



# ACADEMIC COMPETITION FEDERATION

2014 ACF NATIONALS  
PACKET BY WUSTL, BERKELEY A, AND VCU

## TOSSUPS

1. In a 1990 article, the linguist J.R. Payne argued that the Igbo language had only eight of these words. R.M.W Dixon gave developed a widely used classification of these types of words in a 1977 article whose title asked “Where have all” these words “gone?” Arabic combines two common morphological forms of this class of words into the elative. Many of these words take as an argument an often implicit comparison class that determines a threshold for them. Prototypical concepts expressed by words of this type are characterized by intermediate time-stability, stativity, and intransitivity, and many of them are gradable on a closed or open scale. These words can be attributive, predicative, or substantive, depending on whether they serve as adjuncts to certain other words, behave as complements to forms of the verb “to be,” or stand on their own. In Latin, words of this type must agree in number, case, and gender with the words they modify, and they often have comparative and superlative forms. For 10 points, identify this word class that, roughly speaking, expresses some property of a noun.

ANSWER: ADJECTIVES

2. The first ruler by this name was killed by an invasion of Kushite peoples under Tanutamon. That man’s grandson, the better known ruler by this name, founded the city of Per-Temu Tjeju, which is modern Tell el-Mashkuta, and developed a grain trade system with Greece. He did that while building a waterway called the “Sweet Water Canal” which connected the Bitter Lakes of the Nile to the Red Sea, and which was completed many years later by Darius I. The first pharaoh by this name, along with his son Psamtek I, is credited with founding the Twenty-Sixth Dynasty of Egypt, which ruled from Sais. The second pharaoh by this name captured Kumukh after a four month siege and killed King Josiah of Judah after a lesser-known battle at Megiddo. However, just after that, that pharaoh with this name was defeated in battle by the son of Nabopolossar. For 10 points, give the name of that pharaoh who was defeated at the Battle of Carchemish in 605 BCE, where he lost to the Babylonians under Nebuchadnezzar II.

ANSWER: NECHO [or NECOS or NEKAU or NEKU or NECHOH or NIKU]

3. One character in this story melodramatically repeats an anecdote about a doctor who cut a heart out of a man’s chest and held it in his hand to a taciturn woman who sits “as if she were the owner of the sun.” In the final paragraph of this story, a turnip-shaped cloud and a “guffawing peal of thunder” descend on a character after he exclaims, “Break forth and wash the slime from this earth!” In this story, a character who claims to be a carpenter visits a farm where he repairs the garden house roof and resurrects a “1928 or ’29 Ford” that hasn’t run for fifteen years. At the end of this story, a boy screams, “My old woman is a flea bag and yours is a stinking polecat!” before jumping out of a moving vehicle. Its one-armed main character marries a deaf, mute girl who can only say the word “bird,” in exchange for her mean, elderly mother buying a new coat of green paint on a car. The protagonist of this story abandons Lucynell Crater at a diner hours after marrying her before seeing a highway sign with the title warning. For 10 points, name this short story about the tramp Tom Shiftlet by Flannery O’Connor.

ANSWER: “The LIFE YOU SAVE MAY BE YOUR OWN”

4. The Gerchberg-Saxton method is an iterative algorithm that uses an inverse Fourier transform to obtain this quantity. When this quantity, after being modified by a random screen, is Gaussian-distributed and wide-sense stationary, the width of the optical transfer function is directly proportional to the width of this quantity’s autocorrelation, and inversely proportional to this quantity’s standard deviation. Chaining an error detector, loop filter, and voltage controlled oscillator in series, and feeding the output back to the error detector through a “one-over- $n$ ” divider produces this quantity’s namesake “locked loop”. This quantity is modified by the charge times the flux quantum divided by  $\hbar$  when passing a photon around a solenoid in an Aharonov-Bohm experiment. Dividing the angular frequency by the wavenumber yields this type of velocity, which can

exceed the speed of light, although no information is transmitted faster than  $c$ . Coherent waves have this property constant relative to each other. For 10 points, identify this quantity which for a stationary sinusoidal wave is a constant offset to the argument.

ANSWER: PHASE

5. The final man to act as prime minister of this entity was John Xavier Merriman. He worked to continue the policies of John Molteno, who created a system of universities and libraries in this polity with his regulations. Its governing body passed the Glen Grey Act, which established individual land tenure and a labor tax to encourage farming. From the outset, this polity was governed by the “qualified franchise” scheme which allowed any citizen with property ownership over 25 pounds to vote, part of a system known as “responsible government.” A War Council was set up here by this colony’s governor Henry Bartle Frere. A revolt against its government led to the Gun War; that conflict with the Basuto people, together with its earlier wars against the Xhosa, bankrupted this colony. This colony also led a failed attack against the Paul Kruger-led Transvaal Republic, called the Jameson Raid. For 10 points, name this self-governing British colony once led by Cecil Rhodes in southern Africa.

