

1. In one country, this policy was implemented with Duris' Laws, while in another country, this policy was proposed in a series of 1957 "Theses" within the government of Matyas Rakosi. In the country with which this policy is most associated, its chief proponent called for its temporary halt in an article entitled "Dizzy with Success." This policy created kolkhozys, resulted in the death of millions in the Holodomor, and was one of the most notorious aspects of the Five Year Plan. For 10 points, name this general term for agricultural production imposed on the Soviet Union between 1928 and 1940, in which producers shared their land and resources.

ANSWER: **collective farms** [accept general equivalents; accept **collectivization** of agriculture; accept **kolkhozy** until mentioned; prompt on **five year plan** until mentioned, prompt on **land redistribution** and other general terms;]

052-09-12-08102

2. Systems affected by this phenomenon exhibit spring-like motion over very small distances in the Dahl effect. Its magnitude unexpectedly decreases at near-zero velocities in the Stribeck Effect. More commonly, it is described by the Coulomb model, which includes Amontons' laws, the first of which states that this force is independent of the contact area and the second of which claims that its magnitude is proportional to that of the normal force. The coefficient associated with this force is denoted by mu and is higher for the static type than the kinetic type. For 10 points, name this force that retards the motion of an object moving along a surface.

ANSWER: **friction**

003-09-12-08103

3. In one version of the myth concerning this figure, she was sprinkled with the juices of the aconite plant. Pliny notes that this figure pioneered the use of nets and linen and bore a son named Closter, who was the first to use the spindle. The forest nymphs stopped what they were doing when this daughter of Colophon, a dyer of Tyrian purple, performed her most famous action in spite of an old woman telling her to curb her pride. In spite of this, this figure depicted the infidelities of Zeus and hung herself in shame when she realized she could not hope to match Athena. For 10 points, name this weaver who was transformed into a spider.

ANSWER: **Arachne**

040-09-12-08104

4. This character reads a horoscope that tells him his life will be changed by a red bull in a field of green, which comes to pass when he sees the flag of a military unit called the Mavericks. He wears a locket opened by the chaplain Arthur Bennett, which contains a note from his father and a baptism certificate. He saves the life of the horse trader Mahbub Ali and becomes the disciple of a lama who is searching for the River of the Arrow. That lama pays for his education at St. Xavier's before he steals valuable papers from some French and Russian spies. Although his mother is Irish, his skin becomes dark under the sun of Lahore. For 10 points, name this orphan who aids the British secret service as the title character of a novel by Rudyard Kipling.

ANSWER: **Kimball O'Hara** [or Kimball **O'Hara**]

015-09-12-08105

5. In one of this artist's paintings, Saint Sixtus and Saint Barbara flank a woman standing on a cloud-covered globe, while two pensive cherubs look up at her from the bottom. Another of this artist's paintings is a tondo usually named for the Spanish family that once owned it, and depicts the infant John the Baptist giving a thin cross to the infant Jesus, who sits in the lap of Mary in a pastoral meadow. In a similar painting by this artist, the infant John the Baptist stands in a meadow and gives a small golden bird to the infant Jesus. This Italian Renaissance artist is renowned for his many Madonnas, which include the *Sistine Madonna*, the *Alba Madonna*, and the *Madonna of the Goldfinch*. For 10 points, name this artist who also showed Plato and Aristotle conversing at the center of his *The School of Athens*.

ANSWER: **Raphael** Sanzio [or Raphael **Sanzio**]

004-09-12-08106

6. An early battle in this war saw the Irish Brigade defend the Po gate of the namesake city following the capture of the Duc de Villeroy. The talks that ended this war gave Britain the right to import forty eight hundred slaves to the Americas and were negotiated at Rastatt and Baden. This war included the early battle of Cremona, which preceded an attempt to take Vienna thwarted by the Duke of Marlborough and Eugene of Savoy. One theater of this war was Queen Anne's War, and its outcome required that Philip of Anjou give up his position as son of the Dauphin in order to inherit the lands of his father Charles II, as determined by the Treaty of Utrecht. For 10 points, name this conflict fought to prevent the house of Bourbon from uniting the thrones of France and Spain.

