

TOSSUPS

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1. At the conclusion of a book by this author, the protagonist receives her diamond engagement ring back from her captors, whose other gift to her was the 9 millimeter bullet they didn't shoot her with. The exiled Miguel Littin disguises himself as a Uruguayan businessman to return to his home country in a first-person nonfiction book by this author that was burned in heaps by the Pinochet regime. Interviews with Alberto Villamizar (vee-yah-mee-SAR) and Maruja (mah-ROO-hah) Pachon formed the basis for his account of ten prisoners of the "Extraditables." This author of *Clandestine in Chile* daringly exposed incompetence aboard the *Caldas* in what was meant to be a puff piece on Luis Alejandro Velasco, forcing the shuttering of his newspaper by Gustavo Rojas Pinilla (ROE-hass pee-NEE-yuh). As a journalist, this author of *News of a Kidnapping* wrote fourteen editorials for *El Espectador* that became *The Story of a Shipwrecked Sailor*. For 10 points, name this nonfiction author better known for creating Macondo, the setting of his novel *One Hundred Years of Solitude*.

ANSWER: Gabriel **Garcia Marquez**

2. This scientist names a dimensionless quantity with a critical value of 1708, above which Andereck, Liu, and Swinney found flow states such as interpenetrating spirals and modulated wavy vortices. This scientist is the first namesake of a theorem commonly written "open parenthesis, omega dot del, close parenthesis, times u, equals zero," where omega is angular velocity and u is velocity. A structure named for this scientist has a characteristic angle of pi radians minus the first zero of the Legendre polynomial of order one-half, or about 49.3 degrees. This scientist and Maurice Couette name a phenomenon that occurs at high angular velocity for a fluid confined between two rotating cylinders. He is the second namesake of a phenomenon that occurs due to the force of gravity being exerted by a fluid on another fluid of lower density. For 10 points, identify this scientist who co-names that instability with Lord Rayleigh.

ANSWER: Geoffrey Ingram **Taylor** [or G.I. **Taylor**; or critical **Taylor** number; or **Taylor**-Proudman theorem; or **Taylor** angle; or **Taylor** cone; or **Taylor**-Couette flow; or Rayleigh-**Taylor** instability]

3. An Ando Hiroshige painting of one of these animals from the *Hundred Famous Views of Edo* alludes to a saying that prostitutes "bloom in the droppings of Yotsuya." Gnarled left-leaning trees create three vanishing points on a scroll showing one hundred of these animals created by Giuseppe Castiglione. Seven giant sculptures of these animals stand outside the Sun Temple at Konarak in Kalinga. Three defeated Roman emperors appear along with one of these animals in the most famous *Naqsh-e Rostam* inscription. Emperor Kumaragupta struck coins commemorating his performance of the *ashvamedha* ritual, which required the sacrifice of these animals. Qing court painting anticipated a discovery about the motion of these animals in the photography of Eadweard Muybridge. For 10 points, name these animals that accompany the soldiers of the Terracotta Army and appear in equestrian portraits.

ANSWER: **horses**

4. In a poem set at this location, the speaker hears "peals of distant ironical laughter at every word I have written" and describes himself as "baffled, balk'd, bent to the very earth" in his awareness that "before all my arrogant poems the real Me stands yet untouch'd, untold, altogether unreach'd." In another poem set at this location, the speaker calls himself a "uniter of here and hereafter, taking all hints to use them, but swiftly leaping beyond them." In that poem set at this location, the speaker requests "a word then, (for I will conquer it,) the word final, superior to all," and hears whispered in response "the low and delicious word *death*." The aforementioned poems set at this location describe the "moaning" of "the fierce old mother" who "endlessly cries for her castaways." For 10 points, name this location, the setting of Walt Whitman poems including "Out of the Cradle Endlessly Rocking," in which the speaker observes a "he-bird" sitting "amid the slapping waves."

ANSWER: the **beach** [or the **shore**; or the **strand**; or the **ocean**; or the **sea**; or **Paumanok**]

5. This book argues that the automation of labor turns “apparatuses we once handled freely” into “shells...as...belong to the body of the turtle.” It dates the beginning of “world alienation” to the research of Galileo, because his discovery of universal scientific laws caused people to view themselves from Kafka’s “Archimedean point.” This book critiques Karl Marx by arguing that his “communistic fiction” is inherently present in liberal democracy, because the expropriation of the religious establishment already channeled the “life process” from the private to the public. It delineates man as sovereign *homo faber* from man as unfree *animal laborans*, but argues that both possess the quality of instrumentality, and thus fall short of the conception of man as *zoon politikon* (ZOH-oh po-LIT-ik-on) in ancient Athens. This text identifies work, labor, and action as the key forms of activity, with political action being the highest because of its freedom. For 10 points, name this book that reassesses the relationship between the *vita activa* and *vita contemplativa*, written by Hannah Arendt.