ANSWER: CAPE COLONY [just CAPE is fine after Colony is read]

6. This man removed the daggers from the hearts of two bumbling would-be assassins, and revived them with the herb of immortality, thus inaugurating a race of pierced-chest people. When a giant arrived late to an assembly of the gods this man convoked atop a mountain, he had that giant beheaded. He was born from the belly of his father’s corpse after his father was executed. This man developed hemiplegia as a result of his work, and his hands and feet were thickly callused. He passed by his house without entering once when his wife was in labor, once when his son called out to him, and once when he was ten years old, in a story showcasing his devotion. A yellow dragon and a black turtle assisted this man, who continued the work his father Gun tried to do with self-growing soil. For thirteen years, this man and Houji chopped the occasional mountain ridge with a battle axe while digging canals. For 10 points, name this mythical founder of the Xia Dynasty, a Chinese hero who managed to get the Great Flood under control.

ANSWER: YU the Great [or Da YU]

7. This poem compares twelve owls flying from the hand of one character to Romulus spotting the omen of twelve circling vultures. Early in this poem, the speaker recounts playing the lute for King John I for Portugal on the same day as the title character’s appearance on a barge, which made the “treble squeak” for fear and the “basses roar.” Another section of this poem details how, from the ruins of a watch tower, there arose “brothel-houses,” home to “scenes of lewd loves, and of polluted joys.” This poem’s addressee is enthroned next to Ascanius during a ceremony in which he holds a bottle of ale in his left hand instead of a scepter. The “drugget robe” belonging to this poem’s title character is “born upwards by a subterranean wind” after Bruce and Longvil spring a trapdoor to make him disappear. This satire begins by comparing its subject to Augustus, stating “when Fate summons, monarchs must obey,” after the opening line “All human things are subject to decay.” It later calls that poet laureate “the last great prophet of tautology.” For 10 points, name this iceburn of Thomas Shadwell, a mock-epic poem by John Dryden.

ANSWER: MACFLECKNOE

8. The Arnsten lab in Yale showed that inhibition of cAMP, closing HCN channels in this region’s cells, is important to Alpha2A-adrenoceptor activity here. R.M. Brickner studied a stockbroker named Joe A who underwent a bilateral resection in response to a tumor in this region. FMRI studies suggest that mirror neurons in this area are active when yawning and watching others yawn. Brenda Milner demonstrated that poor performance in the Wisconsin Card Sorting Task is specifically indicative of damage to this region. The Portuguese biologist Antonio Egas Moniz won a controversial Nobel for developing a surgical procedure for this region. The most famous patient who suffered damage to this area was Phineas Gage, a railway worker who had an iron rod blasted into his body. Recent research contradicts the widely-held scientific belief that this brain region is much larger in humans than in other primates. For 10 points, name this lobe of the cerebral cortex involved with planning, abstract thought, and problem-solving.

ANSWER: FRONTAL LOBE [or PREFRONTAL CORTEX; prompt on “cerebral cortex”; prompt on “cortex”; prompt on “brain”, accept just FRONTAL or PREFRONTAL after “lobe” is read, but prompt on them before]

9. Dali depicted a tiny, torn photo of this man lying on a huge white plate while a decaying branch hangs overhead with a giant

drop of water about to fall. One piece depicts this man sharpening a knife preparing to kill a French cockerel. An X-ray photo of his chest shows his spine replaced by a stack of gold coins in a work portraying this man as “the Superman” who “swallows gold and spouts junk”. Dali painted “The Enigma” of this man, in addition to an odd picture, set in a snowstorm, titled for this man “masturbating.” A work published on the front-page of *AIZ* or the *Workers’ Illustrated Magazine*, includes a portrait of him on the back wall of a room where a family sits around a table eating parts of a bicycle while they exclaim, “Hurrah, the butter is gone!” A pile of tiny skeletons crawl up his knee as he sits by a fiery river in a painting titled *Cain*. John Heartfield made many photo-montages of this man, who George Grosz depicted “in Hell”. For 10 points, name this German leader parodied by Charlie Chaplin in *The Great Dictator*.

ANSWER: Adolf HITLER

10. Congress attempted to get around the restrictions imposed by the Supreme Court in this case by passing tax legislation, but the case of *Bailey v. Drexel* struck down that attempt. The dissent in this case, which opined that “regulation means the prohibition of something,” was quoted approvingly when this case was reversed by *United States v. Darby*. The majority opinion by William Rufus Day adds “expressly” to the wording of the 10th Amendment to denote limitations on the Commerce Clause, while the dissent declares that states are “no longer within their rights” when they “seek to send their products across state lines;” that dissent in this case was by Oliver Wendell Holmes. This case involved the owner of a cotton mill in North Carolina, who sued to stop the enforcement of the Keating-Owen Act. For 10 points, name this 1918 Supreme Court case which struck down federal restrictions on child labor.

