

TOSSUPS

1. A structure H will be a substructure of a series-parallel construct if and only if all of these things for H do not include the wheel designated by W -sub-four. Tutte hypothesized that a structure K with the bridgeless property will have a nowhere zero four-flow if its underlying Petersen family is not one of these things for K . A theorem by Tutte states that every mathematical snark will have a Petersen graph as one of these things. Graphs have the property that they are well-quasi-ordered with respect to the embedding of these constructs according to the Robertson-Seymour theorem. Wagner's theorem, and *not* Kuratowski's theorem, states that a graph is planar if and only if the original graph and all of these constructs do not include K -sub-five and K -sub-three-three. For 10 points, name these structures which are formed by contracting and deleting edges of a source graph.

ANSWER: graph **minor** [do not accept or prompt on "graph" or "subgraph"]

2. This piece's unusual orchestration divides the violins into 24 parts, omits oboes and clarinets but includes a bass clarinet and two alto saxophones, and calls for three mixed choruses that often sing a semitone apart. This largely atonal piece ends on an E major triad in a manner anticipated by the D major ending of the composer's experimental *Stabat Mater*, from which this piece borrows. This piece sets text from Venantius Fortunatus's *Pange lingua* (PAHN-gay LIN-gwah) in its 18th section, *Crux fidelis*. The only section of this piece with no vocalists is the penultimate section, labeled *Alla breve* (BREH-vay), which is followed by *In pulverem mortis* from Psalm 30. Unlike his German forerunner, this piece's Catholic composer stuck entirely to untranslated Latin texts, which he mostly did again in his *Polish Requiem*. For 10 points, name this piece by Krzysztof Penderecki (SHISH-toff pen-der-ETZ-kee) that pays tribute to Bach's analogous pieces setting texts from St. John and St. Matthew.

ANSWER: the ***St. Luke Passion*** [or ***Passio et mors Domini nostri Jesu Christi secundum Lucam***; or ***The Passion and Death of Our Lord Jesus Christ According to Luke***]

3. An ancient temple dedicated primarily to this deity had columns of irregularly shaped stones, with the lower sections resembling the petals of a lotus, the middle sections consisting of concentric rings, and the upper sections looking like bunches of reeds. That temple dedicated primarily to this deity contained a sculpture of a different deity depicted as a hawk fighting a snake on top of a hippopotamus, whom Plutarch identified as Typhon. A text named for this deity was hidden inside five successively smaller boxes until it was stolen first by Nefer-kaptah, then by Setne Khamwas. This deity made it possible for Nut to give birth by winning the light of five extra days in a game of dice with Khonsu, and he helped Isis assemble the pieces of Osiris' body. For 10 points, name this male counterpart of Seshat who ruled the Ogdoad of Hermopolis, served as the Egyptian god of scribes, and was depicted with the head of a baboon or ibis.

ANSWER: **Thoth** [or **Djehuty**; or **Tehuti**; or *Book of Thoth*; do not accept "Hermes Trismegistus"]

4. In a bird's-eye photograph, this man bites on a garden hose and brandishes a wooden hammer while standing on a marble zodiac. The first piece in the "dance of darkness" genre, which his work inspired, drew controversy when the audience thought performers had strangled a chicken. Arrows pierce this man's torso in one piece from an erotic photography collection he modeled for, *Ordeal by Roses*. The ending of *The Truman Show* uses a piece of music from a biopic about this man, which shows his grandmother refusing to let him play outside during segments about his childhood. A pulsating E-flat major arpeggio in first inversion concludes the third string quartet of Philip Glass, which is nicknamed for this man. The aforementioned biopic, which culminates with the section "Harmony of Pen and Sword," was directed by Paul Schrader. For 10 points, name this subject of a film subtitled "A Life in Four Chapters," which contains scenes from his novels *Runaway Horses* and *The Temple of the Golden Pavilion*.

ANSWER: Yukio **Mishima** [or Kimitake **Hiraoka**; accept names in either order]

5. Francois Rochebrune commanded soldiers of this nationality in the Zouaves (zwahvs) of Death despite knowing only one phrase of their language during a nationwide guerrilla war. Aristocrats of this nationality founded the “Hotel Lambert sect,” a political group visited by French intellectuals. Soldiers of this nationality used the slogan “For our freedom and yours,” and included the *namestnik* (nah-MEST-nik) who founded “Adam’s Village.” After an uprising of these people sparked by the cry “Gentleman, let us have no more dreams!”, positivists of this nationality undertook a Herbert Spencer-inspired national revival movement under the slogan of “organic work.” In addition to Jews, people of this nationality were a major target for dislocation under Bismarck’s Kulturkampf. A rebellion of these people, headed by one of the original supporters of their May 3 Constitution, started when a secret society of cadets attempted to murder Grand Duke Constantine in 1830. For 10 points, give the ethnicity of the leaders of the November Uprising and other expatriates from a nation destroyed by partition.

