



# ACADEMIC COMPETITION FEDERATION

2015 ACF NATIONALS  
PACKET BY VIRGINIA AND YALE

## TOSSUPS

1. A text describes how this god was brought gifts by a figure repeatedly described as “the wild bull with brindled thighs” named Pabilsag. This god speaks through “The Smasher of Thousands,” a flying mace that his son uses to defeat the demon Azag. This god’s fertility is praised by an “inspector of canals,” Enbilulu, one of the three offspring he conceived in the Underworld. He had a temple at Ekur, and a “Hymn” to this god asserts that his “pure place” is Kiur and that he mapped and built the city of Nippur by himself. A lion-headed bird named Anzu is defeated by this god’s son, Ninurta, after that bird steals the Tablets of Destiny from this god. This son of Anu and Ki granted immortality to Utnapishtim after that man was forewarned about a catastrophic event by Enki. For 10 points, identify this Sumerian wind god, whose consort was Ninlil, and who attempted to wipe out humanity with the Great Flood.

ANSWER: Enlil [or Ellil]

2. A landmark 1982 paper on these systems analogizes their source congruency issues to a group of Byzantine generals who may independently decide whether to attack or treat. The Paxos family of protocols, as well as the Chandra-Toueg algorithm, tries to solve consistency in these systems through ping-pong. Generally, these systems should feature “graceful degradation” by being fault-tolerant. As opposed to Cristian’s algorithm, the Berkeley algorithm works on these systems by factoring in the “round trip time” and then averaging the elements of a “clock vector.” Both of those procedures attempt to solve the asynchronous time issue of these systems. These systems communicate by passing messages on a network, and popular examples of software that runs on these systems include SETI@home and Folding@home. For 10 points, name these systems of autonomous computers that are tied to the same network.

ANSWER: distributed system [or distributed algorithms; prompt on “networks”]

3. A character with this surname moves to the countryside with Christine Hallegrain, but on his return to the city becomes captivated by a view of the Ile de la Cite, and spends the rest of his life futilely trying to turn it into a gigantic painting. Another character with this surname lets the ambitious judge Denizet convict the forest man Cabuche of a murder, despite having figured out the culprits, and later has a fatal quarrel with his fireman Pecquex. That man with this surname kills Roubaud’s wife Séverine when he is unable to drive “La Lison,” his Paris-Le Havre train. Another character with this last name becomes trapped with Chaval and Maheu’s daughter Catherine after Souvarine sabotages the entrance to a pit in Montsou, where that character led a failed strike of coal miners. For 10 points, give this surname shared by Claude, Jacques, and Étienne, three descendants of Antoine Macquart who are the protagonists of the Emile Zola novels *L’Oeuvre*, *La Bête humaine*, and *Germinal*.

ANSWER: the Lantier family [or the Lantiers]

4. Early in his career, this politician resided in Norway with his wife, the socialite Carlota Thorkildsen, and lived on a remote island in Oslo fjord, which is described in his memoirs told to Léo Lania. While serving as chair of the Independent Commission on International Development Issues, he released a report titled “North-South: A Programme for Survival” in which he proposed that a line could be drawn at roughly 30 degrees North latitude to separate rich and poor nations. Jerzy Buzek unveiled a monument honoring this man’s “Kniefall von Warschau,” in which he knelt down at a monument to the Warsaw Ghetto Uprising. This politician recognized his country’s eastern border at the Oder-Neisse line. After it was revealed that his personal aide Gunter Guillaume had been an East German spy, this man retired and was replaced by Helmut Schmidt. For 10 points, name this socialist West German chancellor, known for implementing the policy of Ostpolitik.

ANSWER: Willy Brandt [or Herbert Ernst Karl Frahm]

5. An album named for the “genius” of this instrument features solos for it on songs such as “Seven Come Eleven” and “Solo Flight.” In 1947, Sister Rosetta Tharpe switched to playing this instrument while performing hit gospel songs like “Up Above My Head.” Eddie Durham is credited with being the first jazz musician to record using this instrument, which John McLaughlin played on the Miles Davis albums *In a Silent Way* and *Bitches Brew*. Another performer of this instrument played it alongside his wife Mary Ford on hits like “How High the Moon.” This instrument was played by Charlie Christian and Wes Montgomery, who used his thumb instead of a plectrum. Orville Gibson founded a company which mainly produced these instruments, including one nicknamed “Black Beauty.” For 10 points, name this instrument which uses a pickup and was pioneered by Les Paul.

