Ladue Invitational Spring Tournament IV

Written and edited by Ben Zhang, Jialin Ding, Kisan Thakkar, Enze Chen, Michael Prablek, and Sam Crowder

Round 2

Tossups

1. In this novel, Princess Shcherbatskaya [sher-BAT-skee] has trouble deciding which of two men would be the better suitor, and another scene shows Makhotin's horse, Gladiator, defeating Frou-Frou in a race. Dolly is devastated by the infidelity of (*) Stiva in this work, which begins with the line, "Happy families are all alike." Konstantin Levin confesses his love for Kitty in this novel, and the title character has a long affair with Count Vronsky. For ten points, identify this work whose title female character commits suicide by throwing herself under a train, a novel by Leo Tolstoy.

ANSWER: Anna Karenina

<KT>

2. In July 2012, this company issued a \$6.2 billion writedown that was partially due to its acquisition of aQuantive in 2007. One employee of this company left to become the CEO of Zynga after one of his products was criticized for requiring (*) internet connectivity checks every 24 hours and restricting game resales. The net loss this company experienced after releasing its first tablet contributed to the planned retirement of its CEO, Steve Ballmer. For ten points, name this corporation which recently rolled out its Surface 2 tablets and released an update to Windows 8.

ANSWER: Microsoft Corporation

<BZ>

3. The Eight Banners system comprised the military of this dynasty, which was visited by an emissary who refused to perform the kowtow, George Macartney. It launched a period of modernization known as the Self-Strengthening Movement after suffering defeat in a war that began with the detainment of the (*) *Arrow*. A man who claimed to be the younger brother of Jesus led the Taiping Rebellion during this dynasty. Its defeat in the Opium Wars and the Boxer Rebellion eventually led to its downfall to Sun Yat-sen in 1911. For ten points, identify this last dynasty of China.

ANSWER: **Qing** Dynasty [be lenient; should be pronounced "ching;" prompt on "Manchu Dynasty;" not to be confused with "Qin" ["chin"]]

<JD>

4. This scientist lost his right eye while studying cacodyl cyanide, and he also improved upon the Grove cell by using a carbon electrode instead of platinum. This man pioneered the use of iron oxide hydrate to cure arsenic poisoning, and while working with Gustav (*) Kirchhoff, this man noted unique spectral lines in mineral water, which led to the discovery of caesium and rubidium. He began his spectroscopic studies with Peter Desaga, with whom he improved upon the design of a high-temperature flame. For ten points, name this German chemist who created a namesake burner used in labs.

ANSWER: Robert Wilhelm Eberhard Bunsen

<EC>

5. Dunn's River Falls is a popular tourist attraction in this country's town of Ocho Rios. This country is divided into the three counties of Cornwall, Middlesex, and Surrey. A sand bar known as Palisadoes protects this country's major harbor. This country's (*) Montego Bay is home to many tourist resorts, and jerk spice is often added to its cuisine. Christopher Columbus is believed to have landed at its Discovery Bay. After a 1692 earthquake destroyed its city of Port Royal, a new capital was established at Kingston. For ten points, identify this Caribbean island country, the birthplace of reggae.

ANSWER: Jamaica

<JD>

6. In one of this artist's paintings, a redheaded woman engages a man in an embrace in order to suck his blood. This artist also created a work in which one man stands against the back wall praying and a woman who wears a spotted black dress faces the viewer. In addition to *Vampire* and (*) *Death in the Sickroom*, which were part of his *Frieze of Life*, another painting by this artist includes a background reflecting the aftermath of Krakatoa's eruption. That painting depicts a man standing on a bridge holding his face and performing the title action against a blood-red sky. For ten points, name this artist who painted *The Scream*.

ANSWER: Edvard Munch

<MP>

7. This structure's normal function is affected by Brugada syndrome, and its performance is measured by the stroke volume. It's not a digestive organ, but regurgitation can occur when this organ is defective. Bundle branches and Purkinje fibers relay signals that the (*) SA and AV nodes produce to regulate the activity of this organ, which contains two semilunar valves and is surrounded by the pericardium. Coronary arteries supply oxygen to this organ, which is connected to the vena cava and the aorta and contains sections like the left atrium and right ventricle. For ten points, name this four-chambered organ that circulates blood through the body.

