

UIUC Earlybird 2006 - Round 1
(Tossups by UIUC Academic Buzzer Team)

1. In a few billion years, scientists expect this object to crash into the Milky Way, possibly merging with it. Recent observations by the Hubble telescope suggest that this object might have a double nucleus. It is a type Sb spiral galaxy that is believed to be about 3 million light years away. Designated M31, this galaxy is a member of our local group. Often visible to the naked eye is, FTP, this large spiral galaxy, the nearest to our galaxy.

ANSWER: the **Andromeda** Galaxy (accept **M31** early)

2. While the *Dred Scott v. Sanford* case did rule the first one unconstitutional, it upheld the second one, which was interpreted to say that no person of African or mulatto descent could be a citizen of the U.S. The Thomas amendment attached to it prohibited slavery north of 36°30' with the exception of a certain area. FTP, name this agreement designed to keep the balance between free and slave states that permitted its namesake state and Maine to enter the Union.

ANSWER: the **Compromise of 1820** (accept **Missouri Compromise**)

3. This faith's fourth leader, Shoghi Effendi Rabbani, was the great-grandson of its namesake; that namesake died in prison in Acre as this religion's founder had died in prison in 1850. Administered from the Universal House of Justice in Haifa, Israel, this syncretic religion uses a calendar of nineteen nineteen-day months and has no clergy or rituals as such. FTP, name the religion founded by the Bab and Baha' Ullah and which has a notable house of worship in Wilmette, Illinois.

ANSWER: **Baha'ism**

4. At the beginning of this work partly based on the life of Robert Nixon, the main character attacks a member of his own gang while robbing a store and becomes a chauffeur for the Daltons, a wealthy white family. He then kills his boss's daughter and his girlfriend and is sentenced to death. FTP, identify the novel focused on the life of Bigger Thomas by Richard Wright.

ANSWER: **Native Son**

5. snRPS mediate the processing of this type of organic chemical, which leaves it with its characteristic looped structure. Capping, the addition of a non-standard base, allows these macromolecules to permeate the nuclear envelope by nuclear pores and also allows binding to ribosomal subunits. Each molecule of this organic acid corresponds to a monopeptide. Created from the template strand by primary transcription, this nucleic acid directs translation. FTP, identify this type of RNA.

ANSWER: **messenger ribonucleic acid**

6. This person produced Portrait of Giulio Clovio and Vincentio Anastagi and Christ Healing the Blind in the style of Titian. This artist's altarpiece for Santo Domingo el Antiguo, Assumption of the Virgin, marked the beginning of his mature style, while he is also notable for his Views of his adopted home, Toledo. FTP, name this Byzantine-influenced baroque artist best-known for The Burial of Count Orgaz; a Crete-born painter whose nickname means "The Greek."

ANSWER: **El Greco** (or Doménikos **Theotokópoulos**)

7. While the title figure "whispers at the grates", the narrator lies "tangled in her hair and fettered to her eye". The narrator also sings "the sweetness, mercy, and majesty and glories of his king" all while not enjoying freedom. The narrator believes that "stone walls do not a prison make, nor iron bars a cage" in, FTP, what poem by Richard Lovelace?

ANSWER: **To Althea, from Prison**

8. At 29, he became head of the cancelleria and convinced Piero Soderini that a militia would be preferable to mercenaries. The best-known of his three plays is La Mandragola or The Mandrake. In his Discourses on the First Ten Books of Titus Livy, he claims that Romulus was justified in killing his brother for the common good. His name today is widely equated with doing whatever acts are necessary to accomplish a goal, regardless of moral or ethical concerns. FTP, name this Florentine whose most famous work on political theory is The Prince.

ANSWER: Niccolò **Machiavelli**

9. Though this person's opera *The Village Blacksmith* was a moderate success, the disapproval of J.P. Rameau ceased his composition of music. This writer's The Reveries of the Solitary Walker are of secondary importance to another autobiography, and his sequel to a well-known work, Julie, is little-read today. This thinker's Discourse on Inequality is discussed in his autobiographical Confessions. FTP, name this author of The Social Contract and Émile; a Swiss-French philosopher of the eighteenth century.

