Bulldog High School Academic Tournament XXII (2013): *Praxis*? We Talkin' Bout *Praxis*, Man
By Yale Student Academic Competitions
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Special Thanks to John Lawrence and Mike Cheyne

Round Ten Tossups

1. Phosphofructokinase-1 is allosterically inhibited by the first intermediate in this pathway. Fatty acids enter this pathway following beta-oxidation. Aspartate can enter this pathway after being catabolized to fumarate. The input to this pathway is generated by the pyruvate dehydrogenase complex. Coenzyme A is separated from acetyl, which is then added to oxaloacetate to form citric acid at the beginning of this pathway, which yields three NADH molecules and occurs in the mitochondrial matrix. The NADH is then sent to the electron transport chain in the mitochondria to complete the process of respiration. For 10 points, name this cycle that follows glycolysis in aerobic respiration.
ANSWER: **Krebs** cycle [or **tricarboxylic acid** cycle; or **TCA** cycle; or **citric acid** cycle until "citric acid" is read]
<AS>

2. This man says "O reason not the need!" to start one speech after arguing about how many knights should accompany him, and he hires a banished companion who uses the name Caius. This man is told "I cannot heave my heart / Into my mouth," after which the duke of Burgundy leaves his estate. This man's companions include the madman Tom o'Bedlam, Kent, and his court fool, with whom he yells "blow, winds, and crack your cheeks!" as he runs into a storm. He dies of grief clutching Cordelia. For 10 points, name this Shakespearean title character, whose tragedy begins when he divides his kingdom among three daughters.
ANSWER: King **Lear** <SJW>

3. One philosophical school in this religion believed in two levels of truth. One of its holy texts tells of a father who gets his child to leave a burning house with "skillful means," or *upaya*. Many venerated beings in this faith took a vow to delay their departure from the world until they can help all other beings. One branch of religion has a name meaning "Great Vehicle," and its founder was inspired by seeing an old man, a sick man, and a corpse along a road. It holds that "all life is suffering" among its Four Noble Truths, and its Mahayana branch looks to the Lotus Sutra and Eightfold Path. For 10 points, name this religion whose believers seek enlightened *nirvana*.
ANSWER: **Buddhism** [or **Buddhist**; accept **Mahayana** Buddhism; do not accept other more specific answers such as "Theravada" or "Zen"] <MJ>

4. With Cotes, this man names a set of methods for numerical integration, including the trapezoid rule. One constant sometimes named for him in an equation derived by him was determined using a torsion balance in the Cavendish experiment. For shallow temperature gradients, his law of cooling approximates heat flow between two points as proportional to the temperature difference between them. When the de Broglie wavelength is small, a set of laws named for this man hold; one of those laws states that force is equal to mass times acceleration. For 10 points, name this namesake of the SI unit of force and three laws of motion that underlie classical mechanics.
ANSWER: Isaac **Newton** <AS>

5. Emigrés who fled after this war's end in makeshift craft were called "boat people." During this conflict, rural peasants were forced into fortified camps in the Strategic Hamlet Program. One side of this war ran a huge branching supply trail named for one side's leader that ended near Dalat, and turned the tide by breaking a traditional truce on a lunar new year holiday. Operation Rolling Thunder and the spraying of Agent Orange accompanied heavy napalm use for deforesting trees in this war, which included the My Lai massacre and Tet offensive. For 10 points, name this war in southeast Asia won by Ho Chi Minh's Communist North.
ANSWER: **Vietnam** War <MJ>

6. The linguistic type of this discipline included Kenneth Pike, who proposed the "etic" -"emic" (EE-mik) dichotomy for its corpus. An early practitioner who described mass habits called "survivals" was Edward Tylor. This discipline often relies on prose called "thick description." The father of Ursula K. LeGuin, Alfred Kroeber, was in the first Ph.D program in this subject at Columbia, and worked with an isolated California native named Ishi. Clifford Geertz used its primary method, participant observation, to write ethnographies. For 10 points, name this social science done by Franz Boas and Margaret Mead, which studies other cultures to learn more about humanity.
ANSWER: **anthropology** [or cultural **anthropology**; prompt "ethnography"] <MJ>

