Michelangelo Pistoletto, a member of this country's Arte Povera movement, made a sculpture titled *Bed* using a mattress shaped like a bow tie, which he called *Segno Arte*. Other artists from this country include Piero Manzoni.

ANSWER: **Italy** [or **Italia**]

[10] This British sculptor's work *Bed* consists of 8,640 slices of Mother's Pride bread, minus the ones he ate to create the sculpture's body-shaped. This man's colossal *Angel of the North* in Gateshead has a wingspan of over 50 meters.

ANSWER: Antony **Gormley** [or Antony Mark David **Gormley**]

15. In chapter seven of the *Tractatus Theologico-Politicus*, Baruch Spinoza made a reasoned argument that this fundamental Jewish belief was false, leading to his expulsion from the Jewish community. For 10 points each:

[10] Name this belief, first set down as the eighth of Maimonides's "Thirteen Principles of Faith," that Spinoza pointed out was improbable because of passages mentioning the death and burial of the man in question.

ANSWER: **Mosaic authorship** of the Torah [accept any answers mentioning **Moses** or **Moshe** and the idea that he personally wrote or dictated the entire **Torah** or **Pentateuch** or **first five books** of the Hebrew Bible]

[10] Scholars generally favor this "hypothesis" of Torah authorship, which is contrasted with the "supplementary" and "fragmentary" hypotheses and holds that the Torah was compiled from four originally independent sources.

ANSWER: **documentary** hypothesis [or **DH**; accept **JEDP** hypothesis]

[10] In contrast to the Yahwist and the Elohist, the Priestly source uses this name of God before the name Elohim is revealed to Moses. This name of God is traditionally written on the back of a *mezuzah*.

ANSWER: *El* **Shaddai**

16. A poem in this collection states that the world “is made up of couples” and that “a rose must have a stem” while telling the story of Mother Gothel, who speaks the refrain “hold me, my young dear, hold me.” For 10 points each:  
[10] Name this collection whose poem “Rapunzel” opens, “a woman / who loves a woman / is forever young.” This collection contains 17 retellings of Grimms’ fairy tales and came two years before its poet’s *The Book of Folly*.

ANSWER: ***Transformations***

[10] Both *Transformations* and *The Book of Folly* are works by this American confessional poet. After a long battle with depression, this poet of “All My Pretty Ones” and *The Awful Rowing Toward God* committed suicide at age 46.

ANSWER: Anne **Sexton** [accept Anne Gray **Harvey**]

[10] *The Well Speaks of its Own Poison*, a 2015 book by a poet of this surname, is similarly steeped in fairy tale. The current United States Poet Laureate, Tracy, has this surname and wrote the Pulitzer-winning book *Life on Mars*.

ANSWER: **Smith** [accept Maggie **Smith** or Tracy K. **Smith**]

17. Peccei-Quinn theory is the leading candidate to resolve the strong CP problem in this theory. For 10 points each:

[10] Name this theory that describes the strong nuclear force through the interactions of quarks and gluons.

ANSWER: **quantum chromodynamics** [or **QCD**]

[10] In the predecessors of quantum chromodynamics, before quarks were discovered, this quantum number was used to distinguish between the proton and neutron, which have values of 1/2 and negative 1/2 for it, respectively.

ANSWER: **isospin**

[10] Massive particles in QCD and other field theories arise due to nonzero values of this quantity. The Higgs field gives mass to certain particles because it has a value of 246 GeV for this quantity.

ANSWER: **vacuum expectation** value [or **VEV**; prompt on partial answer]

18. In 2015, this economist wrote an exploration of behavior economics titled *Misbehaving*. For 10 points each:

[10] Name this economist who co-authored a book that explores the attitude of “libertarian paternalism,” by which governments want to respect the freedom of their citizens while simultaneously wanting to influence them into making good decisions.

ANSWER: Richard H. **Thaler**

[10] With Cass Sunstein, Thaler wrote this 2008 book suggesting that policymakers can improve citizens’ “decisions about health, wealth, and happiness” through positive reinforcement and “choice architecture.”

ANSWER: **Nudge** [or **Nudge: Improving Decisions About Health, Wealth, and Happiness**]

[10] Martin Binder has examined the idea of “libertarian paternalism” through the lens of this approach to economics, which was revived in the 1970s and 1980s in part thanks to a 1982 book written by Richard Nelson and Sidney Winter.

ANSWER: **evolutionary** economics [accept answers that mention forms of the words **evolution** or **Darwinian**]

19. This man married Anne of Brittany even though she was already married to Holy Roman Emperor Maximilian I, although Maximilian, busy with other matters, didn’t seem to care. For 10 points each:

[10] Name this French ruler who is perhaps best known for dying after accidentally striking his head on the lintel of a door, causing him to fall into a coma shortly afterwards.

ANSWER: **Charles VIII** [or **Charles the Affable**; prompt on “Charles”]

[10] Charles VIII hit his head while on his way to watch a game of this sport. The version he watched is now referred to as the “real” type of this sport, to distinguish it from the modern “lawn” variety.

ANSWER: **tennis**

[10] In another ridiculous death of French kings related to tennis, Louis X died after an exhausting game in 1316. Two years earlier, Louis’s wife and the wives of his two brothers were arrested and charged with infidelity in this scandal, which proved to be a great embarrassment in the final years of Philip IV’s reign.

ANSWER: **Tour de Nesle** affair

20. This man's acclaimed interpretations of Mozart included the soundtrack for *Amadeus*. For 10 points each:  
[10] Name this British conductor who founded the Academy of St. Martin-in-the-Fields chamber orchestra and conducted it for over 50 years. He died in 2016.

ANSWER: Neville **Marriner**

[10] Marriner also founded this city's Chamber Orchestra. This city's Philharmonic Orchestra plays at Walt Disney Concert Hall and is led by Gustavo Dudamel.

ANSWER: **Los Angeles** [accept **L.A.**]

[10] Marriner preferred using modern instruments, which led this keyboard player from the Academy to break off and found the Academy of Ancient Music, which plays on period instruments. He is considered the spearhead of the historically informed performance movement.

ANSWER: Christopher **Hogwood**