

2003 Singles

Seeding Round C

(40 tossups, 1 extra)

C1. Among those with secondary speaking parts are L'Ingenue and The Manager. Originally conceived as part of a trilogy that would be continued with *Each His Own Way*, it centers on a family accompanied by a milliner, Madame Pace. This is intertwined with a rehearsal of *Mixing It Up* and serious confusion ensues over the real actors and fictional ones. FTP, name this 1921 absurdist play by Luigi Pirandello.

Answer: *Six Characters in Search of an Author*

C2. Upon the advice of the general Harpagos, he rebelled against his father, allying with the Hyrcanians and winning at Pasargadai. His next major victory came at Thymbra, four years after he captured Ecbatana in 550 BC. FTP, name this ruler who subjugated the Lydians and Babylonians on his way to founding the Persian Empire.

Answer: Cyrus the Great or Cyrus II

C3. In 2001, researchers made a left-handed material with negative permeability and permittivity, which had a negative value for this quantity. The denominator of this dimensionless quantity is the local phase velocity. For most materials it is approximately given by the square root of the dielectric constant. Its variation with frequency is known as dispersion, and is the cause of chromatic aberration. FTP name this quantity which appears in Snell's law.

Answer: index of refraction or refractive index

C4. When Idun was abducted by Thiazi, he was the one who saved her. He was sired by Laufey and Farbauti, two giants in heat. His wife Sigyn catches most of the dripping venom that is supposed to land on his head, but some always gets through leaving him in eternal pain. This was the punishment for his role in Balder's death. FTP, name this member of the Aesir, the evil Norse trickster god.

Answer: Loki

C5. Stamp Paid and Baby Suggs were able to save Denver and two of her siblings but not this novel's title character. Halle, the father of the title character was driven crazy by her death, though she comes back to life with the arrival of Paul D and his subsequent relationship with her killer and mother, Sethe. FTP, name this novel by Toni Morrison that was made into a movie starring Oprah Winfrey.

Answer: *Beloved*

C6. Troops under Meade were sent across the Rapidan River on the night of May 3rd in an attempt to gain battle positions. Knowing that forces under Longstreet were far from battle, Grant attacked Generals Ewell and AP Hill. The terrain precluded the use of artillery and cavalry, leading to what Grant called "the hardest hand-to-hand fighting of the war." FTP, name this Civil War battle of May 3rd - 4th, 1864, fought in the dense woodland in northeast Virginia after which it was named.

Answer: Battle of the Wilderness

C7. The Lebesgue integral of a function f uses functions of this type to approximate f . For an analytic function, this name is given to poles of order one. This term designates groups with no nontrivial normal subgroups, and graphs with at most one edge between any two nodes. FTP, identify this word which often shows up in physics followed by "harmonic motion."

Answer: simple

C8. When asked about the problems arising from its construction, its architect remarked, "The use of glass imposes new solutions." Its use of extruded bronze mullions and spandrels together with amber-tinted glass unifies the surface with color. Located at 375 Park Avenue, this commercial office tower consists of a steel frame with a curtain wall, and bronze exterior "columns." FTP, identify this modern skyscraper completed in 1958 by Ludwig Mies Van der Rohe.

Answer: Seagram Building

C9. It begins with the words, "God, Purty!" in reference to the metaphorical central farm and ends with the Sheriff wishing that he had owned said farm. The former Miss Putnam has arrived after Simeon and Peter have gone west, and a sexual triangle quickly forms, resulting in false pretenses surrounding the birth of Ephraim's son. FTP, name this play in which Abbie sleeps with two of the Cabot men, a work by Eugene O'Neill.

Answer: *Desire Under the Elms*

C10. He was the primary American negotiator of the Austrian State Treaty and the Trieste Agreement. He always carried a copy of Stalin's *Problems in Leninism* with him, and publicly called Gamal Nasser "nothing but a tin-born Hitler." While he was orchestrating the formation of SEATO, his brother Allen was serving as CIA director. FTP, identify this formulator of the policy of "brinkmanship" and secretary of state to Eisenhower.

Answer: **John Foster Dulles**

C11. The Super-Kamiokande neutrino detector used photomultipliers to look for this phenomenon, which produces a continuous spectrum. The radiation is concentrated in the visible and near UV, and spreads in a cone whose half-angle is related to the local index of refraction and the speed of the generating particles. FTP name this radiation produced when a charged particle moves faster than the local speed of light.