ANSWER: **Polish** people

6. This saint’s discovery of a hill overgrown with basil prompted the Greek tradition of distributing sprigs of that plant. The Jew Judas Cyriacus was himself sainted for aiding this saint. According to legend, this saint instantly calmed a storm by throwing a nail into the sea. A pageant held on the final day of the Filipino festival Flores de Mayo honors this saint’s most important miracle, in which she either raised a dead man or healed a sick woman on her third attempt. She is said to have caused an overpopulation of cats at a Cypriot monastery by having them imported to battle an infestation of snakes. She is the namesake of a chapel in the Church of the Holy Sepulchre, which was built on the site where she discovered the True Cross. For 10 points, name this saint who was almost 80 years old when she began a relic-hunting trip to Jerusalem at the behest of her son, the Roman emperor Constantine.

ANSWER: St. **Helena** of Constantinople

7. The “Green Dogs” militia propped up the regime of this ruler, who unsuccessfully attempted to stamp out his nickname “Mighty Mouth” from his days as a goatherd. Under this dictator, a new alphabet based on the Roman alphabet without the letters *p*, *v*, and *z* was created. This dictator launched a revanchist invasion of his country’s western neighbor with Soviet backing, only for the Soviets to immediately switch sides and supply his enemy with 15,000 Cuban mercenaries. Nation-building efforts launched by this dictator included the attempted abolition of the *qabil* clan system. This “Scientific Socialism” proponent negotiated with Helmut Schmidt to let German special forces retrieve a PFLP-hijacked Lufthansa plane. Over a million refugees fled into his country after his disastrous invasion of the Ogaden region. After his power was sapped by rebels like Mohamed Farah Aidid, he was derisively nicknamed the “Mayor of Mogadishu.” For 10 points, name this dictator under whom Somalia devolved into a failed state.

ANSWER: (Mohamed) Siad **Barre**

8. In a sonnet about this man, he looks at his “blotched, bent hands” and offers the one-word observation, “Worms,” after he laments, “Who’s left alive to understand my jokes?” This man is the unnamed subject of a poem with a cumulative pattern whose penultimate stanza begins, “These are the years and the walls and the door that shut on a boy that pats the floor to feel if the world is there and flat.” Gary Snyder’s poem “Axe Handles” revolves around a proverb he learned by reading this man, who is also the subject of Elizabeth Bishop’s poem “Visits to St. Elizabeths.” Public reaction to this man receiving the first Bollingen Prize caused the Library of Congress to withdraw its involvement. In the aforementioned Robert Lowell sonnet, this man refers to his mistress Olga Rudge, saying that she “knew it was shit, and still loved me” when he “talked that nonsense about Jews on the Rome wireless.” For 10 points, name this modernist poet who wrote *Hugh Selwyn Mauberley* and promoted Imagism.

ANSWER: Ezra **Pound**

9. An artist from this country created *The Weight of Death* by weighing the total amount of ink used in such manifestos as *Mein Kampf*. Another artist from this country created the *Silhouettes* series by leaving outlines of her body in natural media like mud and burning oil. A student of Picasso from this country painted four exaggerated figures in African masks, the rightmost holding up a huge pair of shears, in his masterpiece *The Jungle*. This country appears in the background of a painting that takes the facial expressions of its subjects from Charles LeBrun's models of contempt, dread, compassion, and astonishment. That painting, which takes the pose of a pale-white nude in the water from the *Borghese Gladiator*, is John Singleton Copley's *Watson and the Shark*. For 10 points, name this home country to Ana Mendieta and Wilfredo Lam, where Alberto Korda took the photograph *Heroic Guerrilla Fighter* depicting Che Guevara.

ANSWER: Republic of **Cuba**

10. This character examines watercolors of a sinking ship in a storm with a cormorant on its mast, a woman personifying the Evening Star, and a pale giant resting against an iceberg, before asking the artist whether she was happy when she painted them. This man hails his beloved from a stone stile in the field and draws his usual comparison between her and an elf as he reprimands her for a month's absence. He worries he will take to "bleeding inwardly" if the channel between England and Ireland breaks the string connecting his heart to his beloved's before proposing to her by the horse-chestnut in his orchard. In a supernatural occurrence, this man's voice calling across the fields causes his lover to reject the final proposal of her missionary cousin and seek this man out, only to find that he has been crippled and blinded in a fire set by his mad attic-bound wife. For 10 points, name this owner of Thornfield Hall who marries Jane Eyre.

