



ACADEMIC COMPETITION FEDERATION

2014 ACF NATIONALS
PACKET BY OHIO STATE

TOSSUPS

1. This painter used force lines to crystallize the sky behind Provincetown's Central Methodist Episcopal Church in a watercolor work titled *After Sir Christopher Wren*. This artist painted a portrait of Arthur Dove showing a giant scythe dominating an people-less landscape where the word "Dove" appears in the sky. He depicted a man rowing a couple in front of a smoldering volcano in his watercolor illustration of Henry James's "The Beast in the Jungle." In another work, this artist adopted a low vantage point to heighten the monumentality of two white grain elevators standing to the left of a black smokestack. This artist portrayed Lancaster, Pennsylvania in his works *Aucassin and Nicolette* and *My Egypt* and created a genre called the "poster portrait." He placed the fragmented word "BILL" in the upper left of a painting that features a scattered streetlights and a red shapes resembling the fire truck described in a William Carlos Williams poem. For 10 points, name this leader of the Precisionist movement who painted *I Saw The Figure 5 in Gold*.

ANSWER: Charles DEMUTH

2. This play's stage directions note the setting evokes a time "when living creatures had flippers turning to limbs and scales to skin" and is filled with flowers suggesting "organs of a body, torn out, still glistening with undried blood." A woman in this play describes being forced to wear a bathing suit that turned transparent when wet while traveling with the author of *Poems of Summer*. One character claims he found God after witnessing birds devour recently-hatched sea turtles on the Encantadas. This play, set in a hothouse, begins when a physician nicknamed Dr. Sugar comes from Lion's View Sanatorium to inspect a woman who was given \$50,000 to accompany her cousin in Cabeza de Lobo. Aunt Violet hires Dr. Cukrowicz to lobotomize a girl who claims her son was cannibalized by a mob of young street urchins in Italy after he tried to seduce them. For 10 points, name this play in which Catherine Holly reveals the illicit activities of her gay cousin Sebastian Venable, written by Tennessee Williams.

ANSWER: SUDDENLY LAST SUMMER

3. Relatively large amounts of this commodity were found at a Spanish Bronze Age site known as the "Bat Cave" near Granada. The Chinese writer Xu Boling records that the Chenghua Emperor of the Ming Dynasty ordered this commodity to be purchased at equal the price of gold. Several centuries later, Engelbert Kaempfer described a variant of *this* called madak. The alchemist Paracelsus mixed gold and citrus juice with this substance to create his "Stones of Immortality." A letter written by the court official Lin Zexu laments that "every province of his land" overflows with this substance, and shames the addressee for endorsing the sale of this commodity while it is illegal in her country. The HMS Nemesis was key to victory in some conflicts fought over this commodity, which resulted in the burning of the Summer Palaces and the signing of the Treaties of Tientsin and the Treaty of Nanking. For 10 points, give this powerful drug created from poppy plants, the namesake of two wars between China and Great Britain.

ANSWER: OPIUM [or OPIATES; accept reasonable equivalents; prompt on "Drugs" or "Narcotics," etc.]

4. A study published by AM Wobus showed that treatment with retinoic acid accelerated the differentiation and development of these cells. As a side effect, doxorubicin decreases the expression of several genes in these cells, limiting its use in chemotherapy. Nitric oxide synthesis in these cells is modulated in part by huge amounts of caveolin-3. Irregular and sparse amounts of DHPR, and lots of the *second* ryanodine receptor, are found in these cells, whose plasma membranes are heavily folded at the fascia adherens, forming an actin-spectrin heavy region known as the transitional junction. Intercalated discs connect these cells, forming a syncytium, and a long plateau phase is characteristic of their action potentials. They have only one nucleus, but they have a high density of mitochondria and possess striations. For 10 points, name these involuntary muscle cells that

form the wall of a beating circulatory organ.

ANSWER: CARDIAC muscle cells [or CARDIOMYOCYTES; or MYOCARDIOCYTES; prompt on “muscle” cells; prompt on “heart” cells at all times]

5. One religious figure born in this place was the translator Drogmi Yeshe, who emphasized a teaching called the Lam Dre and created a school called “pale earth” or Sakya. A religious system originating in this place has a scripture called the “Cavern of Treasures” and many of its members were persecuted by the Dzungars. That religion teaches a doctrine called the “Five Pure Lights” which says that five forms of matter need to be purified to create the “rainbow body.” This teaching has inspired worshippers in this place to create “prayer flags” composed of the five primary colors, strung either horizontally or vertically. In addition to the indigenous religion of Bon in this place, the younger traditions employ texts like *The Great Exposition of the Stages of the Path*, and are divided into “Red Hat” and “Yellow Hat” sects, the latter of which includes only the Gelug-pa school. For 10 points, name this place where the Potala Palace used to be a home for Tenzin Gyatso, who sat in the capital of Lhasa as the Dalai Lama.

