PARFAIT II Round 2

Princeton Princeton University

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1 Princeton Tossups, Round 2

1. One of its hosts had prepared celebratory flags with the then-correct 46 stars, while it carried the obsolete 45-star flag. Rear Admiral Robley D. Evans initially led it, but Charles S. Sperry took over in San Francisco. It made a pit stop in Messina to help victims of an earthquake in Sicily, corroborating with its objectives of showing off as well as spreading goodwill. All this came on the heels of the Gentleman's Agreement with Japan, but tension remained until it reached Yokohama. For ten points, name this fleet of American battleships sent on a round-the-world voyage by Theodore Roosevelt, so named because of its distinctive color.

Answer: Great White Fleet

2. Emil Ludwig wrote a biography of Wilhelm II based on a theory he put forward in a 1907 work. In response, the man who named him president of the Viennese Psychoanalytic society wrote instead that Wilhelm II's withered arm caused his mother to withdraw affection rather than cause the Kaiser to overcompensate. Because life was a "striving for perfection," he called homosexuality one of the "failures of life," and connected it with the theories first outlined in Studie ber Minderwertigkeit von Organen. Outlined in his On the Nervous Condition and elaborated in Understanding Human Nature was his schism with Freud and his development of "individual psychology". For ten points, name this Austrian psychotherpaist who coined the term "inferiority complex."

Answer: Alfred Adler

3. As a surname, it names the boyfriend of Joyce and the lover of Zarita in a series of newspaper sketches by Langston Hughes with a first name of Jessie. In algebra, it refers to groups whose normal subgroups are the trivial subgroup of order one and the entire original group. That adjective also appears in a song by Joseph Brackett that appears in Copland's Appalachian Spring and expresses that gifts of this description allow the Shakers to come down where they ought to be. For ten points, identify this third word in the KISS aphorism.

Answer: $\underline{\text{simple}}$ or $\underline{\text{simpel}}$

4. Eighten men banded together at this battle under the Lord of Croye to kill the victorious commander, who was likewise personally attacked by the Duke of Alencon, who did kill the Duke of York, but who was himself killed by Guy Aylmer. The battle resulted from a successful siege of Harfleur, after which the French constable, d'Albret forced his army into battle to protect Calais. Rear attacks by Louvroy and Chin and a force of peasants led the winning commander to order all of the prisoners killed in the mud. The decisive English victory, particularly due to the heavy use of the Welsh Longbow, was instrumental in forcing Charles VI to sign the Treaty of Troyes. Memorialized in Shakespeare's Henry V, this is, for ten points, what 1415 battle of the Hundred Years' War?

Answer: Agincourt

5. The eight section begins with a recounting of a hearing of Wagner's overture for the Meistersingern that honours the German people and goes on to call the Jews the "stärkste, zäheste und reinste" race in Europe, and compares their progress to that of the Russian

empire. The fifth section's title, "Toward a Natural History of Morals" foreshadows a work published a year later, which likewise sought to clarify the unreadable *Thus Spoke Zarathustra*. The second section explains the import of the title formula, describing it as what is offered to those who escape the nooks of youth, origin, and learning that allows the übermensch to create values rather than live by them. For ten points, name this work of Neitsche that allows one to overcome conventional morality.

Answer: Jenseits von Gut und Böse or Beyond Good and Evil

6. In a 1972 work, he mocks the value of imported lace in his country when a jailer tells Mackheath that "I like lace you know. But you look as if the police dogs and barbed wire had been fighting over it" in a reworking of *The Beggars Opera* where he directed the songs from the side in a leather jacket. Elias Ghanem Professor of Creative Writing at the University of Nevada Las Vegas, he wrote about a son who is given the chance to exert the power of death over his enemies once the taboo of cannibalism has been withdrawn in *Madmen and Specialists*, and Elesin agrees to sacrifice himself but not the adulation that goes along with it in *Death and the King's Horseman*. The author of the aformentioned *Opera Wonyosi* and *The Lion and the Jewel*, for ten points, name this 1986 Nobel prize winner, a Nigerian playwright.

Answer: Wole Soyinka

7. An early song compares the opening to the Apollo Moon landing, and exults that it's happening during prime viewing time. The title character's wife envisions a world where luxury will dissolve in "isn't this prophetic" upon passing under the Gate of Longevity and Good Will. The final quintet sees the title character pining for a Hamburger stand, and the husband of the writer of an opera where the red detachment of women defeats Lau Szu, played by Kissinger, recalling the struggles of revolution, and Chou En-lai wondering if they've done more harm than good. For ten points, name this John Adams opera in two acts about a visit by an American president to Beijing.