ANSWER: human heart

<BZ>

8. Lawrence Kohlberg championed the "descriptive" variety of this study by examining the stages of child development. Simone de Beauvoir argued for "an original solution" in a book titled this of Ambiguity. Peter Singer wrote about the "Practical" form of it, and Aristotle claimed the ultimate goal in life is to achieve (*) happiness in a work titled after this concept. Another important book for this discipline contained sections titled "Of God" and "Of Human Bondage", and was "demonstrated in geometrical order." For ten points, identify this branch of philosophy, a tract in which was written for Nicomachus and which titles a work by Spinoza.

ANSWER: <u>ethic</u>s [accept <u>moral philosophy</u>, and prompt on <u>moral</u>ity or equivalents] <KT>

9. In one work by this author, a poor family discovers a scythe amid a field of strangely-growing wheat with the inscription, "Who wields me-- wields the world!" In addition to writing *The Scythe* in his collection *The October Country*, this author wrote a novel set in Green Town about Tom and his brother (*) Douglas Spaulding's adventures during the summer. Mildred takes too many sleeping pills in his most famous work, whose protagonist kills Captain Beatty, destroys The Hound, and burns books before preserving them. For ten points, identify this author of *Dandelion Wine* and a work about the fireman Guy Montag, *Fahrenheit 451*.

ANSWER: Ray Douglas Bradbury

<KT>

10. This author wrote a novel in which the hypnotist Lasker Jones offers advice about same-sex marriage to the protagonist after he spends a night with Alec Scudder. In another work by this author, Charles is sentenced to three years in jail after a falling bookcase kills Leonard Bast. In a third novel by this man, Mrs. Moore is unable to continue exploring the (*) Marabar Caves after receiving an invitation from Fielding's tea party. In that work, Ronny Heaslop decides not to marry Adela Quested after she drops her charges of sexual assault against Dr. Aziz. For ten points, identify this English author of Maurice, Howard's End and A Passage to India.

ANSWER: Edward Morgan Forster

11. Frank Wisner headed the Office of Policy Coordination during the tenure of this organization's first leader, Roscoe Hillenkoetter. Scooter Libby was indicted for lying during an event in which Robert Novak reported that Valerie Plame worked for this organization. Frank Olson fell out of a thirteen story hotel window after being drugged with (*) LSD during this group's controversial MK-ULTRA experiments. Michael Morell has twice served as Acting Director of this organization, whose former leader David Petraeus resigned after news of an affair were leaked. For ten points, name this principal intelligence-gathering agency of the United States.

ANSWER CIA or Central Intelligence Agency

<BZ>

12. This man killed Agenor and his army of two hundred when they attempted to stop his wedding. He was raised by the fisherman Dictys, whom he made ruler of the island of Seriphus. While participating in some funeral games, this man accidentally struck and killed his grandfather Acrisius with a discus. (*) Polydectes, in an attempt to marry his mother Danae, sent this man on a quest, during which he received a magic wallet from Hermes, a helm of invisibility from Hades, and a reflective shield from Athena. After killing a mortal sister of Stheno and Euryale, this man married the princess Andromeda. For ten points, name this Greek hero who slew the Gorgon Medusa.

ANSWER: Perseus

<BZ>

13. In the music video to this song, the book *Skylar's Outlaw* appears on a wooden desk as the central character puts on high heels. The speaker of this song has "foresight and it's real" and claims "I beg, and borrow and steal." Mentioning how "all the other boys/ Try to (*) chase me," the speaker of this song also laments how "Before you came into my life/ I missed you so bad," prior to noticing how her tattooed neighbor has "ripped jeans" and "skin [that] was showing." The singer realizes how it's crazy that she "just met" him and then offers him her phone number. For ten points, name this Canadian song recorded by Carly Rae Jepsen.

ANSWER: "Call Me Maybe"

<KT>

14. This man lost his seat in the House of Commons after receiving the titles of Viscount of Hughenden and 1st Earl of Beaconsfield. This man thrice served as Chancellor of the Exchequer under Lord Derby's minority governments, the third of which eliminated rotten boroughs and gave workers the right to vote by passing the (*) Second Reform Act that this man championed. The Rothschilds funded this man's purchase of shares of the Suez Canal, and he gave the title of "Empress of India" to Queen Victoria, who disliked his Liberal opponent. For ten points, name this Conservative British Prime Minister of Jewish descent who had a rivalry with William Gladstone.