ANSWER: HAMMER V. DAGENHART [accept the names in either order]

11. Above a fountain-shaped sculpture in this building, there is an inscription of the quote “Beauty, old yet ever new” from Whittier’s poem “The Shadow and the Light.” Pulitzer-winning historian Edmund Morris co-signed a lawsuit against a proposed renovation of this building that planned to carve out back rooms to create space for a new, four-story glass atrium with windows stretching top-to-bottom. Raffaele Menconi helped realize Thomas Hastings’s design for the bronze bases of the flagpoles at this building, which is in the middle of a controversy about Norman Foster’s proposed renovation, that would make it the largest indoor space in its home city. It features two statues nicknamed “Patience” and “Fortitude” that are popularly known as Lady Lenox and Lord Astor because this building was created by merging their two collections. Carrère and Hastings won a competition to design this building, for which Edward Clark Potter sculpted two marble lions on opposite sides of its main staircase on Fifth Avenue. For 10 points, name this Beaux-Arts building containing the Rose Main Reading Room, the flagship of Manhattan’s library system.

ANSWER: NEW YORK PUBLIC LIBRARY Main Branch [or Stephen SCHWARZMAN BUILDING; prompt on “NYPL”]

12. This event was the starting point for a 1982 time-series analysis of the periodicity of similar events by Raup and Sepkoski. A 1996 paper by Visscher et al. demonstrated that this event coincided with a large increase in the abundance of fungi. Research published last month by MIT’s Daniel Rothman suggests that the prevalence of the bacterium *methanosarcina* was a strong contributor to this event. The ratio between the 12 and 13 isotopes of carbon underwent a massive spike coinciding with this event, possibly indicating increased oceanic anoxia. This event may have occurred due to the expulsion of as much as 1.5 million cubic kilometers of lava in volcanic eruptions in what is now Siberia, resulting in a release of arctic methane clathrates. For 10 points, identify this event occurring approximately 251 million years ago at the boundary of the Paleozoic and Mesozoic eras, which resulted in the disappearance of about 57% of all animal species, and is sometimes known as the “Great Dying.”

ANSWER: PERMIAN-Triassic extinction [accept P-T extinction; prompt on “Great Dying” before mention]

13. One character in this novel is blamed for murdering Yamina, after she was accidentally killed in prison by a scorpion sting, after he had her arrested for killing her newborn child. In its last chapter, Miss Ferry drops off a crazy woman at the Majestic Hotel after two men helped her send a telegram reading “CANNOT GET BACK.” One woman in this novel views all accidents and surprises as omens, and is paralyzed trying to categorize them as good or bad signs. That woman is locked in a dark closet for weeks as Belqassim’s concubine after she flees Captain Broussard’s fort in Bsa at the end of its second book, “The Earth’s Sharp Edge.” Lieutenant d’Armagnac at Bou Nora convinces its male protagonist to withdraw his accusation against Monsieur Abdelkader for stealing his passport, which was actually pilfered by Eric Lyle, who travels with his photographer mother. The main female character’s husband dies of typhoid while she’s having an affair with Tunner in its first book “Tea in the Sahara.” For 10 points, name this novel about the dissolution of the American couple Kit and Port Moresby as they travel in North Africa, written by Paul Bowles.

ANSWER: The SHELTERING SKY

14. At the invitation of Lilli Lehmann, a man with this surname conducted *Don Giovanni* at the very first post-revival Salzburg festival. In an operetta by a composer with this surname, Antonin falls asleep in a vegetable cart, which is then loaded with cabbages on top of him, fulfilling a prophecy that Ciboulette will marry a man found in cabbage. That composer with this surname is best known for the art song “Si mes vers avaient des ailes.” Another musician with this surname commissioned twenty-six encore pieces and held a wildly popular open contest for the twenty-seventh, and was conducted by Esa-Pekka Salonen in a famous performance of Schoenberg and Sibelius’s concerti. Jennifer Higdon wrote a Pulitzer-winning concerto for that musician with this surname, who was admitted to the Curtis Institute of Music at age ten and is renowned for her interpretation of Bach’s solo violin work. For 10 points, give this surname shared by Marcel Proust’s Venezuelan-born lover Reynaldo, and by contemporary violin virtuoso Hilary.

ANSWER: HAHN [Reynaldo HAHN and Hilary HAHN]

15. The *Nihon Shoki* says that one of these objects was once found in the stomach of a “mujina,” a type of badger, after it was killed by a dog; that one was taken by Emperor Suinin and placed in the Isonokami Shrine at Nara. Several of these items make up an eleke, which is possessed by all of the gods worshipped by the Santeria faith. In another Shinto story, several of these objects, called magatama, were hung on a five-hundred branched sasaki tree that had been dug up from a mountain. A figure from Hinduism known as the green and black Jambhala holds a mongoose who spits out these items. A group of these can make up a *misbaha* in Muslim tradition, and a collection of them makes up the *japa mala* in Hindu tradition; in both cases, they’re often made of sandalwood. For 10 points, name these items which can be used to count prayers when placed on a string, such as in the rosary.