Answer: Nixon in China

8. The skein relations were invented by John Conway for the classification of these objects. Their study began with Lord Kelvin's idea that atoms are mere representations of these objects in aether. Topological invariants of them are typically expressed in polynomials, examples being the Jones, HOMEFLY, and Alexander polynomials. If the planar diagrams of two of these can be transformed into each other via Reidemeister moves, then the objects are actually the same, and a trefoil is the "prime" one with three crossings. For ten points, what are these objects, that have been used by the Incans as recording devices and by Boy Scouts in order to earn merit badges?

Answer: knots

9. One religion practiced by this **ethnic** group abstains from wearing blue, tells that the prophetess Khasse bars the eating of lettuce because of the sound, and worships the Peacock God Malak Taus, but Christianity and Islam are more prevalent. They speak an Indo-European language, related to Farsi, whose dialects include Kurmanji and Zaza. About 10% of the population of Syria and Iran, Mustafa al-Barzani created the movement that led to the 1988 "Anfal" retaliation in Iraq, and Abdullah Öcalan founded the PKK, a terrorist organization in Turkey. For ten points, name these people, whose peshmerga

played an instrumental part in the US's war in Iraq, and whose people are said to be the most populous nation without a state.

Answer: Kurds

10. One of his works is nicknamed "La Pedrera" or "The Quarry" for the massive amount of stone used for its construction and it took five years to finish, partly because of an argument with local authorities over a column which occupied one meter of a public sidewalk. Now a museum honoring this architect is mixed in with apartments in *Casa Milà*. The remarkable chimneys were an inspiration for his most famous work, a melange of helixed piers, parabolic vaults, roofs, and sidewalls, which was left unfinished when he was struck by a trolley in 1926 and died. For ten points, name this Catalan architecht of Barcelona who created the church of the Sagrada Familia.

Answer: Antonio Gaudí y Cornet

11. This name is given to a dwarf paired with Dolgthrasir in the long list of Tolkien-like dwarf names in the *Voluspa*. The more famous one was an object made, in one story, along with a boar and a hammer by the dwarves Brokk and Eitri to win a bet with Loki. Along with Idun's apples, it was offered as a gift by Frey's servant Skirnir to persuade the giantess Gerd to marry Frey. It also made a trip to hell and back when it was placed on Balder's funeral pyre and then retrieved and brought back by Hermod. Its most famous ability was somewhat limited since the objects it created didn't have that ability, but they did make its owner extremely wealthy. For ten points, worn on the left arm by Odin, this is what famous self-replicating golden arm ring?

Answer: Draupnir

12. For it, the difference between the no-load voltage and the full-load voltage is known as the regulation. Rotary ones are used in VCRs to transmit signals from the rotating head to the output and as torque sensors. Core losses account for an estimated 5% of all electricity generated in the world; this results because eddy currents and hysteresis in the magnetic core. A sliding brush connected to the secondary side allows for a variable voltage output, and one is called a "step-down" if the number of windings on the secondary side is less than the number on the primary side. For ten points, name these devices used to change the voltage of a current by magnetic coupling.

Answer: transformer

13. This disorder can be diagnosed by a whorled pattern of fat around the namesake organ that demonstrates torsion of this organ's pedicle, the extrinsic compression of that pedicle on the colon, or the absence of the associated organ's shadow beneath the left diaphragm. Caused by a defect during the development of mesogastrium dorsum that connect ligaments to the associated organ, this is, for ten points, what disorder caused by an unconstrained organ normally responsible for removing old red blood cells.

Answer: Wandering Spleen or Splenic Ptosis

14. He wrote the libretto to the story about a woman whose quest for immortality is thwarted by Juno. Handel turned *Semele* into an oratorio, but John Eccles had previously rendered it as an opera that was never performed. John Eccles also won a contest at the Dorset Garden Theatre to produce *The Judgement of Paris*, a masque this author wrote in

1701. He stopped writing at age 30 after a scalding attack from Jeremy Collier. *The Old Batchelor* contains the oft-misquoted lines "Music has Charms to soothe a savage Breast" and "Heav'n has no Rage, like Love to Hatred turn'd, Nor hell a Fury, like a Woman scorn'd." For ten points, identify this writer of *The Mourning Bride*, *Love for Love*, and *The Way of the World*.

