

2003 MASER

Round 5

Toss-up Questions

1. His companion's arrival is foretold by dreams of embracing an axe and a boulder. His people hate him because he claims the right to sex with all new brides and their prayers prompt Aruru to make his enemy from clay. That opponent loses his strength and gains wisdom after coupling with the temple whore, Shamhat, letting this hero best him in wrestling and gain his allegiance. They make their way to the cedar forest while Humbaba wears only one of his seven coats of armor; nevertheless, only prayers of his mother, Ninsun, allow him and Enkidu to escape alive. FTP, name this hero of a Sumerian epic who later sought the secret of eternal life.

Gilgamesh

2. It was first suggested by John Wallis in 1668 as the law of conservation of momentum. It accounts for the pain in your fist after you hit someone's face and makes clear that no self-generated forces exist. It says two objects interacting with each other must exert forces on each other and the size of the forces will be the same and diametrically opposed. One example is a road pushing a car's wheels forward after the wheels shove it backwards. FTP, name this physical law stating: For every action, there is an equal and opposite reaction.

Newton's Third Law of Motion

3. He was honored in the first ticker tape parade, with a marching band led by Sousa. Nearly nominated for president over Bryan, support collapsed when he said the job required no ability. He ran his side-wheeler aground in the Civil War, but later helped build the modern navy and heeded Theodore Roosevelt's advice to set up a base in China. Disregarding the threat of mines, he caught Admiral Montojo's ships at anchor on May 1, 1898. FTP, name this Admiral of the Navy who took no losses in destroying the Spanish fleet in Manila Bay.

George Dewey

4. He served as a secret agent for Philip the Good, accompanying that duke on his 1428 trip to find a third wife and painting Isabella of Portugal. Vasari wrongly credited him with the invention of oil painting, but he is still famous for such works as his Annunciation and Madonna of Chancellor Rolin. The Three Marys at the Sepulcher may actually have been painted by his brother, Hubert, who assisted him with The Adoration of the Lamb, but is otherwise completely overshadowed. FTP, name this Dutch artist renowned for The Arnolfini Wedding.

Jan van Eyck

5. He failed to sail his Peace Ship to Europe in 1916 and convince nations to cease fighting. One of the first news stories about Hitler revealed Hitler's study to be filled with this man's picture and books. He left his farm to become a watchmaker and a Chicago slaughterhouse led to his idea of mass producing cars, most perfectly implemented at the Rouge River plant. He and Frank Duryea ended up creating the first working American automobile. FTP, name this American industrialist known for his Model T.

Henry Ford

6. Freud thought it resulted from oral fixation. It must have a genetic component because its concordance rate in twins is 60% and it is found in 35% of those whose parents both suffer. It may be caused by cerebral malfunctioning when key RNA molecules are missing as GABA forms and sufferers have impaired frontal lobes and other abnormalities. The residual type causes mild eccentricity, but the disorganized sort creates total incoherence. More familiar are the stupor of the catatonic kind and the delusions of the paranoid variety. FTP, name this disorder in which reality testing fails and social and intellectual functioning break down.

Schizophrenia

7. It is important in processes involving coal or coke where knowledge about heat of reactions is essential. Based on the fact that mass and energy are conserved in chemical reactions, it allows enthalpy change to be found for reactions that can't be measured easily. FTP, name this principle stating that if a reaction is the sum of two or more other reactions, the enthalpy change for the overall process is the sum of the enthalpy changes for the constituent reactions.

Hess's Law

8. It received its present name at the suggestion of Nazi Hjalmar Schacht in 1936. Its highest peak is the Kuh-e Damavand and its 24 provinces, called ostanha, include Golestan, Yazd and Hamadan. The Elburz mountains dominate the north and a large desert stretches across the country. Its best known ethnic group makes up only half its population and it is 24% Azeri. The populace is united by Islam and the country has been led since 1989 by Ayatollah Khamenei. FTP, name this country on the Persian Gulf with capital at Teheran.