ANSWER: The **Human Condition**

6. One of these institutions conspired with the king of Sweden in a 1788 plot to start a war with Russia with a false-flag attack on Swedish soldiers at Puumala. Another of them is the site of a 1940 photograph of Hitler with nine newly-promoted field marshals after the conquest of France. An incident at one of these locations prompted the introduction of the Conspiracy to Murder Bill and the trial of the Fourierist Simon Bernard in Britain, where that incident’s perpetrator had created namesake mercury fulminate “bombs.” The Union and Security Act provoked a coup attempt at one of these places where Jacob Johan Anckarstrom shot a king identified by his Royal Order of the Seraphim star, Gustav III Vasa. Napoleon III agreed to the Treaty of Plombieres after, near one of these locations, the Italian nationalist Felice Orsini attempted to assassinate him. On King William I’s birthday in 1830, rioters poured out of one of these locations to protest Dutch rule, starting the Belgian Revolution. For 10 points, name this type of institution exemplified by Paris’s Palais Garnier and Milan’s La Scala.

ANSWER: **opera houses**

7. Application of sodium amide to a ben-zyl-ic version of these compounds can lead to ortho alkylation in the Sommelet-Hauser rearrangement. They don’t contain sulfur, but these molecules can undergo a 1,2 shift in the presence of a strong base in the Stevens rearrangement. Sil-yl ether protecting groups can be removed by using a fluoride salt of one of these molecules. They’re not crown ethers, but salts of these molecules are the most commonly used phase transfer catalysts. One of these compounds is generated with the use of methyl iodide and then eliminated with silver oxide to give the less substituted alkene in the Hofmann elimination. They are most easily obtained by reacting a tertiary amine with an alkyl halide in an  $SN_2$  reaction. For 10 points, name these species that contain a hypervalent, positively charged nitrogen atom.

ANSWER: quaternary **ammonium** cations [or **quarternary amines**; or **quaternary ammonium** salts]

8. Thomas Paine’s bones are still dispersed across three continents because this man illegally exhumed his remains, shipped them to England, and lost them around Liverpool. G.K. Chesterton admired this man’s revisionist *History of the Protestant Reformation*, which argued that the Tudor reforms were “brought forth in hypocrisy and perfidy.” This writer likened feckless journalists to his childhood hounds, whom he could distract from the hunt with the smell of red herring. He infamously attacked William Wilberforce for caring more about slaves than English workers, and controversially sided with the Swing Rioters against institutions like the Bank of England and the national debt that he called “the System.” He debated Noah Webster under the pseudonym “Peter Porcupine” in the United States, and back home in England he disseminated radical views through his *Political Register*, called the “Twopenny Trash.” For 10 points, name this 19th century social critic and Corn Law opponent who chronicled the effects of industrialization in his *Rural Rides*.

ANSWER: William **Cobbett**

9. One passage of this text criticizes the communists who believe they have found the “deliverance from our evils,” claiming that the abolition of private property will only lead to increased “prerogative in the field of sexual relationships.” This text uses the ending of Voltaire’s *Candide* to illustrate the concept of “deflections,” which, along with “substitutive satisfactions” and “intoxication,” are three “palliative measures” it defines. It claims that modern science has turned man into a “prosthetic god” who has everything he previously dreamed of. It uses the wars between the Spanish and the Portuguese as an example of the “narcissism of small differences,” which illustrates the way that aggression is necessary for the cohesion of a community. Opening with a critique of Romain Rolland’s “oceanic feeling,” it argues that the title construct causes unhappiness by constraining both libido and aggression. For 10 points, name this essay by Sigmund Freud about the *malaise* caused by the repressive requirements of society.  
ANSWER: **Civilization and Its Discontents** [or *Das Unbehagen in der Kultur*]

10. This thinker produced a two-by-two matrix called the *tableau ideologique* displaying outgrowths of what he called the “doux-commerce thesis” in his paper “Rival Interpretations of Market Society.” After spending years observing entrepreneurs in Colombia, this economist argued that underdeveloped countries should invest in industries that create “forward and backward linkages,” a strategy he called “unbalanced growth.” This thinker attacked the usage of “perversity,” “jeopardy,” and “futility” arguments for conservative policies in *The Rhetoric of Reaction*. Ralph Nader forwarded this man consumer complaints data for his major work, which uses the example of public schools to show how criticizing “slackening” institutions can be more effective than simply leaving them. For 10 points, name this economist, the co-namesake of a monopolization index with Herfindahl, who authored the classic *Exit, Voice, and Loyalty*.  
ANSWER: Albert O. **Hirschman**