ANSWER: TIBET [Tibet Autonomous Region]

6. Wanda Orlikowski criticized this thinker in a paper about how the “duality of technology” he implied was a false dichotomy. This sociologist noted that the role of the “routinization of encounters” didn’t diminish during revolutionary periods and argued that modernity is defined by the reflexivity of individual decision making, distinguishing it from traditional societies. In addition to railing against postmodernity in favor of “radical modernity,” he described the “duality of structure” that both equips and constricts agency. In *Beyond Left and Right* and *The Third Way*, he espoused the “radical center” and his most notable theory, put forward in his *The Constitution of Society*, suggested that social structure is reproduced by the acts of individuals. For 10 points, name this British sociologist who developed a theory of structuration and wrote *New Rules of Sociological Method*.

ANSWER: Anthony GIDDENS

7. In one poem written in this language, the speaker declares “The child is the dark shadow of the soldiers / on guard with rifles Saracens and batons” and concludes “the child grown into a giant journeys through the whole world / Without a pass.” The poem “The child is not dead” was written in this language, used for a novel in which Martin struggles with whether he should help his past lover, the Italian expatriate Bea, hide important documents. After his arrest and imprisonment, an author who wrote in this language penned a work structured around interrogations with “Mr. Investigator”. In perhaps the best-known novel written in this language, Captain Stolz tries to intimidate a man trying to find out what happened to Gordon Ngubene. The avant-garde literary group Die Sestigers worked in this language, which was used to write *Rumours of Rain*, *The True Confessions of an Albino Terrorist*, and a novel about Ben du Toit entitled *A Dry White Season*. For 10 points, name this language used by authors such as Breyten Breytenbach and Andre Brink.

ANSWER: AFRIKAANS

8. While serving as Chief Justice, this man’s court found that federal courts had no jurisdiction in cases already settled by Native American tribal councils in the case *Ex parte Crow Dog*. This Chief Justice joined the majority in *United States v. Cruikshank*, which held that the Due Process and Equal Protection Clauses apply only to state action. He wrote the opinion in *Minor v. Happersett*, which affirmed a Missouri court decision about the right to vote. A remark made by this man was inserted by court reporter Bancroft Davis into the headnotes of *Santa Clara County v. Southern Pacific Railroad*, and that remark has been used as precedent in cases like *Citizens United*. His court unanimously upheld a state anti-miscegenation statute in *Pace v. Alabama*. He also wrote an opinion stating that a business “affected with a public interest” could be regulated by the government; that case began as a question about the right to charge minimum prices for grain elevators. For 10 points, name this Chief Justice who presided over *Munn v. Illinois*, and was succeeded by Melville Fuller after serving during the Reconstruction era.

ANSWER: Morrison WAITE

9. The yield of this molecule is excellent when large excesses of zinc dust are added in a procedure named for Hass. The seed oil from lychee and the phospholipid bilayer of *E. coli* are rich in fatty acids post-synthetically modified to contain this molecule. The discoverer of this compound, who added sodium to facilitate an intermolecular Wurtz coupling, was August Freund. Re-

acting sulfur ylides with enones through the Corey-Chaykovsky reaction produces substituted derivatives of this molecule. In the preferred way to synthesize it, a methylene free radical intermediate formed from an organozinc carbenoid simultaneously reacts with both carbons of an alkene. This molecule is assumed to have sp² hybridization in the Walsh model, contradicting the earlier notion that its sp³ orbitals overlapped to form “banana bonds.” This planar molecule, the product of the Simmons-Smith reaction, has high ring strain, since all of its bond angles are sixty degrees. For 10 points, name this smallest cycloalkane, which has chemical formula C₃H₆.

ANSWER: CYCLOPROPANE [don't prompt on “propane”]

10. Robert Rauschenberg's piece *Open Score* begins with performers engaged in this activity, which is depicted in and also names a David Hockney piece compiled from 144 faxed sheets of paper. After falling down while engaged in this activity, John Self remarks that he feels like “an old dog that wants its belly stroked” in Martin Amis' *Money*. Jacques Tati plays a character who takes up this activity in his *Les Vacances de M. Hulot* and a David Hemmings-portrayed fashion photographer observes a group of mimes engaged in this activity in Antonioni's *Blowup*. Cecil Vyse abstains from playing this sport with the Honeychurches in *A Room With a View*. Mitsuru Senda's Quizhong Stadium and Dominique Perrault's La Caja Magica are venues for this sport, which is played in a dance choreographed by Nijinsky that was set to Debussy's *Jeux*. For 10 points, name this sport that Diane Keaton's character and Alvy Singer are playing during their first meeting in *Annie Hall*, which Hitchcock depicted Guy Haines playing in *Strangers on a Train*.