7. One quick way to test how similar a data set is to this mathematical object is to draw a Q-Q plot and look for a linear relationship. Because it is described by a variant of the function "e to the negative x squared", its CDF is based on the error function. This mathematical object is equal to the t-distribution in the limit when t goes to infinity. Z-scores are computed based on a standard version of it. The means of random variables from *any* distribution will follow one of these distributions, according to the central limit theorem. For 10 points, name this probability distribution that is described by the 68-95-99.7 rule and is shaped like a bell.
ANSWER: **normal** distribution [or **Gaussian** distribution; accept standard **normal** distribution; accept **z**-distribution until "Z-scores" is read] <AS>

8. Ithobaal III was among the rulers of this civilization. The sarcophagus of another of their rulers, Ahiram, contains the first inscriptions found in this people's language. This people's major trade good, a brominated compound obtained from the spiny murex shell, let them make a dye from which they got a name meaning "purple people." These people founded Hippo and brought their Semitic language and an early consonantal alphabet from Tyre to the founding site of Carthage. For 10 points, name these pre-Greek people who traded extensively in the eastern Mediterranean.
ANSWER: **Phoenician**s [or **Phoeniki**; or **Punic**i; or **Canaanite**s; or **Kena'ani**; prompt on "Semitic" or "Semites;" do not accept "Carthaginians"] <AT>

9. This deity sired one son with the giantess Jarnsaxa, and uses the help of the giantess Grid to defeat Geirrod. One of this god's animals is crippled when marrow from its thighbone is drunk by Roskva's brother; as punishment, this god forces Thialfi to become his servant. This owner of Toothgrinder and Toothgnasher, two chariot-pulling goats, is unable to lift a cat which is actually the Midgard Serpent. This god, the husband of the golden-haired Sif, once dressed up in a bridal gown as Freya to retrieve a stolen weapon which returns to him when thrown. For 10 points, name this giant-slayer and wielder of Mjolnir, the Norse god of thunder.
ANSWER: **Thor** [or **Donar**] <GL>

10. One ruler of this region kidnapped the sitting Roman emperor Valerian in battle. A poet used this region's language to describe a reed pipe torn from an osier-bed in six books of *Spiritual Couplets*. Matthew Arnold adapted a legend from this area in which Sohrab is killed by his father Rostam, which appears in a national epic translated *Book of Kings*. The Sassanids were a dynasty of this region, where "a jug of wine, a loaf of bread, and thou" were written into the quatrains of the *Rubaiyat* by Omar Khayyam. For 10 points, name this historical carpet-making region whose ruler, the shah, was deposed in 1979 by an Islamic Republic.
ANSWER: **Persia** [or **Iran**; or **Fars**] <MJ>

11. Westbrook Pegler revealed that one candidate in this election had written controversial letters to a Russian spiritual guru. This election's winner had forced Congress to meet in the so-called "Turnip Day session," and was told by a supporter to "Give 'em hell." Progressive Henry Wallace ran in this race, in which Fielding Wright's running mate walked out of the Democratic National Convention and carried four Southern states as a Dixiecrat. For

10 points, name this election disrupted by South Carolinian candidate Strom Thurmond, after which the *Chicago Daily Tribune* erroneously proclaimed Thomas Dewey's victory over incumbent Harry S. Truman.
ANSWER: United States presidential election of **1948** <AT>

12. In one dish named for this foodstuff, it is coated with pâté and mushroom duxelles and wrapped in puff pastry. This is the main ingredient in traditional versions of the Korean dish *bulgogi*, and bresaola is an Italian preparation of it. This ingredient largely makes up the filling of a traditional Cornish pasty. One prized variety of this foodstuff must come from the Wagyu breed and is named for a city in Hyogo Prefecture. This main constituent of carne asada appears in a dish named for Wellington and has an expensive Kobe variety. The subject of an advertising campaign declaring "it's what's for dinner" is, for 10 points, what meat that comes from cows?
ANSWER: **beef** <KK>

