

## Cane Ridge Revival

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### TOSSUPS

1. A leader of one party with this name established the National Council of Administration as part of a “collegiate” system re-established by a constitution approved in a 1952 referendum. That leader’s progressive ideology was known as “battlism.” In 1992, a member of the MOPOCO movement discovered the “Archives of Terror” in a country ruled by a party of this name. A “defense government” led by a party of this name endured a nine year siege during a war which saw that party aided by an “Italian Legion” led by (\*) Garibaldi. A party of this name agreed to share hydroelectric resources with a neighboring country in the Treaty of Itaipu and was led by a man called “Colonel Trunk,” while another was led by Fructuoso Rivera, who opposed Manuel Oribe. For 10 points, give this name common to a party which opposed the Blanco party in Uruguay and one which was led by Alfredo Stroessner.

ANSWER: Colorado party [or Partido Colorado]

2. The “most twisted” example of this functional group has increased reactivity due to its bridgehead position. Competition from hydrogen bonding severely slows a reaction that forms an alpha-acyloxy example of this functional group, providing evidence against an ionic mechanism in favor of the concerted addition of a ketone, carboxylic acid and isocyanide. This functional group and an alkene make up a Michael acceptor that is (\*) cross-linked in SDS-PAGE gel. Basic bromination of this functional group produces an isocyanate that reacts with water to form carbamic acid that rapidly decarboxylates. The Passerini reaction forms this functional group, which is hydrolyzed more slowly than an ester and found in the side chain of asparagine. For 10 points, name this functional group that undergoes the Hofmann rearrangement and is found in peptide bonds.

ANSWER: amides [accept: carboxamides; accept: lactams; accept aza-2-cycloalkanones; accept alpha-acyloxy-(beta-diketo)-amides; do not accept “amines”]

3. The prologue of a book by this author describes how, in the wake of Sputnik, newspapers expressed the hope of humanity finally escaping from Earth. Because the upheaval of modernity has made any reliance on customs impossible, this author advocated Kant’s notion of reflective judgment that relies on no fixed rules and that is necessary for moral political action. This author distinguished between work, which is artificial and expresses human freedom, and (\*) labor, which is bestial and not free. Those two activities are ranked below action, which as an end in itself is equivalent with freedom, and all three are parts of the *vita activa*. In another book she describes a man who is “neither perverted nor sadistic” but “terribly and terrifyingly normal” at his war crimes trial. For 10 points, name this author of *The Human Condition* who coined the phrase “banality of evil” in *Eichmann in Jerusalem*.

ANSWER: (Johanna) Hannah Arendt

4. This author describes goats “leaping up the cliffs / among the fog-soaked weeds and butter-and-eggs” in a poem that calls The Seven Wonders of the World “tired / and a touch familiar”. This author describes objects that are hard to tell apart from the stars or from Venus and Mars in a poem that concludes with the image of “a weak mailed fist / clenched ignorant against the sky”. One poem by this author commands the reader to “Accept the fluster / of (\*) lost door keys, the hour badly spent.” This poet described an owl’s nest burning after an illegal fire balloon crashes into it. One poem by this author of “Over 2,000 Illustrations and a Complete Concordance” describes a creature whose “brown skin hung in strips / like ancient wallpaper” and has five hooks in its mouth. She declared: “The art of losing isn’t hard to master” in her villanelle “One Art”. For 10 points, name this 20<sup>th</sup>-century American poet of “The Armadillo” and “The Fish”.

ANSWER: Elizabeth Bishop

5. The trio of this work's third movement is in E major, and begins with a melody for two horns and two bassoons. The main melody of this work's second movement alternates between a group of oboe, bassoon, and violas and a group of violins playing in octaves with flute counterpoint, all above a walking eighth-note bass in the celli and basses. This is the earliest symphony in the standard repertoire to begin in a major key and end in a minor key. This symphony opens with winds playing pulsating eighth notes in 6/8 time, while the violins play a melody beginning: (\*) "A – C-sharp – A". Its second movement is in D minor and marked *Andante con moto*, and is known as the "Pilgrim's March". Its finale employs the rhythm of a Neapolitan dance called the *saltarello*. For 10 points, name this orchestral work that comes between works by its composer in the same genre, nicknamed "Scottish" and "Reformation".