11. Drafts of this non-choral piece from the Wittgenstein Sketchbook are heavily cited in William Kinderman’s book on this piece. At the end of this piece’s penultimate section, a fortissimo diminished seventh chord and cadenza-like arpeggio are followed by six bars of *Poco adagio* block chords culminating in a strange E minor triad. In this piece, a section labeled “alla ‘Notte e giorno faticar’ di Mozart” is followed by a parody of the finger exercises of Johann Baptist Cramer. This piece climaxes with a fugue in the foreign key of E-flat major, which transitions into a final minuet sometimes compared to the *Arietta* from the composer’s 32nd piano sonata. This piece’s composer allegedly used the word “Schusterfleck,” or “cobbler’s patch”, to describe the simple C major waltz on which it is based. For 10 points, name this massive set of piano variations on a theme by an Austrian publisher, a work of Ludwig van Beethoven.  
ANSWER: the **Diabelli Variations** [or 33 **Variations on a Waltz** by Anton Diabelli; or 33 **Veränderungen über einen Walzer** von Anton Diabelli]

12. One of these geologic features contains a unique mineral whose closest relatives are picrite and komatiite and whose type locality is the Meimecha-Kotuj province. Ernst and Buchan developed a method for mapping remnants of these features that date to before the Mesozoic era by tracing their precursors to the convergence points of giant radiating dike swarms. These continental features have a concentration of incompatible elements that is intermediate between mid-ocean ridges and ocean island basalts. In the mantle plume hypothesis, these features are plume heads and hotspots are plume tails. The Chicxulub impact event caused accelerated outgassing from one of these features that may have contributed to the Cretaceous extinction. For 10 points, identify these “stairstep” landforms created by eruptions from volcanic fissures, examples of which cover large areas of Siberia and the Deccan plateau.  
ANSWER: **traps** [or continental **flood basalts**; or **CFBs**; or **large igneous provinces**; or **LIPs**; or Siberian **traps**; or Deccan **traps**; prompt on **basalts** or **lava flows**; do not accept “oceanic plateaus” or “mantle plumes”]

13. In a dream from this text, two homosocial companions are represented as a cow who loses her horn and a hornless bull. This text describes a ray of light that impregnates Alan the Fair in a genealogy passage that begins with the marriage of a doe and a wolf. This text was discovered in the 19<sup>th</sup> century by the Archimandrite Palladius. A character in this text creates a bodyguard called the *kheshig* led by the sons of his regiment commanders; that character also commands Tata-Tonga to create a writing script. Like in the *Manas*, a character in this text is born clutching a fist-sized blood clot; that character exchanges knucklebones to create a pledge of *anda*, or brotherhood. The protagonist of this text attacks the Merkids to retrieve his stolen wife, Borte (*bor-tuh*), along with his friend and rival Jamukha. This text's later chapters describe the fall of the Khwarezmian Kingdom, and it ends in the reign of Ogedei. For 10 points, name this history of Genghis Khan that shares its name with a text by Procopius.

ANSWER: the **Secret History** of the Mongols [or **Tobchiyan**; or **Mongolyn Nuuts Tovchoo**]

14. Margaret Ezell challenged the historical assumptions perpetuated by this character's story in her essay on "The Myth of [*this character*]." Recounting how a "fat, loose-lipped man" guffawed at this woman and "bellowed something about poodles dancing," the narrator states, "He hinted—you can imagine what." She is buried at a crossroads where omnibuses stop outside the Elephant and Castle. This character's creator speculates that if we "look past Milton's bogey" and recognize "that our relation is to the world of reality and not only to the world of men and women," then this character "will put on the body which she has so often laid down" and be born. She commits suicide after becoming pregnant by the actor-manager Nick Greene, whom she meets in London after fleeing her home to pursue a career in theatre like her brother. For 10 points, name this hypothetical woman created by Virginia Woolf in *A Room of One's Own*, the sister of the author of *Hamlet*.