ANSWER: electric guitar [prompt on “guitar”; do NOT accept “acoustic guitar”]

6. One species in this genus can translocate its DNA using the ATPase SpoIII<sub>E</sub> (spo-3-e). That species in this genus produces biofilms containing the protein TasA. Bird feathers can be degraded by another species in this genus called *licheniformis*. The Cry and Cyt toxins produced by this genus’s *thuringiensis* species are commonly used in genetically engineered insect-resistant corn. Another species in this genus secretes a toxin composed of a “protective antigen,” a “lethal factor,” and an “edema factor.” It’s not *Clostridium*, but one bacterium in this genus is a model organism used to study endospore formation. The causative agent of anthrax is a member of, for 10 points, what genus of Gram-positive bacteria which includes the species *subtilis*, and whose name indicates that they are rod-shaped?

ANSWER: Bacillus

7. Timothy Bax wrote about his time serving in this force in his book *Three Sips of Gin*. The first member of this force to be killed was André Rabie, whose name was given to its main barracks; he served alongside a very tall man called Stretch Franklin. This group, whose missions included Operation Long John and Operation Vodka, was dubbed the “Eskimos” for working in so-called “frozen areas”. They carried badges depicting an osprey above their unit name, and were initially formed by Major Ron Reid-Daly. This force destroyed much of the railway system of the FRELIMO movement and tried to use a car bomb to assassinate Joshua Nkomo, after fighting terrorism during the Second Chimurenga. The motto “Pamwe Chete!” was used by this force named for a British explorer who inspired the Allan Quartermain character. For 10 points, name this counter-insurgency group which was a regiment of the Rhodesian Army during the Bush War.

ANSWER: Selous Scouts

8. A sociologist from this modern-day country inspired Joseph Schumpeter by first using the term “creative destruction” in *War and Capitalism*, and argued that the ability of America’s two party system to co-opt third party movements helped answer the question “Why is there no Socialism in the United States?” A sociologist from this modern-day country argued that society’s taste in clothing is a social creation that has the function of “class distinction” in his essay “Fashion.” That man from here stated that a blasé outlook characterizes people who developed a “protective organ” in a book examining the psychological effects of the city. That man from this modern country argued that money functions as an “impersonal agent” that bridges the middle distance in another book. *The Metropolis and Mental Life* and *The Philosophy of Money* are from, for 10 points, what home country of Werner Sombart and Georg Simmel?

ANSWER: Federal Republic of Germany

9. In a recent novel by this author, the protagonist has the words “FUCK COMMUNISM” forcibly tattooed onto his stomach, but changes the tattoo to read “FUCK U.S.” later on. This author wrote a story whose protagonist spitefully causes a hepatitis outbreak after being unfairly jailed for protesting when a pair of police officers throw tea on his shoes. In another novel by this author, the protagonist is elected “model officer” every year at the hospital where he works, where he meets a brutal officer named Geng Yang. Many of this author’s works, including the stories collected in *The Bridegroom*, are set in the fictional Muji City. In a National Book Award-winning novel by this author, Shuyu continually refuses to consent to divorcing the protagonist, army doctor Lin Kong, who thus spends seventeen years in a stagnant relationship with Manna. For 10 points, name this Chinese-American author of *War Trash*, “Saboteur”, and *Waiting*.

ANSWER: Ha Jin [or Jin Xuefei]

10. Trails at this mountain range are maintained by the Randolph Mountain Club and the Wonalancet Out Door Club. The Great Gulf wilderness area in this range was endangered by a fire at its peak of Owl's Head, while another of its peaks is named for being haunted by a Native American ghost, Chocorua. Edward Tuckerman discovered many features in this range, including his namesake ravine, and the Arethusa Waterfalls. Tourists to this range often visit its series of eight mountain huts including Mitzpah Springs and Lonesome Lake, and ski resorts at the town of North Conway. Its Kinsman range is home to a series of three peaks called the Cannon Balls. This range hosted the Bretton Woods Conference in 1944, and Daniel Webster is often said to be the figure represented by its formation, the Old Man of the Mountain. For 10 points, name this mountain range in New Hampshire that includes Mt. Washington.