Answer: **Cherenkov** effect or radiation

C12. Critics of this five-act 1884 opera nicknamed its composer Mademoiselle Wagner. Its title character is a sixteen year old girl who spurns the advances of Guillot and runs away to Paris with a young nobleman. Years later, Guillot has her arrested for cheating while gambling, and she dies in the arms of her lover the Chevalier des Grieux while waiting to go to a penal colony. Based on an Abbe Prevost novel, FTP, name this opera by Jules Massenet.

Answer: **Manon** (Do not accept "Manon Lescaut" by Puccini – the year is wrong)

C13. This novel's characters are often cleverly named by Mrs. Mounstauart Jenkinson. In it, Leslie Stephen and Thomas Peacock are caricatured as Vernon Whitford and Dr. Middleton respectively. The title character at first pursues Consantia Durham and then Clara Middleton, only to be rebuffed by both. FTP, name this novel about Sir Willoughby Patterne, a work by George Meredith.

Answer: **The Egoist**

C14. There are two marble arches of his – one at Benevento over the Appian Way and another at Ancona. He died in Cilicia, on his way home from campaigning against the Parthians, but it was the Dacians, against whom he fought two wars, who gave him the most trouble. Born in Spain, he was the first non-Italian to become emperor. FTP, name this adoptive son and successor of Nerva.

Answer: **Trajan**

C15. In 1977 Solvay and Strassen proved that it is in co-RP. Probabilistic versions use a random witness; if the Extended Riemann Hypothesis is assumed, the Miller-Rabin test becomes deterministic. A recent proof that this problem is in P uses a version of Fermat's Little Theorem. The Sieve of Eratosthenes is an inefficient method of attacking, FTP, what problem of determining that a given number is not composite?

Answer: **primality** testing (accept reasonable equivalents)

C16. Its current incarnation was celebrated in James and Horace Smith's parody collection, *Rejected Addresses*. It soon became home to Christmas pantomimes, but fame first came with the performance of *A Trip to Scarborough* and *The School for Scandal* after David Garrick relinquished his management of it to Richard Sheridan. FTP, identify this London theater not actually named for the street on which it lies.

Answer: **Drury Lane** Theater

C17. She is reunited with her original love while "Ain't We Got Fun?" is played on the piano by Klipspringer. This character was a socialite in Louisville once courted by many officers. She is now friendly with people like Jordan Baker in upscale East Egg. FTP, identify this snobbish woman, the cousin of Nick Carraway and the object of Jay Gatsby's infatuation.

Answer: **Daisy** Buchanan

C18. Upon his election this president called a special session of Congress to raise customs duties with the Dingley Tariff. His secretary of state, William Rufus Day, advised him in such matters as setting up the Second Philippine Commission headed by Taft. He had been elected because of his popularity as governor of Ohio, which offset association with his namesake tariff. FTP, identify this ward of Mark Hanna, who was assassinated in 1901 by Leon Czolgosz.

Answer: William **McKinley**

C19. The molecule PGAL and its isomer are produced in step 4 of this process that utilizes such enzymes as hexokinase. The more common alternate to the pentose phosphate pathway, it is also known as the Embden-Meyerhoff pathway and it can result in the production of lactic acid in anaerobic conditions. Resulting in 2 molecules of pyruvate, FTP, name this process of glucose metabolism.

Answer: **glycolysis** (accept early buzz of **Embden-Meyerhoff** pathway)

C20. He argued that humans are not free and live in "the open air prison which the world is becoming" in his book *Prisms*, and he copied his idol Kierkegaard in style and purpose when he attacked Hegel's dialectical theory in *Minima Moralia*. At the age of 22, he studied under Alban Berg, an experience that contributed to his later writings on the philosophy of music. FTP, name this philosopher of the Frankfurt school who collaborated with Horkheimer on the *Dialectic of Enlightenment* and wrote, by himself, *Negative Dialectics*.

Answer: Theodor **Adorno**

C21. Its preface explains the title by telling of a sailor ritual upon meeting a whale. It continues by discussing a father's legacy of coats to his sons and their subsequent attempts to alter the garments. Peter, Martin, and Jack represent three religious denominations lambasted by the author in this 1696 satire. FTP, name this work by Jonathan Swift.