ANSWER: Judith **Shakespeare** [or **Shakespeare's sister** before "sister" is read; prompt on **Shakespeare**]

15. In the 1980s, Edwin Wilson recruited an assortment of these people for the Gaddafi regime, where they became a global hit squad against dissidents like Faisal Zagallai. During one battle, aerial bombardment from an AC-119 Shadow allowed seventeen of them to escape an assault on their camp by PT-76 tanks. The book *Horse Soldiers* chronicles a ride these people took on horseback to organize movements by uncoordinated warlords. Their namesake "affair" dominated headlines when, to protect Project GAMMA, Robert Rheault ("Roe") ordered them to dump a doped-up informant into the sea in chains. They were known as "snake eaters" to their allies, the Montagnards, whom they trained to form Civil Irregular Defense Groups. A chart-topping "Ballad" by Barry Sadler and a propaganda film by John Wayne raised their profile at home. For 10 points, name these counter-insurgency specialists sent as military advisers early in the Vietnam War, named for their distinctive headgear.

ANSWER: **Green Berets** [or United States Army **Special Forces**; prompt on American **soldiers**]

16. The expansion of a GCN repeat at the five prime end of a protein that binds this structure leads to oculo-pharyngeal muscular dystrophy. The rotavirus protein N-S-P-3 serves as an analogue of this structure's namesake "binding protein" to inhibit association of this structure with e-I-F-4. The TRAMP ("tramp") complex enhances degradation by the exosome by trimming down these structures. Molecules containing these structures can be isolated with an oligo-d-T column. The addition of this structure first requires a cleavage catalyzed by C-P-S-F at an A-A-U-A-A sequence. Alternative splicing and differential addition of these structures can allow an mRNA molecule to encode different forms of a protein. The five prime end of a mature RNA molecule is attached to a GTP cap while the three prime end is attached to this structure. For 10 points, name this extended sequence of adenosine nucleotides added to the three prime end of newly-translated mRNA.

ANSWER: **poly-A** tail [accept **poly-adenylation**]

17. Jean Dauberval ("doe"-ber-vahl) was known for rehabilitating the "false" examples of these techniques, which were reversals of the "true" or "noble" ones and generally thought to be only suitable for depictions of drunks and sailors. Pierre Beauchamp was inspired to create these techniques by observing the fencing masters in the court of Louis XIV. Dauberval's aforementioned "false" ones inspired Serge Lifar, who created two of them that are only used in his works. The third of them has been largely abandoned because it is redundant with the fifth, while the fourth has both opened and closed variants. These techniques are used to develop turnout, which when perfected involves 180 degrees of combined outward rotation of both legs. For 10 points, name these techniques, the first of which requires a dancer's heels to be placed together and her toes to be pointing in opposite directions.

ANSWER: foot **positions** in ballet

18. Long tracking shots of this desert are coupled with audio of film scholar Lotte Eisner reading from the Popol Vuh in Werner Herzog's early documentary *Fata Morgana*. It is now thought that an eroded dome, and not a meteorite impact, caused the 30 mile diameter-wide Richat structure which is sometimes termed the "Eye" of this desert. Ancient depictions of humans in the Roundhead style were succeeded by the pastoral "Bovidian," according to the chronology revealed by the rock art at this desert's site of Tassili. It is the primary habitat of a species of fox that uses its disproportionately large ears to dissipate heat, the fennec. A city on the southern edge of this desert became a center of 16th century Islamic learning due to the establishment of a famous school at its Sankore Mosque. For 10 points, name this site of Timbuktu, the largest desert in the world.

ANSWER: **Sahara** desert

19. In a poem by this author that opposes the palindromic terms *amor* and *Roma*, Tarpeia begs for a retributive "Rape of the Roman Women." Philologists like O. L. Richmond have addressed this author's notorious difficulty by attempting to "reconstruct" his poems assuming a monastic bookbinding bungle. In a poem addressed to his friend Tullus, this author apostrophizes the "Etruscan dust" covering the bones of a relative who died in a civil war near this poet's birthplace in Umbria. The *exemplum* of Melanion moaning from wounds dealt by Hylaeus ("high"-LEE-us) illustrates this author's love in a poem addressing "the first to trap [him] with her eyes." In a late poem by this author, a ghost who claims to live with the blameless wives Andromeda and Hypermnestra haunts this poet for his love affair with Chloris. This poet's works are collected into the four-book *Monobiblos*. For 10 points, name this Augustan elegist, a lover of "Cynthia" for whom Ezra Pound wrote an "Homage."

ANSWER: Sextus **Propertius**

20. Clay from this city is the preferred component of intricate tablets called "turbahs," which are placed below the head in prayer. A popular saying coined by Ali Shariati ends by noting that "every land is" this city. It is the site of the Al-Abbas Mosque, which contains the tomb of a standard bearer who carried a bag of water in his teeth after his arms were cut off. An annual pilgrimage to this city takes its name from the Arabic for "fortieth day" and often ends with a 55-mile walk from Najaf. That pilgrimage, the Arbaeen, is the world's largest annual pilgrimage. This city is the heart of the Remembrance of Muharram, a series of rituals that culminates with mourning processions and mock battles on Ashura. For 10 points, name this Iraqi city which became a major Shi'ite pilgrimage site after Ali's son Hussein was martyred at a namesake battle in 680 AD.