ANSWER: Benjamin Disraeli, 1st Earl of Beaconsfield

<BZ>

15. The Vand Chhako pillar of this religion asks its practitioners to donate about 10% of their income to the needy, and its other two pillars are Naam Japo and Kirat Karo. Adherents of this religion avoid kam and krodh, and its Japji prayer begins with the Mul Mantra. Members of the (*) Khalsa Order of this religion are instructed to bear kesh, or long hair, and carry the kirpan dagger as part of the five K's. Arjan Dev compiled the central text of this religion. For ten points, identify this Indian religion whose eternal eleventh guru became the *Adi Granth* after Gobind Singh died, and was founded by Guru Nanak.

ANSWER: Sikhism

16. In this figure, the circumcenter lies on the midpoint of its longest side, and Thales' theorem describes an inscribed one of these figures. The sum of the squares of the side lengths of this figure equals eight times the square of its circumradius, which equals half the length of its longest side. In this figure, the shortest altitude equals the geometric mean of the (*) line segments it divides the opposite side into, and the otherwise false angle-side-side congruence condition holds true for these figures. They contain two legs and a hypotenuse, and their side lengths satisfy the Pythagorean theorem. For ten points, name these three-sided polygons with one angle of 90 degrees.

ANSWER: <u>right triangle</u>s [prompt on partial; do NOT accept any other specific type of triangle] <EC>

17. Livy claims that one battle in this conflict was disturbed by an earthquake that went unnoticed by either side. After another battle in this conflict, the losing commander's severed head was thrown into his brother's camp. Cato the Elder expressed his dissatisfaction with the result of this war by declaring that a certain city must be (*) destroyed at the end of every senate speech. The Battles of Metaurus and Lake Trasimene were a part of this conflict, which also saw one side lose the Battle of Cannae after it tired of the Fabian strategy. It ended after Scipio defeated Hannibal at the Battle of Zama. For ten points, identify this second in a series of wars fought between Carthage and Rome.

ANSWER: <u>Second Punic</u> War [prompt on "Punic" Wars] <JD>

- 18. Charles Ives wrote a work of this kind that included movements named after transcendentalists like Emerson and Thoreau. Dominico Scarlatti wrote 555 of them for the harpsichord. Another work of this kind, which contains exposition and recapitulation segments, opens with fortissimo B-flat major chords. In addition to ones named (*) "Concord" and "Hammerklavier," another work of this type was written in C-sharp minor and was subtitled "quasi una fantasia" in another musical piece. Ludwig Rellstab coined that work's name, which was inspired by a reflection on Lake Lucerne. For ten points, identify this kind of musical composition, a "Moonlight" one of which was composed by Beethoven. ANSWER: sonata [accept piano sonatas and harpsichord sonatas]
- 19. Hilt's law describes how depth affects the quality of this substance, and iron sulfide catalysts were originally used in the Bergius process of hydrogenating this substance. Another form of this substance used in Wootten fireboxes is produced under metamorphic conditions, and a large quantity of substance is found in the Powder River Basin. (*) Sub-bituminous and anthracite are varieties of this substance, much of which originated from the Carboniferous period. It can be mined from namesake seams and beds. For ten points, identify this group of black, carbon-based sedimentary rocks commonly burned to produce energy.

ANSWER: <u>coal</u> [reverse prompt on specifics such as "peat" or "lignite" or "bituminous" or "anthracite" before mention] <EC>

20. The speaker of Ezra Pound's *Hugh Selwyn Mauberley* mentions how he "strove to resuscitate the dead art" of this practice for three years. Archibald MacLeish wrote that these entities "should be palpable and mute," and "should not mean, but be." Persian (*) ghazals by Hafiz and Rumi were one type of this work, and examples of other Arabic ones include quatrains. Horace wrote about the "art of *this*," and the "epic" variety of this form was practiced by Homer. For ten points, identify these literary works which come in forms like the villanelle and the sonnet, and may or may not rhyme. ANSWER: poems [or poetry; accept any other word forms]

21. The Teumessian Fox was turned into stone after being caught in a paradox with one of these animals, which was given to Procris by Minos. Quetzalcoatl's twin brother Xolotl was often depicted as a psychopomp with the head of this animal. Circe turned Scylla into a monster with six of this animal's heads protruding from her waist, and Odysseus was first recognized by one named (*) Argos upon his return to Ithaca. In Norse mythology, Tyr will be killed by one of these animals named Garm at Ragnarok. For ten points, name these animals, a three-headed one of which guarded Hades and was named Cerberus.