ANSWER: playing TENNIS

11. This thinker proposed a theory of the origin of language in which it begins by people using signs to denote particular perceptions, followed by a transition to using signs to denote universals derivable from perceptions. In one work, this philosopher analogized the structure of the title polity to that of the ontology of the world, with the ruler, who is required to possess twelve “natural qualities” in order to establish the title polity, representing the First Cause. “Theoretical virtues, deliberative virtues, moral virtues, and practical arts,” are the four components necessary for the title state according to this thinker's *The Attainment of Happiness*, and he produced a five-fold taxonomy of knowledge in his *The Book of the Enumeration of the Sciences*. Sometimes known as the “Second Teacher,” this philosopher attempted a synthesis of Aristotelian and Neoplatonic thought with the religious thought of Islam. For 10 points, identify this early Islamic philosopher whose works include *The Virtuous City* and *The Book of Letters*.

ANSWER: Abu Nasr Muhammad ibn Muhammad FARABI [or AL-FARABI]

12. The protagonist of this novel gets a job in the quarantine section of the seaport immediately upon arriving in New York by convincing the authorities he's an expert in fleas. One character in this novel becomes obsessed with English after reading Macaulay's *The History of England From the Ascension of King James the Second* and impulsively quits his job to move to England. The protagonist becomes the manager of a colonial rubber trading post in Africa that he later burns down in a delirious fever. In this novel, Dr. Baryton hands administration of his mental institute over to the protagonist, who earlier romances the friendly prostitute Molly while working at the Ford factory in Detroit. In a notable scene, the Henrouille family hires a man to dispose of their grandmother with a bomb so they can stop paying her medical fees, but the bomb accidentally explodes in his face. The protagonist is shadowed throughout this novel by annoying alter ego Leon Robinson. For 10 points, name this 1932 novel about the wandering Ferdinand Bardamu, written by Louis-Ferdinand Celine.

ANSWER: JOURNEY TO THE END OF THE NIGHT [or VOYAGE AU BOUT DE LA NUIT]

13. One of this composer's piano pieces repeats four-beat rhythmic units four times, each time accelerating the tempo of the notes, from single quarter, to dotted eighths, to bundles of sixteenth notes. This composer reversed the order of the *allegro risoluto* second and *andante sostenuto* third movements of one of his symphonies, in which the *Dies Irae* is played at half speed on the strings in a movement based on a folk song about a mother learning about her son's death. This composer of a *Toccata in E-flat minor* used a bell to open and close his second symphony, and put in a series of trombone glissandos in a piece whose A section's theme is interrupted by a cymbal clash in one of its repetitions. An oft-excerpted *Adagio* about the love between Phrygia and the title character appears in one of his ballets, and another, which is set at a collective farm, contains a fast-paced excerpt that begins with the xylophones playing F sharps. For 10 points, name this Armenian composer of *Spartacus* and *Gayane*, which includes the “Sabre Dance.”

ANSWER: Aram KHACHATURIAN

14. TWO ANSWERS REQUIRED. One war between these two historical powers featured an assault on the Tower of Flies - that war was named for being fought over land owned by the Monks of Saint Sabas. These powers fought each other at the Battle of Curzola, after the winning side signed the second treaty of Nymphaeum with Byzantine emperor Michael VIII. A dispute between these two powers over the Greek island of Tenedos led to war that prompted the decline of one of these powers, thanks in part to the admiralship of Carlo Zeno and Vettor Pisani. That conflict between these two powers, the War of Chioggia, was ended by the Peace of Turin. It was during a war between these two states that Marco Polo was imprisoned and wrote his memoirs. One of these states was ruled by Andrea Dandolo, while the other was home to the seafaring Doria family. For 10 points, name these maritime powers which fought over Mediterranean trading routes from roughly 1255 through 1381 CE.
ANSWER: VENICE and GENOA [in either order, or VENEZIA and GENOVA]

15. A variant of étale cohomology used in algebraic geometry over finite fields is named after these mathematical objects. Certain types of equations can be solved in the rational numbers if and only if they admit a solution in each of these fields and in the real numbers, according to Hasse's local-global principle. Skolem's method uses these numbers to solve Thue equations, a subset of Diophantine equations. Ostrowski's theorem states that, besides the reals, these families of numbers are the only normed completions of the rational numbers, and in the field of these numbers, distance is related to congruence modulo a prime power. The integers of this type can be constructed by taking the inverse limit of \mathbb{Z} mod increasing powers of a prime number. For 10 points, identify these numbers, which can be conceptualized as numbers written in a prime number base which can have infinitely many nonzero digits to the left.
ANSWER: p-ADIC numbers