ANSWER: JEWELS [or BEADS; accept very close alternative answers like AMULETS or GEMSTONES]

16. A mixture of these compounds, potassium carbonate, and an ionic liquid is crushed with a mortar and pestle in a common procedure for functionalizing single wall carbon nanotubes. The beta-keto ester is deprotonated, and the resulting enolate is added to one of these compounds, in the Japp-Klingemann reaction. Part of these compounds can be replaced with a hydrogen atom via a radical mechanism upon the addition of  $\text{H}_3\text{PO}_2$ . One of them is added to a metal-salt-supported electron-poor alkene in the Meerwein reaction. Reactions of these compounds with activated aromatic systems result in a kind of dye. Copper (I) salts catalyze the displacement of one of these compounds in a premiere example of a nucleophilic aromatic substitution, forming aryl halides in the Sandmeyer reaction. For 10 points, name these ionic compounds consisting of an aryl group attached to a triple bonded dinitrogen cation.

ANSWER: aryl DIAZONIUM salts [or aryl DIAZONIUM compounds; do not accept or prompt on “diazo” or “azo”]

17. On the fifteenth of this month in 1935, Prime Minister Inukai Tsuyoshi was assassinated by a group of Japanese naval officers and members of the League of Blood. Race riots in Malaysia named for the 13th of this month led to national emergency in 1969. After the resignation of Edvard Benes, a constitution named for the 9th of this month founded the Communist state of Czechoslovakia in 1948. The New York chapter of the Prairie Fire Organizing Committee was the basis for a “Communist Organization” formed by members of the Weather Underground, named for the 19th of this month. An uprising named for this month overthrew the Viceroy Baltasar de Cisneros and set up the Primera Junta, the first independent government of Argentina, in 1810. Some “temporary legislation” regarding the Jews in Russia that was passed under Tsar Alexander III in 1882 was named for this month, as was some legislation often named for Adalbert Falk, which perpetuated a conflict known as the Kulturkampf. For 10 points, name this month which witnessed student riots in France in 1968, and a 1919 reform movement on the fourth in China.

ANSWER: MAY [or MAYO]

18. This character embarrassingly arrives late for the lecture *Love as a Force Conducive to Illness* after his morning wilderness walk is waylaid by a sudden vision of a childhood memory of asking his schoolboy idol Pribislav Hippe for a pencil. This character holds down the arms of the child medium Ellen Brand during a séance that successfully summons a spirit of one of his family members, after playing a recording of “Valentin’s Prayer” from *Faust*. He is dubbed a “problem child of life” by a member of the International League for the Organization of Progress, and seduces a Russian woman while speaking French during a Walpurgis Night carnival celebration. He has a vision of a pagan temple where two naked, elderly women dismember

a blond child, after getting lost skiing in the snow. This character befriends a burly, Javanese planter named Mynheer Peep-erkorn, even though he loves Mynheer's mistress Claudia Chauchat. This character plans to visit his cousin Joachim for three weeks, but ends up staying at the Berghof sanatorium for seven years. For 10 points, name this protagonist of Thomas Mann's *The Magic Mountain*.

ANSWER: HANS CASTORP [accept either]

19. The ruler Adud al-Dawla kept his court in this city when it was the capital of the Buyid dynasty, which arose around 934 CE. That ruler built several monuments in this city, including the sprawling Vakil Bazaar, a dam connecting this city to Estakhr, and the massive Qur'an Gate at its northeast entrance. André Godard re-designed a mausoleum in this city that includes the Musalla Gardens on the banks of the Ruknabad river. Its profligate raisin production followed centuries of its namesake wine being prized along the Silk Road. The ruins of Pasargadae lie on the outskirts of this city, which was the capital of the Zand Dynasty, and is currently the capital of its nation's province of Fars. It's also just south of ancient Persepolis. Baha'i pilgrims in this city visit the House of the Bab. This city fostered the poetic careers of its native sons Sa'di and Hafez, whose tombs are located here. For 10 points, name this major artistic center, the largest city in southern Iran.

ANSWER: SHIRAZ

20. One section of this work argues that Hegel demoted this work's title concept to a mere "means of education," and credits Marx for restoring the idea of this work's title concept as the "subjection of political domination... to reason." This work's 15th section criticizes Mill and Tocqueville for "devalu[ing] the consequences" of a process they favored for the sake of principle, and it traces the beginnings of the title event partly to the Tory opposition in the 1720s. This work is critical of modern democracies and welfare states for allowing their citizenry to develop "a general attitude of demand," which subsumes genuine political interests under "administrative acts," thereby leading to a degeneration of the title concept. Tracing the origins of the title concept to modern understanding of the concept of a "private" citizen, this work analyzes the rise and fall of "coffee houses" and "salons" as the central loci of the title concept, which the author fears has been undermined by a transition from "culture-debating" to "culture-consuming." For 10 points, identify this work about the evolving dynamics of political participation, written by Jurgen Habermas.

ANSWER: The STRUCTURAL TRANSFORMATION OF THE PUBLIC SPHERE

#### TIEBREAKER

21. Three lost books in the language of this civilization were written by the semi-legendary historian Sanchuniathon, who described its serpent worship. Its northernmost hub was at a colony on Arwad Island, where a republic may have been formed and where a ruler named Yakinlu was based. Inscriptions in the language of this civilization include the Nora Stone. The Murex snail became a symbol of these peoples, a history of whom was written by Philo of Byblos. His hometown of Byblos was among this civilization's major cities along with Sidon and Tyre, all based in the Late Bronze Age Levant. For 10 points, name this ancient civilization which developed a purple dye, founded a colony at Carthage, developed an alphabet, and ran a maritime trading empire in the Mediterranean.