ANSWER: Mr. **Rochester** [or **Edward** Fairfax Rochester; or **Fairfax** Rochester]

11. A major precipitating incident of this war was the Secret Bond, signed by sixteen lords in a participating country. The major battle of this war took place on the River Esk, where repeated cavalry charges into the enemy pikes created a corpse wall, allowing Lord Edward Clinton's warships and Don Pedro de Gamboa's arquebusiers to bombard Governor Arran into submission. One side in this conflict undermined the other with propaganda for "assured men," but did not relieve the "Castilians" who avenged George Wishart by conspiring to disembowel Cardinal Beaton. One side in this war violated the Treaty of Greenwich signed in the aftermath of its defeat at Solway Moss, and suffered further humiliation from Lord Somerset on "Black Saturday" at the Battle of Pinkie Cleugh (kluff). Henry VIII started this war in 1543 to break up the Catholic Auld Alliance between his northern neighbor and France. For 10 points, name this war named for the way in which England tried to force a marriage between the future rulers Mary, Queen of Scots, and Edward VI.

ANSWER: War of the **Rough Wooing**

12. At the end of this essay, the author groups himself among those who turn their eyes away from the birth of a "formless, mute, infant, and terrifying form of monstrosity." The author of this essay begins by noting that something has occurred which could be called an "event," if that word were not suspected and reduced by the school of thought he challenges. This essay cites two passages from Claude Levi-Strauss's "Introduction to the Work of Marcel Mauss" to illustrate the divergent meanings of the "supplementarity" produced by the third title concept, the free substitution of signifiers. The controversial presentation of this essay at a 1966 conference at Johns Hopkins launched the post-structuralist movement, and it was later collected as the penultimate essay in *Writing and Difference*. For 10 points, name this seminal essay outlining some principles of deconstruction by Jacques Derrida.

ANSWER: "**Structure, Sign, and Play** in the Discourse of the Human Sciences" [or "La **Structure, le Signe, et le Jeu** dans le Discours des Sciences Humaines"]

13. In the 1930s, this state's governor proclaimed, "I am not a liberal. I am what I want to be - a radical." After Walter Liggett accused that governor of organized crime ties, Liggett was mysteriously murdered in this state. A branch of the Teamsters, Local 574, unionized this state's largest city after a 1934 general strike launched by the Trotskyite Dunne brothers. The anti-communist positions of a politician from this state drew Thomas Dewey's retort that "You can't shoot an idea with a gun." In addition to Governor Floyd Olson, this state's progressive representatives included the man who fought to include a civil rights plank in the Democratic platform in 1948. The Western Federation of Miners unionized immigrant laborers working in America's major deposit of iron ore, this state's Mesabi Iron Range. For 10 points, name this state whose Democratic Farmer-Labor Party bred staunch liberals like Hubert Humphrey.

ANSWER: **Minnesota**

14. This novel reflects its author's time studying under Henri Bergson with a passage about a butterfly that dies on the narrator's palm because he blew on its cocoon. After the title character of this novel teaches Zaharia to satisfy his inner demon, Zaharia ignites a can of paraffin in the pedophile-sheltering Holy Virgin of Revenge Monastery. Although the protagonist of this novel revives his spirit during an one-night stand with a widow on Easter, he fails to stop the townspeople from beheading her in public for the suicide of her unrequited lover. The narrator of this novel reads Dante and struggles to write a manuscript about "the Void" and the Buddha. Its narrator manages a lignite mine with a santuri player who illustrates his active approach to life by seducing a courtesan named Madame Hortense. For 10 points, identify this novel about a Nietzschean Cretan miner, by Nikos Kazantzakis.

ANSWER: **Zorba the Greek** [or **Vios kai Politia tou Alexi Zormpa**]

15. This operation takes place at each "leapfrog" time step of the Yee algorithm. In computational MHD, a fourth-order instance of this operation is often replaced by a different operation that is second-order but has 220 degrees of freedom per conforming finite element. The magnitude squared of this operation appears in the expression for the rate of change of magnetic energy due to Joule heating. Along with the time derivative, this operation modifies the superconducting current density in the London equations. The free-space electromagnetic wave equation may be derived by performing this operation on both sides of the differential formulation of Faraday's law or Ampère's law, then using the identity that applying this operation twice is equivalent to subtracting the Laplacian from the gradient of the divergence. For 10 points, name this operation that relates the magnetic vector potential to the B-field and is denoted "del cross."

