

TOSSUPS – COLORLESS REFUSE
Questions by Chad Money

MOC MASTERS 2005 -- UT-CHATTANOOGA

1. It has a mass of 2 times 10 to the 30th kilograms, an escape velocity of 618 kilometers per second, and an absolute magnitude of 4.8. Its rotation period is 25.4 days at the equator and 28 days at the poles. This differential rotation causes its magnetic field lines to twist over time, causing loops which trigger surface disturbances; in addition, the field reverses every 11 years. FTP, name this star whose apparent magnitude is -26.8 because it is only 1 AU from Earth.

Answer: the Sun (or Sol)

2. Hearing of a plan to break the siege by landing at Dorchester Heights, General Ward ordered an action elsewhere. Fortifications were erected at a strategically poor location, but it was so close that Gage had to attack it. General Pomeroy fought as a private, as did General Warren, leaving the command to Israel Putnam, although the redoubt itself was commanded by William Prescott. Howe won a pyrrhic victory for the British at, FTP, what June 1775 battle, fought mostly on Breed's Hill?

Answer: Battle of Bunker Hill (or Breed's Hill before it is mentioned, or grudgingly Charlestown)

3. One chapter of its third volume was written by Georgi Tenno, whose daring escape exploits so impressed the author that he offered Tenno a position as co-author. It describes not only the author's experiences, but also those of 227 fellow prisoners. The author did not consider it his defining work, though it is his most famous, except possibly *One Day In The Life Of Ivan Denisovich*. FTP, name this 1973 book about the Soviet prison system, written by Aleksandr Solzhenitsyn.

Answer: *The* Gulag Archipelago

4. He lies in St. Paul's next to Sir Joshua Reynolds, and a prestigious annual art award is named in his honor. Known as "the painter of light," he is renowned both for his oils and watercolors. Creator of such works as *The Battle of Trafalgar*, *The Grand Canal*, and *The Fighting Temeraire*, FTP, name this English Romantic painter best known for *Rain, Steam, and Speed*.

Answer: J. M. W. Turner

5. According to her best friend, she's "not an airhead, she just doesn't like to think." She plays "Breaking Up Is Hard To Do" on the piano when Vicki leaves for New York. Often neglected by her parents, she spends a lot of time at her neighbors' and accompanies them on a trip to Disney World. Rebecca, Joey, and Michelle seem to tolerate her, though Danny, Jesse, and especially Stephanie can't stand her. FTP, who is D. J. Tanner's best friend, portrayed by Andrea Barber on *Full House*?

Answer: Kimberly Louise "Kimmy" Gibbler (accept either name)

6. Like a lot of other people, he moved from Germany to the U. S. in 1934, but then he moved to Mexico in 1950 and Switzerland in 1974. Beginning his career as an orthodox Freudian, he became known as a philosopher after writing works such as *You Shall Be As Gods* and *The Sane Society*. FTP, name this author of *The Art Of Loving* and *Escape From Freedom*.

Answer: Erich Fromm

7. He is captured by the Germans and forced to live in a makeshift prison. However, this does not stop him from witnessing his wife's death - "so it goes" - and his own -- "so it goes," or even appearing naked with porn star Montana Wildhack in a Tralfamadorian zoo, as he has become unstuck in time. A witness to the bombing of Dresden, FTP, name this protagonist of *Slaughterhouse-Five*.

Answer: Billy Pilgrim (accept either name)

8. In the Second Crusade, this man distinguished himself before Conrad III, whom he succeeded as king. He was excommunicated in 1160, which is even worse considering he was Holy Roman Emperor at the time. The 1177 Peace of Venice reconciled him with Pope Alexander III, and he set off for the Holy Land in 1189, only to drown before reaching it. FTP, name this namesake of the German invasion of the Soviet Union, whose epithet means "red beard."

Answer: Frederick (or Friedrich) Barbarossa (or Frederick/Friedrich I of Hohenstaufen)

9. Illnesses caused by their malfunction include Pompe's and Tay-Sachs. Their interior pH of 4.8 is essential for the functioning of enzymes such as nucleases, proteases, and lipase. Produced by Golgi apparatus budding, FTP, what are these organelles useful in autophagic cell death, phagocytosis, and general digestion of macromolecules?