ANSWER: PHOENICIANS [or the CANAANITES; or PUT]

## BONUSES

1. Name these Norwegian novelists, for 10 points each.

[10] This author defended his support of Hitler as a “preacher of the gospel of all nations” in his last novel *On Overgrown Paths* and described Eleseus leaving the family farm in Sellanraa in *The Growth of the Soil*.

ANSWER: Knut HAMSUN [or Knut PEDERSEN]

[10] This author hailed as one of the “Four Greats” of Norwegian literature wrote *The Fisher Maiden* and provided the lyrics for Norway’s national anthem.

ANSWER: Bjørnstjerne Martinius BJORNSEN

[10] This best-selling author wrote about Jon and Trond grappling with the legacy of the Nazi occupation in his novel *Out Stealing Horses*, and James Wood reviewed his recent novel *I Curse the River of Time*.

ANSWER: Per PETTERSON

2. Answer the following about post-Eisenstein Soviet cinema, for 10 points each.

[10] The most expensive film ever made in the USSR was Sergei Bondarchuk’s four-part adaptation of this novel, motivated by King Vidor’s 1959 English language production. Three of the film’s parts focus on Andrei Bolkonsky, Natasha Rostova, and Pierre Bezukhov.

ANSWER: WAR AND PEACE [or VOYNA I MIR]

[10] The loosening of film censorship brought about by glasnost and perestroika led to the rise this “bleak cinema” movement depicting the dark aspects of Soviet life, exemplified by Kira Muratova’s *Asthenic Syndrome* and Vasili Pichul’s sexually explicit film *Little Vera*.

ANSWER: CHERNUKHA

[10] Such films as *White Sun of the Desert*, which cosmonauts ritually watched before launches, exemplify this genre, the Soviet response to a popular kind of American film. These films were often set in Central Asia, or the steppe.

ANSWER: EASTERNS [or OSTERNS; accept RED WESTERN; accept BORSCHT WESTERN]

3. Answer the following about Emanuel Swedenborg, for 10 points each.

[10] Swedenborg first laid out his visions in this Neo-Latin work, his largest and first published book, originally in eight volumes which were blasted by Immanuel Kant after he read them. This text discusses at length the “inner meanings” of several chapters of Genesis and Exodus, through the law of correspondences.

ANSWER: ARCANA COELESTIA, quae in Scriptura Sacra seu Verbo Domini sunt, detecta [or The HEAVENLY MYSTERIES or SECRETS OF HEAVEN or HEAVENLY ARCANA or “CELESTIAL ARCANA” or very close translations like that]

[10] One of Swedenborg’s most popular beliefs among Transcendentalists and Romantics was the idea that after death, souls entered a spirit world instead of this intermediary realm for sinners who awaited admittance into Heaven.

ANSWER: PURGATORY

[10] This American wrote that the mind of Swedenborg allows room “for aesthetic culture and free expression of energy” in her book *Woman in the Nineteenth Century*, first published in 1843.

ANSWER: Margaret FULLER

4. For 10 points each, answer these loosely related questions pertaining to materials science, which is technically chemistry, the best kind of chemistry.

[10] Cody Voight wants you to know that this III-V direct bandgap semiconductor, which forms the basis for most blue LEDs, is basically impossible to p+ dope. It’s often mixed with a similar indium compound.

ANSWER: GALLIUM NITRIDE [or GAN]

[10] It’s impossible to dope because this element, the only acceptable dopant, also acts as a deep-level trap for recombination. This alkaline earth metal’s sulfate is known as Epsom salt, which is coincidentally pretty dope.

ANSWER: MAGNESIUM [or MG]

[10] Gallium Nitride is commonly grown on a substrate of sapphire, which consists of this compound in a crystalline polymorphic phase. This compound is dissolved in cryolite and electrolyzed in the Hall-Heroult process.

ANSWER: ALUMINUM OXIDE [or ALUMINIUM OXIDE; or ALUMINA; or ALOXIDE; or ALOXITE; or ALUNDUM; or ALUMINUM (III) OXIDE; or Al<sub>2</sub>O<sub>3</sub>; prompt on “corundum,” though that’s not really a compound, listen carefully to make sure you don’t accept “aluminum” if they answer ALUMINA, subtract 500 points for an answer of just “aluminium,” which is wrong both

factually and morally]

5. The first one declared that states “have the right, and are in duty bound, to interpose” and arrest the progress of evil when the federal government dangerously exercises powers not granted by the compact. For 10 points each:

[10] Name these documents drafted secretly in 1798 and 1799 by Thomas Jefferson and James Madison, in response to the Alien and Sedition Acts.

ANSWER: KENTUCKY and VIRGINIA RESOLUTIONS [accept in either order - or accept “RESOLVES” instead of “Resolutions”]

[10] This Representative from Vermont was put on trial under the Sedition Act for a letter he wrote to Alden Spooner. In another hilarious incident, this guy spat at Roger Griswold on the Senate floor and then defended himself with a pair of hot fire tongs when Griswold tried to cane him.