16. This artist created a work consisting of several layers of differently shaped metal sheets intertwined with six wires that stretch from one wall to the other. This artist placed the aforementioned work in an area of a room traditionally reserved for religious icons, which provides its name as Corner Counter-relief. This artist cleared a semi-abstract collage that overlays a cylindrical sheet of metal on top of a piece of wallpaper and an illustration of the title object, *The Bottle*. His last major work was influenced by studies he did dissecting bird wings in an effort to learn how to make a human-powered flying machine. This artist is best known for a 1,300-foot-tall building formed as a double spiral helix with a rotating cylinder at the top, which he designed but never built. For 10 points, name this Constructivist artist who planned to commemorate the Bolshevik Revolution in his namesake "tower," the *Monument to the Third International*.
ANSWER: Vladimir TATLIN

17. This man was way too small for a coffin that fit his friend perfectly, so that friend passed his strength to this man with his dying breath before sealing himself up. Insulted that he was not invited to a king's celebration, he once destroyed all the steeples in that king's realm. In a less glamorous moment, he ran across an open field, swung his forty-pound mace at a sleeping giant, but only provoked the response "Oh, how badly flies can bite!" before being stuffed into the giant's pocket. For the first thirty years this man's life, a curse kept him sitting on an oven before he was healed and was able to walk and fight. During one journey, this man defeated the monstrous Idolische, who possibly represented the Tartar Yoke, and on another journey he befriended the giant Sviatogor. On this hero's "first journey," he defeated a monster who hung out in a tree and used his whistle to murder strangers, then brought that defeated monster, Nightingale the Robber, back to Vladimir the Great. For 10 points, name this legendary bogatyr from Kiev, a peasant-prince recognized as a saint in the Russian Orthodox Church.
ANSWER: ILYAMUROMETS [accept either name; or ILYA OF MUROM]

18. In one novel by this author, a girl leaves a hand-wrapped vibrator on the doorstep of her best friend as a birthday present, in one of 185 vignettes tracing her coming of age that forms the longest section of that book. In another novel by this author, a character wins custody of a Nazi-friendly scientist in a poker game, and entrusts his friend with the responsibility of killing him, but the friend returns with a wounded leg and the scientist survives. Later in that novel by this author, a teenager burns off all her hair while attempting to get it straightened, but is nonetheless able to seduce her crush atop a prayer mat. Felix, Nathan, Keisha, and Leah, the protagonists of this author's latest novel, live in a project in an impoverished area of London denoted by the title postcode. In her best-known book, Joshua Chalfen joins the animal rights group FATE, and Millat becomes a member of the Islamic fundamentalist organization KEVIN, both of which disrupt the FutureMouse genetic engineering conference. That book by her focuses on the families of best friends Archie Jones and Samad Iqbal. For 10 points, name this young British writer of *NW* and *White Teeth*.
ANSWER: Zadie SMITH

19. A standard way of realizing this phenomenon with photons is through the use of spontaneous parametric down-conversion. This phenomenon cannot increase when performing transformations which fall into the LOCC paradigm class. A state exhibits this property if its Schmidt rank is strictly greater than 1, and Fitz et al. exploited this phenomenon to solve the Byzantine agreement problem. Nielsen and Harrow showed in 2003 that it is possible to classically simulate separable gates, which are gates that do not induce this phenomenon, which is generated by the c-not and Hadamard gates. The “dense coding” strategy in quantum communication theory relies on using this phenomenon. The simplest states which maximally exhibit this phenomenon are known as Bell states, and EPR pairs exhibit this phenomenon, which Einstein derisively called “spooky action at a distance.” For 10 points, identify this phenomenon in which quantum systems are correlated in such a way that their states are described by reference to each other.

ANSWER: quantum ENTANGLEMENT

20. One side’s army in this conflict included the Welsh mercenary Taffy Williams. Its final offensive was Operation Tail-Wind, which captured a town earlier fought over in Operation OAU. The victor in this conflict adopted a program called the “Three R’s” - reconstruction, rehabilitation, and reconciliation. Carl Gustav von Rosen led the tiny air force of the losing side, which used the bush experience of Canadian pilot Lynn Garrison to try to break a blockade. A victorious general nicknamed the “Black Scorpion,” took the port of Calabar in Operation Tiger Claw, and the turning point was the failure of the Midwest Invasion of 1967. Philip Efiog was named acting president at the end of this conflict, which inspired a French surgeon to found Doctors Without Borders. The Aburi Accord attempted to peacefully settle this conflict between a country led by Jack Gowon and a breakaway Igbo republic led by Colonel Ojukwu. For 10 points, name this secession war in Africa from 1967 to 1970.