ANSWER: Felix Mendelssohn's Symphony No. 4 in A major, Op. 90 "Italian" [accept either]

6. Hair growth is a side effect of a class of drugs that facilitates this process by opening tetrameric ion channels such as inward rectifiers. It's not sleep-related, but cortical astrocytes release potassium and adenosine in order to accomplish this process as an autoregulatory response to increases in a cerebral "perfusion" gradient. Pharmaceutical induction of this process by drugs like doxazosin, papaverine and amyl (\*) nitrites may impair the ability of the baroreceptor reflex to respond to septic shock. This process occurs when certain cells are hyperpolarized by EDHF and prostacyclin, which are activated by bradykinin. A phosphodiesterase that inhibits this process is blocked by sildenafil. This process occurs when protein kinase G causes smooth muscle relaxation after guanylyl cyclase is activated by endothelial nitric oxide. For 10 points, name this process of widening blood vessels.

ANSWER: vasodilation [accept vasodilatation; accept blood vessel widening or widening veins or arteries or equivalents before mentioned; prompt on "reducing blood pressure" or equivalents like "hypotension"; prompt on "vasomotion"; do not accept "vasoconstriction"; prompt on "smooth muscle relaxation" or equivalents; prompt on "blood flow" or similar answers; antiprompt on "erection" or penile "tumescence" or equivalents]

7. A bay in this country was proposed as a navy coaling station by William Cazneau and George McClellan. It's not Colombia, but this country's transition from cattle-raising to sugar-growing led to an economic upturn called the *danza de los millones* after American corporations were ceded land rights by the Tribunal de Tierras. US fears that this country would become a "second (\*) Cuba" following the defeat of the Loyalists by supporters of Juan Bosch led to Operation Power Pack. Charles Sumner led the defeat of an 1869 treaty by Hamilton Fish that proposed sending African-Americans to this country in order to protect them from the KKK; that treaty was supported by its president Buenaventura Báez. For 10 points, name this country that was occupied by the US from 1916-1924 and 1965-1966, whose annexation was advocated by Ulysses S. Grant after it became independent from Spain and Haiti.

ANSWER: Dominican Republic [or DR, or República Dominicana; accept Santo Domingo]

8. One character in this novel gives letters to both an Englishman and Neapolitan in order to trick them into meeting her for a tryst at the same time. As a child, that character in this novel spurns two urchins who later burn pages from *Clarissa* to manipulate a thief. Another character in this novel dresses up as a sheep to kill a pack of wolves and improves the morale of French soldiers by giving them fleas. That character's illegitimate uncle is a (\*) hydraulics engineer who secretly keeps bees and collaborates with Barbary pirates. This novel's protagonist meets a group of exiled Spaniards, lends books to the brigand Gian dei Brughi, and hunts with the dachshund Ottimo Massimo after refusing snails from his sister Battista and leaving the home of the Piovasco di Rondò family. For 10 points, name this novel about the Ombrosan nobleman Cosimo, who lives without touching the ground, a work by Italo Calvino.

ANSWER: *The Baron in the Trees* [or *Il barone rampante*]

9. The fourth book of *ahadith* collected by Sahih al-Bukhari is titled after this action. In the Eastern Orthodox church, this action is typically performed immediately after the rite of chrismation. Jesus says that “this people honors me with their lips, but their heart is far from me” after a group of Pharisees criticize his disciples for not “walking according to the tradition of the elders” and performing this action. One type of this action must be performed on ground that is free of *najaasah*. In one hadith, Uthman relates that Muhammad stated that performing this action will result in the forgiveness of past sins if it is followed by performing two (\*) raka’at. *Niddah* can be ended by performing this action in a *mikvah*, a ritual that converts to Judaism undergo. *Tayammum* is a form of this action performed with sand in place of *ghusl* or *wudu*, which must be carried out before *salat*. For 10 points, name this ritual purification that involves washing oneself.

ANSWER: ablution [accept equivalents like washing, until mentioned; accept hand washing specifically; prompt on “purification”; do NOT accept or prompt on “baptism”]

10. David Roediger argued contradictions between republican ideals and the material condition of this group led to the emergence of “white people” as a distinct concept in *The Wages of Whiteness*. Gareth Stedman Jones attacked as anachronistic a work about this group, which was also criticized for its depiction of Methodism as a “chiliasm of despair” that distracted these people from their thwarted political aims. That work’s preface states the author wishes to save this group “from the enormous condescension of posterity,” arguing its members weren’t passively shaped by structure but (\*) “present at its own making.” The second half of *The Road to Wigan Pier* is largely a meditation on why this group has not espoused socialism, and E.P. Thompson wrote about the English type of this group. For 10 points, name this socioeconomic group of mostly manual laborers.