13. One of this character's lies is exposed after his half-brother points out the color of the thread in his collar. He exonerates a man who did not kill Dr. Robinson, a drunkard named Muff Potter. In a book titled for this character, he and a friend hunt for treasure when they find a man disguised as a deaf and dumb Spaniard. This character attends his own funeral and is briefly "engaged" to Amy Lawrence; he also gets lost in McDougal's Cave, where he finds Injun Joe's dead, with Becky Thatcher. For 10 points, name this boy who tricks his friends into whitewashing a fence for him, a Mark Twain character who befriends Huckleberry Finn.
ANSWER: **Tom** **Sawyer** [accept either underlined name] <GL>

14. The running accompaniment figure of one song by this composer briefly stops when the singer sings "Ach! sein Kuss," remembering the kiss of her beloved. The piano accompaniment represents the title device in that work with text from Goethe's *Faust*, "Gretchen at the Spinning Wheel." He wrote two song cycles based on the poetry of Wilhelm Müller. An entr'acte from his incidental music to *Rosamunde* might have been the intended third movement for his eighth symphony, and he wrote *Winterreise* and *Die schöne Müllerin*. For 10 points, name this Austrian composer of the "Trout" Quintet, the "Death and the Maiden" Quartet, and the "Unfinished" Symphony.
ANSWER: Franz **Schubert** <KK>

15. An escarpment of this name runs through the Bruce Peninsula. The first safe railway suspension bridge, built by John Roebling, crossed a gorge of this name, and an Aero Car crosses a whirlpool of this name. A Lewiston hydroplant is named for "Robert Moses" and this. The Welland Canal bisects a peninsula home to Hamilton called this. In 1969, a landmark of this name was dammed to clear rockslides. Cave of the Winds and Goat Island are at that landmark, at which Annie Taylor traveled in a barrel. A river called this, flowing past Buffalo from Lake Erie, is plied by the *Maid of the Mist*. For 10 points, give this name for a big waterfall between New York and Ontario.
ANSWER: **Niagara** [or **Niagara** Falls; or **Niagara** Escarpment; or **Niagara** Gorge; or **Niagara** Whirlpool; or Robert Moses **Niagara** Hydroelectric Power Station; or **Niagara** Peninsula; or **Niagara** River] <JW>

16. This short story's first sentence says that "the flowers were blossoming profusely," and a flock of schoolkids in it includes Dickie Delacroix ("Dellacroy"). Clyde Dunbar has a broken leg in this story, in which Mr. Graves enters the scene carrying a three-legged stool. Old Man Warner hopes for a good corn crop in this story, which involves a black box from Mr. Summers's coal company. This story is set on June 27th, on which day Tessie Huthcinson screams "It isn't fair!" For 10 points, name this short story in which a woman is stoned to death after her name is pulled out of a box, by Shirley Jackson.
ANSWER: "The **Lottery**" <GL>

17. One artist from this city depicted a skull on a desk behind a title saint who stares up at the sky in *Saint Francis in Ecstasy;* another painted a lightning above a soldier and a breastfeeding woman in *The Tempest*. A third artist from this city showed a floating man in *Miracle of the Slave* and painted a ceiling lamp in the upper-left of his diagonally-

oriented *Last Supper*. This home of Bellini and Giorgione also housed the artist who inspired Manet's *Olympia* by painting a goddess who reclines naked on a white bed, the *Venus of Urbino*. Tintoretto and Titian lived in, for 10 points, what Italian city, where Canaletto painted many views of the Grand Canal?
ANSWER: **Venice** [or **Venezia**] <BS>