ANSWER: White Mountains [or Whites; WMNF; or White Mountains National Forest; prompt on "Appalachian Mountains"]

11. A 2004 experiment used the decay of these particles to confirm the Standard Model's prediction that the Michel rho parameter equals 0.75; that experiment, which confirms the V-A structure of the weak force, was done by the TWIST collaboration. This particle's decay is also used to measure the Fermi constant characterizing the strength of the weak force. Because these particles are not stopped by electromagnetic or hadronic calorimeters, the ATLAS and CMS experiments have a separate spectrometer solely for detection of these particles. Charged pions decay into one of these particles and a neutrino. These particles are very useful for performing time dilation experiments since their half-life is around 2.2 microseconds. It's not the positron, but Carl Anderson discovered this particle in his observations of cosmic rays. For 10 points, name this lepton which is lighter than the tauon but heavier than the electron.

ANSWER: muons

12. This thinker concluded that humanity are heirs to "symmetry" and "breakings of symmetry" in an essay about an anti-gravitational effect at the origin of the Universe. In another essay, this thinker argued that Madonna has no "sexual otherness" and thus she must be fighting against her own body. Those essays, "The Secret Vestiges of Creation" and "The 'Laying Off' of Desire," appear in a collection in which this author becomes a detective and investigates the "murder of reality," *The Perfect Crime*. This philosopher used the fable "On Exactitude in Science" by Borges to examine how symbols were destroying the underlying real society. In another essay, he argued that the image of war superseded the actual conflict, and ultimately concluded that Saddam Hussein never truly lost. For 10 points, name this philosopher who wrote *Simulacra and Simulation* and notoriously asserted "The Gulf War did not take place."

ANSWER: Jean Baudrillard

13. The protagonist of this work stays overnight at Thomas Hardy's house during a bicycling trip and gives Hardy advice on dealing with autograph seekers. Its protagonist recalls how the daughter of his headmaster tried to find out what male genitals looked like by staring down his shirtfront, and explains his claim that romance at preparatory school is "necessarily homosexual" by describing his escapades with his pseudonymous friend "Dick." The epilogue to this book makes the first mention of the protagonist's longstanding mistress, who accompanied him and his wife Nancy when he became an English teacher at the University of Cairo. Ending with a "Dedicatory Epilogue" to Laura Riding, this book describes its author's correspondence with Siegfried Sassoon, and relates how his lung was punctured during the Battle of the Somme. For 10 points, name this memoir that includes detailed descriptions of its author's service in the Royal Welch Fusiliers during World War I, written by Robert Graves.

ANSWER: Goodbye to All That

14. Disturbances at this location were investigated by the Cox Commission, headed by special investigator Archibald Cox. An administrator of this place, Herbert Deane, made a dismissive comment about a preference for strawberries, which provided the title for James Simon Kunen's *The Strawberry Statement*. The revelation that this university conducted research for the Institute for Defense Analyses provoked a protest movement led by Mark Rudd. The man who coined the phrase "burn baby burn," H. Rap Brown, spoke at a rally after this university proposed to build a gymnasium that was decried as racist. *Life Magazine* published a photograph of a student from this university wearing sunglasses while smoking University President Grayson Kirk's cigar. Protesters at this school occupied Hamilton Hall and Low Library during Vietnam War-related protests in 1968. For 10 points, name this Ivy League university in New York City.

ANSWER: Columbia University

15. One text by this man begins with a quote from the Epistle of James, extracts four gifts in the form of "lights" from it, and then examines the six "illuminations" that come from it. He associated those illuminations with the days of creation, followed on the seventh day by the "illumination of glory." This man conceived of most creatures as "shadows" or "vestiges," but rational beings as "images" or "likenesses" of God. This author of *On Retracing the Arts to Theology* referred to his teacher Alexander of Hales as his master. He used an Aristotelian-scientific approach to draw Augustinian conclusions like the "aitiological argument" in his commentary on the *Sentences*. He died at the Second Council of Lyons, where he was eulogized. In his most famous work, he allegorized an angelic vision of Saint Francis as a path to God. For 10 points, name this Seraphic Doctor who wrote the *Journey of the Mind to God*.