ANSWER: working class [or American working class; or English working class; prompt on things like “proletariat”]

11. One progression representing this character opens with the following triads, all in first inversion: B minor, D major, B-flat major, E major. In one scene, this character declares himself least free of all who live, and expresses need for a man who will act free from his commands. In an orchestral interlude, the “descent” of this character and his tenor companion is accompanied by 18 tuned anvils. This character answers three riddles before warning another that that other character will be killed by the man who knows no (\*) fear; this character performs those tasks while in the guise of “The Wanderer”. This character sings his namesake “farewell” to another character shortly before summoning a figure who creates a magic fire, protecting his sleeping daughter, who disobeyed him by helping Siegmund. For 10 points, name this father of Brünnhilde, the father of the gods in Wagner’s *Ring Cycle*.

ANSWER: Wotan [or “the/der Wanderer” before mentioned; do NOT accept or prompt on “Odin”]

12. The largest concentration of these objects in the Milky Way forms a ring around the galactic center at a distance of 120 parsecs. These objects sometimes exhibit an hourglass magnetic field morphology, especially in their densest portions. The interior structures of these objects can be mapped by tracing the NH<sub>3</sub> and CO concentration around dense cores and cores respectively. The aforementioned ring of these objects includes one known as Sagittarius B2, which provided the first known observational signatures for more than half of all interstellar (\*) compounds. These objects fragment as they collapse thanks to Jeans instability; when those remnants attain sufficiently high density that thermal energy does not immediately radiate away, they become protostars. For 10 points, name these masses largely comprised of diatomic neutral hydrogen where stars are formed.

ANSWER: molecular clouds [accept “giant molecular clouds”; prompt on “inter-stellar clouds,” “star-forming regions,” “stellar nurseries,” or “nebulae”]

13. **A.B. Bosworth discussed the tendency to interpret this person's meritocratic human resources policy as a universalizing humanist exercise, and he also compared the study of this person to investigating Cortes' campaign against the Aztecs, both in the structure of the events in question and in the unreliability and bias of the sources. One contemporaneous historian of this person, a "pseudo-" version of whom ostensibly wrote a much later (\*) "romance" about him, died in prison after he lost his position when he was implicated in a murder plot after he became critical of this man's abandoning egalitarianism and adoption of *proskynesis*. The most widely used historical work about this man uses an Attic style in conscious imitation of Xenophon's *Anabasis*; that book is by Arrian of Nicomedia. For 10 points, name this man, the subject of a lost chronicle by his deputy Ptolemy I Soter.**

ANSWER: Alexander the Great

14. **One character in this play describes another character as Lady Pusillanimous, before reading aloud the definition of "pusillanimous" from a dictionary. That character in this play claims that anyone who's never watched someone die "is suffering from a pretty bad case of virginity", before describing his own father's death. In this play, two characters play a game imagining themselves as a bear and a (\*) squirrel. One character in this play burns her arm when two wrestling men knock into her while she's ironing clothes. After the protagonist returns from the hospital where Hugh's mother has died, he begins an affair with Helena. In the final act, Allison returns after suffering the miscarriage that her husband wished upon her, so that she could understand his suffering. For 10 points, name this play about Jimmy Porter, by John Osborne, which started the "Angry Young Man" movement.**

ANSWER: Look Back in Anger

15. **Plato's *Symposium* relates how this figure's son Poros produced Eros after a drunken affair with Penia, the personification of poverty. Explanations for this deity's shape-changing include attempts to avoid conception or being challenged to morph into many different animals. Some sources state that this deity, not Gaia, was the one who tricked Kronos into vomiting up his children. Hesiod relates that this deity's unmatched wisdom is relied upon to help a certain (\*) Olympian think. This deity's production of a helmet was so loud that Hephaestus had to hit another god in the head near the banks of the river Triton. Gaia warned that this figure would have a son more powerful than Zeus, so, when she became pregnant, he tricked her into turning into a fly and swallowed her. For 10 points, identify this Titaness, who can be considered the mother of Athena.**