18. In one form of this technique, analytes are said to elute from the apparatus. In a modern version of that form, liquids are forced through a sorbent column at high pressure. One common setup applies it to a gas before performing mass spectrometry. The retention factor measures the relative distance traveled by an analyte in one variety of this technique, in which a thin adsorbent layer often made of silica acts as a stationary phase. Another variety of it was seminally used to separate plant pigments for the first time; in that variety, various components of a plant extract rise up a paper at different speeds. For 10 points, name this powerful class of techniques for separating mixtures.
ANSWER: **chromatography** [accept more specific answers, including **thin-layer chromatography**, **paper chromatography**] <JG>

19. This country's system of Golden Liberty allowed monarchs to be elected by a parliament where every member had a right to individually veto legislation. This country was pillaged by a northern enemy during the Deluge, and its nobles joined a parliament with a J in its name, the Sejm ("SEY-m"). A post-Jagiellonian king of this nation allied with Leopold I to break the 1683 siege of Vienna. It established a monarchical union at Lublin. This country's three neighbors partitioned it out of existence by the 1790s. For 10 points, name this state ruled by Jan III Sobielski and King Poniatowski from Krakow and Warsaw.
ANSWER: **Poland**-Lithuania [or **Polish**-Lithuanian Commonwealth; or Commonwealth of **Poland**] <BS/MJ>

20. It's not by William James, but Ursula LeGuin admitted that this novel's chapter on "respectfully return[ing] the ticket" inspired her story "The Ones Who Walk Away from Omelas," about a single tortured child in utopia. A student in this novel says "If God does not exist, everything is permitted," and another title character follows Father Zosima as a monk. In a story within this novel, Jesus returns to Earth and gets arrested by a Grand Inquisitor. Near its end, the illegitimate child Smerdyakov is shown to have murdered his alcoholic dad Fyodor. For 10 points, name this Dostoevsky novel about Dimitri, Ivan, and Alyosha, who had the same father.
ANSWER: The ***Brothers Karamazov*** [or ***Brat'ya Karamazovy***] <MJ>

[STOP HERE]
[You have reached the end of the round. Do not continue reading unless the game is tied or a tossup was thrown out earlier in the round.]

21. The creator of this painting compared the beginning of Maupassant's *Bel Ami* to its subject matter in a letter to his brother. A year before making this painting, its artist made a similarly-titled scene of a bridge *On the Rhone* and used a similar background for a green-lit café terrace. It was allegedly painted from memory while its artist was in a sanatorium at Saint-Remy. A light blue church in the center is dwarfed on its left side by a dark green cypress tree which points upward. For 10 points, name this post-Impressionist painting in which eleven bright points and a large moon appear in a swirly dark sky, by van Gogh.
ANSWER: The ***Starry Night*** [or De ***Sterrenacht***] <SSp/MJ>

Bonuses

1. One work in this genre by Mozart is nicknamed "Dissonance" for its unusual C-minor slow introduction. For 10 points each:

[10] Name this genre of music also exemplified by three Beethoven works dedicated to Count Rasumovsky. Bedřich Smetana wrote one titled "From My Life."
ANSWER: **string quartet**
[10] This composer of 104 symphonies is credited with popularizing the string quartet. One of his quartets provides the melody for the German national anthem, and his symphonies include the "Surprise" and the "Military."
ANSWER: Franz Joseph **Haydn**
[10] Haydn's Quartet opus 33 number 2 has this nickname due to its start-and-stop ending. This is also the English translation of the Italian word "scherzo," a genre that sometimes replaced the minuet in symphonies and sonatas.
ANSWER: "The **Joke**" <KK>

2. Many substances with this property are described by BCS theory, which describes the behavior of Cooper pairs. For 10 points each:
[10] Name this property of materials that have precisely zero resistivity.
ANSWER: **superconductivity** [or word forms]
[10] The discovery of so-called high-temperature superconductors like YBCO has been hailed as a great advance because they can be cooled using this atmospherically-available coolant, rather than liquid helium.
ANSWER: liquid **nitrogen**
[10] Because the specific heat has this behavior at the critical temperature, the superconducting transition is said to be second-order. The density has this behavior at the solid-liquid phase transition as well.
ANSWER: **discontinuous** [or **not continuous**; or word forms] <AS>