ANSWER: Saint **Bonaventure** of Bagnoregio [or **Bonaventura**; or Giovanni di **Fidanza**; prompt on "Doctor **Seraphicus**" or "the **Seraphic** Doctor"]

16. This composer included a *Presto scorrevole* movement after the second of five interludes in his twelve-movement String Quartet No. 5. This composer included "Moto perpetuo," "Saeta," and "Canaries" in a set of brief pieces experimenting with one of his signature techniques, his *Eight Pieces for Four Timpani*. This composer used an "all-interval tetrachord" as the basis for such works as his first string quartet. He composed a double concerto for harpsichord, piano, and two chamber orchestras. A review of this composer's Cello Sonata coined the term "metric modulation" to describe the shifts between proportional tempos in his compositions. Daniel Barenboim premiered this composer's *Interventions* for piano and orchestra with the Boston Symphony Orchestra at Carnegie Hall on his 100th birthday. For 10 points, name this American composer of a *Concerto for Orchestra* who died in 2012.

ANSWER: Elliott **Carter** [or Elliott Cook **Carter**, Jr.]

17. One work by this author inveighs against "purchased lips that kiss with pain" and "trafficked hearts that break in twain;" that poetic lament is delivered by the "melting clarionet," following the violins' declaration, "O Trade! Would thou wert dead!" Brown grows fat and prosperous in the "county of red hills and stones," unlike Jones, in this man's dialect poem, "Thar's More in the Man than Thar is in the Land." In one poem by this author of "The Symphony," the rushes' admonition to "abide, abide" is ignored by a thing that "[flees] from folly on every side" and "hurries amain to reach the plain." In that poem, this author sees creeks overflowing so that "a thousand rivulets run 'twixt the roots of the sod" in the title location. In another poem he transcribed the call of a river that runs "o'er the hills of Habersham" and "through the valleys of Hall." "The Marshes of Glynn" is by, for 10 points, what this Southern poet who praised his native Georgia in "The Song of the Chattahoochee?"

ANSWER: Sidney **Lanier** [or Sidney Clopton **Lanier**]

18. In toxicity workups, the level of this molecule can be estimated by multiplying the osmolar gap by a factor of 6.2. This molecule is the larger of the two compounds whose poisoning is counteracted by 4-methylpyrazole, also known as fomepizol. Thiamine and pyridoxine can inhibit the production of this molecule's metabolite oxalic acid. Oxirane is the usual precursor of this molecule in synthetic pathways, such as the Shell-developed OMEGA process. Under acid catalysis, aldehydes react with this molecule to form 1,3-dioxolanes, which is a common strategy for protecting carbonyls using acetals. This compound is reacted with terephthalic acid to produce the thermoplastic polymer PET. In its most common usage, this molecule is often eschewed in favor of its safer relative based on propylene. For 10 points, name this molecule, a simple diol derived from the simplest alkene, that is commonly used in antifreeze.

ANSWER: **ethylene glycol** [do NOT accept or prompt on partial answers]

19. This man employed Mascezel to quell a revolt that occurred when Mascezel's brother Gildo seized control of African grain ships, forcing this man to direct that grain be imported from Gaul and Spain. Early in life, he served as an envoy at the court of Shapur III, where he negotiated a treaty on the partition of Armenia. A triumphal arch was erected after this man defeated Radagaisus. Shortly afterward, he allegedly ordered the burning of the Sibylline Books to prevent their prophecies from interfering with his campaigns. After his victory at the Battle of Pollentia, his son Eucherius became involved in a conspiracy hatched by the palace official Olympius, leading them both to be decapitated. The poet Claudian wrote poems for this man, who married Serena, the niece of Theodosius, and was appointed regent for the emperor Honorius. For 10 points, name this half-Vandal general who commanded Roman forces against Alaric.

ANSWER: Flavius **Stilicho**

20. The non-Biblical figures in this painting, one of whom is in the costume of a *gonfaloniere*, are possibly kneeling portraits of the Lenzi family. Because of its impressive architecture - such as the incorporation of a chapel behind God - many scholars believe that Filippo Brunelleschi helped its artist make this painting. When Giorgio Vasari was commissioned to restore the Santa Maria Novella's paintings, he chose to leave this one alone due to its perfection. Unusually, Mary gazes emotionlessly and directly at the viewer while dispassionately pointing toward her son. To the right of her is John the Baptist. At the bottom of this fresco, the phrase "I was once that which you are, and what I am you will also be" appears above a cadaver tomb. This painting, which features a human pyramid of figures, depicts the Crucifixion inside of a barrel vault. For 10 points, name this painting by Masaccio that depicts Jesus below God, and the third member of the title group implicitly.