Islamic Republic of Iran

9. Expecting the worst, the man who started it by invading Saxony and winning at Rossbach took a vial of poison to every battle. Surviving a long series of defeats to sign the Treaty of Hubertusburg, an ally bankrolled him until taxpayers could bear no more. This led William Pitt to remark that America was won on the plains of Germany, although the death of Empress Elizabeth after the sacking of Berlin and English victory on the Plains of Abraham meant more. FTP, name this 1756 to 1763 war won by Frederick the Great and ultimately ended by the Treaty of Paris.

Seven Years' War

10. It is the only Old Testament book not to mention wine. God asked its author, "Do you do well to be angry?" before destroying a precious gourd with a dry wind. Even animals had repented at God's call, but the protagonist was angry because God's love was extended to Israel's enemy. He tried to escape God's call by fleeing to Spain, but had men toss him overboard in a storm after they accepted God. An action which prefigured the death and resurrection of Christ took place

before he finally made his way to Nineveh. FTP, name this book of the fifth Minor Prophet, who was swallowed by a whale.

Jonah

11. Its author gave the manuscript to his child's nurse to sell if she needed the money. A boy's adoptive mother raises him with strict knowledge of the "Laws," telling him again and again that he must one day kill his parents' murderer. Captured as a baby, he tries to escape his destiny by moving to a distant village, but his enemy follows him. With knowledge imparted by his teachers, Bagherra and Baloo, and information from a wolf, he kills the tiger, Shere Khan, and returns to his happy life in the forest. FTP, name this Rudyard Kipling work about Mowgli.

The Jungle Book

12. It was first created in China's Zhou dynasty when the emperor wanted tiny representations of his realms and it wasn't introduced to Japan by Zen masters until 1195 or so. The modern Chinese type involves creating dragons and other fantastic shapes, unlike the more familiar form found on the tokonoma shelf at New Year's. Its creations can be up to a meter tall and must be pruned constantly once planted. Camellia, bamboo, azalea and pine are often used. FTP, name this art form that is called "tray planting" in Japanese and entails making trees artificially tiny.

Bonsai

13. Its greasy feel, which leads to one type being called "sheep's fat," allowed it to be located by finders walking barefoot in rivers. It is stronger than steel, but has a beautiful sound when made into musical instruments. Emperor Qian Long (Chee-ahn Lung) invaded Burma to get at that country's superior supplies and it ranges in color from creamy white to violet, depending on impurity levels of calcium, chromium and manganese. Both nephrite and an aluminum silicate are called by this name, but nephrite is much more common. FTP, name this precious stone best known for its deep green variety.

Jade

14. Life might exist on their surfaces as a pattern of bonded particles so subject to the strong nuclear force that beings would live and die in ten to fifteen seconds. Protons at their centers may superconduct at 100 million degrees Kelvin and some are thought to be a hundred trillion times more magnetic than Earth. They form from bodies 15 to 30 times larger than the Sun. When their iron cores reach Chandrasekhar mass, gravity causes them to collapse inward. FTP, name these stars whose constituents have been all compressed into their namesake particles.

Neutron Stars

15. His 1940 story Solution Unsatisfactory predicted the U.S. would win World War II by dropping an atomic bomb on an Axis city. This was part of his "Future

History" series detailing world events from 1950 to 2600, collected as The Past Through Tomorrow. He was a naval officer until selling his story Life Line in 1939 and he wrote a series for juveniles which started with Rocket Ship Galileo. The Moon Is a Harsh Mistress was his first book and he won four Hugo awards, but turned off some fans with the fascist wonderland of Starship Troopers. FTP, name the author of Stranger in a Strange Land.

Robert Anson Heinlein

16. Like Epicureanism, it makes pleasure the highest goal, so conduct and character have no intrinsic value. Pleasures are all equal qualitatively; "pushpin is as good as poetry." Its "hedonistic calculus" allows pleasures to be evaluated according to duration, intensity and number of people affected, and antisocial acts may be made painful through sanctions. In this way, it brings "the greatest good to the greatest number." FTP, name this school of philosophy which Bentham said, "approves or disapproves of every action according to the tendency to augment or diminish" happiness.