ANSWER: **Karbala**

TB. George du Maurier's political cartoon *Love's Labours Lost* satirizes the use of this activity by upper-class men to find suitable husbands for their daughters. This activity was marketed under the Greek name "Sphairistike" when it was popularized by Walter Clopton Wingfield in England, where Eric Hobsbawm argues it helped liberate women. Charles VIII of France died after colliding with a low-placed lintel on the way to participate in this activity, which Horace Walpole claims killed Frederick, Prince of Wales. A pen-and-ink sketch by Jacques Louis David depicts Jean Sylvain Bailly raising his right hand in a location dedicated to this activity. According to legend, Henry V received pieces of equipment used in this activity as an insulting gift from the Dauphin. For 10 points, name this popular recreational sport whose highest competitive levels take place at the French Open and Wimbledon.

ANSWER: **tennis**

1. Two-photon microscopy has been used to show that the volume of these structures increases dynamically in response to stronger synaptic inputs. For 10 points each:

[10] Name these short neuronal branches important in synaptic plasticity that typically receive excitatory inputs from axons. In fragile-X syndrome they become more abundant and spindly compared to their typical stubby, mushroom-like structure.

ANSWER: dendritic **spines** [prompt on dendrites]

[10] In addition to dendrites, neurons also contain these long myelinated structures used to send signals to other neurons.

ANSWER: **axons**

[10] This man names a population of large, particularly spiny, GABAergic ("gabba"-ur-jik) neurons in the cerebellum whose inputs from parallel and climbing fibers are vital to motor learning. He also names a structure in the heart that carries electrical impulses from the left and right bundle branches into the ventricles.

ANSWER: Jan Evangelista **Purkinje** (pur-KIN-jee or puur-KIN-yeh)

2. Answer the following about African queens, for 10 points each.

[10] In 1900, Queen Yaa led this West African empire into the last of its three wars against the British in response to Frederick Hodgson's demand to sit on the Golden Stool.

ANSWER: **Ashanti** Empire

[10] Reliefs on Queen Hatshepsut's temple at Deir el-Bahri depict the expedition she sent to this foreign land, probably in the Horn of Africa, from which the Egyptians obtained ebony and incense.

ANSWER: Land of **Punt**

[10] Fifty third-gender concubines attended this 17th-century queen of Ndongo in present-day Angola, who resisted the Portuguese with an army of escaped slaves in Matamba.

ANSWER: Queen Ana **Nzinga** of Ndongo and Matamba [or Ana **de Sousa** Nzinga Mbande]

3. One of these molecules named for Danishefsky is an electron-rich, organo-silicon compound used in pericyclic Diels-Alder reactions. For 10 points each:

[10] Name these molecules distinguished by the presence of two double bonds. Their 1,3 type exhibits electron delocalization through conjugation.

ANSWER: **dienes**

[10] In this type of a pericyclic reaction, both new bonds are made to the same atom. A classic example of them involves a di-ene reacting with sulfur dioxide to form a thio-phen-ene-di-oxide.

ANSWER: **cheletropic** reactions

[10] One example of a cheletropic reaction is the Simmons-Smith reaction, which uses di-iodo-methane and a zinc-copper couple to convert alkenes into these molecules. They can also be generated by reacting an  $\alpha,\beta$ -unsaturated carbonyl with a sulfonium ylide in the Corey-Chaykovsky reaction.

ANSWER: **cyclopropanes**

4. For 10 points each, answer the following about interactions between Biblical kings of Israel and their prophets.

[10] This prophet's mother Hannah becomes pregnant with him after pledging him to the Lord's service as a nazirite. In the first of two books named for this prophet, the Lord commands him to anoint Saul as king of Israel.

ANSWER: **Samuel** [or **Shmuel**]

[10] After David steals Bathsheba from Uriah the Hittite, this prophet tricks David into condemning himself with the story of a rich man who takes a poor man's only lamb and butchers it instead of using one of his own.

ANSWER: **Nathan** [or **Natan**]

[10] Near the end of 1 Kings, this prophet warns Ahab that the Lord has put a lying spirit in the mouth of his prophets and predicts Ahab's impending death at Ramoth-Gilead.