ANSWER: The Holy Trinity with the Virgin and Saint John and donors [or Santa Trinita]

TIEBREAKER

21. According to Snorri, a king of Uppsala named Swegde spent many years trying to enter the realm of this god. A euhemerized account of this figure's rule states that, after this figure died at Swithiod, he went to Godheim. According to the *Heimskringla*, this man was the second husband of Skadi. He disguised himself as Vegtam in order to learn secret knowledge. Although this god is not Freyr, he established the laws of mankind and possessed a ship that could be folded up. In *The Poetic Edda*, this god answers the questions of the volva and disguises himself, which leads to him being tortured by Geirrod. In more traditional accounts, this god plunged a sword into the Barnstokk tree and his son Vidar will avenge his death at the jaws of Fenrir at Ragnarok. For 10 points, name this one-eyed "allfather" of the Norse pantheon.

ANSWER: Odin [or Woden; or Wotan]

## BONUSES

1. This sect, sometimes nicknamed the “greengrocers” for their vegetarianism, was founded by Abu Tahir Al-Jannabi and led by his son Abu Tahir Sulayman. For 10 points each:

[10] Name this Shi’ite splinter sect, which established a communist republic centered in Bahrain, from which it launched raids on caravans of pilgrims. This group sacked Mecca and held the Black Stone for ransom in AD 930.

ANSWER: Qarmatians [or Karmathian; or Qarmati; or Qaramitah; or Karamiyah; or Karmatian]

[10] While in Mecca, the Qarmatians profaned this well by dumping corpses and pissing into it. Tradition says this well sprung up when Hagar ran back and forth in the desert seven times looking for water for Ishmael.

ANSWER: Well of Zamzam

[10] Qarmatians maintained a strong presence in this Iraqi city, where their namesake leader was born. This city provides the name of the script that was used to record the Qur’an up until the 11th century CE.

ANSWER: Kufa [or al-Kufah; do NOT accept “Kufic”]

2. The subject of this poem is advised to “choose for thy command / Some peaceful province in acrostic land”, where he will be able to “torture one poor word ten thousand ways”. For 10 points each:

[10] Name this poem that claims its subject, a rival poet, “never deviates into sense”. It opens with the lines “All human things are subject to decay, / And, when fate summons, monarchs must obey”.

ANSWER: “Mac Flecknoe”; or, A satyr upon the True-Blew-Protestant Poet, T.S.”

[10] Ironically, Thomas Shadwell, the subject of this man’s poem “Mac Flecknoe”, succeeded him as Poet Laureate. This British satirist also wrote “Absalom and Achitophel” and “The Hind and the Panther.”

ANSWER: John Dryden

[10] Dryden’s predecessor as poet laureate was this self-professed bastard son of Shakespeare. He himself bastardized many of Shakespeare’s plays, including a shittier, but much more popular version of *Macbeth*.

ANSWER: Sir William Davenant

3. A B-minor harpsichord suite in this form appeared in J.S. Bach’s *Clavier-Ubung II* alongside his *Italian Concerto*. For 10 points each:

[10] Identify this musical form consisting of a slow section with dotted rhythms followed by a fast, imitative section. They first appeared appended to operas like Robert Cambert’s *Pomone* and Jean-Baptiste Lully’s *Atys*.

ANSWER: French overtures [or Overture in the French Style; or forms of Ouverture nach Französischer Art; prompt on “overtures”]

[10] A French overture opens this set of three suites by George Frideric Handel, which features a famous “Alla Hornpipe” movement and was composed for a barge trip on the Thames planned by King George I.

ANSWER: Water Music

[10] Due to varying manuscripts, the second and third suites of *Water Music* are sometimes combined into one, and their movements reordered. In no particular order, give the two keys of those suites.

ANSWER: D major and G major [accept in either order]

4. This equation predicts a linear relationship on a graph between the log of the rate constant and pKa. For 10 points each:

[10] Name this equation, which gives the relationship between the kinetic properties of an acid in terms of its acidic strength in general-acid catalysis.

ANSWER: Brönsted catalysis equation [or Brönsted catalysis law]

[10] A classic example of acid catalysis in organic chemistry is this reaction, in which a carboxylic acid and an alcohol are refluxed together with an acid to produce an ester.

ANSWER: Fischer-Speier esterification

[10] Rather than using strong acids, organic chemists frequently use Lewis acids in catalysis, as exemplified by this chemist’s modifications of the aldol reaction and the Michael addition, which use silyl enol ethers to attack Lewis acid-activated carbonyls.