Answer: William Congreve

15. The author bemoans the half-rhyme of "popcicle" and "testicle," and a washed-away side-walk description of anal sex leads Camille to complain that the powers that be don't want to admit that gays, like Randy, exist. Camille also shows Jerome Quat to Adam, a writer for *The Wave*, whose attack of the republican governor of California saves the nebbish writer's hide after writing a paper on George III for Jojo Johannsen, a basketball player in Jerome Quat's class. The title character loses her virginity at the Hyatt Ambassador in Washington DC while going with Hoyt, a member of the St. Ray's fraternity. For ten points, a transplant from Sparta, North Carolina says that she won't cotton to immoral behavior because of the titular phrase of what 2004 work by Tom Wolfe?

Answer: I am Charlotte Simmons

16. The central theme of this short story was also considered in the author's essay Fan Ainong, where the Governor of Anhui's bodyguards do that action to an assasin. The title character insists they're doing something in the Wolf Cub Village right now, but the account is bookended by the sentences "the moonlight is very nice tonight" and "save the children." After examining the history of human civilization, the younger brother who wrote it (and has since recovered) grew convinced that everyone was out to eat him. For ten points, name this Chinese short story written by Lu Xun, who took its title from a Gogol short story whose title whackjob wrote about being the King of Spain instead.

Answer: A/The Diary of a Madman or Madman's Diary or Kuangren Riji

17. One can distinguish Wilson's disease and silver poisoning by a systematic administration of it. In forensics, the benzidine and orthotolidine tests for the presense of blood have been replaced by the Kastle-Meyer test, which uses it and hydrogen peroxide. Likewise, a mixture of it and sodium hydroxide becomes a disappearing ink with hydrogen peroxide. With a formula of $C_{20}H_{14}O_4$, it is colorless below a pH of 8.2 and pink above 10.0. For ten points, name this indicator of strong bases long used as a laxitive.

Answer: phenolphtalein, prompt on " $C_{20}H_{14}O_4$ " accept 3,3-bis(4-hydroxyphenyl)- 1(3H)-isobenzofuranone

18. He was thought by some, including J. Edgar Hoover, to have connections to the Mafia and ended up with a 2000 plus page dossier at the FBI. His performance as an assassin in the movie *Suddenly* is thought to be one of the most chilling portrayals of a psychopath on film; he also appeared in *The Manchurian Candidate* and won an Oscar for Private Angelo Maggio in *From Here to Eternity*. Yet this "Chairman of the Board" is best known for his singing career, which he started after hearing Bing Crosby on the radio. For ten points, name this blue-eyed Hoboken, New Jersey native famous for his songs "Fly me to the moon" and "My way."

Answer: Frank Sinatra

19. In 41 BCE, it was inhabited by the Cedri, who are called "Kedar" in Ezekiel, but when Mark Antony tried to take the city, they simply moved to the other size of the Euphrates. Traditionally ruled by sheikhs, its ruler Zabdibel fought in the Selucid army at Raphia, and Hadrian was entertained here a century before it became a colony under Caracalla, but by the third century, the symposiarchs, the priests of Bel, were gaining power. Although it avenged Rome and destroyed the Persian army of Shapur I, the assassination of Odenathus brought his widow Zenobia to power, and she led a revolt against Rome that captured Anatolia. For ten points, name this Syrian city razed to the ground by Aurelian in 272, whose name may come from a type of tree common in the area.

Answer: Palmyra or <u>Tadmur</u>

20. Tarjan and Karger presented a randomized method to create them in linear time. The Christofides heuristic uses them to create a 1.5 approximation of the traveling salesman problem, and they can be created via Boruvka's algorithm, which iteratively joins trees by adding the smallest edge such that no cycles are created. This is similar to the approach taken by Kruskal's algorithm, while Prim's algorithm works by adding vertices. For ten points, name this subgraph that connects n points with the smallest set of n-1 edges that spans the original graph.

Answer: minimum spanning tree

21. Early examples of it can be found in Walter Besant's Revolt of Man, Jack London's The Iron Heel and E.M. Forster's 1909 short story "The Machine Stops" which was written as a critical response to earlier optimistic works of H.G. Wells. First used by J. S. Mill in an address to Parliament in 1868, it is usually characterized by a misbalance between group and individual interests such as in Ayn Rand's Anthem, Fritz Lang's Metropolis, and Evgeny Zamyatin's We. Derived from changing the prefix in a term first used in 1516 by Thomas More, this is, for ten points, what futuristic nightmare whose most famous examples are the worlds of Bradbury's Fahrenheit 451 and Orwell's 1984.

