## The Mark Discordia Singles Tournament <br> Playoff Round 9 <br> Question Set 12: 20 tossups plus tiebreaker

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

1. His philosophy of governance was often summarized as "a dog with a bone neither barks nor bites." Winning election on the Plan of Tuxtepec, he left the presidency in 1880 under a constitutional provision barring consecutive terms. In 1884, he returned to office and had the constitution amended, remaining in power until his 1910 overthrow by Francisco Madera. FTP, name this longtime president of Mexico.
ANSWER: José de la Cruz Porfirio Díaz
2. For a random variable with this discrete distribution, the expected value is the mean. It has the properties that there are a fixed number of trials that either succeed or fail and that the trials are identical and independent. The general formula for the density for a variable with this distribution is $n$ choose $x$ times $p$ to the $x$ time one minus $p$ to the $n$ minus $x$. FTP, name this distribution which, as the number of trials goes to infinity, becomes the normal distribution.
ANSWER: binomial distribution
3. Coorong and Brookfield parks are in its basin. It passes through Lake Alexandrina, and its banks contain the cities of Mildurra, Loxton, and

Albury as well as Mount Kosciusko. It receives the Murrumbidgee and Darling and divides New South Wales from Victoria. FTP, identify this
Australian river.
ANSWER: Murray River
4. Possibly the only historically based poem to contain the phrase "bake their hedgehogs," it promises that "You may perceive, if you have lucky eyes/Something that ran away from being wise." Dwelling on the departure of a train and a courthouse speech, it was published in 1928, sixtynine years after the events described. FTP, name this Stephen Vincent Benét poem titled for the remains of a militant abolitionist.
ANSWER: "John Brown's Body"
5. Irving Fisher outlined this concept while elaborating on Simon Newcomb's work. The fact that it is constant in the long run explains why an increase in the money supply causes inflation in the monetarist view. In the monetarist equation of exchange, it is multipled by the money supply to equal the price level times the volume of production. FTP, give this term denoting the number of times a given dollar is spent in a particular period of time, represented by the letter V.
ANSWER: velocity of money
6. Originally inhabited by the San, who left for the north and west, it was organized in the nineteenth century by King Moshoeshoe. It became a British protectorate in 1868 and gained independence in 1966, under the leadership of Moshoeshoe II and Prime Minister Joseph Jonathan. Opposition leader Ntsu Mokhehle and King Letsie III now rule the country. FTP, name this African nation, formerly known as Basutoland and located entirely within South Africa, with capital at Maseru.
ANSWER: Kingdom of Lesotho [prompt on Basutoland before it is mentioned]
7. Her suitor offers to "play along with the charade" and complains of feeling dirty when she starts "talkin' cute" with a certain other male. "Lookin' in the mirror all the time" and being funny and "cool with the lines" don't seem to attract her, even if such actions are "the way love's supposed to be." We learn that her significant other is a friend to the narrator in the first line, so "the point is probably moot." FTP, name this title female of a Rick Springfield hit.
ANSWER: "Jessie's Girl"
8. One advantage of it over the PC X server is that the viewer doesn't save state information: if your local system crashes, no information will be lost. It is also platform-independent, bandwidth-friendly, and open-source, but since it doesn't link directly to the graphics card, it often has trouble redrawing fast-changing images on the client side. FTP name this remote display system developed by ATT\&T Laboratories Cambridge which allows you to view a remote desktop environment.
ANSWER: Virtual Network Computing
9. According to this, the product of the wave functions of the electronic state, the vibrational state, and a particular set of rotational quantum numbers JM gives the wave function for a molecule. It allows the selection of a simpler electronic Schrödinger equation for fixed internuclear distances. It holds that nuclei can be considered stationary relative to electrons because of their greater mass. FTP, name this approximation named after two scientists.
ANSWER: Born-Oppenheimer approximation
10. In one of this author's stories, a fired servant catches an old woman stealing hair from corpses in order to make a wig. After the woman protests that there is nothing wrong with stealing from the immoral, the servant agrees and steals the woman's clothes. In another, the Grand Magistrate questions four contradictory witnesses to a possible rape and murder by the bandit Tajomaru. FTP, name this author of "In a Grove" and "Rashomon."
ANSWER: Akutagawa Ryūnosuke
11. It was the event celebrated in the medieval Feast of the Dormition and is now commemorated by Catholics on a namesake August 15 holiday. Belief in it was made compulsory by the 1950 encyclical Munificentissimus Deus and confirmed by the second Vatican council. It is said to have occurred at either Ephesus or Jerusalem between three and fifteen years after the Crucifixion. FTP, identify this doctrine which states that Mary's body was taken into heaven.
ANSWER: the Assumption of Mary [accept equivalents which contain the word Assumption]
12. Its Madelung constant is 1.7476 . Sometimes named for sodium chloride, which typifies it, for that compound, each sodium ion is attracted by
six nearby chlorides. The most efficient arrangement of atoms in a crystal lattice, it has an atomic packing factor of 0.74 . FTP, name this lattice which has more atoms per unit volume than a body-centered cubic crystal.
ANSWER: face-centered cubic lattice
13. Her notable individual works include Pro-War Parade and A Young Man in Curlers at Home on West Twentieth Street, New York City. Shortly before her suicide, she completed a set of photographs of mentally retarded middle-aged individuals. Her Child With Toy Hand Grenade was ironically shot some time before Norman Mailer likened her possession of a camera to a child's possession of a grenade. FTP, identify this photographer, known for her depictions of social outsiders.