ANSWER: Teruaki Mukaiyama

5. Answer the following about historical geography of Oceania, for 10 points each.

[10] In 1990, Francis Ona declared himself to be the king of this island, sparking a bloody crisis and claiming that an Australian copper mining company here was killing all the flying foxes. This largest member of the Solomon Islands is an autonomous region of Papua New Guinea.

ANSWER: Autonomous Region of **Bougainville**

[10] This archaeological culture draws its name from a type of fired pottery investigated at the namesake site in New Caledonia by Edward Gifford. The Samoan site of Mulifanua is associated with this culture, as is the burial ground at Teouma in Vanuatu.

ANSWER: **Lapita** culture

[10] In July of 1942, Japanese forces tried to isolate Australia by seizing Port Moresby in this campaign, named for a precarious pathway through the jungles of the Owen Stanley Mountains.

ANSWER: **Kokoda Track** Campaign [or **Kokoda Trail**]

6. For 10 points each, answer the following about the psychology of emotion.

[10] This theory of emotion, which was formulated by two physiologists, posits that a stimulus causes arousal in the thalamus, which in turn simultaneously causes a physiological and emotional response.

ANSWER: **Cannon-Bard** theory of emotion

[10] The Cannon-Bard theory of emotion challenged the theory of emotion independently developed by Carl Lange and this American psychologist, who wrote the classic textbook *Principles of Psychology*.

ANSWER: William **James**

[10] The Schachter-Singer theory of emotion was partially validated by the so-called “misattribution of arousal” experiment. In that experiment, an attractive woman gave out her phone number when she interviewed male subjects at two different examples of this kind of place, which affected how likely they were to call her back.

ANSWER: **bridge** [or more specific types of bridges, such as suspension **bridges**]

7. In combination with the drag of wind on surface water, this phenomenon causes a deflection in the motion of water that increases with depth. For 10 points each:

[10] Name this apparent deflection in the path of an object moving in a rotating reference frame.

ANSWER: **Coriolis** effect [or **Coriolis** force]

[10] Divergence of Ekman transport at the sea surface creates a vertical velocity in the Ekman layer known as Ekman suction, which can drive this process in which cold, nutrient-rich water displaces warm, nutrient-poor water.

ANSWER: **upwelling** [or word forms]

[10] Downward energy and momentum transfer is inhibited in these regions of the ocean, usually occurring 100 to 500 meters below sea level, in which density changes most rapidly with depth.

ANSWER: **pycnoclines**

8. When this leader discovered his daughter Ubalda de Cañete to be a whore, he declared prostitutes to be honorable citizens and made them wear golden combs, or “peinetas de oro,” in their hair. For 10 points each:

[10] Name this dictator who had a secret police force called the “hairy feet” or pyraques. This doctor of theology ruled his country with his fellow consul Fulgencio Yegros.

ANSWER: José Gaspar Rodríguez de **Francia** y Velasco

[10] Jose de Francia ruled this country whose leader Francisco Solano Lopez plunged it into a disastrous war against the Triple Alliance.

ANSWER: **Paraguay**

[10] A later leader of Paraguay, Alfredo Stroessner, earned a humorous nickname when he escaped to the Brazilian embassy in this fashion, after he took part in a failed 1948 coup to oust Juan Natalicio González.

ANSWER: by putting himself **in the trunk of a car** [or putting himself **in the boot of a car** or similar descriptive answers; prompt on general answers, such as “**in a fleeing car**”]

9. In this novel, Kit locks her dying husband in a room to rot and goes off on her own through the desert, becoming the sex slave of a stranger who rapes her. For 10 points each:

[10] Name this Paul Bowles novel, in which Port Moresby and his wife Kit go on a trip to North Africa to try and fix their broken marriage.

ANSWER: The Sheltering Sky

[10] The North African setting of *The Sheltering Sky* is shared by this William Burroughs novel partly set in “Interzone.”

ANSWER: Naked Lunch

[10] Paul Bowles’ best-known short story is this one, about a European Professor of Linguistics who offends a Moroccan *qaouaji* [cow-wah-ji]. The *qaouaji* delivers the professor to the Reguibat tribe, who cut out his tongue.

ANSWER: “A Distant Episode”

10. Joseph Kosuth, a member of this art movement, created a photostat in which he provided five different definitions of the word “painting.” For 10 points each:

[10] Name this art movement, which gained traction in the 1970’s. Sol Lewitt, who wrote its manifesto, stated that “the idea of art is the most important aspect ... its execution is perfunctory.”