ANSWER: <u>dog</u>s [do not accept or prompt on "wolf"] <BZ>

22. One type of these materials are said to be strongly confined when their radii are smaller than the exciton Bohr radius, and they fluoresce under excitation; those objects are quantum dots. These materials are modulated by the Schottky barrier and Fermi level found in the bandgap region, and are fabricated through (*) etching and lithography. They can be classified based on the presence of electron holes or free electrons, both of which are found at a p-n junction, and they can be incorporated into rectifiers and diodes. For ten points, identify these materials with properties between those of an insulator and a conductor.

ANSWER: <u>semiconductor</u>s [accept <u>quantum dot</u>s before mention] <EC>

Bonuses

1. Bonus: He ran effectively unopposed in his congressional district, getting 99% of the vote. For ten points each:

[10] Name this current Republican Speaker of the House.

ANSWER: John Andrew Boehner

[10] John Boehner is from the 8th Congressional District in this state, whose senators include Rob Portman and Sherrod Brown. The auto industry bailout helped Obama win this state's 18 electoral votes in the 2012 election.

ANSWER: Ohio

[10] This Democrat from Ohio lost his seat in the House to Marcy Kaptur due to legislative redistricting. Earlier, he sought the Democratic presidential nomination in 2008 and attempted to impeach Dick Cheney in 2007.

ANSWER: Dennis John Kucinich

<BZ>

2. Bonus: His ballet, Billy the Kid, opens with "The Open Prairie" song. For ten points each:

[10] Name this composer of American folk music whose "Hoedown" is featured in the *Rodeo* ballet. He may be better known for working with Martha Graham to compose *Appalachian Spring*.

ANSWER: Aaron Copland

[10] Copland also wrote this piece in response to US involvement in World War Two. Its title was inspired by Vice President Wallace, who remarked that it was the "Century" of the title figure.

ANSWER: Fanfare for the Common Man

[10] This dance song was written in a Shaker community by Elder Joseph Brackett. Its theme was used in the seventh section of Copland's *Appalachian Spring*.

ANSWER: Simple Gifts

<MP>

3. Bonus: Le Chatelier's principle can be applied to predict how these systems respond to change. For ten points each:

[10] Identify this state in which the forward and reverse reactions proceed at the same rate.

ANSWER: chemical **equilibrium** [accept "dynamic **equilibrium**"]

[10] These substances increase the speed at which a system obtains equilibrium, but does not ultimately affect the equilibrium concentration.

ANSWER: catalysts

[10] These catalysts differ in phase from the reactants, such as a solid interacting with a gaseous reactant. Notable examples include Ziegler-Natta catalysts, Raney nickel, and iron oxide in the Haber-Bosch process.

ANSWER: heterogenous catalysts

<EC>

- 4. Bonus: It begins by referencing the fictional author Monsieur Aubépine. For ten points each:
- [10] Identify this short story in which Giovanni Guasconti disregards Professor Pietro Baglioni by pursuing a relationship with Beatrice, who is poisonous after having been confined to a garden of poisonous plants.

ANSWER: "Rappaccini's Daughter"

[10] The author of "Rappaccini's Daughter" also wrote this novel, in which Roger Chillingworth is the husband of a woman who had an affair with Arthur Dimmsdale.

ANSWER: The Scarlet Letter

[10] Both "Rappaccini's Daughter" and *The Scarlet Letter* were written by this 19th century American author.

ANSWER: Nathaniel Hawthorne

5. Bonus: This quantity rises due to the law of diminishing returns. For ten points each:

[10] Name this quantity whose curve intersects with the average total cost curve at its lowest point. Profit-maximizing firms seek to produce at the point where the curve of this quantity intersects with the marginal revenue curve.

ANSWER: marginal cost [or MC; prompt on "cost"; do not accept or prompt on "opportunity cost"]

[10] While these firms produce where marginal revenue equals marginal cost, they increase the price to a point on the demand curve. These firms are the sole supplier of a good, and John D. Rockefeller's Standard Oil was one of them.

