

**The Mark Discordia Singles Tournament  
Playoff Round 3  
Question Set 6: 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. The title character frames Jacomo for the murder of Barnardine, engineers the deaths of his daughter's suitors Mathias and Lodowick, sends a pot of poisoned rice to kill nuns and his daughter Abigail, and pretends to be dead in order to be thrown outside the city wall, where his introduction to Calymath suggests that he lacks certain stereotypical physical features. Barabas eventually dies when Ferneze cuts a rope, sending him into a boiling cauldron. FTP, identify this play by Christopher Marlowe.  
ANSWER: The Jew of Malta
2. The Cori Cycle determines the level of activity of this process in the liver. The first step in this process involves the carboxylation of pyruvate to oxaloacetate in the mitochondria. Oxaloacetate is then decarboxylated and phosphorylated in the cytosol, where it undergoes additional reactions to form fructose-6-phosphate. FTP, name this process in which glucose is synthesized from glycerols and amino acids, the opposite process to glycolysis.  
ANSWER: gluconeogenesis
3. The inventor of this concept said that it is composed of "involuntary spontaneous manifestations" arising in "primeval dreaming." It creates dreams out of the archetypes of the primitive mind. Originally explained in biological terms, its originator later attempted to reconcile it with similar ideas of Plato. FTP, identify this Jungian concept of universal symbols produced without individual direction.  
ANSWER: collective unconscious
4. A civil war in territories held by this dynasty ended with the execution of Queen Brunhild. In its declining years, the *rois fainéants* ruled and began losing power to the Mayors of the Palace. Reaching the height of its power under Dagobert I, it had been founded by Clovis I. FTP, name this dynasty which ruled the Franks from 481 to 751.  
ANSWER: Merovingian dynasty
5. The editorial in which this seven-word phrase appears bemoans "the skepticism of a skeptical age" and delves into some depressing existentialism, proclaiming that "man is a mere insect." This phrase is immediately followed by the sentence "He exists as certainly as love and generosity and devotion exist." FTP, give this phrase from an 1897 *New York Sun* editorial by Frederick P. Church which attempted to reassure an eight-year-old girl about the existence of an annual gift man.  
ANSWER: "Yes, Virginia, there is a Santa Claus"
6. This device's need for a resting time led Cecil Powell to develop a photographic emulsion that could be used continuously. The expansion type has a moveable piston to change the size, while the diffusion variety introduces alcohol in the warm end, and diffuses the vapor to the cool end, where supersaturation occurs. FTP, name this particle detector invented by C.T.R. Wilson, whose use has mostly been supplanted by the bubble chamber.  
ANSWER: cloud chamber
7. In this story, a toothache is used to represent the self-consciousness of intellectuals. Chapter seven of part one attacks Chernyshevsky's *What is to Be Done*, while in chapter five of part two, the narrator attempts to punish himself by walking in St. Petersburg with an open coat and finding an unfriendly prostitute. FTP, name this Dostoyevsky work about the essential irrationality of man, in which the unnamed protagonist's epithet and the title reflect counterculturalism.  
ANSWER: Notes from Underground [or Zapiski iz podpolya]
8. While usually not associated with an animal, some have interpreted artistic representations of this god to be aardvark-headed. Worshipped at his supposed birthplace, Ombos, he was the patron of the Hyksos and the god of deserts and foreign lands. He lost his testicles and leg during an eighty-year tussle with Horus which followed his dismemberment of Osiris. FTP, identify this Egyptian god of hostility and evil.  
ANSWER: Seth [or Set]
9. This author's series of novels *Canopus in Argos* formed the basis for Phillip Glass's opera *The Making of the Representative for Planet 8*. She's also written a horror novel about giving birth to a monster, *The Fifth Child*. Her most popular work with most critics is the series of novels about Martha Quest entitled *Children of Violence*, but she's probably better known for a feminist work about Anna Wulf. FTP, name this author of *The Story of a Non-Marrying Man* and *The Golden Notebook*.  
ANSWER: Doris May Tayler Lessing
10. With Schiff's solution, it restores the color of rosaniline from fuchsia to pink. With Fenling's solution, it forms cuprous oxide. With Tollen's solution, it yields metallic silver. It is often manufactured commercially by the oxidation of ethyl alcohol with sodium dichromates, or by direct oxidation of ethylene under a catalyst. FTP, name this organic molecule with formula CH<sub>3</sub>CHO.  
ANSWER: acetaldehyde [or ethanal; accept CH<sub>3</sub>CHO before it is mentioned]
11. The sparks for this war included the Danish seizure of Holstein-Gottorp and an election promise by August II of Poland to regain lost territory. It included the first-ever Russian naval victory, at Hangö. At its conclusion, Livonia and Estonia were turned over to Russia, but Finland was kept in Swedish hands, as a result of the Treaty of Rystad. FTP, name this war including the battles of Narva and Poltava, involving Charles XII of Sweden and and Peter the Great.  
ANSWER: Great Northern War
12. This country's Al-Nur and al-Shifa food concerns are on a United States blacklist as sources of funds for terrorism. As part of the Mideast honey industry, those companies are believed to be under Osama bin Laden's control. President Ali Abdullah Saleh is attempting to talk down this

country's leading religious scholars, 172 of whom have condemned cooperation with the U.S. FTP, name this Arabian Peninsula country, also involved in terrorism as the site of the 2000 attack on the *U.S.S. Cole*.