ANSWER: War of the **Spanish Succession**

022-09-12-08107

7. In x86 architectures, the frame pointer and a pointer by this name are used to access local variables and function information. Factor and Forth are languages based on the structure by this name. Operations in reverse Polish notation and other postfix systems are implemented using the data structure of this name. The canonical machine that decides context-free grammars contains one instance of this data structure. This data structure can be inspected but not modified using the top operation, but is built up and broken down using the operations push and pop. For 10 points, name this data structure that implements first-in last-out ordering, as contrasted with a queue.

ANSWER: a **stack**

001-09-12-08108

8. The title character of this work sees familiar blue eyes in a painting that lead her to believe that her lover is seeing the Marchesa. In this opera's third act, a man dons women's clothing and is promised "Even if it costs me my life, I'll save you" before a cannonball is fired from the Castel Sant'Angelo. In the first act of this opera, choir boys who mistakenly believe that Napoleon has lost at Marengo rehearse a celebratory "Te Deum." The title character of this opera sings that she lived for art in the aria "Vissi d'arte," which is followed by the suicide of Angelotti. This opera's title character sleeps with the sinister Baron Scarpia in a failed attempt to save the life of her lover, the painter Cavaradossi. For 10 points, name this opera in which the title singer jumps to her death, composed by Giacomo Puccini.

ANSWER: **Tosca**

026-09-12-08109

9. Larry Devlin and Sidney Gottlieb were both implicated in the murder of this man, which was attempted with poison placed in a tube of toothpaste. This founder of the MNC party gave an independence day speech sharply contrasting with the one given by King Baudouin, and was involved in a power struggle with Joseph Kasavubu. Shortly after taking power, he appealed for Soviet aid after Moïse Tshombe declared the region of Katanga to be independent. Later, he was deposed by a coup led by Joseph Mobutu. For 10 points, name this first Prime Minister of the Democratic Republic of the Congo, murdered in 1961.

ANSWER: Patrice **Lumumba**

064-09-12-08110

10. Materials that obey this relation have an interparticle potential proportional to d over r to the 6th power, assuming r is greater than d . The isotherm of this equation below the critical temperature was modified by Maxwell to include a flat portion, which removes the metastable states. It assumes the material in question consists of hard spheres of equal radius, and can be derived as a first-order truncation of the virial equation. It contains parameters for inter-particle attraction and particle volume, or a and b respectively. For 10 points, name this modification of the Ideal Gas Law, an equation of state named for a Dutch chemist.

ANSWER: **Van Der Waals** equation of state

024-09-12-08111

11. In this play's third act, two characters respectively woo a woman by giving her a paragraph of fake Latin and a gamut containing declarations of passion. In its second act, a woman declares "If I be waspish, best beware my sting," although she later lectures two other women that "Thy husband is thy lord, thy life, thy keeper." In this play's fourth act, its female lead agrees that the sun is the moon and the moon is the sun if the male lead thinks it is. Its frame narrative sees a Lord trick the drunk tinker Sly into thinking he is a noble, for whom the title play is performed. Its male lead has "come to wive it wealthily in Padua," and courts the title character so that Baptista will permit his daughter Bianca to marry. For 10 points, name this Shakespeare play that chronicles Petruchio's courtship of the title headstrong woman, Katherina.

ANSWER: *The **Taming of the Shrew***

022-09-12-08112

12. This man is the namesake of a 1977 report also called *Dietary Goals for the United States*. He lost his Senate seat to James Abdnor. In one speech, he told the Senate "this chamber reeks of blood" before urging the passage of an amendment he co-sponsored with Mark Hatfield. That 1970 amendment would have forced complete withdrawal of American troops from Vietnam. During his presidential bid, he was forced to drop his original running mate, who had undergone electroshock therapy. He thus replaced Thomas Eagleton with Sargent Shriver. For 10 points, name this Senator from South Dakota who lost to Richard Nixon in the 1972 presidential election.

ANSWER: George Stanley **McGovern**

052-09-12-08113

13. This composer adapted a theme from the finale of Beethoven's String Quartet in B minor for the Allegro movement of his String Quartet number one in A major. This composer's second string quartet, in the key of D major, features a third movement Nocturne that is often performed on its own. A symphonic poem by this composer begins with a lone high E played by the violins, uses a theme played by the English horn to represent merchants, and features a pizzicato accompaniment representing camels walking through the desert. The title character of an opera by this composer is captured by Konchak, whose slaves perform the *Polovtsian Dances*. For 10 points, name this Russian composer of *In the Steppes of Central Asia* and the opera *Prince Igor*.