ANSWER: BIAFRAN War [or NIGERIAN CIVIL War]

TIEBREAKER

21. The presence of the SXT element encoding resistance complicates the treatment of this disease with sulfamethoxazole, trimethoprim, and streptomycin. Another strain of this disease is named for the Egyptian town where it was discovered in 1905. Only the O1 and O139 serogroups of its causative agent actually cause this disease; the former belongs to the Ogawa and Inaba serotypes. Like pertussis, this disease is worsened by a protein complex with one A subunit and 5 B subunits, but the A1 subunit of that complex uniquely ADP-ribosylates G proteins. Heterozygous carriers of the cystic fibrosis mutation are resistant to this disease, which operates by pumping tons of chloride ions into the small intestine. John Snow did a pioneering epidemiological study of this disease in London. It is commonly treated using oral rehydration therapy. For 10 points, name this disease brought on by drinking contaminated water, which causes massive diarrhea and vomiting.

ANSWER: CHOLERA

BONUSES

1. I require you to answer some questions about the progenitors of mankind, for 10 points each.

[10] Ahura Mazda created this first man out of mud, then later gave him a supernatural residence to live in when the people he ruled were still living in caves.

ANSWER: GAYOMART [or KEYUMARS; or GAYOMARATAN]

[10] This woman's daughter Pyrrha repopulated mankind along with her husband Deucalion by tossing stones over their shoulders. She herself was fashioned by Hephaestus and was given a *pithos* which she was told not to open.

ANSWER: PANDORA

[10] These people believed that the first man emerged from some reeds in a swamp, and taught humanity the basics of civilization. Their rain goddess is a cryptid with a horse's torso, fish's lower body, and snake's neck.

ANSWER: amaZULU

2. This man is credited with editing Shi Nai'an's *Water Margin*, and some scholars have suggested that he may have authored that work himself. For 10 points each:

[10] Name this Chinese author who wrote about the marriage of the warrior Wang Ze to Hu Yong'er in his novel *Pingyao Zhuan*. In his most famous novel, Cao Cao (tsao tsao) nearly succeeds in assassinating Dong Zhuo.

ANSWER: LUO Guanzhong [prompt on "Guanzhong," his given name]

[10] The aforementioned novel by Luo is this Chinese classic about the struggle for supremacy between Wei, Shu, and Wu, which includes the decisive defeat of Cao Cao at the Battle of Red Cliffs.

ANSWER: ROMANCE OF THE THREE KINGDOMS [or SAN GUO YAN YI]

[10] Unlike *Romance of the Three Kingdoms*, both *Water Margin* and *The Sorcerer's Revolt*, as well as Xu Zonglin's novel *Fengshen Yanyi*, are examples of this genre of fantasy Chinese literature which combines both the natural and supernatural and is literally translated as "fiction of gods and demons."

ANSWER: SHENMO XIAOSHUO [accept either underlined portion]

3. The organization headed by this man carried out a reign of terror in the 1930s that included the Velebit Uprising and it responded to King Alexander I's challenge to kill him by doing just that. For 10 points each:

[10] Name this leader of the Ustase movement, who used that position to persecute Jews, Serbs and Roma in concentration camps like Jasenovac.

ANSWER: Ante PAVELIC

[10] Pavelic, and the Ustase, ruled a "Greater" version of this modern-day country during World War II after it was carved out of Yugoslavia. The 1970 "Spring" in this country saw protests by its students at the University of Zagreb.

ANSWER: CROATIA

[10] This man was the first president and de facto dictator of independent Croatia during the 1990s, during which time his activities ranged from committing war crimes in Bosnia to editing schoolbooks to show how Croats discovered most of the known world. A large cable bridge in Dubrovnik is named for him.

ANSWER: Franjo TUDJMAN [or Franjo Tudman or Frano Tudzman]

4. This second order differential equation sets the second time derivative of the position proportional to the difference between a noise term that fluctuates with time and a term proportional to the velocity. For 10 points each:

[10] Identify this stochastic differential equation, which in its general form adds noise to a mean-field force which is balanced against dissipative terms such as friction.

ANSWER: LANGEVIN equation

[10] The best known application of the Langevin equation is in the study of this phenomenon, the random walk of a particle buffeted by collisions with molecules of the medium in which it sits, such as water molecules colliding with pollen grains.

ANSWER: BROWNIAN motion

[10] The Langevin approach to characterizing Brownian motion is equivalent to characterizing the motion via this type of stochastic process. This type of stochastic process has stationary, independent, and normally distributed increments, and lies in the intersection of the classes of Gaussian and Levy processes.

ANSWER: WIENER process

5. The picturesque area around this lake includes a wildlife refuge on its Tihany Peninsula and a nesting ground for rare water birds at Keszthely. For 10 points each:

[10] Name this largest lake of central Europe, which sits in the Transdanubian region of Hungary, and gets its largest inflow from the Zala River.