ANSWER: monopoly [do NOT accept or prompt "monopsony"]

[10] In these markets, the marginal cost curve, average total cost curve, and marginal revenue curve all intersect at one point in long-term equilibrium. These markets are characterized by many suppliers of undifferentiated goods.

ANSWER: **perfect**ly **competitive** market [or **perfect competition**; prompt on "competition"] <BZ>

6. Bonus: Green cords lie close to the legs of the central figure of this work. For ten points each:

[10] Identify this painting which shows a black man wearing beige-colored shorts, who helplessly sits on a white boat while surrounded by several sharks.

ANSWER: The Gulf Stream

[10] This artist painted *The Gulf Stream* and a work which depicts several children holding hands in a field in front of a red house, *Snap-the-Whip*.

ANSWER: Winslow Homer

[10] Winslow Homer was inspired to paint *The Gulf Stream* by a similar work from this other artist, who painted *Watson and the Shark*. He is also known for painting *The Death of Major Peirson* and a portrait of Samuel Adams.

ANSWER: John Singleton Copley

<KT>

7. Bonus: During the Seventh Crusade, Louis IX landed at this country's city of Damietta. For ten points each:

[10] Identify this country that also saw Horatio Nelson's fleet win the Battle of the Nile, thereby forcing Napoleon out of Cairo.

ANSWER: Arab Republic of **Egypt**

[10] Two WWII battles were fought at this Egyptian site in 1942. The first battle saw Claude Auchinleck halt the advance of Axis forces, and the arrival of Bernard Montgomery resulted in an Allied victory in the second battle.

ANSWER: El Alamein [or Al'Alameen]

[10] The German commander at both battles of El Alamein was this "Desert Fox," who was later forced to commit suicide after being implicated in a plot to assassinate Hitler.

ANSWER: Erwin Johannes Eugen Rommel

 $\langle JD \rangle$

8. Bonus: This god established the Pythian Games after killing a gigantic snake. For ten points each:

[10] Identify this son of Leto and Zeus, who was the Greek god of light, music, and medicine.

ANSWER: Phoebus Apollo

[10] This son of Apollo worked as a renowned healer until Zeus struck him with a thunderbolt for resurrecting Theseus's son Hippolytus. In revenge, Apollo slew the Cyclopes who made the thunderbolts that killed this man.

ANSWER: Asclepius [or Aesculapius]

[10] Asclepius attained the power of resurrection after this goddess gave him a vial of Gorgon blood. This daughter of Metis cast the deciding vote in a trial that acquitted Orestes of matricide.

ANSWER: Pallas Athena [or Athena Parthenos]

<BZ>

9. Bonus: It is the source for new basalt formations along mid-ocean ridges. For ten points each:

[10] Identify this ductile region of the Earth, lying below the lithosphere, which is responsible for the movement of tectonic plates.

ANSWER: asthenosphere [prompt on "upper mantle," but DON'T give this away]

[10] The asthenosphere comprises the uppermost region of this other layer of the Earth. It constitutes 84% of Earth's volume and surrounds the core.

ANSWER: mantle

[10] The source of plate tectonics lies in these type of currents flowing in the mantle, cause by heated magma rising from the lower mantle to the upper mantle. This type of heat transfer occurs only in fluids.

ANSWER: convection

<EC>

10. Bonus: This event was led in part by the Armed Forces Movement. For ten points each:

[10] Name this peaceful event begun on the 25th of April, which resulted in the brief presidency of Antonio de Spinola and the renaming of the Salazar Bridge.

ANSWER: Carnation Revolution [or Revolução dos Cravos]

[10] The Carnation Revolution began in Lisbon and ended the Estado Novo of this Iberian country, which had long been ruled by Antonio Salazar.

ANSWER: Portugal [accept Portuguese Republic or República Portuguesa]

[10] Another Estado Novo was established by Getulio Vargas in this South American country. Vargas helped industrialize this country during his presidency.

ANSWER: Federal Republic of Brazil [or República Federativa do Brasil]

<BZ>

11. Bonus: He pleaded with God to not destroy Sodom if ten righteous people could be found. For ten points each:

[10] Name this patriarch who was told to sacrifice his son Isaac as a test of his faith.

ANSWER: Abraham [accept Ibrahim or Abram]

[10] Abraham's first son, Ishmael, was born after Abraham lay with this handmaiden.