ANSWER: Metis

16. **This artist painted a sky-blue-clad Gabriel kneeling before the Virgin Mary in front of an arcade of Corinthian columns receding into a marble panel in the background; that work by him is the pinnacle of an altarpiece with St. Anthony and Elizabeth of Hungary. One work by this artist shows a rooster on a column and a man in a blue cloak kneeling on the ground next to an X-framed seat under an arched canopy covered in a cloth resembling a coffered vault. That painting by this artist of the (\*) *Perugia Polyptych* is dominated by a white banner with a moor on it and an orange banner with a black eagle. A large leafless tree on the left and a leafy poplar on the right flank a pink-clad Christ holding a banner with his foot planted on a sarcophagus lid in his *Resurrection*. For 10 points, name this artist who included the "Battle of Heraclius and Chosroes" and "Constantine's Dream" in his *Legend of the True Cross* cycle.**

ANSWER: Piero della Francesca [accept either name or both]

17. **The mean square Johnson-Nyquist voltage noise is proportional to the square root of Boltzmann's constant times temperature times this quantity. At the boundaries of materials with a low value of this quantity, Andreev reflection will occur, and those materials will have little to no internal magnetic field. Compounds of cadmium and group 16 nonmetals like sulfur or selenium generally exhibit a decrease in this quantity when they absorb photons and are thus used in (\*) photocells. For a wire, this quantity equals rho times length divided by its cross-sectional area. This quantity is zero for an ideal ammeter, and it is the inverse of conductance. The generalization of this quantity to AC circuits is denoted Z and called impedance. For 10 points, identify this quantity which, according to Ohm's Law, is equal to voltage divided by current.**

ANSWER: electrical resistance

18. WARNING: DESCRIPTION ACCEPTABLE

The “twenty-five thousanders” volunteered to aid this initiative, which resulted in the creation of institutions protected in the Law of Spikelets. The film *Earth*, successor to its director’s *Arsenal*, depicts resistance to this initiative, which involved the importation of a number of Fordsons. This program was opposed by a group of people known as “fists,” and it was said to be “overfulfilled” in article that warns against “dangerous and harmful sentiments.” This initiative resulted in the creation of the (\*) *kolkhozy* and *sovkhozy*, and the consequences of this initiative prompted one man to write that his countrymen had become “dizzy with success.” As part of this process, peasants slaughtered their own sheep and cattle rather than surrender them, and thousands of *kulaks* were deported to the gulags. For 10 points, name this process by which the Stalin-led Soviets attempted to consolidate and communalize farming.

ANSWER: collectivization of agriculture in the Soviet Union [accept reasonable equivalents; prompt for country if only “collectivization” is given; accept Russia, U.S.S.R. and other names for the Soviet Union, as well as Ukraine because some of the clues are specifically Ukrainian; prompt on First Five Year Plan; prompt on “Holodomor” before “*Earth*,” and anti-prompt on “liquidation of the Kulaks” and equivalents before they are mentioned.]

19. This man found that residents of Southern California and the Midwest reported similar levels of general well-being but both groups expected Californians to be happier, an example of what he called the “focusing illusion.” This man argued operations such as combining probabilities or segregating different options occurred during the editing phase of decision-making, which is followed by the evaluation phase. This man and an alphabetically-latter collaborator wrote a paper that proved the substitution axiom rarely holds because people give disproportionate weight to (\*) certainty. That paper also introduces the reflection effect, the name this man gave to observed risk aversion for gains but risk-seeking for losses. *Thinking, Fast and Slow* describes this man’s work with Amos Tversky. For 10 points, name this co-developer of prospect theory.

ANSWER: Daniel Kahneman

20. One character in this novel carefully carves a new handle for a *panga* for the woman he is trying to win. Another character in this novel has an affair with a fat alcoholic meteorologist who commits suicide by driving his car in front of an oncoming train. Besides that affair between Margery and Dr. Van Dyke, another romantic relationship in this novel begins after two characters purposely fail to catch up with a train. The male half of that couple breaks his arm during the long distance (\*) running race at the end of this novel. In this novel, a person who led a hunger strike at Rira Camp is lionized by General R. and other members of “The Movement”, who plan to murder Karanja. At the Uhuru celebrations in this novel, Mugo, admits that it was he who betrayed the resistance leader Kihika. For 10 points, name this novel about the aftermath of the Kenyan Emergency, by Ngugi wa Thiong'o.