ANSWER: **curl** [accept **del cross** until mentioned; anti-prompt on **spatial derivative**]

16. A David Hockney work in this medium depicts a mental institution as a tiered gallery containing black-clad men wearing bizarre masks. Another artist in this medium has created works depicting a giant rook chess piece and a stately Edwardian mansion filled with dirt. That artist, Es Devlin, won its prestigious Linbury Prize. Pablo Picasso included an arch topped by a lyre and depictions of skyscrapers in a piece of this type. Before turning to architecture, Inigo Jones revolutionized this kind of art in England by introducing Italian innovations. A minimalist piece in this medium was inspired by a Shaker rocking chair and created by Isamu Noguchi as part of his long-running collaboration with Martha Graham. For 10 points, name this type of artwork that is used to accompany works like the opera *The Rake's Progress*, the ballet *Parade*, and the play *Hamlet*.

ANSWER: **stage design** [or **set design**; or **scenic design**; prompt on **theater** or equivalents]

17. Eckard Wimmer's group at SUNY Stony Brook was condemned for showing that this pathogen's genome could be assembled entirely from synthetic cDNA fragments. A modified version of this pathogen, P-V-S-RIPO, is being tested in clinical trials to treat glioblastoma. The T-g-P-V-R mouse line was developed to model the effects of infection by this virus. In the 1960s, Bernice Eddy found that rhesus monkey cells used to prepare vaccines against this virus were contaminated with S-V-40. It replicates in the oropharynx and small intestine before spreading into the C-N-S, where it kills lower motor neurons in the anterior horn of the spinal cord. Albert Sabin developed an oral vaccine for this virus, which is responsible for a disease that can result in long-term muscle paralysis and atrophy. For 10 points, Jonas Salk developed a vaccine against what virus?

ANSWER: **polio**virus

18. This poem's speaker calls on an "old lecher with a love on every wind" who has "reckoned up every unforeknown, unseeing plunge...into the labyrinth of another's being." Reflecting on the songs of blind men, this poem's speaker prays, "O may the moon and sunlight seem one inextricable beam, for if I triumph I must make men mad." In this poem, the phrase "half-mounted man" derives from Jonah Barrington, from whom the author also takes the anecdote of Mrs. French and the farmer's clipped ears. This poem's speaker determines to make his soul study until "wreck of body" and "slow decay of blood" seem but "a bird's sleepy cry among the deepening shades." This poem begins by asking, "What shall I do with this absurdity...decrepit age that has been tied to me as to a dog's tail?" Its second section describes the speaker "pac[ing] upon the battlements" of the title structure. For 10 points, name this title poem of a 1928 collection containing "Among School Children," "Leda and the Swan," and "Sailing to Byzantium," by William Butler Yeats.

ANSWER: "The **Tower**"

19. This country's "sung points" are analyzed as "melodic machetes" in Jennie Smith's *When the Hands are Many*. An anthropologist from this country compared the memory of two historical castles and a guerrilla soldier, who all share a name meaning "carefree," in a book about its "silencing." That anthropologist from this country denounced anthropology's reliance on the "Savage Slot." This country, whose countryside was historically organized into communal *lakou*, was studied in an ethno-botanic profile that made wildly improbable claims about the use of pufferfish and *datura* plant. This country's public health crises were analyzed as "structural violence" by an anthropologist profiled in Tracy Kidder's *Mountains Beyond Mountains*. Wade Davis' *The Serpent and The Rainbow* made notorious claims about religious practices in this country, which was studied by Paul Farmer and Michel-Rolph Trouillot. For 10 points, name this country analyzed in C.L.R. James's *The Black Jacobins*, as well as many ethnographies of Vodou.

ANSWER: Republic of **Haiti** [or République d'**Haïti** (ay-EE-tee)]

20. Toxicant-target interactions of molecules like acro-le-in and cur-cumin can predicted from a parameter derived from this theory which is symbolized omega. This theory explains why certain metals like titanium and niobium form oxides via hydrolysis or abstraction of oxygen. This theory predicts that in reactions with ambident nucleo-philes, the more electronegative atom reacts via a SN1 (ess-enn-"ONE") mechanism while the less electronegative atom reacts via a SN2 (ess-enn-"TWO") mechanism. Oxo-phil-icity and Kornblum's rule are predicted by this theory, which explains why nucleophiles like Grignard reagents add one-two to alpha-beta unsaturated carbonyls. The quantity central to this theory is proportional to the second derivative of the total energy of a system with respect to the number of electrons, but it can also be calculated as half the difference of the ionization energy and electron affinity. Molecules are categorized based on their size, charge, and polarizability by, for 10 points, what acid-base theory developed by Ralph Pearson?