ANSWER: Matthew LYON

[10] Several northern states tried to evade this legislation by relying on the arguments of the Kentucky and Virginia Resolutions. This bill was famously lampooned in a cartoon as a snapping turtle, and was replaced after two years by the Non-Intercourse Act.

ANSWER: EMBARGO ACT of 1807

6. This essay presents “The earth has existed for many years past,” as “the very type of an unambiguous expression which we all understand.” For 10 points each:

[10] Identify this philosophical essay which constructs a class of propositions and argues that they have the “peculiar property” that if they are features of the title view of the world then they must be true.

ANSWER: “A DEFENSE OF COMMON SENSE”

[10] This philosopher, who claimed to give the title “Proof of an External World” of one of his essays by saying “here is one hand and here is another,” wrote “A Defense of Common Sense,” as well as the *Principia Ethica*.

ANSWER: George Edward MOORE

[10] Moore’s collection *Some Main Problems of Philosophy* introduced this philosophical concept, which Moore preferred to the old-fashioned “sensations” to describe the primary objects of experience such as color and size.

ANSWER: SENSE DATA [or DATUM]

7. This character reappears later in the novel running a pickle chutney factory under the pseudonym Mrs. Braganza. For 10 points each:

[10] Name this character who angrily switches Wee Willie Winkie’s baby with Ahmed’s newborn to get revenge on her boyfriend Joseph D’Costa while working as a midwife.

ANSWER: MARY PEREIRA [accept either]

[10] Mary Pereira switches this character and Shiva at birth while working as a midwife. This telepathic character narrates *Midnight’s Children* and has an enormous, sensitive nose.

ANSWER: SALEEM Sinai [prompt on Sinai]

[10] This Englishman sells his estate to leave the country before Indian Independence. He is Saleem’s biological father, who seduces the street singer Vanita.

ANSWER: WILLIAM METHWOLD [accept either]

8. During this operation, national hero Martim Moniz reportedly sacrificed himself by lodging himself into a pair of doors in a fortress, preventing them from closing. For 10 points each:

[10] Name this 1147 CE operation that was part of the Second Crusade. It witnessed a bunch of stranded Christians, such as Henry Glanville, decide to pledge support to the victor of the Battle of Ourique.

ANSWER: SIEGE OF LISBON [accept close equivalents like CAPTURE OF LISBON or INVASION OF LISBON]

[10] This term is given to the petty Muslim kingdoms or emirates that sprung up on the Iberian Peninsula after the fall of Umayyad-ruled Cordoba caliphate. These kingdoms often hired Christian mercenaries to battle rival states, and paid a tribute called *parias* to the Christian kingdoms.

ANSWER: TAIFA [or TA’IFAH; or TAWA’IF]

[10] The taifa kingdoms were abolished when this Muslim empire of North Africa invaded under Yusuf ibn Tashfin at Zallaqa. Centered in Marrakesh, this dynasty was replaced by the Almohads in 1147 CE.

ANSWER: ALMORAVID Dynasty

9. This scientist lived with the Alaskan Nunamiut people to study the environmental conditions affecting ancient hominins. For 10 points each:

[10] Name this archaeologist who argued for constructing a “systematic... picture... of the total extinct cultural system,” in his seminal paper “Archaeology as Anthropology,” which inaugurated his approach known as “processual archaeology.”

ANSWER: Lewis Roberts BINFORD

[10] Binford’s study of the Nunamiut attempted to apply this methodological approach of integrating archaeological evidence with behavioral dynamics. Sociologist Robert Merton developed this type of approach in his book *Social Theory and Social Structure*.

ANSWER: MIDDLE-RANGE theory

[10] Binford devoted much of his research to the Mousterian flint tool culture of these hominins, the first remains of which was discovered in the Feldhofer grotto of a German valley. This species was either driven to extinction by or interbred with the Cro-Magnons.

ANSWER: NEANDERTHALS [or homo NEANDERTHALensis]

10. This task can be accomplished in hardware by amplifying the signal at the base of a reverse-bias transistor and feeding it into a Schmitt trigger. For 10 points each:

[10] Identify this process which can also be achieved in hardware by sampling Schottky noise, and which can be approximately achieved via Marsaglia’s ziggurat method.

ANSWER: RANDOM NUMBER generation [prompt on “RNG”]

[10] This pseudorandom number generator operates by setting  $N$  to be the product of two large distinct primes and computing the  $(n + 1)^{th}$  term as the  $n^{th}$  term squared modulo  $N$ ; the prime number is then formed by taking the parity bits of all the terms thus computed and concatenating them.

ANSWER: Blum-Blum-Shub algorithm

[10] Another popular method of generating random numbers in hardware is to reverse-bias the Zener variant of one of these devices and measure the noise from the avalanche breakdown. These devices consist of a single PN junction and in normal operation only allow current flow in one direction.