Answer: *A Tale of a Tub*

C22. The aggression of foreign minister Karl Nesselrode was a primary cause for this war. Its second year saw the entry of 10,000 soldiers from the army of Sardinia-Piedmont, with the only notable early engagement occurring at a naval encounter at Sinope. Important battles to follow included Inkerman and Alma River, though the pivotal moment did not arrive until the French capture of Malakhov, which led to the fall of Sevastopol. FTP, name this 19th century war that included the Battle of Balaklava and the famous "Charge of the Light Brigade."

Answer: Crimean War

C23. This integral identity can be used to derive the differential form of the continuity equation, and is used in deriving two of Green's Identities. It expresses the physical fact that in the absence of creation or destruction, the density in a region can only change by flow through the boundary. FTP name this useful theorem relating volume and surface integrals using a certain vector operator.

Answer: divergence theorem or Gauss' theorem

C24. On the right rests a long pipe, which fronts a silk blue curtain with a floral pattern. A pearl studded piece of jewelry is on satin sheets on the bottom left, and a jeweled flywhisk sits in the hand of the painting's subject. The artist's name and the canvas' date, 1814, on the bottom right, are much less visible than the extra three vertebrae on the extremely long back of the reclining female. FTP, identify this famous nude by Jean-Auguste-Dominique-Ingres that takes part of its title from the Turkish word for concubine.

Answer: La Grande Odalisque

C25. Among his unfinished works is the Latin treatise "De vulgari eloquentia," which was begun shortly before his "Convivio" or "Banquet." Also among his writings is a treatise on empire entitled "Monarchia," which was written after he left Florence due to his support of the White faction of the Guelfs. His earliest work is the selection of poems *La Vita nuova*, but he is even better-known for another work. FTP, name this man who loved Beatrice and wrote The Divine Comedy.

Answer: Dante Alighieri (accept either name)

C26. As an illegitimate son, he was the target of assassination attempts by Queen Plectrude and the true royal power, Ragenfrid. However, by defeating the Neustrians at Ambleve and Vincy, he strengthened his position and forced the submission of Chilperic II. He became even stronger by answering King Eudes' call for help against the forces of Abd ar Rahman, the governor of Cordoba, whom he defeated outside Poitiers. FTP, name this mayor of the palace and AD 732 victor at Tours, a man known as "the hammer."

Answer: Charles Martel

C27. The Rast method uses camphor to measure molar masses because this effect is strong in camphor. The associated coefficient can be calculated by combining the Gibbs free energy with Raoult's Law and the enthalpy of fusion of the solvent. For a dilute aqueous solution, the magnitude of the effect is 1.86 times the molality. FTP, name this colligative property that explains why spreading salt on a road to melt ice works.

Answer: freezing-point depression or freezing-point lowering

C28. Giraldus Cambrensis named this figure as the second of her husband's wives. Her name probably translates to "white spirit" in her native tongue and it is known that she spent her final days in Amesbury, though a few sources claim that Caerleon was her final destination. This most prized daughter of Leodegrance is the subject of Mordred's lust among many others. FTP, name this adulterous wife of Arthur and lover of Lancelot.

Answer: Guinevere

C29. It ends with the poet taken to an area inhabited by shipmen, pilgrims, couriers, and gossips – a place known as the House of Rumor. In its first book, the poet introduces his dream and finds an engraving of Virgil's story of Dido and Aeneas. This happens in the Temple of Venus where the poem begins, before the poet is taken to the title location. FTP, name this unfinished poem by Geoffrey Chaucer.

Answer: The House of Fame

C30. This king settled his son's future with the Treaty of Medina del Campo. As a child in the care of his uncle Jasper, earl of Pembroke, he fled England due to a weak claim to the throne. He later strengthened that claim by supporting the revolt of Henry Stafford and a promise to marry the daughter of the recently deceased Edward IV. Upon his return, he was joined by Lord Stanley, who had deserted the armies of Richard III. FTP, name this victor at Bosworth Field in 1485, the first of the Tudor kings of England.

Answer: Henry VII (prompt on early buzz of "Henry Tudor")

C31. The most common cause of death in people suffering from Marfan syndrome is rupture of this structure. It enters the abdomen through a namesake hiatus, and at its head lies a semilunar valve. It ends by dividing into the right and left common iliac arteries, and the coronary arteries branch off its ascending section. FTP, name this largest artery.