ANSWER: Pearson **hard soft** acid base theory [or **HSAB** theory; accept **Pearson** HSAB theory until it is read; prompt on **hardness**]

TB. In a novel from this modern-day nation, a relative of Chopin home from Singapore calls the tropics a "disease" with no cure and recalls how 4000 Malaysian workers spontaneously went on strike one day at noon. In that novel from this country, the General asks what his wife Kristina meant when she muttered "Coward" outside his friend's room. In another novel from this country, The Prince leads a mob against a town visited by a traveling circus showcasing the stuffed body of the world's largest whale. An author from this country, whose history is the subject of the tome *Parallel Stories*, wrote a novella in which The General reunites with his friend Konrad to discuss the day Konrad tried to kill him hunting. This country is home to the authors of *Embers* and *The Melancholy of Resistance*. For 10 points, name this home to Laszlo Krasznahorkai and Sandor Marai, the latter of whom recalled its former union with Austria.

ANSWER: **Hungary** [or **Magyarország**]

1. Herbert Blumer, who drew heavily on the earlier work of George Herbert Mead, coined the name for a sociological perspective used by this school. For 10 points each:

[10] Name this school of sociology centered at a namesake university, where Howard Becker and Ernest Burgess taught. It shares its name with a neoliberal school of economics championed by Milton Friedman.

ANSWER: **Chicago** School of Sociology

[10] This book by George Herbert Mead helped develop symbolic interactionism by dividing the “self” into the “I,” an interior self, and the “Me,” the outward self.

ANSWER: **Mind, Self, and Society**

[10] Erving Goffman’s Chicago School colleague Anselm Strauss worked with Barney Glaser to develop this sociological research method. This method uses “open,” “axial,” and “selective” coding to build symbolic interactionist theories out of empirical data.

ANSWER: **grounded theory**

2. This set of policies promoted the influence of Spanish-born *peninsulares* (pen-in-soo-LAH-“race”) over colonial-born *criollos* (cree-OH-yohs) by enlarging *audiencias* and creating new “intendancies.” For 10 points each:

[10] Name this set of policies pushed by the Spanish king Charles III, which consolidated Spanish control over its colonies through measures such as restrictions on manufacturing.

ANSWER: **Bourbon** Reforms

[10] Part of the Bourbon reforms involved the expulsion of this order from Spanish colonial territories. This order founded by Ignatius of Loyola trained overseas missionaries like Matteo Ricci.

ANSWER: **Jesuits** [or **Society of Jesus**]

[10] In the Viceroyalty of New Granada, Manuela Beltrán responded to new tobacco taxes by initiating this 1780 revolt, in which rebellious *criollos* marched on Bogotá to demand reversals of parts of the Bourbon Reforms.

ANSWER: Revolt of the **Comuneros**

3. Glashow, Salam, and Weinberg won the 1979 Nobel Prize in Physics for developing this theory. For 10 points each:

[10] Name this theory that unifies two of the four fundamental forces. This theory’s namesake interaction exists above about 100 GeV and decoupled from the strong force about 10 to the minus 36 seconds after the Big Bang.

ANSWER: **electroweak** theory [or **electroweak** interaction]

[10] This is the gauge group of electroweak theory. The Higgs mechanism spontaneously breaks this symmetry.

ANSWER: **SU(2) x U(1)** (pronounced “S-U-two cross U-one”)

[10] This scientist’s namesake theorem predicts that the Higgs mechanism creates three instances of a scalar particle named for him that is “eaten” by the W-plus, W-minus, and Z bosons, accounting for their longitudinal polarization.

ANSWER: Jeffrey **Goldstone** [or **Goldstone**’s theorem; or Nambu-**Goldstone** bosons]

4. The visiting Marquis de Lafayette laid the cornerstone to this monument during a ceremony in which Daniel Webster proclaimed, “Let our object be, OUR COUNTRY, OUR WHOLE COUNTRY, AND NOTHING BUT OUR COUNTRY.” For 10 points each:

[10] Name this obelisk made in 1827 out of material transported on the custom-built Granite Railway. It replaced an earlier memorial to Dr. Joseph Warren, who died at this memorial’s site.

ANSWER: the **Bunker Hill** Monument [or **Bunker Hill** Memorial]

[10] In 1848, construction began on this more famous obelisk, but was delayed when a memorial stone was stolen by the Know-Nothing Party. This tallest obelisk in the world lies east of the Reflecting Pool.

ANSWER: the **Washington Monument**

[10] In the 1840s, the Smithsonian collection developed to house the hundreds of thousands of specimens collected during the four-year circumnavigation of the globe by this insane captain, who unilaterally promoted himself mid-expedition and faced five courts martial upon returning.