Answer: lysosomes

10. Ignorance of it can lead to the broken window fallacy. A fundamental difference between losses as viewed by economists and accountants, a prime example is that by crafting this lousy economics tossup, this writer has forgone the chance to put in another fine physics or history question. FTP, what is this economic concept, defined as the benefit of the best alternative to a course of action?

Answer: opportunity cost

11. Her grandfather Samuel was one of the founders of Amherst College, and her father Edward served as its treasurer as well as a U. S. representative. The majority of her mostly unpublished poems were written during the Civil War, and a famous one begins, "Tell all the Truth but tell it slant." FTP, identify this poet for whom in 1886 death kindly stopped, because she could not stop for him.

Answer: Emily Dickinson

12. The son of a violinist, in his mid-twenties he entered the clergy, earning him a famous nickname. After his 1741 death, his fine music fell into obscurity until the 20th century. Responsible for operas like *Griselda* and hundreds of concertos, FTP, name this Italian Baroque composer, nicknamed "the Red Priest," who is most famous for *The Four Seasons*.

Answer: Antonio Vivaldi

13. Born in Griffin, Georgia, his reputed last words were "This is funny" while looking at his bare feet, uttered at Glenwood Springs, Colorado. Though involved in many an altercation, he was never struck by a bullet, though one of the Clantons or McLaurys nicked his holster at the misnamed gunfight at the O. K. Corral. FTP, identify this skilled gambler and consumptive dentist, lifelong friend of Wyatt Earp.

Answer: John Henry "Doc" Holliday

14. Objects travelling near it must be described by the Lorentz transform. Heron argued that it must be infinite, Empedocles that it was finite, and Aristotle that it did not even have meaning, but it turns out that in free space it is equal to 1 over the square root of permittivity times permeability. First measured effectively by Roemer and later by Fizeau, Foucault, and Michelson, FTP, what is this fundamental constant whose symbol, an abbreviation for *celeritas*, is a lowercase *c*?

Answer: the speed of light (or equivalent)

15. It is formed by the confluence of the Jefferson, Madison, and Gallatin at Three Forks. Flowing north and emerging from the mountains at Great Falls, it turns east, then southeast, forming several state boundaries and flowing past Sioux City and Omaha. FTP, identify this river that turns east again at Kansas City and joins the Mississippi just north of St. Louis, nicknamed "Big Muddy."

Answer: Missouri River

16. Their fourth album, *Katy Lied*, marked a transition from conventional rock band to hardcore studio artists. Taking their name from a steam-powered dildo in *The Naked Lunch*, they have lately come into prominence again with *Two Against Nature* and *Everything Must Go* but recorded most of their hits in the 1970's. FTP, name this band led by Walter Becker and Donald Fagen and famous for songs like "Dirty Work," "Rikki Don't Lose That Number," "Do It Again," and "Reelin' In The Years."

Answer: Steely Dan

17. Comparing the values predicted by it to actual vapor pressures yields information on the relative bonding strength between liquids. This is because it is only strictly valid when the bonding between two liquids is equal to the bonding within each. This is, FTP, what law from chemistry that states that the vapor pressure of mixed liquids is the weighted sum of the vapor pressure of each individual liquid, frequently confused with Henry's Law?

Answer: Raoult's Law

18. During World War II he worked as a courier for the French Resistance, and many of his later works were first published in that language. At the foot of his grave is a lone tree, a reminder of the stage set for his most famous play. The author of *Endgame* and winner of a Nobel Prize, FTP, name this Irish playwright, not to be confused with a quantum-leaping doctor, who wrote *Waiting For Godot*.

Answer: Samuel Beckett

19. The messenger in it, and thus between worlds, is Ratatosk the squirrel. Atop it was perched a giant eagle with a hawk on its forehead. It literally translates as "terrible steed," although "terrible" probably refers to Odin, who spent nine nights hanging from it. The only two humans to survive Ragnarok are sheltered by, FTP, what gigantic tree?

Answer: Yggdrasil

20. Its fate was foreshadowed by the novel *Futility* and a near-collision with the *New York* upon leaving Southampton. Among the victims were First Officer William Murdoch, designer Thomas Andrews, Captain E. J. Smith, and the upper crust of Anglo-American society. Located by Robert Ballard in 1985 and the subject of an enormous amount of literature, 1500 lives were lost in, FTP, what 1912 shipwreck, the most famous of them all?