ANSWER: Hagar [or Hājar]

[10] This wife of Abraham gave birth to Isaac and ordered her husband to send Hagar and Ishmael away. While in Egypt, Abraham claimed that this woman was his sister.

ANSWER: Sarah [accept Sara or Sarai]

<BZ>

12. Bonus: Three of these expressions are featured in Lagrange's formula, which can be used to simplify the curl of their namesake functions. For ten points each:

[10] Identify these mathematical constructs with both magnitude and direction, typically represented by a single row or with i/j notation.

ANSWER: vectors

[10] This operation takes two vectors and returns a single value. It is equivalent to multiplying the magnitude of the vectors by the cosine of the angle between them, which is essentially multiplying the parallel components.

ANSWER: dot product or scalar product or inner product

[10] If the dot product between two vectors equals zero, then the two vectors have this property.

ANSWER: orthogonal [accept "perpendicular"]

<EC>

13. Bonus: The brothers Alfred and William oversaw their design and construction. For ten points each:

[10] Give the name of these planned suburban communities, many of which were built in the 1940's and 50's. The homogeneity of these communities were symbolic of post-World War II mass-produced suburbs.

ANSWER: <u>Levittown</u>s [accept William <u>Levitt</u>, Alfred <u>Levitt</u>, or <u>Levitt & Sons</u>]

[10] The expansion of suburbs spurred a "flight" of these people from the cities that left a large number of African-Americans stranded in urban areas. Levittowns drew controversy for only leasing to people of this race.

ANSWER: white people [accept white flight]

[10] The first Levittown was constructed in Nassau County in this state. Other suburban communities in this state include Great Neck, Piermont, and Bronxville.

ANSWER: New York

<BZ>

- 14. Bonus: He is unable to speak to women without drinking alcohol. For ten points each:
- [10] Name this Indian particle astrophysicist played by actor Kunal Nayyar, whose best friend is Howard Wolowitz and whose sister Priya briefly developed a relationship with Leonard Hofstadter.

ANSWER: Dr. Rajesh Ramayan "Raj" Koothrappali [accept any underlined portion]

[10] Raj is a character in this CBS sitcom centering on the Star-Trek fan and theoretical physicist Sheldon Cooper, who is Leonard's roommate and Penny's neighbor.

ANSWER: The Big Bang Theory

[10] This neuroscientist in *The Big Bang Theory* develops a "Relationship Agreement" with Sheldon Cooper. She enthusiastically serves as Bernadette's Maid of Honor during her marriage to Howard.

ANSWER: Dr. Amy Farrah Fowler [accept either underlined portion]

<KT>

- 15. Bonus: Photons are shown as a wave on these plots, while fermions such as quarks are represented by straight lines. For ten points each:
- [10] Identify these pictorial diagrams that model the behavior of subatomic particles, named after an American physicist.

ANSWER: Feynman-Dyson diagrams

[10] These bosons are shown as a spiral helix on Feynman diagrams. They have color charge and mediate the strong force.

ANSWER: gluons

[10] Photons are produced during annihilation when electrons collide with positrons, which are these types of particles denoted by an overline. Compared to their regular counterparts, they have equal mass, but opposite charge.

ANSWER: antimatter [accept antiparticle]

<EC>

- 16. Bonus: Like the related Aymaras, the women of this ethnic group often wear bowler hats. For ten points each:
- [10] Identify this ethnic group that is indigenous to the Andes. The language of this ethnic group was used by the Incans to record messages on *quipus*.

ANSWER: Quechua [accept more specific groups such as Runakuna, Kichwas, or Ingas]

[10] The men of the Quechua people often wear these garments on their upper body. These pieces of fabric were also worn by gauchos and people seeking to keep dry from the rain.

ANSWER: ponchos [or punchu]

[10] Ponchos are traditionally made from the wool of sheep, alpacas, or this other domesticated species of the Andes. During Incan times, these animals could not be hunted, and instead were sacrificed in large numbers.

ANSWER: Ilamas

<JD>

17. Bonus: The pharaohs of the 25th dynasty of Egypt originated from a kingdom in this country. For ten points each:

[10] Identify this modern-day country home to the sites of the ancient cities of Napata and Meroe, which were both capitals of the Kingdom of Kush. Egypt also made use of the Nubian gold mines in this country's north.