ANSWER: Charles **Wilkes**

5. Strangely, recent calculations have indicated that diatomic fluorine, which was previously thought to possess a covalent bond, actually contains this kind of bond. For 10 points each:

[10] Name this type of bonding, contrasted with covalent and ionic bonds, in which the alternation between two ionic forms confers stability. These bonds, which have a strikingly low electron density in between the two atoms, are exemplified by one-one-one propellanes.

ANSWER: **charge-shift** bonds

[10] The alternation in charge-shift bonding, caused by the movement of delocalized electrons leading to multiple possible Lewis structures, is given this name.

ANSWER: **resonance**

[10] These other electron-deficient bonds, are formed from the combination of one bonding orbital, one non-bonding orbital, and one anti-bonding orbital. These bonds are found in boron compounds like di-bor-ane, in addition to the 2-nor-bor-nyl cation and the trihydrogen cation.

ANSWER: **3-center 2-electron** bonds [or **3c-2e** bonds]

6. Dame Julia Berners detailed a fifteen-tier social hierarchy in the most famous English book on this subject, the *Book of St. Albans*. For 10 points each:

[10] Name this practice that drove the entire economy of a namesake southern Dutch city. In this practice, noblemen used a hood and cages called “mews” to train a bird of prey to hunt.

ANSWER: **falconry** [or **hawking**] [the city is Valkenswaard]

[10] This 13th-century king, called *Stupor Mundi* or “the astonishment of the world,” drew on an Arabic text by Moamin to write “On the Art of Hunting With Birds” in his Sicilian court.

ANSWER: **Frederick II** Hohenstaufen

[10] “Eleanor’s falcon” is named for Eleanor of Arborea, an bird-loving medieval queen residing in this territory. Eleanor was the “judge” of one of four independent *giudicati* comprising this territory under Pisan supervision.

ANSWER: **Sardinia**

7. This critic scathingly described the character Hamlet as “a creeping, unclean thing...repulsive in its conception,” in a meditation on the Renaissance repudiation of the “unknown divine Self” collected in *Twilight in Italy*. For 10 points each:

[10] Name this critic. He wrote an eccentric 1923 study, including assessments of *Two Years Before the Mast* and the work of Hector St. John de Crevecoeur, whose penultimate chapter on *Moby-Dick* contributed to the surge in the novel’s reputation.

ANSWER: D. H. **Lawrence** [or David Herbert **Lawrence**] [the book is *Studies in Classic American Literature*]

[10] Lawrence’s novels *The Rainbow* and *Women in Love* follow several generations of this family, particularly the sisters Gudrun and Ursula.

ANSWER: **Brangwen**

[10] Lawrence fictionalized his upbringing in a coal miner’s family in this early novel about Paul Morel.

ANSWER: **Sons and Lovers**

8. Arcangelo Corelli’s Opus 1 and Opus 3 are sets of twelve pieces in this genre, which he standardized. For 10 points each:

[10] Name this Baroque genre generally comprising four movements ordered slow-fast-slow-fast. It gets its name from the fact that these pieces were thought to be appropriate for church, though the extent of their use to that end is debated.

ANSWER: **sonata da chiesa** (“sonata” dah kee-AY-zuh) [prompt on **sonata**]

[10] The slow third movement of a sonata da chiesa often resembles this slow Spanish dance, the third standard dance in a Baroque suite. The aria of the *Goldberg Variations* is one of these dances.

ANSWER: **sarabande**

[10] Sarabandes include this many beats per measure. Other dances with this many beats per measure include minuets and waltzes.

ANSWER: **three**

9. The two main theories of this moon's capture are that either it lost much of its energy in a collision with another moon or it dissociated from a binary system after coming under the influence of its current primary body. For 10 points each:

[10] Name this moon of Neptune with a retrograde orbit. Its nitrogen geysers were photographed by Voyager 2.

ANSWER: **Triton**

[10] The orbits of irregular moons like Triton, Phoebe, and Himalia are stabilized by this mechanism, in which a satellite's "argument of pericenter" undergoes libration due to periodic exchange between its inclination and eccentricity.

ANSWER: Lidov-**Kozai** mechanism

[10] The Kozai mechanism may eventually cause an irregular moon to cross the zero-velocity surface at the edge of this region, inside which a satellite's orbit is dominated by the gravity of a particular planet rather than that of the Sun.