ANSWER: Lake BALATON [or “The Balaton”]

[10] The rhythmic oscillations in the levels of Balaton’s water surface, or standing waves, are often referred to by this Swiss-French term coined by limnologist Francois-Alphonse Forel. First observed at Lake Geneva, this term literally means to “sway back and forth,” due to atmospheric or seismic pressure.

ANSWER: SEICHES

[10] Okanagan Lake in this Canadian province has had a number of seiches, which might be the reason why people think the monster Ogoopgo lives there. Home to the Queen Charlotte Islands, lots of things in this province are named after Simon Fraser.

ANSWER: BRITISH COLUMBIA [or B.C.; or C.B.; or COLOMBIE BRITANNIQUE]

6. This composer was dismissed from the court of Christian IV in Denmark because they were fed up with him overstaying his visits to England. For 10 points each:

[10] Name this English composer who composed melancholy songs like “In darkness let me dwell,” “Come Again,” and “Flow my tears.” His punning motto was *Semper [his name], semper dolens*.

ANSWER: John DOWLAND

[10] Most of Dowland’s music was for this stringed instrument with a neck, deep round back, and strings running parallel to the sound table, which like the similar guitar was common in secular Renaissance music.

ANSWER: LUTE

[10] Benjamin Britten’s *Nocturnal*, a set of variations on Dowland’s “Come, Heavy Sleep,” was composed for this English classical guitarist, famous for renewing popular interest in the lute.

ANSWER: Julian BREAM

7. This poem’s speaker invokes “the wild God of the world” fuming, “You do not know him, you communal people, or you have forgotten him.” For 10 points each:

[10] Name this poem that begins by describing the “broken pillar of the wing” belonging to the title creature which the speaker later decides to shoot after saying, “I’d sooner kill a man than” the title animal.

ANSWER: “HURT HAWKS”

[10] Robinson Jeffers wrote “Hurt Hawks” about a scene he probably experienced living this state, which he described in the poem “Carmel Point.” It provides the setting for Kerouac’s *Dharma Bums*.

ANSWER: CALIFORNIA

[10] Robinson Jeffers wrote “Hurt Hawks” as an expression of his personal misanthropic philosophy, which he described with this term and defined as “a shifting of emphasis from man to not-man.”

ANSWER: INHUMANISM

8. Make Mike Cheyne proud by answering the following about chemical concepts and quantities symbolized Z, for 10 points each.

[10] Perhaps the most famous chemical quantity symbolized Z is this one, the number of protons in an atom. Adding it to the neutron number gives you the mass number.

ANSWER: ATOMIC NUMBER [prompt on “number” by asking “what kind of number is it man?!”; glare at anyone who answers “Z”]

[10] Z also signifies this measure of the deviation of a gas’s molar volume from its molar volume at standard temperature and pressure, which is equal to one by definition for an ideal gas, but is above that at sufficiently high pressures.

ANSWER: COMPRESSION factor [or COMPRESSIBILITY factor]

[10] In computational chemistry, the Z-matrix is often used to specify molecular geometries as an alternative to this more familiar system for doing that.

ANSWER: CARTESIAN COORDINATE system [prompt on partial answer]

9. The Jewish variant of this branch of theology draws heavily on the Book of Daniel, which prominently features a vision

about the wars between the kings of the north and south. For 10 points each:

[10] Name this branch of theology concerned with the end times, which derives from Greek terms meaning last and study.

ANSWER: ESCHATOLOGY

[10] In Islamic eschatology, this figure is presented as the redeemer of mankind whose appearance will coincide with the Second Coming of Jesus, who will assist this figure in defeating the *Masih al-Dajjal*.

ANSWER: MAHDI [prompt on "Guided One"]

[10] Hindu and Buddhist cosmologies use this Sanskrit term to denote aeons, which time endlessly cycles through. The current one is called Bhadra. In Hindu formulation, the great one of these is divided into four smaller ones called formation, existence, destruction, and emptiness - after which rebirth starts anew.

ANSWER: KALPA

10. This organization had a busy year in 1971, as they were behind everything from the occupation of a replica to the Mayflower on Thanksgiving Day, to an armed standoff at Pine Ridge. For 10 points each:

[10] Name this advocacy group founded in Minneapolis in 1968 by people like Clyde Bellecourt, Herb Powless, and Dennis Banks.

ANSWER: AMERICAN INDIAN MOVEMENT [or AIM]

[10] This Native American actor, the Libertarian candidate for president in 1988, was born on Pine Ridge reservation and became an iconic member of the American Indian Movement. He led a prayer vigil on top of Mount Rushmore to raise awareness about the Lakota ownership of land in the Black Hills.

ANSWER: Russell Charles MEANS

[10] Another similar group, Indians of All Tribes, made headlines in 1971 when they occupied this island, which they said was legal under the Treaty of Fort Laramie. The federal government disagreed and cut off all utilities to this island. Robert Stroud was a famous prisoner on this island known as the Birdman.

