

**The Mark Discordia Singles Tournament
Playoff Round 4
Question Set 7: 20 tossups plus tiebreaker**

Editing and non-science questions by Matt Weiner
Science by Anthony de Jesus, the Washington University Academic Team, and Matt Weiner

1. These drugs are analogues of one of the constituent parts of the folate molecule. They thus interfere with the production of folate in bacteria, preventing synthesis of nucleotides, and thus cell division. Because folates are essential vitamins, these drugs have no effect on human cells. Discovered in 1935 by Gerhard Domagk, side effects such as kidney dysfunction make them less commonly used than penicillin. FTP, name these antibiotics, easily identified by their sulfur atoms.
ANSWER: sulfa drugs
2. The United Nations claims that ten million people in this country will be infected with HIV by 2010. Government denial of the existence of homosexuality has hampered efforts to analyze transmission, and the filming of public awareness commercials was thwarted because no actor wanted to portray an infected patient. In northern provinces, underground blood banks have pushed the current infection rate to sixty-five percent. FTP, name this country which recently allocated one hundred million yuan to fight HIV.
ANSWER: People's Republic of China [or Zhonghua Renmin Gonghe Guo]
3. First put forth by Joseph Louis Proust in a paper published in 1794, it forms the basis for the fourth postulate of Dalton's atomic theory, which holds that a given compounds always has the same relative number and kind of atoms. FTP, name this law stating that the elemental composition of a pure compound is always the same unvarying ratio of atoms, no matter the source.
ANSWER: law of definite proportions [or law of constant composition]
4. He was the one who suggested banishing Agrippina the Elder after the death of Germanicus, and he was suspected of poisoning Drusus. After consolidating power of the Praetorian Guard, of which he was prefect, he met his end in 31 CE, when he was executed for plotting against the Emperor. FTP, name this de facto ruler of the Roman Empire for two years after the retirement of Tiberius.
ANSWER: Lucius Aelius Sejanus
5. This religion's holy scripture is the *Kitab Al Hikma*, its holy day is Thursday, and its leaders are called *uqqal*. Among its seven cardinal principles are contentment with God's works, separation from demons, and belief in the divine incarnation of al-Hakim bi-Amrih Allah, this religion's founder, who annointed Hamzah ibn Ali ibn Ahmad as apostle. FTP, name this religion, active mostly in the mountains of Lebanon and Syria.
ANSWER: Druze [or Mowahhidoon]
6. It is not related to temperature, unlike the usual properties of the force which it causes. Its result is responsible for maintaining the opposing force to gravity which prevents collapse into a neutron star. The particle in question is forced into higher energy states because of a decrease in available low energy states caused by close packing. FTP, identify this property of white dwarf stars.
ANSWER: electron degeneracy pressure
7. Commissioned by Nicolaes Jonghelinck, it is part of a series of paintings depicting the months which also includes *Gloomy Day*, *Return of the Herd*, and *August*. At the bottom right, several figures are working on a mill whose wheel is frozen in ice. Halfway down the left side, a group is huddled around a fire, while the right midground is dominated by skaters on two frozen ponds. The title characters and their dogs are entering the scene from the lower left. FTP, name this 1565 painting by Pieter Bruegel the Elder.
ANSWER: *The Hunters in the Snow*
8. He calls the Jump to Conclusions Mat "the worst idea I've ever heard" and laments the fact that he won't be going to "white collar resort prison." Played by David Herman, he self-consciously rips off *Superman III* by writing a program which will move fractions of cents into a bank account which he shares with Samir and Peter. FTP, name this character from *Office Space*, whose name was "perfectly fine" until he was about twelve, and "that no-talent ass clown...started winning Grammys."
ANSWER: Michael Bolton [either name or the full name is acceptable]
9. Under its banner, William Palmer became governor of Vermont, the only state to give electoral votes to this party's ticket. It thus received fewer electoral votes than the alternative Democratic candidate, John Floyd, in its only national showing: seven electoral votes in 1832 for Amos Ellmaker and William Wirt. FTP, name this first organized third party in American history, opponents of a certain secret society.
ANSWER: Anti-Masonic Party
10. This theory was formalized in the *Political Treatise* of Jacques-Benigne Bossuet, and in England, it was defended personally by James I. Robert Filmer's *Patriarcha* included it; the blasting of Filmer in Locke's *First Treatise on Government* contributed to the end of its popularity in England, but it was defended by the Bourbons until the French Revolution. FTP, identify this concept which equates revolution with heresy by stating that kings and queens are enthroned by God.
ANSWER: divine right of monarchs [prompt at moderator's discretion]
11. Regarding this process, Wolfgang Pauli solved apparent violations of conservation of angular momentum and energy by proposing the neutrino, although it is actually the antineutrino which is involved when it occurs in a neutron, the most basic example of this process. FTP, name this process in which the antineutrino is emitted along with an electron, as a neutron decays into a proton.
ANSWER: beta decay
12. Along with steel, the Brinell hardness test may use a ten-millimeter sphere of this element's carbide. This only element more fusible than rhenium is the most common material used for the wire in the counting tube of a Geiger counter. In electron microscopes, a filament of it is used as an electron source and it is also used as the filament in halogen and incandescent lamps. FTP, name this element found in the ores scheelite

and wolframite, which has the highest melting point of any metal.