ANSWER: Alexander **Borodin**

004-09-12-08114

14. One class of these proteins contain a winged helix or forkhead box domain, while another class of these is inhibited by Rb protein and regulates the production of cyclins, called E2F. Another class of these homodimerizes after being activated by the JAK kinase and regulates the production of interferon, and are known as the STAT proteins. An example of them from yeast used in various experiments is GAL4, which binds to UAS. They operate by recruiting coactivators or histone acetyltransferases and bind to consensus sequences. Many of these proteins contain a leucine zipper or a zinc finger. Basal ones include TFIID, which binds to the TATA box, and most contain an activating domain and a DNA binding domain. For 10 points, name these proteins responsible for recruiting RNA polymerase and promote their namesake process of RNA production.

ANSWER: **transcription factor** [or **TF**; prompt on **DNA binding protein**]

001-09-12-08115

15. Mary Seacole ran a hospital for soldiers injured on the front of this war, which William Howard Russell gained fame for reporting on. Tensions that led to this war increased when Russia insisted that another country follow the conditions of the Treaty of Kuchuk Kainarji, leading to fears that Russia was attempting to establish exclusive influence over that country in violation of the Straits Treaty. The treaty ending this war demilitarized the Åland Islands, made the Black Sea neutral, and prevented Russia from claiming the right to protect the Christians in the Ottoman Empire. For 10 points, name this war which saw the bloody Siege of Sevastopol, and pitted France and Great Britain against Russia in the namesake Ukrainian peninsula from 1853 to 1856.

ANSWER: **Crimean** War

004-09-12-08116

16. Members of this group are exempt from the Pidyon HaBen ceremony that redeems others from priestly obligations. A document named for this group contains an additional Greek footnote describing the central figure's initiation to priesthood and the arrogance of that figure's descendants. Families of three members of this group, Kohath, Merari, and Gershon, were responsible for transporting the Tabernacle. This group's patriarch destroyed the city of Shechem with Simeon in response for the rape of Dinah, and his youngest daughter Jochebed gave birth to Miriam, Aaron, and Moses. For 10 points, name this tribe of Israel founded by the third son of Jacob and Leah.

ANSWER: **Levites** [or Tribe of **Levi**]

020-09-12-08117

17. This man differentiated between *swidden* and *sawah* in a book written during his time on the Modjokuto Project. He distinguished between symbols that are "models of" the world and "models for" the world in his article "Religion as a Cultural System." This author of *Agricultural Involution* stated that "culture is public, because meaning is"; another section of that work describes a complicated betting system, the role of the umpire, and men's identification with their participants in the title event, and is entitled *Deep Play: Notes on the Balinese Cockfight*. For 10 points, name this American anthropologist who pioneered the use of thick description in *The Interpretation of Cultures*.

ANSWER: Clifford James **Geertz**

003-09-12-08118

18. Part of this work is set at Crotona, where the main character suffers from impotence after trying to make love to Circe and flees after killing a goose in a temple run by Oenothea. Another section sees the death of Lichas of Tarentum in a storm. Earlier, in order to keep passage on Lichas's ship, the poet Eumolpos tells the story of the Widow of Ephesus. This work opens with a debate between Agamemnon and Encolpius outside of a literary school. In its best known section, those two characters attend an extravagant feast given by the husband of Fortunata, Trimalchio. For 10 points, name this major work of Petronius.

ANSWER: **Satyricon**

040-09-12-08119

19. One section of this work explains that in Parisian courts, cases of traffic accidents are reconstructed by using toy trucks and toy baby carriages to show the spatial relationships of the vehicles, which this work takes as an analogy for how the relationships in a proposition represent the world. It claims that statements which are not built atomistically from empirical facts are meaningless, and thus that mathematics is tautological and metaphysics describes nothing. By its end, this text challenges the usefulness of any language, and advises discarding this book itself as a ladder which has been climbed. Also suggesting to "pass over in silence" that which cannot be spoken of, its propositions were undermined years later by the same author's *Philosophical Investigations*. For 10 points, identify this text, which was organized in seven sections as a mathematical proof and written by Ludwig Wittgenstein.