ANSWER: Jean-Jacques **Rousseau**

10. Along with an anti-neutrino, it is a product of beta decay. A lepton with spin $\frac{1}{2}$, this particle is thought to be indivisible. The famous Double Slit Experiment showed that this particle produced interference patterns similar to light. Its antiparticle, the positron, was the first antimatter particle to be detected. FTP, name this elementary particle that was discovered in experiments conducted in 1897 by J. J. Thomson and that can be found orbiting the nucleus.

ANSWER: **electrons**

11. The groundbreaking for this Major League Baseball stadium was in 1986, a full seven years before it attracted a professional team; however, that first professional team didn't play baseball – it was a professional hockey team. It finally picked up an expansion MLB team in 1998 and the next year it played host to the NCAA Men's Basketball Final Four. FTP, name this stadium, former home to the Tampa Bay Lightning and current home to baseball's Devil Rays.

ANSWER: **Tropicana** Field

12. In this work, Benito Hoover asks Lenina to go to the North Pole with him, but she refuses because she already went last summer with George Edzel. Helmholtz Watson writes for *The Hourly Radio* but feels unsatisfied with his work because he has no good subject matter. Mustapha Mond keeps a library of forbidden books in his study and shows them to John and Bernard Marx. Soma keeps everyone happy, because "a gramme is better than a damn." FTP, name this Huxley work about a futuristic dystopia.

ANSWER: **Brave New World**

13. Its leaders were comprised of military officers who had absorbed liberal Western ideas during the Napoleonic wars, and wished to see similar reforms in their Russian homeland. Though they advocated representative democracy and human rights, an overall lack of civilian support doomed the uprising. They persuaded several regiments to demand Constantine be crowned, but the rebels were poorly organized due to the confusion surrounding the succession of Alexander I. FTP, what rebellion did Nicholas I crush in 1825?

ANSWER: the **Decembrist** Uprising

14. In Raoult's Law, which states that the vapor pressure in a solution is proportional to the mole fraction of the solvent, the vapor pressure is an example of this type of property. Properties of this type usually depend on the molarity, molality, or mole fraction of a substance present. Freezing point depression and boiling point elevation are also examples of this. Chemical properties that depend solely on the amount of solute and not the composition of the solute are called, FTP, what?

ANSWER: **colligative** properties

15. This conspiracy operated mainly in St. Louis, Milwaukee, and Chicago, but extended to New Orleans, Peoria, and Cincinnati as well. It involved bribing IRS officials in order to keep a tax on their product. The president's secretary Orville E. Babcock was indicted and the held money was to be used to fund the campaign for the reelection of Ulysses S. Grant. FTP, identify this Grant-Presidency scandal that involved a fraud in taxes on the namesake alcoholic beverage.

ANSWER: the **Whiskey Ring**

16. This work's minor characters Marmeladov and Svidrigailov are afflicted by visions due to drunkenness and amoral acts, respectively. This book's central act is motivated in part by the main character's "Napoleonic" theory, which exempts extraordinary people from conventional ethics and which is at length refuted by Sonya Marmeladova. In this long novel, Porfiry Petrovich investigates the murder of a pawnbroker by Raskolnikov, who eventually confesses and is sent to Siberia. FTP, name this work of Fyodor Dostoyevsky.

ANSWER: **Crime and Punishment** (or **Prestupleniye i nakazaniye**)

17. This person dismembered Apsyrtos and threw his pieces into the sea to slow the fleet of Colchis. By rejuvenating an aged ram, this magician tricked the daughters of Iolcus into boiling him in a pot; this she did to avenge her husband, whom Iolcus had sent on a fatal errand. This enchantress may have been a daughter of Helios, as a flying chariot was sent for her when she was spurned in favor of Glauce, whom she poisoned. FTP, name this vengeful Greek sorceress who helped to obtain the Golden Fleece for her first husband, Jason.