ANSWER: **Micaiah** (my-KAY-uh or my-kay-YA-hu) [or **Michaiah**]

5. For 10 points each, answer the following about 19th-century German literary scholarship.

[10] The unfinished *Deutsches Wörterbuch* (DOY-chess VER-tah-BUKE), a German analogue of the *Oxford English Dictionary*, was compiled by two influential scholars. Name either.

ANSWER: Jacob **Grimm** and Wilhelm **Grimm** [accept either answer]

[10] The Grimms also compiled fairy tales, including one about this little man who spins straw into gold for the miller's daughter. After the miller's daughter correctly guesses his name, he tears himself in half like SpongeBob.

ANSWER: "**Rumpelstiltskin**" [or "**Rumpelstilzchen**"]

[10] The Grimms' collection of fairy tales begins with one of the earliest recorded versions of "The Frog Prince," in which the princess accidentally turns the frog back into a human not by kissing him, but by doing this.

ANSWER: angrily **throwing** him against the wall [or obvious equivalents]

6. This text explains its subject matter with the example of a man looking over the edge of a cliff, and argues that it is the presupposition of sin but existed before original sin. For 10 points each:

[10] Name this text attributed to "Vigilius Haufniensis," which calls its subject the "dizziness of freedom" that exists in humans because they are neither beasts nor angels.

ANSWER: *The **Concept of Anxiety*** [or the **Concept of Dread**; or **Begrebet Angest**]

[10] *The Concept of Dread* is a difficult work by this Danish Christian proto-existentialist, who adopted many pseudonyms to write such books as *Fear and Trembling* and *The Sickness unto Death*. Please give his actual name.

ANSWER: Soren (Aabye) **Kierkegaard** [nope]

[10] Kierkegaard's definition of anxiety as "dizziness of freedom" inspired this existential psychologist's *The Meaning of Anxiety*. This psychologist's *Love and Will* defines motives in terms of the "daimonic."

ANSWER: Rollo (Reese) **May**

7. A painting by this artist depicts fearsome mustached warriors laughing uproariously while composing a response to Mehmed IV. For 10 points each:

[10] Name this member of the "Wanderers," whose paintings include *Religious Procession in Kursk*, *The Volga Boatmen*, and *Reply of the Zaporozhian Cossacks*.

ANSWER: Ilya Refimovich **Repin**

[10] Two rainbow-colored forms that resemble Cossacks swinging long purple sabers appear in the fourth of this set of ten abstract paintings, whose artist distinguished them from his similar "Improvisations."

ANSWER: **compositions** by Wassily **Kandinsky** [prompt on **compositions**]

[10] Saint John appears before the Cossack leader Bogdan Khmelnytsky in a painting by this Polish Romantic, who is best known for painting scenes from Polish history like *The Union of Lublin* and *The Battle of Grunwald*.

ANSWER: Jan Alojzy **Matejko** (mah-TYE-koh)

8. This tsar was known as "the Peacemaker" for his avoidance of foreign wars, but his significantly-less-chill domestic policies including the "Temporary Regulations" banning Jews from forming *shtetls*. For 10 points each:

[10] Name this tsar who abandoned many of the liberal reforms of his predecessor after the assassination of that predecessor by the People's Will in 1881.

ANSWER: **Alexander III** Romanov

[10] Alexander III rejected the constitution proposed by this half-Armenian statesman, whom Alexander II appointed Minister of the Interior to enact economic reforms and reduce the prevalence of terrorism.

ANSWER: Mikhail Tarielovich **Loris-Melikov**

[10] Alexander III acquired his autocratic tendencies from Konstantin Pobedonostsev (poh-bay-doh-NOHST-sev), the Ober-Procurator of this state-controlled governing body of the Russian Orthodox Church, devised by Peter the Great.

ANSWER: the Most **Holy Synod**

9. This character ritualistically slaughters a rooster while prophesying the death of a musician he later kills. For 10 points each:

[10] Name this character from a 1995 play in which he murders Floyd Barton, mistaking him for Buddy Bolden, who this character believes will appear to give him the funds to buy his own plantation.

ANSWER: King **Hedley** [or **King** Hedley; do not accept “King Hedley II”]

[10] King Hedley appears in *Seven Guitars*, a play by this black American playwright. His other plays featuring musicians include *Ma Rainey’s Black Bottom*.

ANSWER: August **Wilson** [or Frederick August **Kittel**, Jr.]

[10] This Wilson play, the first chronologically in the “Pittsburgh Cycle,” features the most prominent appearance of Aunt Ester, who enables Citizen Barlow to travel to the City of Bones aboard the title slave ship.