ANSWER: A Grain of Wheat

## BONUSES

1. The title character of this novel is annoyed by the attentions of the baronet Sir Clement Willoughby. For 10 points each:

[10] Madame Duval and Reverend Arthur Villars vie for influence over the title girl making her entrance into London society, in this sentimental novel by Fanny Burney.

ANSWER: Evelina

[10] Perhaps the most popular English sentimental novel of the 18<sup>th</sup> century was *Pamela; or Virtue Rewarded* by this author, whose *Clarissa* is the longest major novel in the English language.

ANSWER: Samuel Richardson

[10] This sentimental novel by Henry Mackenzie blends elements of the picaresque with tragic vignettes, as its protagonist, Harley, learns that his beloved Miss Watson is going to marry another man.

ANSWER: *The* Man of Feeling

2. According to the mutual exclusion rule, the vibrations of centrosymmetric molecules cannot be active in both this technique and one that transforms according to the polarizability operator. For 10 points each:

[10] Name this technique whose strongest signal appears around 1720 inverse centimeters. Transitions in this technique are allowed if normal modes transform as x, y or z, the same symmetry as the electric dipole operator.

ANSWER: IR spectroscopy [or infrared spectroscopy; prompt on absorption spectroscopy]

[10] Water, which has two IR-active stretching modes, belongs to this point group. Molecules in this common point group have a proper rotation axis and two vertical mirror planes, with no horizontal mirror planes.

ANSWER: C<sub>2v</sub> [or C sub 2v]

[10] C<sub>2v</sub> molecules do not have an improper rotation axis, which is symbolized by this letter. This letter is also used to symbolize the simplest type of atomic orbital, which is spherical.

ANSWER: S

3. Federalist 39 evaluates whether the proposed Constitution adheres to this concept. For 10 points each:

[10] Identify this concept, which that paper defines as “a government which derives all its powers directly or indirectly from the great body of the people, and is administered by persons holding their offices during pleasure, for a limited period, or during good behavior.”

ANSWER: a republic [or republican government]

[10] Federalist 10 defines this concept as “a number of citizens...who are united and actuated by some common impulse of passion, or of interest, adverse to the rights of other citizens.”

ANSWER: faction [or, I suppose, equivalent word forms like factions or factionalism]

[10] In Federalist 10, the dangers of faction are used to argue in favor of this position, which would create “a greater variety of parties” and thereby prevent “factionous combinations.” Federalist 14 deals with opposition to this position.

ANSWER: that the United States be a large country [or that it have a large population or a large territory; accept equivalent descriptions including “that the US should not split into more than one country.”]

4. A mural on a Mississippi River bluff in this state depicts a winged dragon with antlers called the Piasa.

For 10 points each:

[10] Name this state, which was also the location of an alleged thunderbird attack in Lawndale in 1977. Another legend from this state places the blame for an 1871 fire on Mrs. O’Leary’s cow.

ANSWER: Illinois [accept Land of Lincoln, Prairie State and other goofy nicknames]

[10] A Miami-Illini legend from Illinois describes how this animal gave Rabbit a split lip. Folklore claims that it gives birth through its nose, while Cherokee myth relates the origin of its bare, prehensile tail.

ANSWER: Virginia opossums [or Didelphis virginiana]

[10] Miami-Illini myths include versions of these scaly, aquatic underworld creatures from Ojibwe myth that guard the copper of the Keweenaw Peninsula. One may be depicted by the Alligator Effigy Mound in Ohio.

ANSWER: underwater panthers [or mishipeshu or similar answers; accept underwater lynxes; accept Great Lynxes; prompt on generic answers about any North American species of cat]

5. Simon Baron-Cohen claimed that people with this condition lacked a “theory of mind” based on his 1985 study. For 10 points each:

[10] Name this neurological condition. The “broken mirrors” hypothesis posits people develop it when mirror neurons fail before or during infancy.

ANSWER: autism

[10] Baron-Cohen used this experiment to test for a theory of mind, in which one of the namesake dolls places a marble in a basket and the other moves it to a box when the first isn't looking. Most autistic children said the first doll would look for the marble in the box rather than the basket.