ANSWER: **Medea**

18. Pencil and Paper Ready. Scott is playing dice in a back alley. If he wins, he gains four dollars; otherwise, he loses two dollars. Each game has a one-fourth probability that Scott will win and he loses otherwise. If Scott plays ten games, how much money will he gain or lose on average? Note that, since each game is an independent event, we can simply calculate the expected value for one game and multiply it by ten and that expected value is simply the probability times the payout summed over all possible payouts; thus each game has an expected loss of 25 cents. FTP, state Scott's expected value for playing ten games?

ANSWER: **lose 5** dollars (accept **negative 5** dollars)

19. The capital of the German state of Saxony, this city was once famed for its baroque architecture. Known as "Florence on the Elbe" or the "Florence of the North," this city of nearly half a million people has a reputation as Germany's "Silicon Valley." This city may be best known for a bombing raid that occurred on February 14, 1945; the horrific destruction thereof was witnessed by a 22-year-old American writer, who would later draw upon it for his most famous work. FTP, identify this city immortalized by Kurt Vonnegut in Slaughterhouse Five.

ANSWER: **Dresden**

20. In this work, the year 2081 sees passage of the 211th, 212th, and 213th amendments, and they are enforced by the State Handicapper General, Diana Moon Glampers. After the title character declares himself Emperor, Glampers walks in with a double-barrel 10-gauge shotgun and shoots him and his Empress while they're kissing near the ceiling. FTP, in what work by Kurt Vonnegut is everyone finally equal?

ANSWER: **Harrison Bergeron**

21. An off-stage one of these features prominently in Villa-Lobos' [VEE-yah YO-bowsh-uz] seventh Chôros. First appearing in written music in a funeral march from Gossec's *Mirabeau*, this is a common element in gamelan [GAM-uh-lawn] and is also known as a tam-tam. Though an anvil is called for, many performances of Mahler's "Tragic" symphony utilize this percussion instrument to symbolize the blows of fate. FTP, name this large percussion instrument, usually a metallic disc about a meter in diameter, that is hung from a support and played by striking with a hammer.

ANSWER: **gong** (accept **tam-tam** before it's mentioned and prompt on it afterwards)

22. He quickly rose through the ranks of the Japanese army, being promoted to major general in 1933. Two years later, he headed the Kwantung Army's military police, and eventually became that army's chief of staff. He opposed Shigenori Togo's plans to remove troops from China and Korea, a foreshadowing of his aggressive foreign policy. After realizing that his side would lose, he shot himself in the chest, but survived and was executed for war crimes in 1948. FTP, name this Japanese Prime Minister during World War II.

ANSWER: Hideki **Tojo**

UIUC Earlybird 2006 - Round 1
(Bonuses by UIUC Academic Buzzer Team)

1. Name these Nobel Laureates in Literature FTPE.

[10] This Indian poet's best-known collections are *Gitanjali* and *Manasi* and he won the prize in 1913. He founded a school in West Bengal and was awarded British knighthood in 1915, although he renounced it four years later.

ANSWER: Rabindranath **Tagore**

[10] His father was a sulfur merchant and arranged his son's marriage to the daughter of another sulfur merchant. His most notable play is *Six Characters in Search of an Author*, and he won the prize in 1934.

ANSWER: Luigi **Pirandello**

[10] Gabriela Mistral encouraged this Chilean poet to write. His book *Spain in My Heart* was published by Republican troops there during the civil war, but he is most famous for his *Twenty Poems of Love and a Song of Despair*. He won the prize in 1971.

ANSWER: Pablo **Neruda** or Neftalí Ricardo Reyes **Basoalto**

2. The Simpsons live in Springfield – but which one? FTPE, in which state would you find the described Springfield?

[10] Because Simpsons creator Matt Groening was born in this state, it's speculated that he may have intended it as home to the cartoon.

ANSWER: **Oregon**

[10] If the Simpsons live in the Springfield in this state, Bart and Lisa might one day go to Hillcrest High School, John Ashcroft's alma mater.