Utilitarianism

17. He spent his last years in prison for fondling a teenage boy, perhaps a consequence of his overprotective mother's advice to stay away from women. He failed to make the varsity squad at the University of Pennsylvania, but still wrote the classic book The Art of Tennis. He beat the Australian Gerald Patterson to take the 1920 Wimbledon championship, but in later years forced the British champion to come to face him in America. He also led the U.S. team to seven straight Davis Cup victories. FTP, name the first American to win the men's singles title.

Bill Tilden

18. Their arrival saw a Hindu ruler give their leaders a bowl of milk to show that the land was full; they returned the milk with a gold ring in it to show they would enrich without overcrowding. Muslim invaders annihilated them in Gujarat in 1516, but they recovered by tying their fortunes to the English. One of them built the Minden, the ship on which F.S. Key wrote the Star-Spangled Banner, and others became industrialists and financiers. They included Indira Gandhi's father and Jinnah's wife, as well as Freddy Mercury. FTP, name these Zoroastrians who live mainly in Bombay and place their dead on Towers of Silence.

Parsis

19. He is the only dancer to ever do the entrechat dix, crossing his legs ten times in one leap, and people swore he could pause in mid-air. He was called the Northern Vestris after a French dancer next to whom he is now buried and he danced the lead at the Maryinsky Theater at 18, performing with Anna Pavlova until demoted for showing too much skin before the empress. He met his gay lover, Sergei Diaghilev, in 1908 and was acclaimed for his pas de deux in Sleeping Beauty and his role in Swan Lake. Petrushka was written as a showcase for him. FTP, name this Russian dancer who premiered The Rite of

Spring before losing his mind.
Vaslav Nijinsky

20. It disappears at the start of mitosis and mysteriously reforms by telophase. In plants, it makes the cell plate and cell wall. Its major processing activity is glycosylation, the adding of sugar molecules to form glycoproteins. Some of its products end up embedded in the plasma membrane and others go to lysosomes or are excreted by exocytosis. It is a stack of membrane-bound cisternae between the endoplasmic reticulum and cell surface. FTP, name this cell structure that processes the proteins created by the endoplasmic reticulum.
Golgi Apparatus

21. When it was discovered, the existence of isotopes was not known, but as long as a sample has the same relative proportions of its isotopes, it still holds. Non-stoichiometric compounds have serious violations of it. Joseph-Louis Proust proved it, but John Dalton made the concrete formulation. FTP, name this principle that a given chemical compound always contains the same elements in the same fixed proportions by weight.
Law of Definite Proportions

22. An eight volume, 6000-page series details what he was doing most days of his life. He thought he had been imprisoned for seven years for loving Leonora, the Duke of Alfonso's sister, but, in fact, he was just out of his mind. Coiner of the term morphology, he was an amateur scientist who discovered the intermaxillary bone. Also a leader of Sturm and Drang, his first play was The Lover's Caprice. He is more famous for such writings as Iphigenia in Tauris and Wilhelm Meister's Apprenticeship. FTP, name this German author of Faust and The Sorrows of Young Werther.
Johann Wolfgang von Goethe

23. He claimed that dragons exist in India, and said tooth decay was prevented by eating two mice a month. The existence of an ox-drawn grain harvester was not believed until a depiction was found in Belgium in 1958. He described cities that no longer exist and his botanical writings came mostly from Theophrastus, but also from his own journeys in Germany. Always careful to credit sources, he said his purpose was the collection of scattered knowledge and his nephew wrote about him after he was killed by Vesuvius. FTP, name this Roman author of Natural History.
Pliny the Elder or Gaius Plinius Secundus (Prompt on Pliny.)