ANSWER: Republic of **Sudan**

[10] Kush was eventually conquered in the 4th century CE by this rival Ethiopian kingdom. Its ruler Ezana made a notable religious conversion under the tutelage of Frumentius.

ANSWER: Kingdom of **Axum** [or **Axum**ite Kingdom]

[10] Frumentius later became the first Bishop of Axum and was canonized for introducing this religion to Ethiopia.

ANSWER: Christian ity [accept more specific answers like Catholicism]

 $\langle JD \rangle$

19. Bonus: After meeting P.R. Deltoid, the protagonist of this work rapes a pair of ten-year old girls. For ten points each:

[10] Identify this novel written partially in Nadsat in which Alex DeLarge leads his droogs, including Dim, Georgie, and Pete, into acts of "ultra-violence."

ANSWER: A Clockwork Orange

[10] This English author and linguist wrote A Clockwork Orange. He also wrote a novel in which Kenneth Toomey receives a message from the archbishop on his 81st birthday, Earthly Powers.

ANSWER: John Anthony Burgess [or John Wilson]

[10] In A Clockwork Orange, Alex undergoes this type of aversion therapy after which any thought of violence makes him nauseate. An unintentional result of this procedure is that he cannot listen to classical music as well.

ANSWER: the Ludovico technique

<KT>

19. Bonus: Classes within this phylum include Cubozoa and Anthozoa. For ten points each:

[10] Name this phylum that includes jellyfish and sea anemones.

ANSWER: Cnidaria [prompt on "Coelenterata"]

[10] These members of class Anthozoa secrete calcium carbonate exoskeletons and sometimes get energy from algae called zooxanthellae. The rise in the temperature of ocean waters is causing a "bleaching" of these animals.

ANSWER: corals

[10] Corals and sea anemones are perpetually in this form of chidarian development, which can be thought of as an inverted medusa. Some jellyfish have this type of body when young, and later develop into the medusa shape.

ANSWER: polyps

<BZ>

20. Bonus: It talks of a woman who has "The smiles that win" and "the tints that glow." For ten points each:

[10] Name this poem, whose title action is performed "like the night/ Of cloudless climes and starry skies" by a woman whose "love is innocent."

ANSWER: "She Walks in Beauty"

[10] "She Walks in Beauty" is a poem by this Romantic poet who also wrote *Childe Harold's Pilgrimage* and *Don Juan*. He famously died during the Greek War of Independence.

ANSWER: Lord George Gordon Byron, 6th Baron Byron

[10] This other Romantic poet compared death to "pleasant dreams" in "Thanatopsis" and about the nature of guidance in "To a Waterfowl."

ANSWER: William Cullen Bryant

21. Bonus: One of his poems asks, "Who, if I cried out, would hear me among the Angelic Orders?" For ten points each:

[10] Name this poet who wrote the Sonnets to Orpheus and a collection of ten poems called the Duino Elegies.

ANSWER: René Karl Wilhelm Johann Josef "Rainer" Maria Rilke

[10] This "Sturm und Drang" poet also wrote about Greek mythology in "The Gods of Greece" and wrote the poem *Ode to Joy*, which Beethoven would later use in his 9th symphony.

ANSWER: Johann Christoph Friedrich von Schiller

[10] Both Rainer Maria Rilke and Friedrich von Schiller wrote in this language, which was also used by the Grimm Brothers in their popular folk tales such as "Hansel and Gretel" and "Snow White."

ANSWER: the **German** language [or **Deutsche** Sprache]

<KT>

22. Bonus: It activates G protein-coupled receptors, which then trigger a cascade that results in the breakdown of glycogen. For ten points each:

[10] Name this hormone which contributes to the fight-or-flight response by increasing the heart rate.

ANSWER: <u>adrenaline</u> or <u>epinephrine</u> [do not accept "noradrenaline" or "norepinephrine"]

[10] Like adrenaline, cortisol is also produced in response to stress. This "master gland" that produces HGH is also responsible for producing ACTH to stimulate cortisol production.

ANSWER: pituitary gland [accept hypophysis]

[10] ACTH is an example of this type of hormone, since it stimulates the production cortisol, another hormone.

ANSWER: **tropic** hormones [prompt on "adrenocorticotropic"]

<BZ>