

**The Mark Discordia Singles Tournament
Playoff Round 2
Question Set 5: 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. Discovered in 1977 by Charles T. Kowal, it is 182 kilometers in diameter. It is closer in size to an asteroid than a comet, but it glows brightly. Now thought to be similar to an immense cometary nucleus without a tail, it is found in an eccentric orbit between Saturn and Uranus. FTP, identify this component of the solar system, the first astronomical Centaur Object, thus named for the most prominent mythical centaur.
ANSWER: Chiron
2. Foreshadowing in this play occurs in the mother of the Bride's lament on widowhood and the appearance of Death. The plot is drive by a man who who was not wealthy enough to marry the Bride. After an elopement is stopped, Leonardo and the Groom both die in a knife-fight. FTP, name this drama by Federico García Lorca.
ANSWER: "Blood Wedding" [or "Bodas de sangre"; accept "Bitter Oleander"]
3. Developed by Arthur Okun of unemployment analysis fame, it hit its historical peak in 1980, when it rose above twenty percent for the only time. Below six percent midway through 1998, it rose to nearly eight percent in early 2001. It is created by adding the rates of unemployment and inflation. FTP, name this index which attempts to measure the magnitude of negativity in the economy.
ANSWER: the miserery index
4. Christopher Rouse won a music Pulitzer for a concerto for this instrument, which Gustav Holst played professionally before becoming a composer. It appears in the score to *Don Giovanni*, and Beethoven's Fifth marked its first use in a symphony. Recent stars include Raul DeSouza, Carl Fontana, Jerry Tilitz, Jack Teagarden, and Douglas Yeo. FTP, name this instrument, also played by Frank Rosolino, J.J. Johnson, and Glenn Miller, noted for its slide.
ANSWER: trombone
5. It is useful in compiler implementation because it is relatively easy to transform a set of regular expressions, which is a definition of a language, into one of these. Though it may contain multiple accepting states, it has no empty transitions, and every transition from a state q on a letter a is unique. FTP, name this form of language representation consisting of a start state, a known set of transitions, and a limited total number of states.
ANSWER: finite state machine [or deterministic finite automata]
6. Known by the name of Box until the 1950s, it's forty miles long, with an average depth of over five thousand feet and maximum depth of almost eight thousand. Cut from the Owyhee Mountains, it is separated from the Salmon River by the Seven Devils Range. FTP, name this canyon of the Snake River on the border between Idaho and Oregon, the USA's deepest.
ANSWER: Hells Canyon [prompt on Grand Canyon of the Snake; prompt on Box Canyon before it is mentioned]
7. Peripheral characters include Larry McCaslin, pickle factory founder Shoshamma Ipe, and family cook Kochu Maria. Taking place in the state of Kerala, this novel's plot is driven by an affair with Velutha the carpenter and the drowning of Chacko and Kochamma's daughter Sophie. Estha refuses to speak, while Rahel flits around the world before returning home to Ammu, the shamed mother of the two girls. FTP, name this Booker Prize-winning novel by Arundhati Roy.
ANSWER: The God of Small Things
8. This law is derived by ignoring the structure of the unit cell, although the distance of the interplanar spacing is related to the unit cell dimension. It sets the conditions for nondestructive interference, predicting the possibility of diffracting x-ray beams from a crystal. FTP, name this law equating the path difference for rays from adjacent planes with an integral number of wavelengths.
ANSWER: Bragg's law
9. It saw a reorganization of society into units of ten households each and an explosion in the size of the navy under admiral Zheng He. Its second emperor, Zhu De, instigated an expansionist policy which retook Vietnam, in contradiction to the isolationism of its founder, the Honwu Emperor Zhu Yuanzhang. The only ethnically Han dynasty after the Sung, it was also the last to maintain strong central government. FTP, name this Chinese dynasty which succeeded the Mongols and was overthrown by the Manchu.
ANSWER: Ming Dynasty
10. He lives in Mount Mashu under the protection of scorpion-men, and his chariot is pulled by flaming mules. The son of Sin and Ningal, he is usually a defender of justice, but he has a corrupt manifestation called Nergal. He became involved in a dispute between an eagle and a serpent, allowing the serpent to clip the eagle's wings, then having the eagle help Etana find a plant which cured infertility. FTP, name this Assyro-Babylonian god of the sun.
ANSWER: Shamash [accept Babbar; accept Utu]
11. High altitude air pilots also suffer from this disorder, which necessitates breathing pure oxygen before and during the flight. In it, nitrogen precipitates from the blood, causing blockage of small blood vessels to nerve endings. Also known as Caisson disease, the most common symptom occurs in the arm or leg joints. FTP, name this ailment, more common among workers in pressurized environments than in divers.
ANSWER: the bends [accept Caisson disease before it is mentioned; accept decompression sickness]
12. In the case of *Mozert v. Hawkins*, the Sixth Circuit Court of Appeals found that requiring students to read books which do this does not violate the First Amendment. A state law against doing it was voided by the Supreme Court in 1968's *Epperson v. Arkansas*. In 1989, the Court held that states could not require that those doing this also discuss a certain competing idea, in *Edwards v. Aguillard*. FTP, identify this pedagogical activity, still under fire long after *State of Tennessee v. John Scopes*.
ANSWER: teaching the theory of evolution [accept equivalents; prompt at moderator's discretion]