ANSWER: concept art [or conceptual art]

[10] A Joseph Kosuth concept exhibit depicts a wooden one of these objects, a photograph of one of these objects, and the dictionary definition of one of these objects. Eero Saarinen designed a “tulip” one.

ANSWER: chair

[10] This couple designed a lounge chair featuring black leather and molded plywood. They released the film *Powers of Ten* and created the *Mathematica* exhibit at IBM.

ANSWER: Charles and Ray Eames

11. Written as a series of 22 books, it discusses the role of a good wife and proclaims marriage to be a “partnership ordained by the gods.” For 10 points each:

[10] Identify this philosophical work in which Kritoboulos and Socrates converse about the nature of household management. It was written by Xenophon.

ANSWER: The Economist [or Oeconomicus]

[10] In his reading of Xenophon’s *The Economist*, this author of *Natural Right and History* noted that Xenophon’s economist is an administrator of an estate and is thus, ipso facto, a good manager. This German-American is sometimes considered the founder of neo-conservatism.

ANSWER: Leo Strauss

[10] This other ancient philosopher posited four different types of economies: royal, satrapic, political, and personal, in his book *Economica*. His other works include *Nicomachean Ethics*.

ANSWER: Aristotle

12. This man’s mother, known by the pseudonym Jenny June, founded the General Federation of Women’s Clubs in New York. For 10 points each:

[10] Name this progressive intellectual who wrote the 1909 book *The Promise of American Life*, which synthesized Hamiltonian and Jeffersonian visions of political philosophy to advocate a strong national democracy.

ANSWER: Herbert David Croly

[10] Later, Croly wrote a book on the life and work of Mark Hanna, who ran the “front porch” campaign to elect this president, later assassinated by Leon Czolgosz.

ANSWER: William McKinley

[10] Croly co-founded *The New Republic* with this progressive journalist who wrote the widely syndicated column “Today and Tomorrow” and the book *Public Opinion*.

ANSWER: Walter Lippmann

13. Levels of this compound can be raised by ACE inhibitors, since this compound is broken down by angiotensin-converting enzyme. For 10 points each:

[10] Name this 9-amino acid protein which acts as a vasodilator. It is synthesized from kininogen by the protease kallikrein.

ANSWER: bradykinin

[10] This neurotransmitter, which is not present in naked mole rats, can serve as a vasodilator when mediated by nitric oxide. This 11-amino acid neurotransmitter is known for its role in transmission of pain.

ANSWER: substance P [or SP]

[10] This other neurotransmitter also regulates vasoconstriction and vasodilation in its control of the “fight or flight” response.

ANSWER: epinephrine [or adrenaline]



14. Answer the following about the origin of death in mythology, for 10 points each.

[10] In a myth from the American Southwest, humans die because this trickster ruined a sensible plan to control the world's population by having people die temporarily. Like Raven, he is a mainstay of Native American myths.

ANSWER: Coyote

[10] In Polynesian myth, Maui tried to win immortality for humans by crawling through this death goddess' vagina without waking her, but failed when a bird looking on couldn't help but laugh at the sight.

ANSWER: Hine [or Hine-nui-te-po]

[10] In Hinduism, Yama, the first human to die, decided to set up shop as god of the underworld. Yama's CIO was this god, who recorded all human actions in his book and used it to route souls to heaven or hell.

ANSWER: Chitragupta

15. Identify the following Soviet and post-Soviet science fiction authors, for 10 points each.

[10] The first novel officially censored by the USSR was this Russian author's early dystopian novel *We*.

ANSWER: Yevgeny Zamyatin [or Yevgeny Ivanovich Zamyatin]

[10] So-called "Progressors" work to advance the technological development of less advanced civilizations in the "Noon Universe" novels of these siblings. Their novel *Roadside Picnic* was adapted into Andrei Tarkovsky's *Stalker*.

ANSWER: the Strugatsky Brothers [or Arkady and Boris Strugatsky]

[10] This contemporary author, whose novels *Bro* and *23,000* are the non-eponymous parts of his *Ice* trilogy, attacked the Putin regime in a novel set in 2028 called *Day of the Oprichnik*.

ANSWER: Vladimir Sorokin [or Vladimir Georgievich Sorokin]

16. The Duke of Wellington opposed passage of this Act from the House of Lords. For 10 points each:

[10] Name this act, passed early in the reign of William IV under Prime Minister Earl Grey, which enfranchised many cities that had risen up in the Industrial Revolution and addressed the problem of the rotten boroughs.