## ANSWER: Dianne Arbus

14. It acquired its current name in 1942 when John Bracken became its leader. Its current chairman was famously insulted as "Joe who?" when he first occupied the office; Joe Clark again runs the party, which has been supplanted as the leading right-wing group by the National Alliance. FTP, name this party which has only twelve seats left in Parliament, a decline from the 1984 to 1993 period when members Brian Mulroney and Kim Campbell served as Canadian Prime Ministers.
ANSWER: Progressive Conservative Party of Canada [prompt on Tories; prompt on Conservatives]
15. The protagonist's close friend ends up in a monastery in Africa, and that friend's father is given last rites by Father Mackay. The spouses of Rex Mottram and Celia Mulcaster have an affair, which is ended when one party relapses into Catholicism. Samgrass is charged with watching over Sebastian Marchmain even before the latter's arrest. FTP, name the novel in which such events occur, whose main character is the painter Charles Ryder, written by Evelyn Waugh.

## ANSWER: Brideshead Revisited

16. A rope and a few tattered remains of a sail at the base of a broken mast are the only objects visible on the boat with the white hull. There is only one living human in this painting, but the blood in the shark-infested water suggests that there once were more on the boat. FTP, identify this painting by Winslow Homer, named after an oceanographic phenomenon.

## ANSWER: Gulf Stream

17. The major thoroughfares in this city are the Eixo Monumental and Eixo Rodoviario. The Liberty Panteon and Planalto Palace are located at the Square of the Three Powers, beside which is the Espaço Lucio Costa, containing a scale model of the city. Laid out according to the "Plano Piloto," its housing was oriented into apartment buildings known as "superquadras." FTP, name this city, designed by Lucio Costa and Oscar Niemeyer to replace Rio de Janeiro as the capital of Brazil.
ANSWER: Brasilia
18. The Council of Acre was held during it to redirect efforts from Edessa to Damascus. Bereft of the anti-Jewish pogroms that usually accompanied the start of similar events, it was led by Conrad III of Germany and Louis VII of France. Declared by Pope Eugenius III and popularized by Bernard of Clairvaux, it was essentially ended at the Battle of Hattin due to the military tactics of Saladin. FTP, identify this unsuccessful crusade, taking place in 1147 and 1148.
ANSWER: Second Crusade
19. They include "On the Bridge" based on text by Schulze, "The Blinde Knave" after Cibber, and "The Rose," after Schlegel. The most famous ones might be "Gretchen at the Spinning Wheel" after Goethe and "To Sylvia" after Shakespeare. FTP, identify the form of such works by the composer of the Trout Quintet and a certain Unfinished Symphony, German for "songs"
ANSWER: Franz Schubert's lieder [prompt on songs before it is mentioned]
20. After the title object is used to catch Mr. Osborn of apartment 16C beating his wife, one user concludes "Life is too terrible, too sordid and awful." We learn also of the Fullers' cocktail party and the engagement of Sweeney's nurse, but the hypocrisy of the chief female character in the story is sealed when that woman's history of stealing jewels is mentioned. The trouble began when Jim Wescott had the title object fixed, and Irene began to hear the voices of neighbors. FTP, name this short story by John Cheever.
ANSWER: "The Enormous Radio"
Tiebreaker:
His acquaintances included Edward Covey, Sophia Auld, and his two wives, Anna Murray and Helen Pitts. At an 1852 address in Rochester, he attacked the hypocrisy of the Fourth of July, and in the same year he was the vice-presidential candidate of the Liberty Party. Near the end of his life, he became U.S. Marshall and Recorder of Deeds for the District of Columbia and minister to Haiti. FTP, name this editor of the North Star, an escaped slave who became a leading abolitionist orator.
ANSWER: Frederick Douglass [accept Frederick Augustus Washington Bailey]
