

2003 Singles

Set K

K1. His second play, *The Girl Who Waters the Sweet Basil Flower and the Inquisitive Prince*, was a puppet show. Upon leaving the U.S. he wrote *The Shoemaker's Prodigious Wife*, following his first success, *Mariana Pineda*. *Lament for the Death of a Bullfighter* appeared the year before his death and *Poet in New York* appeared posthumously. FTP, name this writer who created the dramatic trilogy *Yerma*, *Blood Wedding*, and *The House of Bernarda Alba*.

Answer: Federico **Garcia Lorca**

K2. The generalized form of this quantity is given by the partial derivatives of the Lagrangian with respect to the generalized coordinates. For normal position coordinates, this boils down to the negative gradient of the potential energy function. Its net value is equal to the time derivative of the momentum. FTP name this quantity which Newton's second law puts equal to mass times acceleration.

Answer: conservative **force**

K3. Their name was derived from the chief supporter of Majorinus, whom they also followed. The most fanatic, due to their roving, were known as *circumcellions*, and all of them believed baptisms and ordinations of others were invalid. Arising in AD 311, FTP, name this Christian sect that grew out of a dispute over the election of a bishop of Carthage.

Answer: **Donatists**

K4. Including the islands of Bubiyan, Warbah, and Faylakah, this country covers 6880 square miles. Ruled by the same dynasty since 1759, this emirate was a British protectorate from 1899 until it received independence in 1961. The majority of its population is foreigners, and it is governed by Sheikh Jaber al-Ahmed al-Jaber al-Sabah. FTP, name this Persian Gulf nation that lost independence for seven months in late 1990 when it was invaded by Iraq.

Answer: **Kuwait**

K5. Shelley used it in his poem "The Witch of Atlas," and Edward Fairfax used it, minus one syllable, in his translation of Tasso's *Jerusalem Delivered*, which also employed it. More famously, it was used in *Don Juan* by Byron, who also used the ten-syllable line. FTP, name this stanza form popularized by Boccaccio and which consisted of eight 11-syllable lines.

Answer: **ottava rima**

K6. He first gained fame when his 37<sup>th</sup> relieved Allied forces trapped at Bastogne at the Battle of the Bulge. After serving in Germany during the Berlin crisis, he became vice chief of staff of the U.S. army and, in 1964, he became a general. From 1972 until his 1974 death, he served as the army's chief of staff, and in the previous five years in Vietnam he served as commanding general. FTP, identify this American leader whose name is now associated with an M-1 tank.

Answer: Creighton **Abrams**

K7. This zone has podzol soils and comprises about one third of the forest land of the world. Native mammals include the lynx, snowshoe hare, and wolverine. Bordered on the north by the tundra, it makes up most of inland Canada and northern Russia. FTP, name this subarctic biome whose main plant life is coniferous evergreen spruces and firs.

Answer: **taiga** or **boreal forest**

K8. He liked to concentrate on mischievous figures with his symphonic poems as evidenced by *Vodnik*, or *The Water Goblin*, and *Polednice*, or *The Noonday Witch*. His friend Fritz Simrock gained him worldwide attention with the publication of his *Moravian Duets*. His best known work was influenced by his time spent in Iowa and possibly based on Negro spirituals. FTP, identify this composer of *Humoresque*, *Slavonic Dances*, and *Symphony No. 9*, or *From the New World*.

Answer: Antonin (Leopold) **Dvorak**

K9. Among Conrad Aiken's poetry volumes is one about "A Letter from" this writer. Arthur Waley wrote a 1953 biography of about his career, and he was also a favorite of Ezra Pound, who translated several of his verses. His extant work was collected in 1080 and numbers about 2,000 poems including those on his Taoist duty. FTP, name this T'ang dynasty poet, whose love of alcohol led to his drowning death.

Answer: **Li Po** or **Li Bo** or **Li Tai Peh**

K10. Occupying the valleys of the Hermus and Cayster rivers, the kingdom reached its zenith under Alyattes, who parried a Median threat and pushed back the Cimmerians. The legendary king Gyges established a dynasty at its magnificent capital of Sardis. Historians believe that it was the first ancient kingdom to use minted coins circa 7<sup>th</sup> century BC. FTP, what was this rich ancient land of western Anatolia whose rulers included Croesus?

Answer: **Lydia**

K11. In 1906 he discovered carbon suboxide or malonic anhydride, and determined its properties. In addition, he devised an easy method of removing hydrogen atoms from certain organic molecules through the use of metallic selenium. His most important work was developing a reaction in which organic compounds with two carbon-carbon double bonds were used to effect syntheses of many cyclic organic substances. FTP, name this man who developed diene synthesis and shared a Nobel with his student Kurt Alder.