Answer: R. M. S. Titanic

21. The teacher and student must agree on the topic of instruction. The student must agree to attempt to answer the teacher's questions. The teacher and student must be willing to accept any well-reasoned answer. It is permissible for the student to correct the teacher. Most importantly, the teacher's questions must expose errors in the student's reasoning. FTP, identify this negative method of hypothesis elimination, named after the teacher of Xenophon and Plato.

Answer: Socratic method (or equivalent)

22. A 1978 musical version produced by Jeff Wayne spawned the hit "Forever Autumn." The original novel was likely a condemnation of European colonialism, but the most famous remake transferred the main action to Grover's Mill, New Jersey, ran opposite the Edgar Bergen Show, and simulated a news broadcast. FTP, name this tale of interplanetary conflict, written in 1898 by Herbert George (no relation to Orson) Wells.

Answer: The War Of The Worlds

Questions by Chad Money

1. Answer these questions about a native of Luebeck, Germany FTPE.

(10) This author of *Tonio Kroeger* and *The Magic Mountain* won the Nobel Prize for literature.

Answer: Thomas Mann

(10) Mann's first and perhaps most famous novel, it relates the decline of a wealthy Luebeck family.

Answer: Buddenbrooks

(10) This short novel deals with Gustav von Aschenbach's obsession with the boy Tadzio and his demise in an Italian city.

Answer: Death In Venice

2. Identify these "D" words from mathematics FTPE.

(10) This function of a polynomial's coefficients ascertains whether the polynomial has a multiple root. For a quadratic, it is $b^2 - 4ac$.

Answer: discriminant

(10) This scalar function of a matrix plays a role in finding eigenvalues and in Cramer's rule. If this value is zero, the matrix has no inverse.

Answer: determinant

(10) A parabola can be defined as the locus of all points equidistant from a given point, called the focus, and a given line, called this.

Answer: directrix

3. This bonus was written just so the writer would no longer confuse three similarly titled works. Follow in his footsteps FTPE.

(10) This Scottish philosopher and historian is perhaps best known for his 1748 work *An Enquiry Concerning Human Understanding*.

Answer: David Hume

(10) Like Hume, this author of *An Essay Concerning Human Understanding* is considered one of the British Empiricists.

Answer: John Locke

(10) This German's *New Essays On Human Understanding* was a rebuttal of Locke's work, though he is more famous as a mathematician.

Answer: Gottfried Wilhelm von Leibniz

4. Three American presidents have risen to, but not above, the rank of brigadier general. Name them from clues FTPE.

(10) This New Hampshire native earned his star during the Mexican War and ran against his former commanding officer, Winfield Scott.

Answer: Franklin Pierce

(10) This former quartermaster general and New York customs collector became president thanks to Charles J. Guiteau.

Answer: Chester Alan Arthur

(10) This signer of the Sherman Anti-Trust Act won and lost one presidential election apiece against the same opponent.

Answer: Benjamin Harrison

5. Organic chemistry is a good thing. It's questions about it that suck. Nevertheless, answer these FTPE.

(10) The first organic compound to be synthesized, it has chemical formula CO_2H_4 .

Answer: urea

(10) This is a type of hydrocarbon in which the molecule has the maximum possible number of hydrogen atoms, i. e. no double bonds.

Answer: alkane

(10) Formerly known as mercaptans, these compounds have the sulfhydryl group attached to a carbon atom.

Answer: thiols

6. Name these characters from *A Connecticut Yankee In King Arthur's Court* FTSNOP.

(10 / 5) The Yankee himself. You get five if you only know his sobriquet, ten for his real name.

Answer: **Hank Morgan** (accept either name, or award 5 points for The Boss)

(10) The Boss's trusty sidekick, who completes the manuscript after the Battle of the Sand-Belt.

Answer: **Clarence** (admiringly accept Amyas de Poulet)

(10) The Boss's love interest, this annoying motormouth eventually gives birth to their daughter Hello-Central.

Answer: **Sandy** (accept with the greatest respect Alisande la Carteloise)

7. Name these Tchaikovsky works FTPE.

(10) Op. 20, Tchaikovsky's first ballet, was not performed at full length until after his death. In it, the princess Odette spends her days as an aquatic bird.

