Benedictas Mikulis Memorial Singles Round 4

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1. An isothermal calorimeter is used to monitor it when it is used for study enzyme-substrate interaction. Eriochrome Black T is used in the complexometric one often used to measure water hardness. The Karl Fischer type uses a reagent of sulfur dioxide, iodine, and an organic base to react with water. Glacial acetic acid is usually the solvent if a nonaqueous version of it is necessary. Potassium permanganate is used in the redox type with a variety of different substances, and has the benefit of being its own indicator. Accomplished by adding a precise amount of reagent from a buret to a solution of unknown concentration, or ten points, name this technique which may also be used to determine the concentration of an acid or base.

Answer: <u>titration</u>

2. The war to which this event gave its name was finally ended by the Peace of Caltabellotta and also saw the Treaty of Anagni. Caltabellotta had been agreed to by Frederick III, the son of the man whom this event aimed to make king, and who himself had been excommunicated for his part in it by Martin IV. That treaty had been made necessary by the military successes of Robert the Wise, duke of Calabria, whose father Charles II had once been captured during the war, and whose grandfather was the man against whom this event was directed. Following this event, a force supported by the Ghibellines landed at Trapani, while the man against whose rule this rebellion occurred derived his support from the papacy, the Guelfs, and Philip III of France. A rebellion against Charles I of Anjou, it sought to elevate the Aragonese Peter III to the throne of the namesake location. Beginning with the murder of several French soldiers in Santo Spirito during evening prayers, for ten points, identify this rebellion in which on the night of March 30, over 2000 French inhabitants of Palermo were killed.

Answer: the Sicilian Vespers

3. This work's first movement, a sonata in E-flat, contains instructions to be played "lively" and that part's exposition ends in a B-flat major. A new theme is introduced in A-minor by the horns in this work's second section, which is a scherzo in C consisting of a combination of a sonata form, a ternary form, and variations. One of this work's movements was described by the composer as "Feirlich," or solemn, and depicts the composer's impressions of a promotion to cardinal that took place in the Cologne Cathedral, while Brahms adopted the opening theme of this work for his composition of the same number and type. Unusual in that it contained five movements rather than four, for ten points, identify this composition of Robert Schumann inspired by the area around Dusseldorf, which includes the titular river.

Answer: Schuman's **Rhenish** Symphony or *Third* Symphony

4. Don Buse holds the single season record for this stat with 346 in 1976's ABA season, while Alvin Robertson holds the NBA's record with 301 in 1986. Michael Jordan is second on the all-time career list but still 751 behind the all-time leader. Michael Ray Richardson is the only player to lead the league in this stat for three straight seasons, accomplishing this in 1980, 1981 and 1982 in addition to the 1985 season. Chris Paul had the most in the 2006 season with 175, taking the crown from the 2005 leader, Allen Iverson, who

had 180. Famous examples include Larry Bird's in the 1987 Easter Conference finals and John Havlicek's in the 1965 Eastern Conference finals. What is this basketball stat which describes when a player takes possession of the ball away from an opponent?

Answer: **steal**

5. The Fibonacci sequence can be used to prove that the sparsest possible one of this has a height of 1.44 times $\log n$. More than one rotation may be needed after a deletion, and balancing is required when a node has factor -2 or +2. Described in the paper "An algorithm for the organization of information," it needs an upper bound of $O(\log n)$ rotations, and has heights of its root's subtrees differing by at most 1. FTP name this type of self-balancing binary search tree, an alternative to the splay and red-black trees, named for its two Russian discoverers' three initials.