ANSWER: **Hill sphere** [or **Roche sphere**; prompt on gravitational sphere of influence; do not accept "Roche lobe"]

10. This essay expresses the "enigma" of Richard Wright, who "could be so wonderful an example of human possibility but could not for ideological reasons depict a Negro as intelligent, as creative, or as dedicated to himself." For 10 points each:

[10] Name this response to Irving Howe's criticism of younger black novelists for moving away from Wright's angry militancy. Its author rhetorically asks how he could be impressed by Wright after reading André Malraux, writing, "Need my skin blind me to all other values?"

ANSWER: "The **World and the Jug**"

[10] "The World and the Jug" was written by this author and collected in his book *Shadow and Act*. Ras the Destroyer leads a riot in Harlem at the climax of his novel about an unnamed black man who joins the Brotherhood.

ANSWER: Ralph **Ellison**

[10] The title essay of *Shadow and Act* is a favorable review of the portrayal of the Negro in a film adaptation of this William Faulkner novel, in which Lucas Beauchamp is wrongfully accused of murdering a white man.

ANSWER: **Intruder in the Dust**

11. These events were advertised with small cards that bore rhyming couplets like "You can wake up the Devil, raise all the Hell; No one will be there to go home and tell." For 10 points each:

[10] Name these social events that frequently occurred in Harlem in the 1920s and that were used to raise money for their hosts.

ANSWER: **rent parties**

[10] Rent parties sometimes included "cutting contests," which were musical battles waged in the "stride" style of playing this instrument. Art Tatum and Fats Waller played this instrument.

ANSWER: **piano**

[10] An alternate name for rent parties may have given its name to this variety of jazz, which was played on improvised instruments like cigar box fiddles and washboards. A 1950s British revival of this genre spawned The Quarrymen.

ANSWER: **skiffle**

12. This blank verse epic poem conveyed the life and teachings of Siddhartha Gautama through the eyes of an unnamed follower. For 10 points each:

[10] Name this 1879 Edwin Arnold poem subtitled “The Great Renunciation” that played a key role in the early spread of Buddhism to the West.

ANSWER: *The **Light of Asia**: The Great Renunciation*

[10] Another important person in the spread of Buddhism was this Russian-born occultist, whose book *The Secret Doctrine* was a central text of the theosophy movement.

ANSWER: Helena (Petrovna) **Blavatsky** [or Madame **Blavatsky**]

[10] Soen Shaku, the first Buddhist master to teach in the United States, joined Swami Vivekananda at the Parliament of the World’s Religions held at this 1893 event.

ANSWER: World’s **Columbian Exposition** [or **Chicago World’s Fair**; or Chicago **Columbian Exposition**; prompt on **World’s Fair**]

13. The highlight of a 1966 symposium on this art form was John Latham’s “Skoob Towers,” made of books. For 10 points each:

[10] Identify this type of art pioneered by Gustav Metzger, who protested nuclear proliferation with works made out of acid and nylon. Jean Tinguely’s 1960 sculpture *Homage to New York* was this type of artwork.

ANSWER: **auto-destructive** art [or equivalents that communicate the idea of art that **destroys itself**]

[10] This artist created his *Hours of the Day* out of Cor-Ten Steel, which is designed to corrode over time. He argued that “To remove the work is to destroy it” during a controversy over one of his sculptures in New York’s Federal Plaza.

ANSWER: Richard **Serra**

[10] This Dadaist combined a metronome and a photograph of an eye into the readymade *Object To Be Destroyed*, which student protesters actually destroyed in 1957. He also created the photograph *Le Violon d’Ingres* (le vee-oh-lohn d’AHN-greh).

ANSWER: Man **Ray** [or Emmanuel **Radnitzky**]

14. For 10 points each, answer the following about literature dealing with movies.

[10] This Argentinean author’s preoccupation with classic Hollywood cinema manifests itself in the plots of his novels *Betrayed by Rita Hayworth* and *Kiss of the Spider Woman*.

ANSWER: Manuel **Puig**

[10] Walker Percy’s *The Moviegoer* follows this New Orleans stockbroker, who finds more meaning in the movies than in real life.

ANSWER: **Binx** Bolling [or Binx **Bolling**]

[10] This 2012 book by Geoff Dyer, subtitled “A Book About a Film About a Journey to a Room,” is a sprawling critique and autobiographical meditation on Andrei Tarkovsky’s *Stalker*.

ANSWER: **Zona**: *A Book About a Film About a Journey to a Room*

15. In a departure from previous Marxian orthodoxy, this concept originates from a “historical bloc” of allied classes, rather than a monolithic and permanent “ruling class.” For 10 points each:

[10] Name this philosophical concept, which refers to the ruling classes’ domination of the “consensus” view of the world, ensuring their continued control over the dominated classes.