3. She co-wrote an elaboration of the nursery rhyme "A-Tisket, A-Tasket" with Al Feldman, and her 1938 recording of that song first brought her widespread attention. For 10 points each:
[10] Name this "First Lady of Song," a jazz singer who released eight "Songbook" albums dedicated to individual songwriters.
ANSWER: Ella **Fitzgerald**
[10] Fitzgerald is celebrated for her virtuosic use of this vocal jazz technique in which the singer improvises on nonsense syllables. Louis Armstrong was an early pioneer of this technique.
ANSWER: **scat** singing
[10] One of Fitzgerald's best-known recordings is of this standard by Billy Strayhorn, a signature tune of the Duke Ellington Orchestra. This song's title conveyance takes you "to Sugar Hill, way up in Harlem."
ANSWER: "**Take the 'A' Train**" <KK>

4. These bodies were used by Hubble in 1919 to find the distance to Andromeda. For 10 points each:
[10] Name these very bright variable stars used as standard candles to calculate distance in astronomy. They are named after a prototype delta star that was itself named after a king of Aethiopia.
ANSWER: **Cepheid** variable star
[10] Distances to nearby stars are calibrated using this method, in which the angular change in a star's position is measured as the Earth orbits the Sun. The natural unit for reporting data from it is the parsec.
ANSWER: **parallax**
[10] Parallax factors into this motion of a star, which is the projection of its relative velocity onto the celestial sphere. Barnard's star is notable for moving in this manner at a rate of 10 arcseconds per year.
ANSWER: **proper** motion <BH>

5. In one of his stories, a bitter old peasant woman inflicts the seductive Valerie Marneffe on Baron Hulot's family after Hulot's daughter marries her foster-son Wenceslas Steinbock. For 10 points each:
[10] Identify this author of the short story "Sarrasine," whose female title characters include the vengeful *Cousin Bette* and *Eugenie Grandet*.

ANSWER: Honore de **Balzac**

[10] This set of interlinked Balzac novels is divided into sections such as "Scenes from Parisian Life" and "Scenes from Private Life." Recurring characters include social climber Eugene de Rastignac and criminal mastermind Vautrin.

ANSWER: The ***Human Comedy*** [or La ***Comedie Humaine**]

[10] Chronologically, Eugene first appears in this book, where he courts the title vermicelli maker's aristocratically-married daughters Anastasie and Delphine.

ANSWER: Le ***Pere Goriot*** [or ***Old Goriot**; or ***Father Goriot**] <GL>

6. Tall mountains in this region are called "Munros." For 10 points each:

[10] Name this constituent country, home of Peterhead and Inverness, which includes the River Tay, the Firth of Forth, and the Hebrides Archipelago.

ANSWER: **Scotland** [or **Alba**]

[10] Situated where the River Kelvin meets the Clyde, this city with districts including Cowcaddens and Gorbals is Scotland's most populous. It is an located an hour west of Edinburgh ("ED-in-burr-uh").

ANSWER: **Glasgow** [or **Glaschu**; or **Glesga**]

[10] This archipelago, just across the Pentland Firth from the rest of Scotland, surrounds Scapa Flow. Its capital of Kirkwall lies on its largest island, Mainland, and it includes Rousay and Hoy.

ANSWER: **Orkney** Islands [or the **Orkney**s; or **Orkney** Isles; or **Orcadian** Islands/Islaes; or Eileanan **Arcaibh**] <JW>

7. This time period was aggravated by the crashing of the *Sea Venture* in Bermuda and the loss of effective leadership when John Smith departed. For 10 points each:

[10] Name this season which only sixty people survived in the affected area. It ended when Thomas West, Baron De la Warr brought ships full of supplies and John Rolfe introduced tobacco planting.