ANSWER: DIODE

11. Notable practitioners of this type of painting include Juan Sanchez Cotan and Luis Egidio Melendez. For 10 points each:

[10] Name this genre of Spanish still life paintings that usually depicts cupboard items like fruits and pottery, whose name comes from the Spanish word for “pantry.”

ANSWER: BODEGÓN

[10] Sometimes this artist’s Seville paintings, such as *Old Woman Frying Eggs* and *The Lunch*, are classified as bodegons, but he is better known for his paintings *The Rokeby Venus* and *The Surrender of Breda*.

ANSWER: Diego VELAZQUEZ

[10] This group of Flemish genre painters in Rome during the 17th century wandered the city and countryside painting scenes of lower-class life. Their name derives from the nickname given to their leader Pieter van Laer, meaning “ugly doll.”

ANSWER: BAMBOCCianti

12. This mystical system defended by the monks of Athos held that, through a quiet process of inner prayer, it’s possible to view the mystic shine that is the uncreated light of God. For 10 points each:

[10] Name this practice which caused a namesake controversy in the Orthodox Byzantine Church during the 14th Century CE. Its practitioners, who constantly read the Philokalia and recite the Jesus prayer, were blasted as heretics by the monk Barlaam.

ANSWER: HESYCHASM [or word forms: HESYCHASTES, HESYCHIA, HESYCHAZO, HESYCHASMOS]

[10] This Athonian monk was the foremost defender of hesychasm and won the controversy over Barlaam at the Fifth Council of Constantinople. This saint advocated an intellectual brand of Hesychasm in treatises called the Triads.

ANSWER: St. Gregory PALAMAS

[10] The term hesychasm can be found in the much earlier writings of this Church Doctor who codified the Divine Liturgy in the Byzantine rite. His last name means “golden-mouthed,” a testament to his skill at oratory.

ANSWER: St. John CHRYSTOSTOM



13. This poem's description of the Dead Sea and the vessels used at Belshazzar's Feast are mainly drawn from *Mandeville's Travels*. For 10 points each:

[10] Name this alliterative poem that discusses the episodes of Noah's ark surviving the deluge, Abraham and Lot, and the writing on the wall at Belshazzar's Feast to urge mankind to follow the title virtue.

ANSWER: CLEANNES [or PURITY]

[10] *Cleanness*, *Patience*, and two other poems by this author are drawn from the *Cotton Nero A.x* manuscript.

ANSWER: PEARL POET [accept GAWAIN POET, but do not reveal this answer]

[10] The Pearl Poet liberally used bob and wheel stanzas in this romance, whose first title character accepts a challenge to behead the second, and to be beheaded himself in a year and a day.

ANSWER: SIR GAWAIN AND THE GREEN KNIGHT [accept GAWAIN]

14. This leader's father, Said bin Taimur, won the Jebel Akhdar War with support from British forces. For 10 points each:

[10] Name this sultan of Oman, who orchestrated a palace coup in 1970 to come to power and quelled internal dissent by putting down the Dhofar Rebellion. He's credited with modernizing the country, instituting a five-point plan spelling out several reforms.

ANSWER: Sultan QABOOS bin Said Al Said [or QABUS]

[10] The leaders of the Dhofar Rebellion, including Mussalim bin Nafl, made a daring crossing of this desert, which is known in English as the Empty Quarter, and covers a large part of Saudi Arabia.

ANSWER: RUB' AL KHALI [or RUB AL-HALI]

[10] The armed supporters of the Dhofar Rebellion were assisted by this socialist Middle Eastern state. After losing a 1994 civil war, the last remnant of this state dissolved and unified with its northern neighbor led by Ali Abdullah Saleh.

ANSWER: SOUTH YEMEN [or PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN; or DEMOCRATIC YEMEN; do not accept "Yemen" or "North Yemen" or "Yemen Arab Republic" or "Republic of Yemen" or "Democratic Republic of Yemen"]

15. This bacterium was co-discovered by the lunatic Australian physician Barry Marshall, who drank a petri dish containing a live culture of it. For 10 points each:

[10] Name this Gram-negative bacterium responsible for gastric ulcers, which more than 50% of the world's population harbors in their GI tract.

ANSWER: Helicobacter PYLORI

[10] *H. pylori* burrows inside the mucus lining the stomach by using the lining's higher pH than the interior of the stomach in this process, the movement of an organism in response to a chemical stimulus.

ANSWER: CHEMOTAXIS

[10] *H. pylori* neutralizes the low pH of the acid in its environment by secreting this nickel-containing metalloenzyme, which James Sumner demonstrated was a protein, proving for the first time that enzymes were proteins.

ANSWER: UREASE

16. Echion, Udeus, Chthonius, Pelorus, and Hyperenor are the five of these people who survived a fight sparked by the tossing of a stone. For 10 points each:

[10] Name these warriors who arose from the ground at both Colchis and at Thebes when dragon's teeth were sown in the ground.

ANSWER: SPARTOI

[10] The Spartoi are believed to be the sons of this god, whose affair with Aphrodite was exposed when they were snared by an invisible net.