Answer: dystopias (do not accept "science fiction"; the first two works have nothing to do with science)

2 Princeton Bonuses, Round 2

- 1. As we all know, Masons control all levels of government; they also show up in literature. Give the following works featuring Masons for ten points each.
 - 10 Mr. Mason, the brother-in-law of Mr. Rochester, shows up to spoil Rochester's wedding to the title character before getting mauled by his insane sister.

Answer: <u>Jane</u> Eyre (accept either)

10 Orville Mason prosecutes Clyde Griffiths after he murders Roberta Alden, a factory girl whom he impregnates in this Theodore Dreiser work.

Answer: An American Tragedy

10 Sarah Mason is Susan's housekeeper and keeps leaching from the colonel of the title family even after Bundlecund Banking goes bankrupt in this Thackery work.

Answer: The Newcomes

- 2. Answer these questions about a concept from the area between psychology and economics for ten points each.
 - 10 This term refers to simple "rules of thumb" that many psychologists believe can help explain how individuals make decisions and solve problems.

Answer: heuristic

10 This psychologist, co-winner of the 2002 Nobel Prize in Economics with Vernon Smith, was a leading pioneer of behavioral economics who, along with Amos Tversky, helped identify ways in which heuristics can prevent rational calculation.

Answer: Daniel Kahneman

10 Kahneman and Tvertsky theorized this important heuristic in which individuals given a certain reference point tend to shift their estimate around the reference. That is, if one asks whether the population of a certain country is greater than or less than 1,000,000, responses are likely to be higher than if one initially suggests a smaller number.

Answer: anchoring and adjustment

Identify the following jazz trumpeters, for ten points each.

10 An iconic figure in West Coast Cool Jazz, this musicians first major album was a live recording with Charlie Parker at the Trade Winds in San Francisco. However, he is better known for the time he spent with the Gerry Mulligan Quartet.

Answer: Chet Baker

10 Though he was a major figure in the development of Afro-Cuban Jazz, this musician, along with Charlie Parker, was instrumental in the evolution of jazz from Swing to Bebop.

Answer: John Birks "Dizzy" Gillespie

10 The original great jazz trumpeter, hes also known for popularizing scat singing and his gravelly voice, probably most famously heard in What a Wonderful World.

Answer: Louis Armstrong

- 3. Identify these types of chromatography for ten points each.
 - (a) You place an unknown mixture, usually a polymer, in a bed of a porous, semisolid medium. The constitutents divide out by mass. It's similar to electrophoresis without the electric field.

Answer: gel chromatography/filtration

(b) A substance vaporized in helium or argon is forced through a tube packed with a finely divided solid, thus separating the contituents.

Answer: gas chromatography

10 A plate covered with either silica gel or allumina is exposed to an unknown substance, which is drawn up by capilary action at different rates.

Answer: thin-layer chromatography

- 4. Identify these television shows from common plot elements for ten points each.
 - 10 Denny Crane is arrested for soliciting a woman he thought was a prostitute with a special attribute; Alan Shore gets him freed by making an analogy to the Red Sox, and later brings him a prostitute with the desired property.

Answer: Boston Legal

10 Janice, Tony's sister, steals something from Svetlana, her mother's nurse, who gets two Russian mobsters to beat up Janice and almost start a war with the New Jersey mafia; all is well after Tony sleeps with Svetlana and can't get enough.

Answer: The Sopranos

10 Both of the women share what property that makes them irresistible to Tony and Denny?

Answer: They're missing a leg (accept equivalents)

- 5. Answer these questions about a South African author and his works for ten points each.
 - 10 Trained as a linguist and computer scientist, which Booker and Nobel Prize winning author has written such works as *Dusklands* and *Waiting for the Barbarians*?

Answer: John Maxwell Coetzee

10 Which Coetzee novel sees a professor of English have an affair with young student Melanie Isaacs?

Answer: Disgrace

10 Who is that English professor, an ambiguously moral narrator who goes to live with his daughter Lucy after being asked to resign from his teaching post?

Answer: David Lurie (accept either)

- 6. Identify these artists with paintings that have similar elements for ten points each; if you need the painting referenced, you'll only get five.
 - 10 To the left is the head of a farm animal with a cow being milked in its cheek facing toward a giant green head on the right with the titular location emerging from its forehead.
 - 5 I and the Village

Answer: Marc Chagall

- 10 A black horse stares out of the curtained background as a pale incubus sits atop a woman dressed in white.
- 5 The Nightmare

Answer: Henri Fuseli

- 10 The title figure leads his horse down a steep slope and fearfully looks backward to make sure nobody is following him.
- 5 Wouded Cuirassier Leaving the Field of Battle

Answer: Theodore Géricault

- 7. Name these battles that begin with the letter "C" for ten points each.
 - 10 In 1780, Horatio Gates marched on a British stronghold in South Carolina, but stumbled upon 2,000 troops under Cornwallis.