ANSWER: the "**starving time**" [or the **winter** from **1609** to 1610; or the **winter** from 1609 to **1610**; prompt "1609;" prompt "1610"]

[10] The "starving time" nearly nipped this triangular colony in the bud. Founded in 1607, this colony was the first surviving British colony in the Americas.

ANSWER: **Jamestown** [prompt "Virginia"]

[10] Further north, this last surviving Patuxet Indian helped stave off another starving time by helping the Pilgrims at Plymouth Colony feed themselves. He had previously spent some time in England as a captive.

ANSWER: **Squanto** [or Ti**squantum**] <MJ>

8. This process may be repeated multiple times with heating to improve the purity of its product. For 10 points each:

[10] Name this process which may be initiated by adding a seed to nucleate it in a supersaturated solution. It leaves a mother liquor behind.

ANSWER: **crystallization** [accept **recrystallization**]

[10] This method of determining crystal structure was used by Rosalind Franklin to analyze the structure of DNA. In it, a crystal is slowly rotated while it is irradiated by high-energy radiation.

ANSWER: **X-ray diffraction** [accept **X-ray scattering**; accept **X-ray crystallography**]

[10] X-ray diffraction yields images in reciprocal space, which is related to real space by this transform. It converts functions of time into functions of frequency, and its associated series writes a function as a sum of sinusoids.

ANSWER: **Fourier** transform <JG>

9. Name these series of popular children's books, for 10 points each.

[10] In this Suzanne Collins trilogy, districts surrounding the Capitol each send two tributes to a set of kids who fight to the death on TV. Its narrator is the bow-wielding Katniss Everdeen.

ANSWER: The ***Hunger Games*** trilogy

[10] This Eoin Colfer series has messages running along each page in a decipherable code. Its namesake Irish boy genius runs into fairies from underground.

ANSWER: ***Artemis Fowl***

[10] This eight-book series by Emily Rodda focuses on Lief, who has to find seven gems and put them in a belt to defeat the Shadow Lord. It was followed by the *Shadowlands* series.

ANSWER: ***Deltora Quest*** <MJ/MPG/GL>

10. This author penned *Tales of the Alhambra* while in Spain, and his first short story collection, *The Sketchbook of Geoffrey Crayon*, includes Ichabod Crane. For 10 points each:

[10] Name this early American author who described a lazy layabout in "Rip van Winkle" and included descriptions of the Headless Horseman in his "The Legend of Sleepy Hollow."

ANSWER: Washington **Irving**

[10] Rip van Winkle plays ninepins with this historical figure and his crew after fleeing his "termagant" wife.

ANSWER: Hendrick **Hudson** [or Henry **Hudson**]

[10] In another Irving short story, Tom Walker meets this character, who guards Captain Kidd's treasure. In a Benet short story, this being is called "Mr. Scratch" and fights a legal battle with Daniel Webster.

ANSWER: the **Devil** [or **Satan**; or **Lucifer**] <GL>

11. This man's membership in the Nazi Party and the Wehrmacht became an issue in a successful 1985 campaign, after which he was a *persona non grata* in the United States. For 10 points each:

[10] Name this politician and diplomat who served as president of Austria between 1986 and 1992.

ANSWER: Kurt **Waldheim**

[10] Waldheim's had previous held this high diplomatic post, in which he succeeded U Thant. Kofi Annan was a more recent holder of this post.

ANSWER: **Secretary-General** of the **United Nations** [or **UN Secretary-General**; prompt on partial answers]

[10] This war-torn country got money raised in concerts organized by Waldheim and Paul McCartney. It has been ruled by Pol Pot and his Khmer Rouge.

ANSWER: Kingdom of **Cambodia** [or Democratic **Kampuchea**; or Preăh Réachéanachâk **Kâmpŭchéa**] <AT>

12. This weather phenomenon names the title *Country* where a geisha seduces Shimamura in a Yasunari Kawabata novel. For 10 points each:

[10] Name this type of winter weather, which falls all over Ireland in the final paragraph of James Joyce's short story "The Dead."