ANSWER: **Gem of the Ocean**

10. This book, which has a Matisse collage as its cover art, includes its creator’s photograph of a puddle jumper behind the Gare Saint Lazare. For 10 points each:

[10] Name this book of photography that takes its title from its creator Henri Cartier-Bresson’s (cart-yay breh-SAWN) concept of the fraction of a second when a subject is ripe for photographing.

ANSWER: *The* **Decisive Moment** [or **Images à la Sauvette**]

[10] Cartier-Bresson was a frequent contributor to this Henry Luce magazine. This companion to *Time* magazine ran Margaret Bourke-White’s photographs of Gandhi.

ANSWER: **LIFE**

[10] Like Andre Kertesz, Cartier-Bresson almost always used a 35 millimeter camera made by this German manufacturer. It created the first truly mobile cameras and popularized the rangefinder with its M series.

ANSWER: **Leica**

11. In Book 2 of Ovid’s *Metamorphoses*, Ocyrhoe tells the fates of her father Chiron and this man. For 10 points each:

[10] Name this man whom Hermes cut out of his mother’s womb as she lay on a funeral pyre, having been killed by this man’s father after a crow told him that she had a lover named Ischys. His sons include Podalirius and Machaon (mah-KAY-on).

ANSWER: **Asclepius**

[10] Another daughter of Chiron, Melanippe, turned into a horse after praying to Artemis because she did not want her father to know that this god had impregnated her. This god is the master of Boreas, Zephyrus, Notos, and Eurus.

ANSWER: **Aeolus** (ee-OH-lus)

[10] A third daughter of Chiron, Endeïs (en-DAY-iss), convinced her sons Peleus and Telamon to kill this half-brother of theirs because he was a better athlete than them. Aeacus raped this man’s mother Psamathe (sah-MATH-ee) while she was in seal form.

ANSWER: **Phocus**

12. Arranging four of these devices in a bridge configuration produces a full-wave rectifier circuit. For 10 points each:

[10] Name this device that, in the ideal case, has zero resistance to current under forward bias and infinite resistance under reverse bias. The simplest example of this semiconductor device is a p-n junction.

ANSWER: **diodes**

[10] This physicist’s namesake diode consists of a metal-semiconductor junction for which the electric potential energy difference across the junction is high enough to create a rectifying barrier, as opposed to an ohmic contact.

ANSWER: Walter Hermann **Schottky** [or **Schottky** diode; or **Schottky** barrier]

[10] In the absence of Fermi level pinning, the height of a Schottky barrier approximately equals the difference in these two quantities. Name both, in either order.

ANSWER: the vacuum **work function** of the metal and the vacuum **electron affinity** of the semiconductor [accept **ionization energy** in place of “electron affinity”; prompt on answers mentioning **phi**-sub-m or **chi**]



13. For 10 points each, answer the following about Middle English lyric poetry.

[10] The lyric beginning “Sumer is icumen in” (SOO-mer “is” ih-KOO-min “in”) repeatedly tells the animal it addresses to do this, from which the poem gets one of its unofficial titles.

ANSWER: **sing** [accept “lhude **sing**”]

[10] The central three stanzas of the lyric “I sing of a maiden” (ee “sing off a maiden”) each compare the arrival of the infant Jesus to the arrival of the dew in this month. This month is invoked in the first line of *The General Prologue* of *The Canterbury Tales*.

ANSWER: **April**

[10] Another famous lyric begins by describing how this man “lay ibounden, bounden in a bond; foure thousand winter thowt he not too long” (lay ih-BOON-den, BOON-den “in a bond”, FOO-ruh THOO-zahnd “winter” THOOT hay not “toe” “LONG”).

ANSWER: **Adam**

14. Name some historians of the Civil War, for 10 points each:

[10] This historian profiled Abraham Lincoln and the leading members of his cabinet in 2005’s *Team of Rivals*.

ANSWER: Doris Kearns **Goodwin**

[10] This former Princeton professor wrote *Battle Cry of Freedom*, the definitive survey of the antebellum period and the Civil War.

ANSWER: James **McPherson**

[10] This Richmond, Virginia newspaperman authored *Lee’s Lieutenants: A Study in Command*. He also won a pair of Pulitzer prizes for biographies of Robert E. Lee and George Washington.

ANSWER: Douglas Southall **Freeman**

15. Answer the following about the economics of OIL!, for 10 points each.

[10] Oil prices are coordinated by this cartel of oil-producing countries, which regulates global oil production to ensure stable and profitable returns.

ANSWER: **OPEC** [or the **Organization of Petroleum Exporting Countries**]

[10] The price of a barrel of crude oil is set by traders speculating on commodity futures markets. The largest commodity futures market in the world is the Mercantile Exchange in this American city.