ANSWER: Sally-Anne test

[10] One proposed cause for the rise in the prevalence of autism-spectrum disorders is an increase in the efficiency of this process in the marriage market, because spouses who are outliers in their genetic endowment for mathematical reasoning are more likely to marry one another.

ANSWER: assortative matching or mating [accept word forms]

6. Henry Lawson and “Banjo” Paterson feuded over the role of romanticizing its countryside in the so-called “Bulletin” Debate. For 10 points each:

[10] Name this country that is the setting for a trilogy about Richard Mahony. Jean Paget emigrates to this country in *A Town Like Alice*.

ANSWER: Commonwealth of Australia

[10] This modern Australian author of *The True History of the Kelly Gang* wrote of a bet to transport a glass church in *Oscar and Lucinda*.

ANSWER: Peter (Philip) Carey

[10] David Malouf was nominated for a Booker prize for this novel about Gemmy Fairley, who is taken in by Aborigines after landing ashore on Australia, but who tries to re-integrate with the European settlers once they arrive.

ANSWER: Remembering Babylon

7. The developer of this approach wanted a better way to explain Wheeler absorber theory. For 10 points each:

[10] Identify this quantum formalism that extends the Wiener integral, and assigns a weight to each contributing element proportional to the exponential of  $i$  times the action over  $\hbar$ .

ANSWER: path integral formulation

[10] The path integral can be reformulated to closely resemble this function from statistical mechanics, often symbolized  $Z$ . It equals the sum over all microstates of the Boltzmann factor.

ANSWER: canonical partition function

[10] The path integral formulation was developed by this Caltech physicist, whose namesake diagrams are used to illustrate interactions between subatomic particles.

ANSWER: Richard (Phillips) Feynman

8. This empire's classical mosque type consists of a central dome with subsidiary half-domes and tall, skinny minarets with conical roofs. For 10 points each:

[10] Name this empire, whose oldest major architectural landmark is the Hacı Özbek Mosque in Iznik, Turkey.

ANSWER: Ottoman Empire

[10] This Ottoman architect used Iznik tiles extensively in the lower walls of the Rustem Pasha Mosque. The Mihrab of his Selimiye Mosque in Erdine is set in a apse-like chamber off the main hall.

ANSWER: Mimar Sinan [or Koca Mi'mar Sinan Aga]

[10] This early Ottoman mosque in the Seljuk style follows the hypostyle hall plan but is roofed by twenty full domes supported by square piers. Its piers are notably covered with 192 calligraphy inscriptions.

ANSWER: Bursa Grand Mosque [or Bursa Ulu Camii; prompt for city if given just “Ulu Camii”]

9. Answer the following about modern political Catholicism, for 10 points each.

[10] Prominent figures in this Catholic political movement include Óscar Romero and Juan Luis Segundo. This predominantly Latin American movement emphasizes the uplifting of the poor and has been criticized as a form of Christianized Marxism.

ANSWER: **liberation theology**

[10] Most forms of Catholic economic doctrine draw on this encyclical, which discusses the “Rights and Duties of Capital and Labor” and rejects both communism and capitalism.

ANSWER: **Rerum Novarum**

[10] This ideology founded by Léon Degrelle and advocated by José Streeel claimed to promote Catholic social doctrine, but was vigorously opposed by Cardinal Jozef-Ernst van Roey.

ANSWER: **Rexism** [accept **Rexist** Party; accept Partite **Rexiste**; accept **Rexisme**]

10. Misinterpretation of this system’s transition to b’aktun 13.0.0.0 resulted in incorrect predictions by many that the world would end on December 21, 2012. For 10 points each:

[10] Name this timekeeping system, whose 365-day long Haab approximated the solar year even more accurately than a Gregorian counterpart in Western Europe.

ANSWER: **Mayan calendar** [anti-prompt on specific Mayan calendars or “Long Count calendar”; prompt on **Mesoamerican calendars** or generic things]

[10] In the Long Count Calendar, this many tuns comprise a k’atun and this many k’atuns comprise a b’aktun. Like the Mayan number system, the Long Count is primarily in this number’s base.