ANSWER: Great Reform Act of 1832 [or Representation of the People Act of 1832; or First Reform Act]

[10] This chaotic period of time occurred after the first attempt to pass the Reform Act failed and Earl Grey resigned, being replaced by the Duke of Wellington. During this brief period, Thomas Attwood's Birmingham Political Union staged protests, until the Whigs were returned to power.

ANSWER: Days of May [or the May Days]

[10] The cause for reform was also supported by this leader of the Anti-Militia Association, who wrote the petition that established the Chartist movement as a founding member of the London Working Men's Association. He also wrote a history of Chartism while imprisoned with John Collins.

ANSWER: William Lovett

17. The Lienard-Wiechert formula gives these quantities for a moving point charge. For 10 points each:

[10] Name these quantities, which can be substituted into Maxwell's equations to obtain the Jefimenko equations. They are evaluated at a time equal to  $t - r/c$ .

ANSWER: retarded potentials [or the retarded scalar and vector potentials; prompt on "the scalar potential and the vector potential"; prompt on "the electromagnetic potentials"]

[10] The retarded scalar potential is given via an integral of this quantity over distance, where this quantity is evaluated at the retarded time. It is symbolized  $\rho$ , and the divergence of the electric field is proportional to this quantity according to Gauss's Law.

ANSWER: charge density [do NOT accept or prompt on "charge" alone]

[10] The formulas for the retarded potentials must satisfy the inhomogenous wave equation and this condition. This condition states that the divergence of the vector potential equals minus  $\mu_0$  times  $\epsilon_0$  times the time derivative of the scalar potential.

ANSWER: Lorenz gauge [or the Lorentz gauge]

18. One character in this work gets hit in the chest by a bouquet while watching the mad scene in *Lucia di Lammermoor*. For 10 points each:

[10] Name this novel, in which Lilia Herriton's marriage to an Italian dentist's son results in her brother-in-law Phillip coming to Monteriano to convince her to marry someone of her class.

ANSWER: Where Angels Fear to Tread

[10] A similar scene to the *Lammermoor* scene occurs in *Howard's End* when Helen, Margaret, Tibby and Fraulein Mosebach all interpret this musical work differently. Helen sees this work as a story involving heroes, goblins and shipwrecks, while Fraulein Mosebach just remembers that the composer is "echt Deutsch."

ANSWER: Ludwig van Beethoven's fifth symphony in C minor [or obvious equivalents, such as Beethoven's Symphony No. 5]

[10] *Where Angels Fear to Tread* and *Howard's End* were written by this Edwardian author of *A Room with a View*.

ANSWER: E.M. Forster [or Edward Morgan Forster]

19. Answer the following about the agriculture of ancient Rome, for 10 points each.

[10] As Rome's Empire grew, small free-hold farmers were displaced by these large estates, worked by large numbers of slaves, which most closely approximated plantations in the ancient world.

ANSWER: latifundia [or latifundium]

[10] In his twelve-book *De Re Rustica*, this Roman of the first century AD, described the management of profit-driven latifundia. He advised breaking slaves into work-teams, competing with each other, and punishing the laggards. He also wrote the enthralling book *Of Trees*.

ANSWER: Lucius Junius Moderatus Columella

[10] This legendary fourth king of Rome, perhaps named for his crooked arm, furthered agricultural development by building the Pons Sublicius across the Tiber. He also built Rome's first prison, the Mamertine, and was succeeded by Tarquinius Priscus.

ANSWER: Ancus Marcius

20. A painting by this artist depicts a hopeful rainbow and a large bird with outstretched wings, and features two emaciated black horses in the right foreground to depict the effects of the Balkan War. For 10 points each:

[10] Name this artist of *The Unfortunate Land of Tyrol*, who painted a canvas that features the phrase "And all being is flaming suffering" in *Red Horses*. A blue deer leaps into a panic in his *The Fate of the Animals*.

ANSWER: Franz Marc

[10] Franz Marc, along with Wassily Kandinsky, was a founder of this group of painters.

ANSWER: Der Blaue Reiter

[10] This seven foot tall painting by Franz Marc, which depicts four of the title animals on top of each other, has been missing ever since Hermann Goering acquired it.

ANSWER: The Tower of the Blue Horses [or Der Turm der blauen Pferde]