Answer: Camden

10 Erwin Rommel, supporting the Austrian advance on the Isonzo front, captured 3000 troops at this October-November 1917 battle that forced the Italians to withdraw to the Piave river.

Answer: Caporetto or Karfeit

10 Almost 90,000 Roman soldiers led by the consuls Paulus and Varro met Hannibal at this 216 BCE battle in southeastern Italy. A brilliant double envelopment maneuver cut off all retreat routes leading to a massacre of as many as 70,000 Romans.

Answer: Cannae

- 8. Of the 110 justices of the Supreme Court, only 17 were chiefs. Its time to expand the canon by asking about the other 93. Identify these long-serving associate justices from clues, for ten points each.
 - 10 A member of the Court from 1812 to 1845, this justice wrote a famous twelve volumes of Commentaries on American jurisprudence, co-founded Harvard Law School, and wrote the opinion in the Amistad case.

Answer: Joseph Story

10 A member of the Court from 1877 to 1911, this Kentucky justice was the first to believe that the Fourteenth Amendment applied the Bill of Rights to the states and wrote many solitary dissents, most famously in Plessy v. Ferguson.

Answer: John Marshall Harlan

10 A member of the Court from 1939 to 1975, this former SEC chairman and longest serving justice in history famously discovered a right to privacy in the penumbras and emanations of the Constitution in Griswold v. Connecticut.

Answer: William Orville Douglas

- 9. Answer the following about mathematical physics, for ten points each:
 - 10 This theorem, named after a German mathematician, states that there is a one-toone correspondence between physical symmetries and conservation laws. An example is the time-translational invariance that corresponds to conservation of energy.

Answer: Noether's theorem

10 This theorem states that physical laws are independent of the units they are expressed in. More precisely, if we have a physically meaningful equation of x physical quantities whose measurement involves y independent fundamental units, then we can rewrite the equation as one that involves x minus y dimensionless parameters.

Answer: Buckingham pi theorem

10 It can be used to derive Snell's law of refraction and is a mathematical consequence of Huygens's principle of wave propagation. This principle states that the actual path between two points taken by a beam of light is the one that can be traversed in the least time.

Answer: Fermat's principle

- 10. Answer the following about central European literature for ten points each.
 - 10 This novelist, poet, and literary historian wrote the poetry collection Duss und underm Rafe and the historical novel Die Jungfer von Wattenwil.

Answer: Adolf Frey

10 This twentieth century writer wrote plays and novels based on justice: *Die Physiker*, *Besuch der alten Dame*, and *Der Richter und sein Hänker*, the first novel with the detective Bärlach.

Answer: Friedrich Dürrenmatt

10 Adolf Frey, Friedrich Dürrenmatt, Vaudois Charles-Ferdinand Ramuz, and Francesco Chiesa are from this European nation.

Answer: Schweizerische Eidgenossenschaft, Confederation Suisse, Confederazione Svizzera, Switzerland, or Confoederatio Helvetica

- 11. Answer the following about everyones favorite getaway, Tartarus, for ten points each.
 - 10 Tartarus is where all the interesting dead Greeks like Ixion went to. The boring sort ended up at this paradise on the banks of the Oceanus River.

Answer: Elysium or Elysian Fields or Elysian Plain

10 Along with Rhadamanthys and Aeacus, this former king of Crete judges the dead and decides who goes to Tartarus.

Answer: Minos

10 This Fury, associated with vengeance, guards the entrance to Tartarus while wearing a blood-stained robe.

Answer: Tisiphone

- 12. They are compounds containing carbohydrate covalently linked to protein. For ten points each . . .
 - 10 Name this class of macromolecules.

Answer: glycoproteins

10 This glycoprotein is a gonadotropin that helps turns follicles into the namesake bodies and helps the testes produce testosterone.

Answer: <u>l</u>utenizing <u>h</u>ormone

10 A glycoprotein in the immune system, it presents human leukocyte antigens to T-cells so that virus-infected or malignant cells can be destroyed.

Answer: major histocompatibility complex

- 13. Identify these scales used in earth science for ten points each.
 - 10 A British naval officer and hydrographer developed an emperical way of measuring wind speed that starts from zero: "Calm. Smoke rises vertically."