13. The secondhand citations in his *Against Apion* are the only surviving sources of some works of Middle Eastern history. His namesake "testimony," of disputed authenticity, contains the only pre-100 CE mention of Jesus by a non-Christian. He drew on Nicolas of Damascus's *Universal History* to create his own writings, which he began after release from imprisonment ordered by Vespasian. FTP, name this historian, author of *Jewish Antiquities* and *History of the Jewish War*.
ANSWER: Flavius Josephus [or Joseph ben Matthias]

14. The title character dies on Remembrance Day after quoting from the Book of Job. Entry into the university at Christminster is never realized; Cartlett complicates the romantic picture; and the child of the first marriage, Little Father Time, dies. Phillotson receives Sue back after a stillbirth, and the title character returns to Arabella. FTP, name this novel by Thomas Hardy.
ANSWER: Jude the Obscure

15. The historiography of this philosophy used the evil of human nature as the unifying theme. It argued against classicism and education, holding as its three core values *shih*, position; *shu*, methods; and the namesake *fa*. Centrally planned single-family agrarianism was its preferred economic system, and it advocated the banning of artistic endeavors. FTP, identify this Chinese philosophical system, developed in the writings of Han Fei Tzu, which argued that society should submit completely to the state and ruler.
ANSWER: legalism

16. It was based on newspaper reports of a January 8, 1991 incident at Richardson High School in suburban Dallas. The causes of the real event are uncertain, but the writers of this song speculated that bullying and parental disinterest were the motivations for what occurred, describing emotional disturbance through drawings of the dead "in pools of maroon" and an account of biting "the recess lady." FTP, name this Pearl Jam song off of the *Ten* album about a boy who "spoke in class" by killing himself.
ANSWER: "Jeremy"

17. Mentioning the High Priest Melchizedek twice, it discusses the superiority of Christ to prophets, angels, Moses, Joshua, the priests, and Abraham. It discusses the idea of heavenly peace as an exalted form of the Sabbath rest, and states that "Faith is the reality...and the proof." FTP, name this book of the New Testament, usually placed between Philemon and James and named for a people of some importance in the Bible.
ANSWER: Book of Hebrews

18. In one of his paintings, two women, clad in bright red and green respectively, sit on the steps looking away from the central figure, who is receiving a crown from an angel and a lyre from a bearded man. In another of his works, over a dozen nudes relax in the title location, while in another, the reclining woman's back is unnaturally elongated. FTP, name this artist of *The Apotheosis of Homer*, *Turkish Women at the Bath*, and *La Grande Odalisque*.
ANSWER: Jean-Auguste-Dominique Ingres

19. This effect is used in the wire of a xerographic photocopier and in an electrostatic paint sprayer. It can occur near a conductor of small radius, where the electric field is large enough to ionize molecules in the surrounding air. FTP, name this effect which allows normally non-conducting air to conduct and carry charge away from a conductor.
ANSWER: corona discharge

20. They were guaranteed an extra year on their land and their forfeiture was lessened in the 1826 Treaty of Washington. Earlier, under the leadership of William "Red Eagle" Weatherford, they attacked Fort Mims, then fought John Coffee at Talladega. FTP, name this Native American tribe whose namesake war ended with a defeat by Andrew Jackson at Horseshoe Bend.
ANSWER: Creeks

Tiebreaker:

His works include the proverb collection *Adages*, *The Handbook of the Christian Soldier*, *Follower of Cicero*, and *Domestic Colloquies*. He considered himself a lifelong Catholic, and he wrote *On the Freedom of the Will* to explain his religious attitudes, which had come into question after the publication of a work dedicated to Thomas More. FTP, name this Dutch humanist, author of *The Praise of Folly*.
ANSWER: Desiderius Erasmus