ANSWER: **20**

[10] The nine books given this name are primary sources on Mayan religious tradition. Among their contents include prophecies and prognostications based on the k’atun cycle and riddles used to confirm public officials for office.

ANSWER: Books of **Chilam Balam**

11. A popular slogan denounces this group as the “party of crooks and thieves.” For 10 points each:

[10] Identify this political party. This party sponsored a 2013 law banning “gay propaganda”, and it controls 238 of the 450 seats in the State Duma.

ANSWER: **United Russia** [or **Edinaya Rossiya**]

[10] Sergei Sobyenin won a disputed 2013 election to this office as the United Russia candidate, which was the first direct election to this office in ten years. Sobyenin succeeded Yury Luzhkov in this office after Luzhkov was dismissed by Dmitry Medvedev.

ANSWER: **Mayor of Moscow**

[10] This blogger was Sobyenin's main opponent in the election, which he contested as the candidate of RPR-PARNAS, and coined the phrase “party of crooks and thieves”. His arrest on charges of embezzlement was widely seen as politically-motivated.

ANSWER: Alexei (Anatolievich) **Navalny**

12. One result of this theorem is that the number of n-color rotationally distinct colorings of a p-faced platonic solid is a polynomial in n of degree p. For 10 points each:

[10] Identify this combinatorial identity, which says the total number of results is equal to the average number of fixed points under the action of a certain group. It was originally proven by Frobenius.

ANSWER: **Burnside’s lemma** [also accept **Burnside’s Counting Theorem**, **Cauchy-Frobenius Lemma**, the **orbit-counting theorem**, or the lemma that is not **Burnside’s**]

[10] Burnside’s lemma gives the number of these entities, the set of elements to which an element can be moved to by group actions. This thing is paired with stabilizers in the name of a theorem that can be used to derive Burnside’s lemma.

ANSWER: **orbits**

[10] Using Burnside’s lemma is overkill when the group in question consists of these actions, which simply re-order n elements in some fashion. For those n elements, there are n-factorial of them.

ANSWER: **permutations**



13. The last tempter in this work urges the main character to become a martyr and affect change through his fame, after which the protagonist preaches to the congregation on Christmas morning. For 10 points each:

[10] Name this verse drama in which Thomas Becket returns to England and is killed by a group of knights. The Chorus is made up of poor women of Canterbury.

ANSWER: **Murder in the Cathedral**

[10] This poet and playwright wrote *Murder in the Cathedral*. His “The Hollow Men” ends, “This is the way the world ends / Not with a bang but a whimper.”

ANSWER: T(homas) S(terns) **Eliot**

[10] Mio Romagna attempts to prove his father’s innocence of the robbery and murder charges for which he was executed, in this verse drama fictionalizing the Sacco and Vanzetti case.

ANSWER: **Winterset**

14. People lean over balconies with green balustrades to peer into a courtyard in one of several paintings of a Jewish wedding in this city. For 10 points each:

[10] The Assawa brotherhood throng the street, as a hooded figure rides in beneath a green banner in a painting titled for *The Fanatics of* “this city”.

ANSWER: **Tangiers**

[10] The artist of those works, Eugene Delacroix, also painted the hand of a dead body poking out from under some rubble in a painting of an allegorical figure of Greece at this geographical location.

ANSWER: the ruins of **Missolonghi**

[10] Delacroix also painted this Assyrian king looking remarkably bored, while reclining on his enormous bed, watching his horses and concubines being prepared for slaughter.

ANSWER: **Sardanapalus** [or **Sardanaple**]

15. In a postscript, this man claimed scientists gain tacit knowledge of the existing paradigm by working with ubiquitous concrete examples he called exemplars. For 10 points each:

[10] Name this author of *The Structure of Scientific Revolutions*.

ANSWER: Thomas (Samuel) **Kuhn**

[10] Kuhn and Paul Feyerabend both used this term to describe the impossibility of reducing internally coherent but competing theories down to a shared set of primitive concepts. This thesis has often been taken to mean two paradigms are incomparable.

ANSWER: **incommensurability** thesis

[10] This is the name Kuhn gives to the “puzzle-solving” science that goes on within a given paradigm. When enough anomalies accumulate to make this type of science no longer tenable, there is a crisis and the paradigm changes.