ANSWER: **Tractatus Logico-Philosophicus**

019-09-12-08120

20. This author compared life to a porcelain cup locked away by a Sexton in a love poem which begins "I cannot live with You / It would be Life." Other poems by this author call publication the "Auction / Of the Mind of Man" and describe a phenomenon that "oppresses, like the Heft / Of Cathedral Tunes." This author of "There's a certain Slant of light" compared the treading of Mourners to the breaking through of sense in a poem whose speaker asserts "I felt a Funeral, in my Brain." This poet called herself "inebriate of air" and "Debauchee of Dew" after drinking "From Tankards scooped in Pearl" in her poem "I taste a liquor never brewed." For 10 points, name this poet known as the "Belle of Amherst," who used a plethora of dashes in poems such as "I heard a fly buzz when I died."

ANSWER: Emily **Dickinson**

004-09-12-08121

21. Two distinct ones of these cannot have the same exterior by the Gordon-Luecke theorem. Dowker notation can describe their projection. Twist, poke, and slide make up the Reidemeister moves on diagrams of these. They can be described by Jones and Alexander polynomials, which can be generalized to the HOMFLY polynomial. A simple loop is known as the un- one of these; a simple, non-trivial one is the trefoil. Slightly more general structures permitting open ends are known as braids. For 10 points, name these closed non-intersecting curves that cannot be untangled.

ANSWER: **knots**

001-09-12-08122

22. The Diola people in the southern Casamance region have long waged a separatist conflict in this nation. The city of Kaolack lies along Saloum River, a major waterway along which mangrove forests have been dying out. The Wolof, Pular and Serer peoples together make up a large majority of the population, which is almost entirely Muslim. This former French colony surrounds Gambia and was once part of the Federation of Mali. For 10 points, name this country formerly ruled by Leopold Senghor, the westernmost continental nation of Africa, whose capital is Dakar.

ANSWER: **Senegal**

063-09-12-08123

23. One of the last of these poems asks "I have brought the great ball of crystal; who can lift it?" The eighty-first of these poems concludes by repeating the phrase "Pull down thy vanity." The forty-fifth of them repeats the words "with usura," and was originally published as part of the "Fifth Decad" of these poems. Some of these poems are largely a collage of the writings of John Adams, while others were published under the title "Section: Rock Drill." A group of these poems praising Confucianism and including Chinese characters is usually known as the "China" ones. In 1948, the first Bollingen Prize was awarded to a group of these poems known as the "Pisan" ones. For 10 points, name this group of long, allusive modernist poems written by Ezra Pound.

ANSWER: the *Cantos*

022-09-12-08124

1. Name these writers whose works became the basis of operas, for 10 points each.

[10] This French author of *A Slight Misunderstanding* took on the identity of a fabricated Spanish actress to write *The Plays of Clara Gazul*, twenty years before raising money for a new pair of pants by writing the play *Carmen*.

ANSWER: Prosper **Mérimée**

[10] After working as an agent for Louis XVI and the American revolutionaries, he wrote *The Barber of Seville* and *The Marriage of Figaro*.

ANSWER: Pierre-Augustin Caron de **Beaumarchais**

[10] Among the works by this father of Russian literature that were adapted into operas are *The Prisoner of the Caucasus* and *Eugene Onegin*.

ANSWER: Alexander Sergeyevich **Pushkin**

019-09-12-08201

2. Aqueous thiosulfate is used in photochemistry to dissolve excess amounts of this metal's bromide, which is not water-soluble. For 10 points each:

[10] Name this metal whose ores include chlorargyrite and argentite.

ANSWER: **silver** [or **Ag**]

[10] Unlike silver halides, the compound of silver and this polyatomic ion is soluble in water. This polyatomic ion has a trigonal planar structure and is found in fertilizer.

ANSWER: **nitrate** [or **NO three minus one**]

[10] The silver mirror found in the Tollens test also occurs in the presence of 1-alkynes and this compound found in the poison of ants, nettles, and bees.

ANSWER: **formic acid** [or **methanoic acid**; prompt on **HCOOH** or **HCO₂H**]

032-09-12-08202

3. Vaclaw Lastowski was arrested by the NKVD on charges of pressing for the liberation of this country, where the Treaty of Brest-Litovsk was signed in 1919. For 10 points each:

[10] Name this present-day country, which transitioned from a Soviet Socialist Republic to an independent nation under Vyachaslau Kebich.

ANSWER: Republic of **Belarus** [or Respublika **Byelarus**]

[10] In 1994 Kebich was defeated by this man in Belarus's first and only democratic presidential election. This man won re-election in 2006 amid charges of widespread fraud.