ANSWER: ALCATRAZ Island

11. Name some painters who depicted meat, for 10 points each.

[10] This artist showed a piece of a slaughtered ox hanging from the ceiling in his *Carcass of Beef*, but he's better known for paintings featuring Francis Banning Cocq and Dr. Nicolaes Tulp.

ANSWER: REMBRANDT van Rijn

[10] This Italian showed the art of handling meat in *The Butcher's Shop*, which is often grouped with his *The Beaneater* as early examples of genre painting in Italy. He is better known for his semicircular depiction of *The Flight into Egypt* in the Doria Pamphili gallery.

ANSWER: ANNIBALE CARRACCI [prompt on "Carracci"]

[10] This Dutch artist of *The Egg Dance* is known for paintings that merge dissonant genres such as combining a still life and biblical scene in his *The Butcher's Stall with the Flight into Egypt*.

ANSWER: Pieter AERTSEN

12. The determinants of growth have been long-debated by economists, many of whom have developed their own models. For 10 points each:

[10] This early doubly-eponymous model of growth predicts that GDP growth will be proportional to the proportion of GDP used on investment, and that the higher the savings rate, the bigger the growth.

ANSWER: HARROD-DOMAR model

[10] This exogenous growth model improved on the Harrod-Domar model by replacing its fixed coefficients with a neoclassical production function that allows for substitutability between labor and capital. This model holds technology as a key determinant of growth, along with increasing the amount of capital per worker.

ANSWER: SOLOW-Swan model

[10] Edmund Phelps devised this savings rate that maximizes consumption in the steady state of the Solow model. This level of savings gives the highest rate of consumption in the economy that can be sustained.

ANSWER: GOLDEN RULE savings rate

13. Name these works and writers of erotic literature, for 10 points each.

[10] This 1748 novel by John Cleland takes the forms of a series of letters to an unknown woman from the title character, who

has sex all over England before settling down with Charles at the age of nineteen.

ANSWER: MEMOIRS OF A PLEASURE WOMAN [or FANNY HILL; accept The MEMOIRS OF FANNY HILL]

[10] This Frenchman is probably the most famous creator of erotic literature and wrote the novels *Justine* and *120 Days of Sodom*.

ANSWER: MARQUIS DE SADE [or Donatien Alphonse FRANÇOIS]

[10] In this novel by George Bataille, Simone has an orgy involving broken glass and pleasures herself after a bullfight with the bull's castrated testicles.

ANSWER: STORY OF THE EYE [or L'HISTOIRE DE L'OEIL]

14. This phrase was coined Antonin Artaud, but it is best known for its use in later philosophical writings. For 10 points each:

[10] Identify this term referring to an undifferentiated limiting or primordial state of a system, consisting of its virtual capacities. It is frequently compared to the cosmic egg of Dogon mythology as described by Marcel Griaule.

ANSWER: BODY WITHOUT ORGANS

[10] The body without organs, along with the “paranoiac machine,” which forms when the body repels invading desiring-machines, is a central concept to this book by Gilles Deleuze and Félix Guattari. Together with *A Thousand Plateaus*, it makes up *Capitalism and Schizophrenia*.

ANSWER: ANTI-OEDIPUS

[10] Gilles Deleuze wrote a book which sought to explain the relationship between duration, memory, and *elan vital* in the work of this philosopher, whose works include *Creative Evolution* and *Time and Free Will*.

ANSWER: HENRI BERGSON [the book is called Bergsonism]

15. These landforms are often a target for petroleum exploration as oil and other hydrocarbons can build up in their pores. For 10 points each:

[10] Name these landforms that are concave down and have their oldest layers at their center, unlike synclines. The rollover type occurs near faults.

ANSWER: ANTICLINES

[10] Anticlines can form from these upwards intrusions in the Earth, which take different layers of earth and disconnect them through pushing them upward. These intrusions form when a mobile substance pushes into easily fractured rock layers.

ANSWER: DIAPIRS

[10] Diapirs also drive the formation of these structures, which typically consist of a halite core pushed upward into the surrounding material and topped by a limestone-anhydrite cap rock structure. The Gulf Coast features many examples of the shale-sheathed type of these structures.

ANSWER: SALT DOME [prompt on partial answer]

16. A ship owned by this king, the “Ormurin Langi,” provides the name for a kickass folk ballad written by Jens Djurhuus, a 19th century poet from the Faroe Islands. For 10 points each:

[10] Name this king who threw himself off that ship and into the sea after being defeated by a coalition of his enemies at the Battle of Svolder in 1000 CE.

ANSWER: OLAF TRYGGVASON [or OLAF I of Norway]

[10] One of the guys who beat up Olaf was this first Danish king of England, who was known as the Forkbeard and had a son Canute the Great who ruled England for longer.