ANSWER: **snow**

[10] This Turkish author describes Ka's interactions with a group of Muslim radicals led by Blue in *Snow*. He also wrote about Islamic miniaturists in *My Name is Red*.

ANSWER: Orhan **Pamuk**

[10] This 19th-century American poet wrote of a spinster aunt recalling huskings and applebees as a family gathers around the hearth in *Snow-Bound*. He insulted Daniel Webster with his poem "Ichabod."

ANSWER: John Greenleaf **Whittier** <GL>

13. Yale professor Thomas Steitz won the 2009 Nobel Prize in Chemistry for determining the structure of this organelle. For 10 points each:

[10] Name these organelles that translate mRNAs into polypeptides. The "roughness" of the rough endoplasmic reticulum is due to these organelles being attached to the ER surface.

ANSWER: **ribosome**

[10] The 3-prime end of an mRNA contains an untranslated "tail" of this purine nucleotide, a cyclic form of which is a common second messenger. It has two fewer phosphate groups than the product of oxidative phosphorylation.
ANSWER: **AMP** [or **adenosine monophosphate**; prompt on "A"; prompt on "adenosine"; do not accept or prompt on "ATP" or "adenosine triphosphate"]
[10] Before a translated polypeptide becomes functional, it must undergo this process, in which its conformation changes, possibly aided by chaperone proteins. Predicting how this will happen is a difficult, unsolved problem.
ANSWER: protein **folding** <AS>

14. Name some British Prime Ministers who were Tories and/or Conservatives, for 10 points each.
[10] This friend of Victoria wrote novels such as *Sibyl* and *Vivian Gray*. He feuded with Daniel O'Connell, who had insulted this man's Jewish heritage, and had a rivalry with William Gladstone.
ANSWER: Benjamin **Disraeli**, 1st Earl of **Beaconsfield** [accept either]
[10] This quasi-Tory worked with William Wilberforce to get the slave trade abolished in the Empire. His "elder" Whig uncle of the same name led Britain during the Seven Years' War.
ANSWER: William **Pitt** the Younger
[10] This man succeeded his uncle Lord Salisbury, and brought Britain into the Entente Cordiale. He issued a namesake "Declaration" supporting the establishment of a Jewish homeland in Palestine.
ANSWER: Arthur James **Balfour**, 1st Earl of Balfour <SJW>

15. Answer these questions about an academic field studied by philosopher Thomas Kuhn, for 10 points each.
[10] Kuhn is a historian of this field, who described *The Structure of* its namesake *Revolutions* as "paradigm shifts." This field of inquiry uses experiments to test hypotheses about the world.
ANSWER: **science** [or **scientific** method; or **scientific** revolutions]
[10] This English philosopher championed the scientific method in his *Novum Organum* and claimed that "Knowledge is power."
ANSWER: Sir Francis **Bacon**
[10] This Austrian philosopher claimed that all scientific claims had to be "falsifiable" in his *The Logic of Scientific Discovery* and critiqued historicism in his *The Open Society and Its Enemies.*
ANSWER: Sir Karl Raimund **Popper** <IP>

16. The main character of this novel is handed a note reading, "I LOVE YOU," by Julia, a mechanic working on novel-writing machines, with whom he starts an affair. For 10 points each:
[10] Name this dystopian novel in which Winston Smith betrays Julia after being tortured in Room 101. It was written by George Orwell in 1949.
ANSWER: *Nineteen Eighty-Four*
[10] Winston conspires with this Inner Party member, who he believes to be a member of the Brotherhood. This man interrogates Winston and forces him to admit that two plus two equals five.
ANSWER: **O'Brien**
[10] In *Nineteen Eighty-Four,* this emotion-regulating practice occurs each morning when all the telescreens display images of Emmanuel Goldstein.
ANSWER: the **Two Minutes' Hate** <SJW>

17. This goddess is sometimes shown wearing a horned headdress wrapped around a sun disk and the cobra Uraeus. For 10 points each:
[10] Name this wife of Horus, an Egyptian goddess identified with, or depicted as, a cow.
ANSWER: **Hathor**
[10] Hathor is ambiguously related to this chief Egyptian god, who drives a barge across the sky each day in his role as god of the sun.