ANSWER: Republic of **Yemen** [or *Jamhuriya al Yamaniya*]

13. In this opera, Mime creates the Tarnhelm, a helmet which allows the wearer to change size and become invisible. Loge suggests that the title object be used in lieu of Freia as payment to Fafner and Fasolt; Erda orders that the gods not attempt to retain any of the treasures. The first scene ends with Alberich forsaking love, while the opera concludes with the gods entering Valhalla for the first time. FTP, name this one-act opera, the first component of Wagner's Ring cycle.

ANSWER: *Das Rheingold* [or *The Rhine Gold*]

14. An object which could be the moon is lying on the ground. The vertical center features a plant at the bottom and an upside-down woman at the top. A row of buildings is at the top right, on the crest of the red object which dominates this painting. A pupil-less green head, wearing a cross on a collar and a red-brimmed hat, looks at a cow's head, within which another cow is being milked. FTP, name this Marc Chagall painting.

ANSWER: *I And the Village* [or *Me and My Village*; accept similar equivalents]

15. He guested on K-Nock's *Escape from Quad City* and Three Grand's *3 Bad Brothers*.

After he achieved national popularity, his early albums *Solja Rags* and *Being Myself* were re-released. *Tha G-Code* and *Playaz of the Game* followed his 1998 smash hit album. Singles include "I Got That Fire," "Take Them 5," and "Off the Top." FTP, name this rapper whose 400 *Degreez* album featured "Back That Azz Up."

ANSWER: **Juvenile** [accept Terius **Gray**]

16. For this process, collisions can be neglected by assuming that the mean free path is large compared to the diameter and also that the rate is small enough not to upset the equilibrium speed distribution in the gas for small holes. For two different gases, rates of this can be put in terms of molar masses, according to Graham's law. FTP, give the name for this passage of molecules through a small opening into an evacuated vessel.

ANSWER: **effusion**

17. Qaummaarviit Park sits on an island in the Peterhead Inlet at the north of this body of water. The Grinnell ice cap is at its southeast, and the Sylvia Grinnell River empties into it. Ward Inlet and Koojesse may be found on its shores; at its most inland point sits a city which used to share its name, now known as Iqaluit. FTP, name this bay at the southeast of Baffin Island.

ANSWER: **Frobisher** Bay

18. It was postulated in 1925 by George Uhlenbeck and Samuel Goudsmit. Evidenced in the 1921 Stern-Gerlach experiment and in the closely spaced pairs of lines in the spectra of many-electron atoms, it results in two possible directions for the magnetic field. FTP, name this quantum number with possible values of plus or minus one-half, or left-handed and right-handed, represented by m-sub-s.

ANSWER: **electron spin** magnetic quantum number

19. It was declared unconstitutional in the 1926 *Myers v. U.S.* Supreme Court case, although it had been moot since Grover Cleveland instigated its repeal in 1887. Under it, the installation of Lorenzo Thomas was contested, as the previous Secretary of War literally refused to leave the office, leading to the impeachment of Andrew Johnson. FTP, name this 1867 act of Congress which required Senate approval for the dismissal of certain federal officers, including Cabinet members.

ANSWER: **Tenure of Office** Act

20. It embodies a "King" who is "witnessed in the room" and it interposes a noise which is "blue—uncertain—stumbling" between the light and the narrator. When it appears, breaths are "gathering firm for that last onset," in a still room, then the windows fail and the narrator cannot "see to see." FTP, identify this insect which was heard buzzing at the narrator's death in a poem by Emily Dickinson.

ANSWER: a **fly** [accept "**I heard a fly buzz when I died**"]

Tiebreaker:

Although the first one was found in Venice in 1516, the "age" of this institution is usually marked from 1555, when, in the bull *Cum Nimis Absurdum*, Pope Paul IV ordered one created in Rome and added that access to it at night be forbidden. In 1941, Reinhard Heydrich issued an order forbidding all exit from them. FTP, give the word for these enclosed areas inhabited by Jews, now referring to any area in which poor members of a particular ethnic or racial group live.

ANSWER: **ghettos**