Answer: $\underline{\mathbf{A}}$ delson- $\underline{\mathbf{V}}$ elsky- $\underline{\mathbf{L}}$ andis tree

6. In the middle of this work, the narrator addresses a "sad Virgin" who is asked to "raise Musaeus from his bower, or bid the soul of Orpheus sing." The central character of this work is imagined as the offspring of Vesta and Saturn, who met "while there was no fear of Jove," and this work is part of a *synkriseis* similar to the poet's earlier "Whether Day or Night is More Excellent." Like its companion work, it begins with a banishment of the adversary, "the brood of Folly without father bred," and paints its central figure as a "pensive Nun, devout and pure/ Sober, steadfast, and demure/ All in a robe of darkest grain." Having listed the benefits of the title figure, the poet concludes, "These pleasures, Melancholy, give/ And I with thee will choose to live." Beginning with the words "Hence, vain deluding Joys," for ten points, identify this John Milton poem dedicated to Melancholy and typically paired with L'Allegro

Answer: <u>Il Penseroso</u>

7. At one point during this song, the narrator claims to have "cultivating music," while the arrival of a friend with a "fat-ass j of some bubonic chronic" launches this song's third verse, and in the first, a party is justified on the grounds that "my momma ain't home." This song's baseline was taken from George McCrae's "I Get Lifted," and the most famous cover of this song is probably a 2000 version by The Gourds. In the second verse, the narrator encounters a "bitch named Sadie," who "used to be the homeboys' lady," and after telling her that "you gets none of these," the narrator notes that he is "mob[bing] with the dogg pound." Concluding with the famous line, "got my mind on my money and my money on my mind," for ten points, identify this Snoop Dogg single from 1993's *Doggystyle*, whose chorus talks about "rolling down the street, smoking indo," and sipping the titular mixture.

Answer: Gin and Juice

8. Its third chapter is dedicated to a discussion of the "concept of self and morality" and the desire to avoid causing harm and draws its examples from *The Mill on the Floss* and the experiments of Haan and Holstein. A chapter dedicated to "crisis and transition" opens with a scene from Bergman's *Wild Strawberries* and quotes a letter from Sophie Tolstoy, while the chapter entitled "Images of Relationship" cites Jean Miller's work on the problem of casting "affiliations in the mold of dominance." This work's introduction discusses that college student study and the abortion decision study, noting that its title refers to a characterization by theme, while its first chapter goes on to discuss the work on social development done by George Mead, Jean Piaget, and Nancy Chodorow, and is entitled "Woman's Place in Man's Life Cycle." Including criticism of Lawrence Kohlberg's scale of moral development, for ten points, identify this work that discusses the normalization of masculinity in society, written by Carol Gilligan.

Answer: In a Different Voice

9. The last conflict of this name saw a victory over a coalition at Sentinum, in which one of the leaders of the victorious army sacrificed himself in battle in exchange for divine assurance of victory. Another conflict

by this name resulted in the abandonment of the hoplite system for the manipular system of the victors of the battle of Lautulae, and that conflict saw the foundation of six new rustic tribes and 13 new colonies. Descriptions of the start of the first conflict of this name were modeled by the historians of the victorious party on Thucydides' description of the outbreak of the Peloponnesian War, and the first one of them resulted in the annexation of Campania. The most famous battle that took place during this series of conflicts resulted in the captured soldiers being forced to pass under a "yoke" of spears and took place at Caudine Forks. For ten points, identify this series of three wars fought between Rome and an alliance led by the namesake tribe.

Answer: Samnite Wars

10. Radiation fields in them can become unstable, but with characteristic lifetimes on the order of the age of the universe, while other phenomena that can occur within one include the lack of time-like or null geodesics, and the situation of a particle having negative energy relative to an observer at infinity. Existing in regions where the trace of the metric tensor is positive, one effect exhibited within this region is known as frame-dragging, or the Lense-Thirring effect, and Roger Penrose proved that energy can be extracted from this region in his namesake process. First derived by Roy Kerr in his solution of the Einstein field equations, for ten points, identify this region surrounding a rotating black hole, a stationary limit bounded on the inside by the event horizon.