ANSWER: **Missouri**

[10] If it's the Springfield in this state, perhaps Homer can lose weight playing basketball at the YMCA where James Naismith invented the game.

ANSWER: **Massachusetts**

3. Identify these types of colloids FTPE.

[10] This term is used to describe a liquid dispersed in a gas.

ANSWER: **aerosol**

[10] This term describes a liquid dispersed in a solid.

ANSWER: **gel**

[10] This term describes a gas dispersed in a liquid.

ANSWER: **foam**

4. Answer each of the following about a figure from Arthurian myth FTP.

[10] This enchantress is variously Arthur's sister or half-sister and either causes him no end of trouble, heals his wounds, or both.

ANSWER: **Morgan** le Fay

[10] This knight compelled Guinevere to marry him in Arthur's absence, thus causing the Battle of Camlan, at which he was killed and Arthur wounded. Some sources claim that he is Arthur's son by Morgan.

ANSWER: Sir **Mordred**

[10] In her original form, Morgan ruled this mystical island to which Arthur was taken for healing after being mortally wounded at Camlan.

ANSWER: Isle of **Avalon**

5. Name each of the following works by Rembrandt FTP.

[10] In this work of 1632, seven men watch a doctor demonstrating the musculature and tendons of the left hand of a cadaver.

ANSWER: Dr. Tulp's **Anatomy Lesson** (or The **Anatomy Lesson** of Dr. Nicolaes Tulp)

[10] This epochal 1642 oil depicts a company of militia about to march in a parade. It is notable for the "double spotlight" effect, whereby the girl at center-left and lieutenant appear illuminated.

ANSWER: The **Night Watch** (or The **Nightwatch** or **Sortie of Captain Banning Cocq's Company of the Civic Guard** or The **company of Frans Banning Cock preparing to march out** or The **Company of Frans Banning Cocq and Willem van Ruytenburch**)

[10] Among Rembrandt's numerous variants on this work include one with Saskia from 1634 and one called Old from 1669. Interestingly, the central figure always wears a hat of some kind.

ANSWER: **Self-Portraits**

6. Consider the polynomial expansion of quantity x plus y, close quantity raised to the fifth power, and answer these questions about it FTPE.

[10] How many terms are there in the expansion assuming that all like terms have been collected?

ANSWER: **six**

[10] What is the coefficient in front of the x cubed y squared term?

ANSWER: **ten**

[10] What is the sum of all of the coefficients in the expansion?

ANSWER: **32** (accept **2 to the 5th** power)

7. Given a description, identify the following concerning American rebellions FTPE.

[10] This broke out in Pennsylvania after an excise tax on the namesake drink was passed in 1791.

Washington pardoned those convicted of treason.

ANSWER: the **Whiskey** Rebellion

[10] This Virginian disagreed with Governor Berkeley's policy toward the Native Americans and took matters into his own hands. When the Governor still wouldn't change his position, he led a popular rebellion that saw the capitol burned to the ground.

ANSWER: Nathaniel **Bacon**, Jr.

[10] Led by a preacher, this began with the murder of five members of the Travis family in Jerusalem, Virginia and ended when Benjamin Phipps captured the leader on October 31, 1831.

ANSWER: Nat **Turner**'s Rebellion

8. Identify the following works in which you would find Sherlock Holmes FTPE.

[10] In this work set in Devonshire, Sir Charles is killed by Mr. Stapleton via a heart attack caused by seeing the title figure. When all is revealed, Mr. Stapleton drowns in the moors.

ANSWER: The **Hound of the Baskervilles**

[10] Jabez Wilson is paid quite a bit of money to copy the *Encyclopedia Britannica*, while John Clay, aka Spaulding, is digging a tunnel from the cellar of Wilson's pawnshop to the bank vault next door.

ANSWER: The **Red-Headed League**

[10] Set in Brixton, the word "RACHE" is written in blood next to the body of the victim, and among the clues are a copy of the *Decameron*, a wedding ring, and a gold watch.