ANSWER: tungsten

13. It begins in the the Atlantic Ocean, goes into the Davis Strait to Baffin Bay; into Lancaster Sound and Prince Regent Inlet; between Somerset Island and Boothia Peninsula; around the west and south of King William Island; west into the gulfs of Queen Maud, Coronation, and Amundson into the Beaufort Sea, then through the Arctic Ocean and the Bering Strait into the Bering Sea and the Pacific. FTP, give the name of the route thus described, the long-sought natural water path through Canada.

ANSWER: the Northwest Passage

14. It was formed in Columbus, Ohio, after a pre-existing group absorbed the Knights of Labor Trade Assembly No. 135. Its fifth president, John Mitchell, is remembered on an October 29 holiday, while forty-year leader John Lewis made it a founding member of the CIO. One of its presidential candidates murdered another in 1970, one year after it persuaded Congress to dispense compensation for black lung disease. FTP, name this union of workers in coal-related industries.

ANSWER: United Mine Workers of America

15. Nineteen of them were published in addition to one which was not. Six were orchestrated in collaboration with Franz Döppler. The fourteenth was the source for a namesake fantasia, while the fifteenth is the "Racozky March." Written between 1846 and 1885, they represented a return to traditional and Gypsy influence for their composer. FTP, name this series of nationally-inspired compositions by Franz Liszt.

ANSWER: Hungarian Rhapsodies

16. Her name is only slightly different from the Latin word for the symbol of classical thought, lending credence to the idea that the love expressed for her was Platonic. Some conceive her as an idealization of the perfect woman while others say that she represented the Virgin Mary. If she was depicted realistically, her characteristics were allegedly based on a 1327 encounter at Avignon's Church of St. Claire. FTP, name this woman, the subject of the bulk of the sonnets of Petrarch.

ANSWER: Laura

17. He founded the Maghar literary society shortly after completing *The Madman*. Other works include *The Earth Gods*, *The Broken Wings*, *A Tear and a Smile*, and *Sand and Foam*. His most widely read book consists of twenty-six sermons by a man who is boarding a homeward bound ship after many years living abroad. FTP, name this Lebanese-born author of *The Prophet*.

ANSWER: Gibran Khalil Gibran

18. Contrasts discussed in this work include the "big man" versus the "slicker" and "personalities" as opposed to "personages." Dick Humbird represents stupidity and goodness in contrast to a vision of the devil, while Eleanor kills a horse in response to a religious point. Rebuffed by Rosalind Connage and crushed by the deaths of Monsignor Darcy and Beatrice, Amory Blaine proclaims "I know myself, but that is all." FTP, name this novel based on the Princeton experiences of F. Scott Fitzgerald.

ANSWER: This Side of Paradise

19. Named for a phrase in the Brabantian law invoked as justification, this war's roots were a dowry agreement which provided for money instead of land to accompany the marriage of Marie Thérèse of Spain. When neither land nor money was transferred, and Phillip IV of Spain died, Louis XIV nullified the agreement and invaded the Netherlands. FTP, name this 1667 to 1668 war which saw the formation of the first Triple Alliance, ended by the Peace of Aix-la-Chapelle.

ANSWER: War of the Devolution

20. Although quite different in tone from *Sesame Street*, it includes two characters who reside in trash cans, occasionally peeking out. "Zero, zero, zero," is what looking through a telescope discovers. The telescope and a ladder are among the items fetched by Clov, slave to Hamm, a blind man crowned with a hardhat who fancies himself a king. Hamm is the son of Nagg and Nell the trashcan-dwellers. FTP, name this play about the disintegration of the world by Samuel Beckett.

ANSWER: "Endgame" [or "Fin de partie"]

Tiebreaker:

The final provision of this Constitutional article was found to be violated as recently as 1961, in *Torcaso v. Watkins*. This article declares that the Constitution and treaties supercede all other laws, retains liability for debts and engagements incurred under the Articles of Confederation, requires all federal and state officers to take an oath to uphold the Constitution, and, in the section which Torcaso cited, bars religious tests for officeholders. FTP, name this next-to-last article of the U.S. Constitution.

ANSWER: Article VI