Answer: Beaufort scale

10 Named for a civil engineer and the head of the US National Hurricane center, it classifies tropical depressions into five levels.

Answer: Saffir-Simpson scale

10 Based off of Wood-Anderson torsion seismometer readings, Beno Gutenberg and its namesake developed this local intensity scale.

Answer: Richter scale

- 14. Identify the following Prime Ministers during the years leading up to the American Revolution for ten points each.
 - 10 He botched the John Wilkes affair and the Stamp Act and was replaced by the equally inept Marquess of Rockingham.

Answer: George Grenville

10 He rescinded the Townshend Duties, but passed the Tea Act and the Coercive Acts. He resigned after the surrender at Yorktown.

Answer: Lord Frederick North

10 He was Prime Minister from North's downfall in 1782 until George III refused to grant Catholic emancipation after the Act of Union with Ireland.

Answer: William Pitt the Younger

15. Identify the novelist on a 30-20-10 basis.

- 30 Ears of the Jungle tells the tale of a wily North Vietnamese resistance leader who uses the defoliating airstrikes of the U.S. to clear the way for a major highway to be built after the war is over.
- 20 Based on his experiences as a WWII prisoner of war, he created Lt-Col. Nicholson, who makes sure that the bridge he builds won't be blown up in *Le Pont de la rivière Kwa'i*.
- 10 He also wrote the story of Ulysse Mérou and his love interest Nova in *The Planet of the Apes*.

Answer: Pierre Boulle

- 16. If you leave out the glottal stop after "nay," this proverb instead literally means "When cold husband is served, the dish is very good." For ten points each . . .
 - 10 Give the English translation of the Klingon proverb used by Kahn followed by the line "and it is very cold in space" and later in *Kill Bill II*.

Answer: revenge is a dish best served cold (accept nothing else)

10 The first literary appearance of the line is in this Pierre Choderlos de Laclos work later adapted into *Cruel Intentions*.

Answer: Dangerous Liasons or Les Liaisons Dangereuses

10 The modern English phrasing seems to come from this member of the Algonquin Roundtable and author of A Banquet of Crow.

Answer: Dorothy Parker (accept Dorothy Rotschild)

- 17. Its major parties are the BJP and the Congress parties. For ten points each . . .
 - 10 Name this country.

Answer: Republic of India or Bharatiya Ganarajya

10 This last BJP president of India was unseated in 2004 after serving as Prime Minister for eight years.

Answer: Atal Bihari Vajpayee

10 Our president isn't the only one to take senseless trips up in supersonic aircraft. This missile engineer has been the president of India since 2002 and went up in Sukhoi-30 MKI at the age of 76.

Answer: Dr. Avul Pakir Jainulabdeen Abdul Kalam

- 18. After he objected that the punishment of two Soviet dissident writers was not severe enough, Lydia Chukovskaya wrote an open letter accusing him of betraying his obligation to defend free expression and cursing him with a lifetime of writer's block. For ten points each . . .
 - 10 Identify this Soviet author who, despite not having written anything of literary value in decades, still won the 1965 Nobel Prize in Literature.

Answer: Mikhail Sholokhov

10 Sholokhov's most famous works are about the Cossacks living near this river.

Answer: Don River

10 Sholokhov wrote this two-part work about the collectivization of the Don valley. Its name is derived from an 1877 novel, the last of Ivan Turgenev.

Answer: Virgin Soil Upturned or Podnyataya tselina

- 19. Given lines from a poem, name the poem for ten points each.
 - 10 "Come to my arms, my beamish boy! O frabjous day! Callooh! Callay!" *Answer:* Jabberwocky
 - 10 "The falcon cannot hear the falconer; Things fall apart; the centre cannot hold" *Answer:* The Second Coming
 - 10 What four letter word is in the first sentence of both poems? *Answer:* gyre, come, head, or hand
- 20. Using it one can calculate the electrode potential of battery half cells. For ten points each ...
 - 10 Name this equation derived by a German chemist

Answer: Nernst equation

10 Using either of two major ions which cross the cell membrane freely one can use the Nernst equation to accurately calculate the resting potential of a cell membrane. Name both of those ions, for five points each.

Answer: Potassium (or K+) and Chloride (or Cl-)

10 When calculating the resting potential of a cell membrane it is often more useful to use this equation which expands on Nernst's work by taking into account the relative permeability of ions across the cell membrane

Answer: Goldman equation