ANSWER: SWEYN I Forkbeard [or Sveinn Tjuguskegg]

[10] Sweyn conquered England to avenge this massacre of Danes that had been ordered by Aethelred the Unready in 1002 CE. It likely caused the death of Sweyn's sister Gunhilde and her husband Pallig Tokesen.

ANSWER: ST. BRICE'S DAY Massacre

17. A no-longer used subcategory of organisms in this genus, *Ophidiella*, comprised many species that could infect snakes. For 10 points each:

[10] Name this genus belonging to phylum *Apicomplexa*, species from which can be identified using the Giemsa stain and have gametocyte, sporozoite, and merozoite life stages. Species from this genus include *vivax* and *ovale*.

ANSWER: PLASMODIUM

[10] Thus the Giemsa stain is great at diagnosing this disease, common in tropical regions, which is transmitted by a mosquito

vector infected by *Plasmodium*.

ANSWER: MALARIA

[10] This British scamp defamed the deserving zoologist Giovanni Grassi on his way to becoming the sole recipient of the 1902 Nobel for physiology for first discovering the presence of *Plasmodium* in the gut of the mosquito.

ANSWER: Sir Ronald ROSS

18. This poet described objects “bare like nude giant girls that have no secret,” located on hills whose “secret... was stone.” For 10 points each:

[10] Name this only US Poet Laureate to live outside the US, and author of “The Pylons,” a poem so influential that critics often called this man and other modernists of the 1930s the “pylon poets.”

ANSWER: Sir Stephen (Harold) SPENDER

[10] Spender ruminated on his complex sexuality in his letters to this author, who wrote about William Bradshaw’s friendships with a German Communist Party member and the worldly Sally Bowles in *The Berlin Stories*.

ANSWER: Christopher (William Bradshaw) ISHERWOOD

[10] In his autobiography *World Within World*, Stephen Spender describes how he chased an ex-lover who went to fight in this conflict, which George Orwell provided a journalistic account of in *Homage to Catalonia*.

ANSWER: SPANISH CIVIL WAR

19. Answer the following about these operas with crazy hard arias, for 10 points each.

[10] Based on Jean Terrason’s nutty pro-Masonic fantasy novel *The Life of Sethos*, this Mozart opera requires the soprano to cover two octaves between F4 and F6 in “Der Holle Rache,” or “The Queen of the Night Aria.”

ANSWER: The MAGIC FLUTE

[10] This opera’s aria “Ah mes amis” is nicknamed the “Mount Everest for tenors” because the tenor sings a total of 9 Cs an octave above middle C. The title character of this opera, Marie, saves the life of her Tyrolean lover Tonio.

ANSWER: The DAUGHTER OF THE REGIMENT [or LA FILLE DU REGIMENT]

[10] The aria “Grossmachtige Prinzessin,” which is sung by this operatic character to convince the title woman that she needs a new lover, ends with a string of high Es topped by a high F-sharp, putting “Der Holle Rache” to shame by the margin of one half-note.

ANSWER: ZERBINETTA

20. An account claims that this man’s body was buried by a slave merchant named Dedee Bazile, after his body was torn apart when members of his army turned on him. FTPE:

[10] Name this man who crowned himself emperor of Haiti after defeating Napoleon’s forces at Vertières in 1803, and whose name provides the title for the national anthem of Haiti.

ANSWER: Jean-Jacques DESSALINES

[10] Dessalines was a backstabbing lieutenant of this fellow called the “Black Napoleon” who had notably led an earlier revolution in Haiti and served as governor-general in 1801.

ANSWER: Francois-Dominique Toussaint L’OUVERTURE [or Louverture or Toussaint Breda]

[10] Just like Dessalines and Christophe, this man wasn’t happy just being president and instead declared himself emperor in 1849, holding a lavish coronation in the style of Napoleon. He repeatedly tried to invade the Dominican Republic, but had to abdicate in 1859 after a revolution was staged by Fabre Geffrard.

ANSWER: Emperor FAUSTIN I [or Faustin-Elie SOULOUQUE]

EXTRA BONUS

21. This goddess battled her rival, a goddess of snow, on the slopes of a mountain during a sled race. For 10 points each:

[10] Name this a goddess of volcanoes, who has numerous sisters named Hi'iaka. In one story, she was banished from Tahiti due to her temper.

ANSWER: PELE

[10] Pele is a major goddess in the mythology of these people, who believed that Hi'iaka was the patron of the hula dance.

ANSWER: Native HAWAIIANS [or KANAKA OIWI; or KANAKA MAOLI; or Hawai'i MAOLI; prompt on "Polynesians"]

[10] Pele's brother Kamohoalii was one of these animals, which priests would ritually feed the narcotic beverage awa. Another god who took this animal form, Ukupanipo, aided fishermen.

ANSWER: sharks