ANSWER: cultural **hegemony**

[10] The concept of “cultural hegemony” comes from the philosophy of this Italian communist and opponent of fascism. This man wrote the *Prison Notebooks*.

ANSWER: Antonio **Gramsci** (GRAM-shee)

[10] Gramsci defined these two strategies for opposing hegemony; the first involves resistance through alternative cultural institutions, while the second consists of armed struggle. Name both.

ANSWER: war of **position** and war of **movement** [or war of **position** and war of **maneuver**]

16. The production of these proteins involves electro-fusing a myeloma cell and a plasma cell and culturing the result on a HAT ("hat") medium containing aminopterin, in order to block the nucleotide salvage pathway. For 10 points each:

[10] Name these molecules secreted by hybridomas that are specific for a single epi-tope on an antigen.

ANSWER: **monoclonal antibodies** [or **mAbs**; prompt on **antibodies** or **immunoglobulins**, or **Igs**]

[10] Plasma cells and myeloma cells are examples of this other kind of lymphocyte that primarily produces antibodies.

ANSWER: **B** cells

[10] Thanks to adoptive cell transfer technology, a cancer patient's own T cells were removed and used to fight their tumor by retro-virally trans-ducing the T cells to express these membrane proteins. These proteins consist of a CD3 signaling domain attached to the scFv fragment of a monoclonal antibody specific for the tumor.

ANSWER: **chimeric antigen receptors** [or **CARs**; or **chimeric immunoreceptors**]

17. Maximilian Aue (OW-uh) is arrested for biting this location's principal occupant on the nose in a novel by Jonathan Littell. For 10 points each:

[10] Name this location, whose inhabitants deliver dramatic monologues in a cycle of "poems in progress" written by W. D. Snodgrass. A search for a porn film made in this location is the subject of the novel *Running Dog*.

ANSWER: the **Führerbunker** [or Adolf **Hitler's bunker**; or obvious equivalents]

[10] Jack Gladney hosts the first Hitler Studies Conference and struggles to cope with the threat of the Airborne Toxic Event in this novel by the author of *Running Dog*, Don DeLillo.

ANSWER: **White Noise**

[10] The aforementioned nose-biting occurs in this French-language novel by Jonathan Littell. Structured after the seven sections of a Bach suite, this novel consists of Maximilian's war memoirs.

ANSWER: *The* **Kindly Ones** [or *Les* **Bienveillantes**]

18. This committee's tasks include reviewing every Federal tax refund of over two million dollars. For 10 points each:

[10] Name this committee, which includes five members from the Senate Finance Committee and five members from Ways and Means. Its primary responsibility is estimating the revenue effect of tax proposals.

ANSWER: United States Congress **Joint Committee on Taxation** [or **JCT**]

[10] This legislative agency, which was created in 1974, is responsible for informing Congress of the economic consequences of its spending decisions.

ANSWER: **Congressional Budget Office** [or **CBO**]

[10] In 2015, Congress began requiring both the JCT and the CBO to use this controversial approach, which involves modelling the effect of a bill on the size of the US economy.

ANSWER: **dynamic scoring**

19. An advocate of this cause, Mary Richardson, hacked the *Rokeby Venus* with a meat cleaver to protest the arrest of its leader. For 10 points each:

[10] Identify this cause achieved in the early 20th century through the protests of a movement led by Emmeline Pankhurst.

ANSWER: **women's suffrage** in the United Kingdom [prompt on **suffrage**]

[10] The Asquith government tried to combat the women's suffrage movement by passing this legislation, which allowed the government to release and recapture women suffering from the effects of force-feeding. It didn't work.

ANSWER: the **Cat and Mouse** Act [or the **Prisoners (Temporary Discharge for Ill Health)** Act of 1913]

[10] In this 1935 book, George Dangerfield argued that Asquith's reformist party collapsed in the 20th century because of its incompetence handling four "rebellions," including the suffragette movement.

ANSWER: *The* **Strange Death of Liberal England**

20. Name some national oil companies, for 10 points each.

[10] This Brazilian company is at the center of a massive bribery investigation known as Operation Car Wash.

ANSWER: **Petrobras** [or **Petroleo Brasileiro** S.A.]

[10] In 2016, this largest oil company in the world announced that it would hold an IPO for five percent of its shares and place the proceeds into a sovereign wealth fund.

ANSWER: Saudi **Aramco** [or the **Saudi Arabian Oil Company**]

[10] This company has suffered due to fallout from the corruption allegations associated with Prime Minister Najib Razak's misuse of the 1MDB development fund.

ANSWER: **Petronas** [or **Petroliaam Nasional Berhard**]