ANSWER: Alexander Grigoryevich **Lukashenko**

[10] Belarus is also known for being the dumping ground for 70% of the radioactive fallout from the explosion at this Ukrainian nuclear reactor in 1986.

ANSWER: **Chernobyl**

003-09-12-08203

4. The author of this play recently added a second act to it and dubbed it *Peter and Jerry*. For 10 points each:

[10] Name this play in which Jerry is impaled with his own knife after fighting with Peter over a park bench.

ANSWER: The Zoo Story

[10] This American playwright of *The Zoo Story* and *Who's Afraid of Virginia Woolf* wrote about lizard-human interaction in *Seascape*.

ANSWER: Edward Albee

[10] In *Who's Afraid of Virginia Woolf*, George and Martha invite Nick and this wife of his over. She spends much of the play on the bathroom floor.

ANSWER: Honey

015-09-12-08204

5. This city fell soon after the Battle of al-Qadisayyah. For 10 points each:

[10] Name this city across the river from Seleucia-on-the-Tigris, which served as the capital of both the Parthian and Sassanian Empires.

ANSWER: Ctesiphon

[10] The Battle of al-Qadisayyah forced this last Sassanian emperor to flee; he was killed by a miller in 651, ending the Sassanian dynasty.

ANSWER: Yazdgerd III [or Yazdegerd III; prompt on Yazdgerd or Yazdegerd]

[10] The Battle of al-Qadisayyah took place during the Arab conquest of this ancient region, which encompassed much of present-day Iran.

ANSWER: Persia

003-09-12-08205

6. This is the term for any passage of music in which multiple voices exist, as opposed to chants, which are sung by only one voice. For 10 points each:

[10] Give this term from the Greek for "many sounds."

ANSWER: polyphony

[10] Polyphony is often associated with this feature, in which multiple voices carry different harmonic lines. It is generally used to describe any polyphonic music after the Baroque period.

ANSWER: counterpoint [or contrapuntal]

[10] This Baroque master of counterpoint used it extensively in works like *The Art of Fugue*. He also composed *The Well-Tempered Clavier* and a *Mass in B Minor*.

ANSWER: Johann Sebastian Bach [prompt on Bach; prompt on Johann Bach]

003-09-12-08206

7. Following her most famous defeat, she was allowed to live in Medina. For 10 points each:

[10] Name this third and favorite wife of Muhammad who led the opposition against the third Caliph, Uthman.

ANSWER: Aishah

[10] Aishah was the daughter of this man, Muhammad's closest advisor, who became the first Caliph following the death of Muhammad.

ANSWER: Abu Bakr

[10] Aishah was defeated while leading a revolt against this successor to Uthman at the Battle of the Camel. Debate as to whether he had the right to the caliphate led to the split between the Sunnis and Shiites.

ANSWER: Ali

030-09-12-08207

8. In March 2010 Harvard researchers conclusively proved the hypothesis that this virus contributes to multiple sclerosis. For 10 points each:

[10] Name this virus that causes mononucleosis and attacks B cells, making it the cause of Burkitt's Lymphoma and some forms of hairy leukoplakia.

ANSWER: **Epstein-Barr** virus [or **EBV**]

[10] Epstein-Barr is a member of this family of viruses that also includes CMV, and the causative agent of Kaposi's Sarcoma. Its namesake "simplex" virus causes cold sores.

ANSWER: **Herpesviridae**

[10] Another herpes virus, the varicella zoster virus, causes this common childhood disease; if it reactivates later in life it can cause shingles.

ANSWER: **chickenpox**

001-09-12-08208

9. During the final years of this country's occupation, the Ypsilantis (IP-suh-LAN-teez) gained power and prominence. For 10 points each:

[10] Name this Okhi-day celebrating country which suffered a "regime of the colonels" in the 60s and 70s after being ruled by the fascist Metaxas and repelling Muhammad Ali's attempts to keep it within the Ottoman Empire.

ANSWER: **Greece** [or **Hellas**; or **Hellenic Republic**; or **Elliniki Dimokratia**]

[10] This decisive 1827 battle in the War for Greek Independence was won by a British, Russian, and French fleet against an Ottoman and Egyptian one, and was the last to be fought entirely with wooden ships.

ANSWER: Battle of **Navarino**

[10] After the Convention of London, this Bavarian man was made the first Greek king. He moved the capital to Athens and was expelled in a coup in 1862.