ANSWER: **Chicago**

[10] This simple model in environmental economics states that the price for a non-renewable, exhaustible resource with private ownership will steadily increase at the interest rate over time.

ANSWER: **Hotelling’s** Rule

16. Andre Chamson claimed that this woman “did more to link England, the United States, Ireland, and France than four great ambassadors combined.” For 10 points each:

[10] Name this central figure of the Lost Generation, whose bookstore Shakespeare and Company served as a gathering place for expatriate Americans in Paris.

ANSWER: Sylvia **Beach**

[10] The epigraph to *The Sun Also Rises* credits the term “Lost Generation” to this author of *The Autobiography of Alice B. Toklas*.

ANSWER: Gertrude **Stein**

[10] This American went to Paris to interview expatriates for *McCall’s Magazine*. She returned to the U.S. and became a Greenwich Village recluse after writing a novel about Robin Vote’s relationship with Nora Flood.

ANSWER: Djuna **Barnes**

17. Answer the following about Alexander the Great's career after Gaugamela, for 10 points each.

[10] In this city in western Iran, Alexander arranged a mass, and massively unpopular, wedding between his Macedonian soldiers and Persian women. Cyrus the Great captured this former capital of the Elamite Empire.

ANSWER: **Susa**

[10] From this other city, Alexander dispatched letters demanding that the Greeks recognize him as a god, eliciting a characteristically laconic response from Sparta. Alexander died in this ancient Mesopotamian city.

ANSWER: **Babylon**

[10] The philosopher Callisthenes was executed for refusing to perform this ceremonial Persian bow after Alexander adopted it. This form of ritual prostration before an absolute ruler was later adopted by the emperors of Byzantium.

ANSWER: **proskynesis**

18. Name some things about the 1970 Bank Secrecy Act, for 10 points each:

[10] Financial institutions must file a currency transaction report for each deposit, withdrawal, or exchange of cash above this amount. People who arrange their transactions to intentional skirt this limit may be prosecuted for "structuring."

ANSWER: **\$10,000** [or **ten thousand dollars**, to be clear]

[10] The currency transaction reports required by the Bank Secrecy Act are not subject to this act, which allows American citizens to request copies of relevant files maintained by the federal government.

ANSWER: **Freedom of Information Act** [or **FOIA**]

[10] This prosecutor assessed J. P. Morgan a record 1.7 billion dollar penalty under the BSA for its involvement with Bernie Madoff. This U.S. Attorney for the Southern District of New York, who made his name aggressively prosecuting insider trading, was fired in March of 2017 after refusing to step down.

ANSWER: Preet **Bharara**

19. This piece is unified by a funereal theme with a dotted quarter note-double sixteenth note rhythm beginning G-G-G-A-G-F sharp-G-E. For 10 points each:

[10] Name this orchestral work in E minor. Its second movement, *Andante cantabile con alcuna licenza* (ahn-DAH-n-tay kahn-TAH-bee-lay con al-KOO-nah lee-CHEN-zah), opens with a solo horn subsequently joined by a solo clarinet.

ANSWER: **Tchaikovsky's Fifth** Symphony [or **Symphony No. 5** by Pyotr Ilyich **Tchaikovsky**; prompt on **Symphony No. 5**]

[10] This other Tchaikovsky symphony, an explicitly programmatic work in B minor, depicts wandering in the Alps in its *Lento lugubre* opening movement.

ANSWER: **Manfred** Symphony

[10] Tchaikovsky completed this many numbered symphonies, the last of which is known as the "Pathetique." Beethoven's symphony of this number is the "Pastoral."

ANSWER: **six** [accept **Sixth** Symphony]

20. This law is often written as the total theoretical speedup equals the reciprocal of "one minus  $p$ , plus  $p$  divided by  $s$ " where  $p$  is the amount of time spent by the portion being improved, and  $s$  is the amount of time saved. For 10 points each:

[10] Identify this statement named for a computer architect that is used to analyze how to improve the efficiency of a parallel architecture.

ANSWER: **Amdahl's** law

[10] Amdahl's law is often used to analyze the theoretical gains from performing this task of improving the efficiency of a system. In mathematics, problems of this type are often solved using Lagrange multipliers.

ANSWER: **optimization** [or word forms; do not accept "compiler optimization"]

[10] The amount of optimization depends on whether a parallel computer uses a single or a multiple instruction set or data stream. This man's namesake "taxonomy" classifies parallel computer architectures into SISD (sihss-dee), SIMD (sihm-dee), MISD (mihss-dee), or MIMD (mihm-dee).

ANSWER: Michael J. **Flynn** [or **Flynn's taxonomy**; no it's not that asshole]