Answer: **Swan Lake**

(10) Op. 68, this opera is based on a short story by Pushkin and deals with Herman and the secret of the three cards.

Answer: **The Queen Of Spades**

(10) Op. 74, Tchaikovsky died nine days after the premiere of this, his last, symphony.

Answer: **Symphony No. 6** (or *Symphony Pathetique*)

8. Answer these questions about nearly perfect games FTPE.

(10) In 1917 this Red Sox pitcher was ejected after issuing a leadoff walk. Ernie Shore relieved him, the runner was caught stealing, and no more batters reached base.

Answer: George Herman "Babe" **Ruth**

(10) The worst hard luck fell to this Pirate. In 1959 he was perfect through twelve innings before an error ruined it in the thirteenth. He lost.

Answer: Harvey **Haddix**

(10) In 1998 this Cub, making only his fifth major-league start, walked none and struck out 20 in a one-hitter that may be the most dominating performance ever.

Answer: Kerry **Wood**

9. Given some mammals, name the order to which they belong FTPE.

(10) Moles, hedgehogs, some shrews

Answer: **Insectivora**

(10) Whales, dolphins, porpoises

Answer: **Cetacea**

(10) Horses, tapirs, rhinoceroses; in short, odd-toed ungulates

Answer: **Perissodactyla**

10. Name these guys caught up in Watergate FTPE.

(10) Later a talk show host and actor, this leader of the White House Plumbers coordinated the break-in with E. Howard Hunt.

Answer: George Gordon Battle **Liddy**

(10) For his insistence upon acquiring secret White House tapes, Nixon ordered this special prosecutor to be fired.

Answer: Archibald **Cox**, Jr.

(10) This attorney general, as well as his deputy William Ruckelshaus, resigned rather than fire Cox. Eventually the task fell to the #3 guy in the Justice Department, Robert Bork.

Answer: Elliot Lee **Richardson**

11. Identify these sun-related characters from Greek mythology FTPE.

(10) This Titan whose name means "high one" shares his name with a moon of Saturn and unfinished poem by Keats.

Answer: **Hyperion**

(10) This son of Hyperion (although Homer equated the two) drove a fiery chariot across the sky. His sisters were Selene and Eos.

Answer: **Helios**

(10) This son of Helios totaled his dad's chariot, crashing it in the Po. His name translates as "shining."

Answer: **Phaeton** (or Phaethon)

12. Answer these questions about yet another stupid war FTPE.

(10) Flourishing in the Languedoc around Toulouse, this Gnostic movement was branded heretical by the Catholic Church.

Answer: Cathars (or Albigensians)

(10) Thanks to this pope, thousands of Cathars were slaughtered at places like Beziers and Carcassonne in the early 13th century.

Answer: Innocent III

(10) Until his death at Toulouse, this earl of Leicester led the crusade against the Cathars. His son of the same name caused Henry III of England real trouble.

Answer: Simon de Montfort

13. Name these Swedish scientists FTPE.

(10) Primarily a botanist, this man laid the foundations for modern taxonomy, popularizing binomial nomenclature.

Answer: Carl (aka Carolus) Linnaeus

(10) Since he was rather lax about publishing, he is often overlooked despite discovering barium, chlorine, nitrogen, oxygen, and several other elements.

Answer: Carl Wilhelm Scheele

(10) Namesake of an equation relating activation energy and reaction rate, his doctoral dissertation earned him the Nobel Prize in chemistry.

Answer: Svante August Arrhenius

14. Answer some questions about Baroque art FTPE.

(10) Named after his hometown near Milan, this dude was actually good and painted *The Cardsharps* and *The Taking Of Christ*.

Answer: Michelangelo Merisi da Caravaggio

(10) This lame but famous Caravaggio work shows a winged boy poised over a pile of armor, musical instruments, and scientific paraphernalia.

Answer: Amor Victorious Over All (or *Amor Vincit Omnia*)

(10) Heavily influenced by Caravaggio, this painter of *Judith Beheading Holofernes* is also famous for being female.