Answer: Otto Paul Hermann **Diels**

K12. A son of Metion and grandson of Erectheus, he had a child with Naucrater. After jealously killing his nephew Perdix he fled Athens. Later, he went to the court of Cocalus to hide from his former master, the king of Corinth. FTP, name this man who provided Ariadne with flaxen thread to give to Theseus, the builder of the Labyrinth who escaped from it with his son Icarus.

Answer: **Daedalus**

K13. Major O'Dowd, his Irish wife, and his sister Glorvina provide amusement in this novel. The main characters include Captain Dobbin, a good-hearted man, who finally wins his love by the end. That is because George Osborne's infidelity is revealed to Amelia Sedley by her friend Becky Sharp. FTP, name this best-known novel of William Thackeray.

Answer: **Vanity Fair**

K14. Cuthbert Tunstall represented England and negotiations with Frederick III the Wise ensured attendance of its key figure. Its stated goals failed, resulting in the elector of Saxony smuggling his ward to Wartburg Castle. After discussing the *Reichsregiment* issue, those present would argue over one figure's declaration of "Here I stand. I cannot do otherwise. God help me." FTP, name this meeting called by Charles V and attended by Luther, an imperial diet of 1521.

Answer: **Diet of Worms** (do not need "Diet" after it is mentioned)

K15. Kurt Grelling discovered a linguistic variant of this problem. Solutions based on restricting the Comprehension Axiom include Zermelo's axiomatization, and the theory of types, which states that the construction is a proper class, avoiding a self-referential set definition. FTP, name this paradox in naïve set theory involving the set of all sets which do not contain themselves, named for one of the authors of *Principia Mathematica*.

Answer: **Russell's Paradox** or **Russell's Antinomy**

K16. He served as first consul of the literary society, Academy of the Chaff, which debuted two of his plays and another play *L'Aridosio*, which he is believed to have co-authored with Lorenzo de' Medici. His later commissions included the vestibule of the Laurentian Library and the design for the Piazza del Campidoglio. More famous are his *Moses* and *Dying Slave* sculptures for the tomb of Julius II. FTP, name this sculptor of the St. Peter's Pieta and artist of the Sistine ceiling frescos.

Answer: **Michelangelo Buonarroti** (accept either name)

K17. The protagonist of this novel was once married to Lois Seager. It introduces the Great Twitch theory, which claims that one is not responsible for one's actions. The protagonist abandons this belief after quitting his dissertation on Cass Mastern. By the end we know that Judge Irwin was the protagonist's father and that his best friend, Adam Stanton, has assassinated his boss. FTP, name this work about Willie Stark and his aide, the protagonist Jack Burden, a fictionalized account of Huey Long's written by Robert Penn Warren.

Answer: **All the King's Men**

K18. After having unsuccessfully run for governorship of his state, he accepted the presidency of Antioch College. Just five years earlier he took over the House seat vacated by John Quincy Adams' death. He had already established the nation's earliest hospital for the insane, and shortly thereafter, in 1836, became president of the Massachusetts Senate. FTP, name this man who started a Common School Journal and set up the first normal school in the U.S., commonly referred to as the "father of American education."

Answer: Horace **Mann**

K19. Generalizations of the equations for this phenomenon to fractional derivatives allow inclusion of memory effects. Advection and this phenomenon are combined in the Fokker-Planck equation. A proportionality between the partial time derivative and Laplacian of the concentration is set out in Fick's law. Simply modeled by a random walk, FTP name this process in which particles flow down concentration gradients.

Answer: **diffusion**

K20. The soothsayer Prolix says he will find a beautiful girl who loves great warriors with red pigtailed. He breaks off the Sphinx's nose during an adventure in which he helps Cleopatra win a bet with Caesar. He fell in a cauldron of magic potion as a baby, giving him great strength, but is sensitive to being called fat. A menhir delivery-man by trade, FTP name this character created by Goscinny and Uderzo, the boon companion of Asterix.

Answer: **Obelix**

K21. The author labeled it a comedy rather than a tragedy, pointing to the humorous game of billiards in act III. Among those we meet early on are "Simple Simon," and the aging servants Charlotte and Firs. Trofimov explains to Gayev and Madam Ranevskaya that they are members of an outdated nobility, and sure enough Lopakhin emerges as a newly wealthy man to purchase the titular piece of land. FTP, name this Anton Chekhov play.

Answer: *The Cherry Orchard*