ANSWER: **Otto**, Prince of Bavaria [or **Othon**, King of Greece]

020-09-12-08209

10. This deity was taken to Thrymheimr by an eagle and was regarded as the youngest of the children of Ivaldi. For 10 points each:

[10] Identify this Norse goddess who was abducted in that form by Thiazi and turned into a nut by Loki, who had earlier taunted her for being a wench and unfaithful to her husband, Bragi.

ANSWER: **Idunn**

[10] Idunn kept the golden apples and bestowed this gift, possessed by the inhabitants of Tír na nÓg, but not by Tithonus, who shriveled up into a cicada for not possessing it.

ANSWER: eternal **youth** [accept equivalent]

[10] Another set of Golden Apples in Norse mythology was gifted to this giantess by Skirnir to win Frey's love; Frey had given Skirnir his sword for the task, thus sealing his own fate at Ragnarok.

ANSWER: **Gerd**

001-09-12-08210

11. In the second act of this play, all of the humans except for Alquist are killed by a rebellion led by Radius. For 10 points each:

[10] Name this 1921 play set in a factory run by Harry Domin.

ANSWER: **R. U. R.** [or **Rossum's Universal Robots**]

[10] This Czech author of *The Insect Play* coined the word "robot" in his play *Rossum's Universal Robots*.

ANSWER: Karel **Capek**

[10] In *Rossum's Universal Robots*, this representative from the League of Humanity marries Harry Domin and convinces Dr. Gall to give the robots souls, causing them to rebel against humanity.

ANSWER: **Helena** Glory [or Helena **Glory**]

004-09-12-08211

12. The work done to move a unit charge between the plates of a capacitor is equal to one-half times this quantity between the plates times the charge. For 10 points each:

[10] Name this quantity, the drop of which across an Ohmic material is equal to the product of the current and resistance.

ANSWER: **voltage** [or **potential difference**; prompt on **V** or **phi**]

[10] In an AC circuit, the voltage can be thought of as the product of the current and impedance. The impedance is the sum of the resistance and this quantity, a frequency-dependent effective resistance due to capacitors or inductor.

ANSWER: the **reactance** [prompt on **X**]

[10] In the above-mentioned AC Ohm's law, the voltage, impedance and reactance are of this type of quantity, which can be understood as two-dimensional Cartesian vectors or, equivalently, complex numbers that rotate cyclically in time.

ANSWER: **phasors**

022-09-12-08212

13. Name some African languages, for 10 points each.

[10] This Semitic language which features ejective consonants and contrastive germination is the official language of Ethiopia.

ANSWER: **Amharic** [or **Amarinya**]

[10] This Bantu language is an official language in Kenya, Tanzania, and Uganda. The word for "lion" in this language is the source of the name Simba.

ANSWER: **Swahili** [or **Kiswahili**]

[10] This other Bantu language which is noted for its whistled sibilants is spoken mainly in Zimbabwe, and includes the Karanga and Zezuru dialects.

ANSWER: **Shona** [or **chiShona**]

024-09-12-08213

14. The lead character of this book is despised by General Tilney because of another man's lie regarding the fate of the Allen fortune, rather than because she thinks Tilney has murdered his wife. For 10 points each: [10] Identify this Jane Austen novel, which parodies Gothic literature through the character of Catherine Morland.

ANSWER: **Northanger Abbey**

[10] The primary target of *Northanger Abbey's* satire is this author, whose contrived plots involving multiple people pretending to be nuns or constantly wearing veils are seen in *The Italian*, *The Mysteries of Udolpho*, and *The Romance of the Forest*.

ANSWER: Ann Ward **Radcliffe**

[10] This book by Edward Said claims that Jane Austen condoned slavery because Sir Thomas Bertram runs a Caribbean plantation in *Mansfield Park*. It analyzes novels to demonstrate how they form and maintain ideologies.

ANSWER: **Culture and Imperialism**

019-09-12-08214

15. This man depicted his father observing a contest in *The Chess Players*. For 10 points each:

[10] Name this American artist who painted realistic blood in his depiction of title professor at work during surgery in *The Gross Clinic*.

ANSWER: Thomas Cowperthwait **Eakins**

[10] Eakins is also known for depicting this friend of his rowing a boat on the Schuylkill River in a "single scull," while Eakins himself can be seen rowing in the background.