ANSWER: ARES [or MARS]

[10] In this fifth century BC Greek historian's account of the founding of Thebes, the battle between the Spartoi didn't take place. Thucydides's *History* drew from this Mytilenian's mythological history of Attica, titled *Atthis*.

ANSWER: HELLENICUS of Mytilene [or HELLENICUS of Lesbos]

17. This amateur composer was parodied as "the Harpist" in the publication *Die Zukunft*. For 10 points each:

[10] Name this Count of Sandels, who was outed by journalist Maximilian Harden. Harden revealed this man's gay affair with

Kuno von Moltke, which was later confirmed in court by Moltke's sexually frustrated wife.

ANSWER: Philip, Prince of EULENBURG [or Philip Frederick ALEXANDER, Prince of Eulenburg and Hertefeld]

[10] Eulenburg advocated the appointment of Bernhard von Bülow as an advisor to this kaiser, whom he served prior to the Harden-Eulenburg affair. You may also know that this guy abdicated following World War One.

ANSWER: Kaiser WILHELM II [or WILLIAM II; prompt on "Wilhelm" or "William"]

[10] This participant in the Harden-Eulenburg affair was imprisoned after alleging that von Bülow himself had participated in homosexual acts. He founded the world's first gay journal, *Der Eigene*, in Berlin.

ANSWER: Adolf BRAND

18. The speaker of this poem imagines the Grand Tours undertaken by "long-haired Victorian sages... breezing on their trust funds through the world," and notes in its first stanza that "life changed to landscape." For 10 points each:

[10] Name this poem that symbolizes the dissolution of the author's Catholic faith as a train ride away from Rome undertaken by the speaker, who observes "Paris, our black classic, breaking up / like killer kings on an Etruscan cup."

ANSWER: "BEYOND THE ALPS"

[10] A heavily-revised version of "Beyond the Alps" is the first poem in this Pulitzer-Prize-winning, 1960 collection, which includes the long prose memoir "91 Revere Street" and poems about the author's mental illness, such as "Home After Three Months Away" and "Waking in the Blue."

ANSWER: LIFE STUDIES

[10] This author of *Life Studies*, and scion of an illustrious American poetic family, declared "I myself am hell" in "Skunk Hour," and honored a monument to Robert Gould Shaw in "For the Union Dead."

ANSWER: Robert LOWELL [or Robert Traill Spence "CAL" LOWELL IV; prompt on "Lowell"]

19. This composition was dedicated to Samuel Sanford, and written for the newly-created London Symphony Orchestra. For 10 points each:

[10] Name this piece for string quartet and orchestra written in a modified sonata form, with the development replaced by what its composer called "a devil of a fugue." It recapitulates a Welsh theme upon transitioning to its second title section.

ANSWER: INTRODUCTION AND ALLEGRO for Strings, Op. 47

[10] Other orchestral works by this composer of *Introduction and Allegro for Strings* include two symphonies, a B minor violin concerto for Fritz Kreisler, and the concert overtures *Froissart* and *In the South*.

ANSWER: Sir Edgar (William) ELGAR, 1st Baronet

[10] Samuel Sanford ensured that Elgar received his honorary doctorate in music at Yale University, an occasion marked by a surprise performance of the first of these Elgar marches, a staple at graduations everywhere since.

ANSWER: POMP AND CIRCUMSTANCE Military Marches

20. The guiding center of a particle is obtained by time-averaging this type of motion. For 10 points each.

[10] Identify this motion undergone by a charged particle in a magnetic field. This periodic motion has a frequency equal to particle charge times magnetic field divided by particle mass.

ANSWER: CYCLOTRON motion [or GYROmotion; or LARMOR motion]

[10] The constant for this process in a plasma has intermediate value between the constant for the same type of process undergone by electrons and that undergone by ions. This process occurs when electrons separate from ions across a density gradient, resulting in a restoring electric field which keeps the plasma quasineutral.

ANSWER: AMBIPOlar DIFFUSION [prompt on partial answers]

[10] The evolution of the distribution function in phase space for a plasma is governed by an equation named for this scientist. His distribution equates the probability of a state in a system to the exponential of negative energy over  $kT$ .

ANSWER: Ludwig BOLTZMANN

EXTRA BONUS

21. The founder of this organization worked together with the Suriname-born Otto Huiswood and the writer Claude McKay. For 10 points each:

[10] Name this radical secret society formed by the New York journalist Cyril Briggs to advocate black liberation. It used Briggs' newspaper *The Crusader* as its mouthpiece beginning in 1922, and then fused with the American Communist Party.

ANSWER: AFRICAN BLOOD BROTHERHOOD [or the ABB]

[10] The ABB feuded with Marcus Garvey's UNIA after the failure of this shipping line, which Garvey had started to effectuate his Back-to-Africa movement. It ended up folding, massively in debt, after being harassed by several charges of mail fraud.

ANSWER: BLACK STAR Line

[10] Both Briggs and Asa Philip Randolph urged members to remember this 1894 strike of the American Railway Union, which was squashed by federal military troops called in by Grover Cleveland.

ANSWER: PULLMAN Strike