ANSWER: **normal** science

16. Identify some twentieth-century military theorists, for 10 points each:

[10] This theorist noted the need for a “psychical unity of the people” since “the armed forces are rooted in the nation” and “totalitarian war literally demands the entire strength of the nation, since such a war is directed against it” in his book *Total War*. He commanded his country's forces during Operation Michael.

ANSWER: Erich von **Ludendorff**

[10] Ludendorff was involved in the implementation of this military plan, which called for an attack on France through Belgium to defeat that country before attacking a still-mobilizing Russia.

ANSWER: von **Schlieffen** Plan

[10] This Italian general, a theorist of air warfare, wrote about strategic bombing in *The Command of the Air*. He suggested that bombers attack industrial and governmental centers in order to break the will of the people and force a surrender.

ANSWER: Giulio **Douhet**

17. Gulland's formula calculates this value from virgin stock biomass and natural mortality, while the Schaefer model finds it in terms of catch effort. For 10 points each:

[10] Name this point that occurs when a population is at half the carrying capacity. It equals the largest long-term average harvest that can be taken without impairing growth and can also be calculated using the Fox model.

ANSWER: **MSY** [or **maximum sustainable yield**]

[10] Maximum sustainable yield is often used to analyze the harvest of this biological resource. Some cartilaginous species of them have electroreceptors called ampullae of Lorenzini, while ray-finned examples have swim bladders.

ANSWER: **fisheries** [antiprompt on specific fish; prompt on "chordates" or "vertebrates" or other less specific answers]

[10] Marine conservation groups use the mean value of this property to analyze the composition of catches. In marine ecosystems, a greater amount of biomass exists at higher ones because of high phytoplankton turnover rates.

ANSWER: mean **trophic level** [or **MTL**; accept descriptive answers like **position in food web/chain**]

18. This orchestra became known for its performances of French music, under the direction of Pierre Monteux during the early 1920's and Charles Munch during the 1950's. For 10 points each:

[10] Name this one of the "Big Five" American orchestras, which commissioned Stravinsky's *Symphony of Psalms*.

ANSWER: **Boston Symphony** Orchestra [or **BSO**; prompt on "Boston"]

[10] The Boston Symphony Orchestra plays summertime concerts in the Koussevitzky Music Shed at this venue in Massachusetts, the orchestra's summer home. This venue is known for its Contemporary Music Festival.

ANSWER: **Tanglewood** Music Center

[10] Serge Koussevitzky commissioned this Hungarian composer's *Concerto for Orchestra* for the Boston Symphony Orchestra. He also composed *Music for Strings, Percussion, and Celesta*.

ANSWER: Béla (Viktor János) **Bartók** [accept names in either order]

19. This group was also known as the Greengrocers for their strictly vegetarian habits. For 10 points each:

[10] Name this group of syncretic Shi'a Ismailis who set up a utopian state in what is now Bahrain. This group originated in Salamiyyah and its state was at one point led by Abū-Tāhir Sulaymān.

ANSWER: **Qarmatians** [or al-**Qarāmīta**]

[10] The Qarmatians openly revolted against this caliphate, the first to establish its capital at Baghdad. This caliphate's fifth ruler, Harun al-Rashid, established the House of Wisdom.

ANSWER: **Abbasid** Caliphate [or al-Khilafah al-'**Abassivah**]

[10] The Qarmatians sacked this city in 930 CE. The Banu Umayya of this city were part of a tribe that had earlier signed the Treaty of Hudaibiyyah with a northern rival.

ANSWER: **Mecca** [or **Makkah** al-Mukarramah; accept **Faran** or **Bakkah** if they want to give weird/old names]

20. Answer some questions about German Romantic literature, for 10 points each.

[10] This author of *Wilhelm Meister's Apprenticeship* sparked a suicide craze with his *The Sorrows of Young Werther*.

ANSWER: Johann Wolfgang von **Goethe**

[10] This German Romantic poet is best known for his unrhymed Hymns, including "Bread and Wine" and "The Archipelago". The title character fights alongside Bellamin for Greek independence in his novel *Hyperion*.

ANSWER: (Johann Christian) Friedrich **Hölderlin**

[10] The style and themes of mid-19th-century German Romantic literature were greatly influenced by this literary project undertaken in the 1820's by August Wilhelm von Schlegel, with editorial assistance from Ludwig Tieck.

ANSWER: **translating Shakespeare's** plays into German