Answer: aorta

C32. He was condemned by a packet synod, *Ad Quercum*, and banished to Nicaea. Sent to Cocycus, he lived on the slopes of Mt. Taurus and was banished further, at which point he died. As bishop of Constantinople his sermons against empress Eudoxia and others were what got him in trouble. FTP, name this Greek Father of the Church, whose name translates to "golden-mouth."

Answer: St. John Chrysostom

C33. One is a short story that tells of William, his sons, Paddy and Johnny, and his wife Isabel. This Katherine Mansfield tale has little to do with another, which is a 1672 comedy dedicated to John Rochester and written by John Dryden. The third and most famous contains such works as "The Contract," "Scene with a Quack," "Toilet Scene," and "Death of the Countess." FTP, name this work about the unhappy union of a wealthy alderman's daughter and a bereft aristocrat's son, a series of six paintings by William Hogarth.

Answer: Marriage a la Mode

C34. As secretary of state, he negotiated a separate treaty with Germany after the Senate failed to ratify the Treaty of Versailles. He defeated William Randolph Hearst to become governor of New York in 1906 but resigned to accept an appointment to the Supreme Court from Taft. In 1916 he narrowly lost the presidential election to Wilson, but this man was better known for a post he served in from 1930 to 1941, in which the most notable event was *Schechter Poultry v. U.S.* FTP, name this 11th chief justice of the U.S.

Answer: Charles Evans Hughes

C35. His statistics account for fluctuations of standard deviation in measurements of radiation. His equation arises from a mathematical treatment of Gauss' Law. It states that the flux of an electric vector out of a surface equals "4 pi" times the charge within that surface. Better known is his law of large numbers, which applies to the number of randomly occurring, countable events occurring in an interval. FTP, name the Frenchman who theorized this probability distribution.

Answer: Simeon-Denis Poisson

C36. The Franciscan Leonard of Port Maurice set up more than five hundred sets of them. They are based mostly on the gospels, but also include the three falls and the encounter with Veronica. They correspond to sites along the Via Dolorosa on the way to Calvary. Modern liturgists sometimes add the Resurrection as number fifteen. FTP, name this cycle of 14 incidents depicting the Crucifixion.

Answer: Stations of the Cross

C37. The illegitimate child of Milly Hines and a Mexican man, he is placed in an orphanage by his religious grandfather. After wandering the Southwest, he arrives in Jefferson, Mississippi. Joanna Burden has an affair with him, and he kills her and sets fire to her house. The townspeople then capture, castrate, and kill him. FTP, name man at home neither among whites nor blacks, the protagonist of William Faulkner's *Light In August*.

Answer: Joe Christmas

C38. Following their formation, a major victory soon came at Tegyra. The beginning of their thirty-year decline began with defeat at Cynoscephalae, where their leader Pelopidas was killed. They formed the inner core of the army that defeated Cleombrotus under the orders of Epaminondas at Leuctra in 371 BC. Composed of about 300 men, they were finally broken at the Battle of Chaeronea by Alexander the Great. FTP, name this elite fighting infantry force of Thebes.

Answer: Sacred Band of Thebes

C39. One type of them is commonly found in the body associated with LCAT, a lecithin acyltransferase. They have receptors in the plasma membrane known as coated pits and are degraded by lysosomal acid lipases. The largest of them are the chylomicrons, and all of them are classified and named by their densities. Cardiac science now examines the ratios of these molecules, rather than cholesterol levels, as predictors for heart disease. FTP, name these complexes in which lipids travel through the bloodstream.

Answer: lipoproteins

C40. One of his writings was the basis for Gliere's opera *Rachel*, while another inspired Britten's *Albert Herring*. His collection *The Tellier House* introduced his concern with "the humble life," or *l'humble verite*, which served as the subtitle of his first novel, *Une Vie*. Later novels include *Pierre et Jean* and *Bel-Ami*, though he is better known for such works as "Mademoiselle Fifi." FTP, name this writer of "Boule de suif" and "The Necklace," a Frenchman best-known for his short stories.

Answer: Guy de **Maupassant**

C41. It was this god that Ra sent to bring Tefnut back from Nubia. Nectanebo I built the greatest temple to him at Hermopolis. Alchemists and Neoplatonists used the name Trismegistus to refer to him, often prefacing it with his Greek counterpart, Hermes. Often depicted with a scribal palette and reed pen, FTP, identify this Ibis-headed Egyptian god of wisdom and learning.

Answer: **Thoth**