Answer: Artemisia Gentileschi

15. Identify these Japanese writers FTPE.

(10) This author of *The Master Of Go* and *Snow Country* was the first Japanese to win the Nobel Prize for literature.

Answer: Yasunari Kawabata

(10) This friend of Kawabata wrote *The Temple Of The Golden Pavilion* and *Confessions Of A Mask* before being ritually decapitated in 1970.

Answer: Yukio Mishima (aka Kimitake Hiraoka)

(10) This screenwriter was also a director who gave us films like *Yojimbo* and *The Seven Samurai*.

Answer: Akira Kurosawa

16. Identify these modern authors from works FTPE.

(10) This underwater explorer and creator of Dirk Pitt is the author of *Sahara*, lately turned into a film by Paramount.

Answer: Clive Cussler

(10) This author of *Timeline*, *Congo*, and *The Andromeda Strain* also gave us *ER*.

Answer: Michael Crichton

(10) This Italian semiotician has written popular books like *Foucault's Pendulum* and *The Name Of The Rose*.

Answer: Umberto Eco

17. Identify these southern mountains FTPE.

(10) The highest point in the Americas is atop this Argentinian peak.

Answer: Aconcagua

(10) Renamed after a Polish patriot, this is the tallest mountain in Australia.

Answer: Mount Kosciuszko (or Targangil)

(10) Located in the Sentinel Range of the Ellsworths, this is the tallest mountain in Antarctica.

Answer: Vinson Massif

18. Answer these questions about a couple of case studies FTPE.

(10) This five-year-old's crippling fear of horses was apparently caused by castration anxiety and an Oedipal complex.

Answer: Little Hans

(10) This patient, a militia officer, obsesses about his father and fears that a certain rodent will burrow its way into his anus.

Answer: The Ratman

(10) Both Little Hans and the Ratman were treated and cured by this psychoanalyst.

Answer: Sigmund Freud

19. 30-20-10, name the author from works.

(30) *More Stately Mansions* and *A Touch of the Poet*

(20) *Desire Under The Elms* and *Ah, Wilderness!*

(10) *Mourning Becomes Electra* and *The Iceman Cometh*

Answer: Eugene O'Neill

20. Identify these colorful Chinese insurrections FTPE.

(10) After the fall of Wang Mang, Liu Xiu had to suppress this peasant army, finally reunifying the empire in the year 36.

Answer: Red Eyebrows

(10) The Han fell as an indirect result of this rebellion, started by Zhang Jiao in 184. Dynasty Warriors fans should enjoy warming up on them.

Answer: Yellow Turbans

(10) Although it was eventually put down, this 1796 uprising quelled the myth of the military invincibility of the Manchu dynasty.

Answer: White Lotus

21. Name that sociologist FTPE.

(10) Considered the founder of the discipline, this French positivist is also known for his law of three phases.

Answer: Auguste Comte

(10) This other French guy developed the concept of anomie in a famous work that investigates why more Protestants than Catholics kill themselves.

Answer: Emile Durkheim

(10) This German delved into political science and economics in works like *Politics As A Vocation* and *The Protestant Ethic And The Spirit Of Capitalism*.

Answer: Maximilian Weber

22. Show your knowledge of a dangerous criminal element FTSNOP.

(5) Starting his career as a singer in the '60s, this Italian-American actor has starred in such films as *Raging Bull*, *My Cousin Vinny*, and *Goodfellas*.

Answer: Joseph Pesci

(10) Notable as the narrator of *The Wonder Years*, this actor has shown his face in movies like *Diner*, *City Slickers*, *Rookie Of The Year*, and *Bushwhacked*.

Answer: Daniel Stern

(15) In *Home Alone*, Pesci and Stern portrayed the members of what criminal gang, whose calling card was leaving the water running?

Answer: The Wet Bandits

23. Identify these English kings who got a bum deal FTPE.

(10) Nicknamed "Lackland," this enlightened albeit ruthless Plantagenet was forced to put his seal upon the Great Charter at Runnymede.

Answer: John

(10) This efficient administrator and last Yorkist ruler was the victim of Tudor propaganda, including that of Shakespeare. He died at Bosworth Field.

Answer: Richard III

(10) The victors write the history books; thus this son of James I, advocate of the divine right of kings, and loser to Cromwell comes off badly even for a Stuart.

Answer: Charles I