ANSWER: **Ra** [or **Re**; or Amun-**Ra**; or Amun-**Re**; or Atum-**Ra**; or Atum-**Re**; do not prompt "Amun" or "Atum" alone]
[10] This brother of Ra is a serpent representing darkness and chaos. This god waits below the horizon to do battle with Ra each night, forcing Set and Thoth to help Ra out.
ANSWER: **Apep** [or **Apophis**] <AT>

18. The Catholic Church makes a distinction between these people and Religious Sisters such as Mother Teresa, even though the proper title for these people is "Sister." For 10 points each:
[10] Name these female Catholics who take religious orders and live together in convents.
ANSWER: **nun**s
[10] Many nuns join this mendicant order, sometimes called the "Dogs of God" as a Latin pun or the "Blackfriars" for their black robes. Its namesake Spanish founder set it up similarly to the Franciscans.
ANSWER: **Dominican** order [or **O.P.**; or **Order of Preachers**; or **Ordo Praedicatorum**]
[10] This woman, a Dominican but *not* a nun, helped convince the papacy to return from Avignon to Rome in the 1370s. Her decision to eat nothing but the Eucharist is sometimes labeled "anorexia mirabilis."
ANSWER: Saint **Catherine** of **Siena** [prompt partial answer] <MJ>

19. Answer some questions about ancient forms of writing, for 10 points each.
[10] To create these Shang dynasty artifacts, kings would inscribe questions using a namesake proto-Chinese script. These items were then thrown into the fire, after which diviners would interpret the cracks in them.
ANSWER: **oracle bones** [or **jiagu**; prompt "bones"]
[10] This pictographic writing system uses characters like the folded cloth, reed, and horned viper to represent alphabetic sounds. It was deciphered with the help of the Rosetta Stone.
ANSWER: Egyptian **hieroglyph**s [or **hieroglyphic**s; do not accept "demotic" or "hieratic"]
[10] This Sumerian script, which may be the oldest written language, uses reed styluses to create wedge-shaped indentations on clay tablets. It was later adapted by Akkadians, and Assyrians.
ANSWER: **cuneiform** <GL>

20. A Hannah Hoch collage depicted this art movement "Cut with a Kitchen Knife," and it grew out of reactions to the senseless violence of World War I. For 10 points each:
[10] Name this nonsense-based art movement that might get its name from the French for "hobbyhorse" or from baby talk. It had a manifesto penned by Tristan Tzara.
ANSWER: **Dada**ism
[10] This French Dadaist challenged conceptions of art with readymades such as the postcard *L.H.O.O.Q*. He showed a blocky figure moving in *Nude Descending a Staircase No. 2*.
ANSWER: Marcel **Duchamp**
[10] This avant-garde New York art show was the site where *Nude Descending a Staircase, No. 2* debuted and got called an "explosion in a shingle factory" by Julian Street in 1913.
ANSWER: 1913 **Armory Show** [or **International Exhibition of Modern Art**] <SSp>

21. This clergyman became a galley slave after the French besieged St. Andrews and later studied Reformed theology under John Calvin. For 10 points each:
[10] Name this Scottish Protestant reformer, the founder of Presbyterianism.
ANSWER: John **Knox**
[10] Knox and his fellow Protestants sparred with a Scottish queen consort of this name, the second wife of James V. Another queen of Scots of this name was executed by Elizabeth I.
ANSWER: **Mary** [or **Mary** of Guise; or **Mary**, Queen of Scots; or **Mary** Stuart]

[10] This other British church reformer worked with his brother Charles to start the Methodist movement in the late 18th century.
ANSWER: John **Wesley** <AT>