Answer: ergosphere or ergoregion or ergosurface

11. This monarch's first three years on the throne were spent under the guardianship of William Marshal and he shares his name and number with a king of Castille known as "the Sufferer." His rule saw the composition of the *Historia Major* by this man's friend, Matthew Paris. His brother, Richard of Cornwall, was crowned Holy Roman Emperor by Pope Alexander IV, who had also threatened to excommunicate this king for his failure to fulfill his agreement to finance the Sicilian wars of Innocent IV, in return for which this man's son Edmund was to be made king of Sicily. That threat led this man to summon the Mad Parliament and agree to the Provisions of Oxford in exchange for the funding, though he tried to annul those provisions with the help of Louis IX of France in 1264 at the Mise of Amiens, leading to a famous revolt. Although he and his son suffered defeat against his brother-in-law at the Battle of Lewes, his son, Edward, eventually defeated Simon de Montfort at Evesham. For ten points, identify this Plantagenet king who succeeded his father John, and whose own son assumed the English throne in 1272 as Edward I.

Answer: Henry III

12. As a consequence of his marriage to the mistress of a priest, this work's title character is preferred in the position of town crier, which fulfills a blind man's prophecy that he would have much to do with ropes and horns. The title character fools his employer into thinking that mice are devouring his bread when in reality he has bored holes in the chest that holds the food, and he is abandoned by his third master, a squire who skips town to avoid paying rent. Censored in 1555 for its anti-clericalism, this work's authorship is variously attributed to a *converso*, though the conventional opinion is that the author is probably Diego Hurtado de Mendoza. Ending in the same year that "our illustrious emperor entered this famous city of Toledo," for ten points, identify this anonymous Spanish work, the earliest known picaresque novel.

Answer: La Vida de <u>Lazarillo de Tormes</u> (accept <u>Lazaro</u> or variants of the character's name before "this work")

13. One of this man's constructions that has not been realized to date is the so-called Millenium Tower in Japan, which is supposed to be a cone twice the height of the Sears Tower with a hollow center housing 50,000 people, and another work planned for the future is the 118-story Russia Tower in Moscow. He has completed several buildings in Germany, including the Dresden train station and the Commerzbank Tower in Frankfurt, and his most famous German work includes a cupola inspired by the concept of governmental transpareny. Responsible for the restoration of the Reichstag building, works in his native country include

Stansted Airport and London's City Hall, though he may be better known for a vaguely cock-shaped building located at 30 St. Mary Axe in London known as the Swiss Re center. Also well-known for collaborating on the design of London's Millenium Bridge, for ten points, identify this British architect and 1999 Pritzker Prize winner whose American buildings include the first "green building" in New York, the triangular-shaped Hearst Tower.

Answer: Norman Foster

14. It is affected by the weaver mutation in a calcium activated potassium channel, which leads to loss of the external granule layer, and by the reeler mutation in a tenascin and laminin homologue, causing displacement of Golgi and granule cells, resulting in dystonic postures and tremors. The ability to reduce errors in positioning caused by artificial sectioning of eye muscles is lost when its vermis is lesioned, leading to persistent hypometric saccades of the weak eye and hypermetric saccades of the spared eye. Its excitatory deep nuclei are tonically inhibited by Purkinje cells that entrain to the rhythm of a regular pattern of activity like flipping the wrist. FTP name this brain area that uses mossy and climbing fibers to control motor actions.

Answer: cerebellum

15. It referenced the "most glorious" performance of the armies of the addressee in the recent war, and the author points out that "our own particular misfortunes are... only... part of our distress." It claimed that its purpose was to preven the "further effusion of blood," and its final form was inspired by a first draft written by John Jay. Two days after the adoption of this document, the same author's *Declaration of the Causes and Necessities of taking up Arms*, co-written with Thomas Jefferson, was also adopted, and this document attributed the recent unrest to the "irksome variety of artifices practised by many of your Majesty's Ministers." Although it encouraged the addressee to collect "the united sense of your American people," it was rejected on August 23, 1775, under the pretext that the colonies were in open rebellion. Drafted primarily by John Dickinson, for ten points, identify this letter from the Second Continental Congress to George III, a last-ditch attempt to avoid the American Revolution.