ANSWER: Max **Schmitt** [or Max **Schmitt** in a *Single Scull*; prompt on **Max**]

[10] Eakins modeled one of the nudes in this painting after the *Dying Gaul*. It depicts a group of naked men bathing near a large grey rock.

ANSWER: *The* **Swimming Hole** [or **Swimming**; or *The Old* **Swimming Hole**]

052-09-12-08215

16. Because of his status as John Mitchell's chief lawyer, this man was one of the many Deep Throat suspects. For 10 points each:

[10] Name this conservative who served as Chief Justice from 1986 to 2005, when his death led to his replacement by John Roberts. He was previously an associate justice from 1972 to 1986.

ANSWER: William Hubbs **Rehnquist**

[10] Rehnquist was friends with this fellow associate justice, who retired in 1981. This man is best known for writing "I know it when I see it" in referring to hard-core pornography in the *Jacobellis* case.

ANSWER: Potter **Stewart**

[10] Rehnquist claimed in his opinion in *Dickerson v. U.S.* that the practices mandated by this 1966 decision have become so ingrained into American culture that it cannot be overturned.

ANSWER: **Miranda v. Arizona**

052-09-12-08216

17. This type of rock can be modified by diagenesis. For 10 points each:

[10] Name this large grouping of rocks made from the accumulation of deposits, usually in layers.

ANSWER: **sedimentary** rocks

[10] This type of sedimentary rock is made from bits of other rocks that become cemented together. This type is distinct from chemical and organic sedimentary rocks.

ANSWER: **clastic** sedimentary rock

[10] This type of clastic rock is made of rock fragments with sharp edges. The Apollo missions found that the impact type of this is very common on the moon.

ANSWER: **breccia**

001-09-12-08217

18. Answer these questions about the 2010 Greek economic crisis, for 10 points each.

[10] In April, Greece's debt rating was lowered to this rating by the Standard and Poor's, raising fear that investors who bought Greek bonds will never get their money back.

ANSWER: **junk** status

[10] This current German chancellor has received some criticism for her role in the Greek bailout plan.

ANSWER: Angela **Merkel**

[10] Many have blamed this former Greek prime minister from 2004-2009 who appears to have fabricated the size of Greece's budget deficit.

ANSWER: Kostas **Karamanlis**

064-09-12-08218

19. For 10 points each, answer these "active" science questions.

[10] Active galactic nuclei are regions at centers of some galaxies containing these complexes of in-falling material. As the material of one of these spirals toward a central mass, it may eventually coalesce into a new star.

ANSWER: **accretion disks**

[10] Primary active transport typically uses this molecule for energy. On net, thirty-eight molecules of this compound are synthesized during aerobic respiration.

ANSWER: **ATP** (or **adenosine triphosphate**)

[10] The Debye-Huckel equation used to calculate activity coefficients contains this term, equal to one half the sum of the concentration of each ion in solution multiplied by the square of its charge.

ANSWER: the **ionic strength** (prompt on **I**)

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20. The protagonist of this novel eventually loses his prized estate Hetton Abbey. For 10 points each:

[10] Name this novel about the dissolution of Brenda's marriage to Tony because of her affair with John Beaver. It ends with the protagonist being held captive by Mr. Todd.

ANSWER: A ***Handful of Dust***

[10] This British author of *A Handful of Dust* wrote about Charles Ryder's relationship with the sister of Sebastian Flyte in *Brideshead Revisited*

ANSWER: Evelyn **Waugh**

[10] In *A Handful of Dust*, Tony Last is forced to eternally read the works of Charles Dickens in this country. In *Tess of the D'Urbervilles*, Angel Clare leaves for this country after Tess reveals her past relationship with Alec.

ANSWER: **Brazil** [or **Brasil**]

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21. Her marriage to Philip II of Spain inspired Thomas Wyatt to rebel against her. For 10 points each:

[10] Name this "bloody" ruler of England, who executed around three hundred Protestants for heresy.

ANSWER: **Mary I** [or **Mary Tudor**; prompt on **Mary**]

[10] Among Mary's victims was this Archbishop of Canterbury, who had joined with Henry VIII to establish the Church of England. Mary replaced him with the Catholic stalwart Reginald Pole.

ANSWER: Thomas **Cranmer**

[10] Mary's persecutions are chronicled in the last sections of this work by John Foxe, which was once the second-most-popular volume in England after the Bible.

ANSWER: The **Book of Martyrs** [or **Actes and Monuments** of these Latter and Perillous Dayes]

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