ANSWER: A **Study in Scarlet**

9. Answer each of the following about an early Christian controversy FTP.

[10] This only ecumenical statement of Christian faith was formulated at the Council of Constantinople, not its namesake 325 CE Council. In English, it begins "We believe in one God, / The Father, the Almighty..."

ANSWER: the **Nicene Creed** (or the **Niceno-Constantinopolitan Creed**)

[10] The "one in Being" clause in the Nicene Creed exists to differentiate Christianity from this heresy, named for a fourth-century Alexandrian. It is the claim that the Son, as a created being, is not fully divine.

ANSWER: **Arianism**

[10] A form Arianism is practiced in modern times by this millennialist Christian sect. Its members regard Arius as a forerunner of its founder, Charles Taze Russell.

ANSWER: **Jehovah's Witnesses**

10. Answer the following about Christianity in the Roman Empire, FTPE:

[10] He blamed the Great Fire on Christians, and thus persecuted them.

ANSWER: **Nero** Claudius Caesar Augustus Germanicus

[10] Before the Battle of Milvian Bridge, he allegedly received a sign from Jesus to use the cross as his standard, and after gaining control of the Western Empire issued the Edict of Milan.

ANSWER: **Constantine** I (the Great)

[10] This last Roman emperor of both the east and west made Christianity the state religion in 381 CE.

ANSWER: **Theodosius**

11. Name these Kafka works from plot descriptions FTPE.

[10] Grete is the only member of the family who is still civil to Gregor Samsa after he turns into a giant insect upon waking, but eventually she convinces her parents to get rid of him.

ANSWER: The **Metamorphosis** (or Die **Verwandlung**)

[10] Georg Bendemann is engaged to Frieda and writes to his friend in Russia to tell him of this news. His father berates him, and Georg subsequently drowns.

ANSWER: The **Judgement** (or Das **Urteil**)

[10] Josef K is subject to one of these, even though he does not know what he has done wrong. Its German title is Der Prozeß [PRO-sess] and a movie adaptation of it was made by Orson Welles.

ANSWER: The **Trial**

12. Given the cabinet position, name the original holder of that position in George Washington's cabinet FTPE.

[10] Attorney General.

ANSWER: Edmund **Randolph**

[10] Secretary of State.

ANSWER: Thomas **Jefferson**

[10] Secretary of War.

ANSWER: Henry **Knox**

13. J.R.R. Tolkien's Middle Earth has served as inspiration for some "popular" music. Identify the artist given clues FTPE.

[10] Though they produced rock hits in the early 80's, this band's music had a more sci-fi twist in the 70's. The Lord of the Rings-inspired "Rivendell" appeared on their 1975 album *Fly By Night*.

ANSWER: **Rush**

[10] This Star Trek actor made an unfortunate foray into pop music in 1968 with the campy "Ballad of Bilbo Baggins."

ANSWER: Leonard **Nimoy**

[10] This 70's rock group peppered many of their songs with references to the Lord of the Rings, from allegedly referencing Mordor and Gollum in "Ramble On" to mentioning Ringwraiths in "The Battle of Evermore."

ANSWER: **Led Zeppelin**

14. Given the number and nicknames of some symphonies, name their composer FTPE.

[10] His third is known as the Polish.

ANSWER: Pyoth Ilyich **Tchaikovsky**

[10] His sixth is the famous Pastorale.

ANSWER: Ludwig von **Beethoven**

[10] This man's third is the Rhenish, while his first is known as Spring.

ANSWER: Robert Alexander **Schumann**

15. Name these sociologists FTPE.

[10] He helped found the Niagara movement in opposition to the beliefs of Booker T. Washington and wrote The Souls of Black Folk. After the NAACP was founded in 1909, he helped edit its magazine, *The Crisis*.

ANSWER: William Edward Burghardt **DuBois**

[10] He became professor of political economy at the University of Freiburg in 1895. He sharply criticized Germany's domestic and foreign policies during World War I in a Frankfurt newspaper, and he is best known for his work The Protestant Ethic and the Spirit of Capitalism.