Answer: Olive Branch petition

16. Her husband is decapitated by the "Ahti Islander" and upon discovering that deed, she summons "one man, and then a hundred, and then a thousand ready swordsmen" to hunt the offender. She casts a freezing spell that forces one of her enemies to abandon a mission of revenge against her, and in a final battle in which the *kantele* is lost, she transforms into a huge bird and attacks a ship full of heroes. Her prayer to Ukko results in the crone Loviatar bearing the nine diseases, and her daughter is wooed by both Ilmarinen and Vainamoinen, with Ilmarinen eventually winning the girl's hand. Responsible for other crimes such as the theft of the Sun and Moon and the loss of the Sampo, for ten points, identify this "toothless woman of the Northlands," the enemy of the Kalevanders who rules Pohjola.

Answer: <u>Louhi</u> (accept Mistress of Pohjola or equivalents that mention Pohjola before it is mentioned

17. Jean Baurdillard wrote a 1976 essay about this novel in which he claimed that "the moral gaze - the critical judgementalism that is still a part of the old world's functionality - canot touch it," and that essay provoked a response from this novel's author entitled "A Response to the Invitation to Respond." Among the affairs which take place in this work is one between Helen Remington and the narrator, who has the same name as the author, as well as one between the narrator's wife Catherine and Remington, and in another scene, a man has sex with the wound in a woman's thigh. One of this novel's main characters dreams of dying in an example of the title event involving Elizabeth Taylor, and deaths referenced in this work include those of James Dean and Jayne Mansfield. Beginning with the death of Vaughan in a titular event, this 1973 work was referred to by its author as the "first pornographic novel based on technology," and it was made into a 1996 movie by David Cronenberg. For ten points, identify this novel about the eroticism of car

accidents, which was written by J. G. Ballard and which has nothing to do with last year's Best Picture winner.

Answer: Crash

18. Adolf Reinach discussed these concepts in a 1913 work entitled *The A Priori Foundations of the Civil Law*, though the first person to formulate an explicit theory of them was probably Thomas Reid, who in studying Aristotle distinguished between "solitary" and "social" operations. Peter Strawson argued against the most well-known formulator of this concept by claiming that he had restricted himself too narrowly to institutional examples in a paper about the "intention and convention" of these concepts, while Paul Grice proposed a scheme for distinguishing them by means of propositional attitudes. More famously, these concepts title a 1969 work by John Searle, who proposed that these are expressions formulated in accordance with certain constitutive rules. Including such examples as "I do" and "Sorry!" for ten points, identify these prouncements in which "when we say something, we do something," expounded upon by J.L. Austin in *How To Do Things With Words*.

Answer: speech acts or performative utterances

19. Among the memories explored in this work is a performance of Boris Godunov by Fyodor Chalapin at the Met, as well as the "YPSL's hitch-hiking through Pennsylvania." Recalling the psychotic episodes of the person to whom this work is dedicated, it references both the Greystone assylum and the "Metrazol [that] made her fat," and ends with a vision of the gravesite and the repetition of the words "caw" and "Lord." Telling the adressee to rest, the poet notes that there is "no more suffering for you. No more flowers in the summer fields of New York... no more fear of Louis," and, remembering Max and his mustache, asks whether he dreams of finding "even your immortality, Naomi?" Beginning with the lines "Strange now to think of you, gone without corsets and eyes, while I walk on the sunny pavement of Greenwhich Village," for ten points, identify this eulogy for his mother written by Alan Ginsburg, which takes its name from the Jewish prayer for the dead.

Answer: Kaddish

20. The disparity in wealth between this work's title character and the town officials is demonstrated by the fact that the town officials have umbrellas to protect them from the rain, as well as by the fact that at the start of a musician's funeral, the mayor is still in his pajamas. The title character notes that watching the rain from Sabas' window is like watching it rain in another town, and the title character's wife sells her wall clock to Alvaro, who used to employ her son. When his wife asks him at the end of this work what they will eat, the title character responds "Shit," and refuses to kill a fighting cock left behind by his son Augustine, who was killed in an insurrection. For ten points, identify this novella about a retired soldier who, much like Dan Passner logging into the chatroom every night hoping to hear packets, makes a trip to the post office every day expecting to receive his pension, written by Gabriel Garcia Marquez.

Answer: El colonel no tiene quien le escriba or No One Writes to the Colonel