ANSWER: Max **Weber**

[10] This man is considered to be the founder of the French school of sociology; however, he never did any actual fieldwork. He believed that primitive societies with less specialization had more mechanical solidarity than modern ones.

ANSWER: Emile **Durkheim**

16. Identify these explorers FTPE.

[10] This Spanish conquistador explored the southeastern part of North America and was buried near the banks of the Mississippi River. He is possibly the first European to have seen the Mississippi River.

ANSWER: Hernando **de Soto**

[10] He founded the oldest settlement in Puerto Rico and discovered Florida while searching for the Fountain of Youth.

ANSWER: Juan **Ponce de Leon**

[10] This explorer and conqueror was killed when his palace was attacked in Lima, the city he founded after conquering the Incas.

ANSWER: Francisco **Pizarro**

17. Answer the following about your friend the cosine function FTPE.

[10] This trigonometric function is the reciprocal of the cosine function.

ANSWER: **secant**

[10] This trigonometric law can be seen as a generalization of the Pythagorean Theorem. It allows you to determine the length of the third side of a triangle given the lengths of the other two sides and the measure of the angle between those sides.

ANSWER: the **law of cosines**

[10] The cosine function is this type of function as it is symmetric about the y-axis.

ANSWER: **even**

18. Let's talk about sex chromosomes. For FTPE:

[10] This is the standard designation for the female sex chromosome in humans. Its fragileness is a trinucleotide repeat genetic disorder that is the most common cause of mental retardation.

ANSWER: **x**

[10] If a cell contains multiple x chromosomes, generally all but one will exist in this inactivated form named for a biochemist. The presence of exactly one in a human's cells indicates a genetically normal female.

ANSWER: **Barr body** (or **Barr bodies**)

[10] This condition, which manifests itself clinically as gonadal dysgenesis, results from an individual having a single sex chromosome, which is necessarily an x chromosome.

ANSWER: **Turner's** syndrome

19. Answer each of the following about some German thinkers FTPE.

[10] Perhaps best known for observing that “God is dead,” this early-modern anti-philosopher wrote such classics as *Thus Spoke Zarathustra*, *On the Genealogy of Morals*, and *Ecce Homo*.

ANSWER: Friedrich Wilhelm **Nietzsche**

[10] Perhaps the best exposition of Nietzsche’s mature philosophy is to be found in this aphoristic, ethical book of 1886, which introduces the difficult concept of the Übermensch.

ANSWER: ***Beyond Good and Evil*** (or ***Jenseits von Gut und Böse***)

[10] Nietzsche frequently attacked this earlier philosopher, author of the *Philosophy of Right* and *Philosophy of History*, and creator of a namesake dialectic by which thesis and antithesis generate synthesis.

ANSWER: Georg Wilhelm Friedrich **Hegel**

20. Name these characters from *The Great Gatsby*, FTPE.

[10] He is drunk for the second time in his life when he reads *Simon Called Peter*, so it does not make any sense to him. He meets Catherine and Mr. McKee at Tom’s apartment in New York.

ANSWER: **Nick** Carraway

[10] Nick is involved with this woman, whom he met at his cousin Daisy’s house. She is a competitive golfer, but cheated to win her first tournament. She hates careless people, but is one herself.

ANSWER: **Jordan** Baker

[10] He played football at Yale and brought polo ponies from Lake Forest with him to his new house on East Egg. His mistress Myrtle Wilson is killed in a car accident by his wife Daisy.

ANSWER: **Tom** Buchanan

21. Identify the following consequences of special relativity FTPE.

[10] The phenomenon behind the so-called twin paradox is this one, in which moving observers seem to experience a smaller duration of time than stationary observers.

ANSWER: **time dilation**

[10] The most famous consequence of special relativity is this phenomenon, in which an object changes its shape along the direction of motion.

ANSWER: **Lorentz-Fitzgerald contraction** (accept **length contraction**)

[10] This, the reason why a police siren changes pitch as it approaches you, this effect has a relativistic counterpart that can apply to both light and gravity waves.

ANSWER: the relativistic **Doppler** effect