24. Based on the Odyssey, David Ricardo's car-loving cousin, Francis, was the model for its main character. It begins with one member of an eventual quartet leaving home to gaze in amazement at a river. He rafts down it and meets several companions in coattails, with whom he enjoys a picnic lunch. The protagonist's automotive misadventures cause him to lose his estate and fortune and end up in jail, but he and his friends finally take back his home from

occupying weasels and skunks. FTP, name this Kenneth Grahame book about Mole, Ratty, Badger and the lovable Toad.

The Wind in the Willows

Bonus Questions

1. Answer these questions FTPE.

Within 1 degree Kelvin, what is the average temperature of the universe?

2.7K

The universe is kept at 2.7K by this isotropic radiation left over from the Big Bang and discovered by Arno Penzias and Robert Wilson.

Cosmic Background Radiation

The universe radiates energy at the rate expected from this sort of object cooled to 2.7K. It gives off radiation at the lowest temperature possible.

Blackbody

2. Answer these questions about a great South Carolinian FSNP.

10-This Camden native made a fortune on Wall Street before entering politics.

Known as the "Park Bench Statesman," he served the Democratic Party until the Truman administration.

Bernard Mannes Baruch

5-Baruch helped this Columbia, S.C.-bred president win election in 1912 and served as his chairman of the War Industries Board from 1917.

Woodrow Wilson

15-Baruch's father served the Confederacy in this official capacity. His fervor led him to once let loose with a rebel yell upon hearing "Dixie" at the Metropolitan Opera House.

Surgeon General

3. Answer questions about an author and works FTPE.

Author of the screenplay for The Third Man, he was a secret agent in Sierra Leone, an experience on which The Heart of the Matter was based. He also wrote The Power and the Glory.

Graham Greene

This Greene book is about the killing of a journalist by the gangster, Pinkie.

Much of it is the Catholic thug's internal deliberations on sin.

Brighton Rock

In this novel, the titular character, Pyle, funds the "Third Force" while the French fight. His friend, Fowler, tries to stop him from getting people killed.

The Quiet American

4. 5-10-15, name these famous African-American religious leaders.

5-Co-pastor of Ebenezer Baptist Church, he took a job in Alabama and led a bus boycott. First leader of the SCLC, he was youngest man to get the Nobel Peace Prize.

Martin Luther King, Jr.

10-This man was King's aide and very close friend. President of the SCLC and director of the Poor People's March, an FBI tape has King telling him, "Come on over here, you big black motherfucker, and let me suck your dick."

Ralph David Abernathy

15-His church created hundreds of successful black businesses in the Thirties. As God, Inc., he was Harlem's leading landlord and received letters addressed simply to "God."

Father Divine or George Baker

5. Answer these questions from biology FTPE.

This is the role an organism plays in an ecosystem. The theoretical type is what exists if it is alone in the ecosystem and the actual type is what role it truly fills.

Niche

This principle says that if two species compete for one resource, one will use it more efficiently and eliminate the other from a niche on a local basis.

Principle of Competitive Exclusion

This type of development in which different species take similar forms doesn't always arise from filling the same niche, but usually does, as with placental woodchucks and marsupial wombats.

Parallel Adaptation or Parallel Evolution

6. Name these classic hymns FTPE.

It served as the semi-official anthem of the Klu Klux Klan, although the name was changed to "Onward Valiant Klansmen." It is actually about devotion to the title object and was done by Rev. George Bernard.

The Old Rugged Cross

If you are weak, discouraged or abandoned, "take it to the Lord in prayer" because he won't let you down. It is by Joseph Scriven to the tune of "Erie."

What a Friend We Have in Jesus

Written in 1776 by Augustus Toplady, it refers both to an object struck by Moses at Horeb and Jesus as a source of sustenance and refuge.

Rock of Ages

7. Answer these questions about an American novel FTPE.

It is the most widely translated 20th-century American book. The black narrator is never named, but takes a journey from boxing ring to college to the middle of a race riot in Harlem.

Invisible Man (It's a title, so no THE Invisible Man.)

Name the author of Invisible Man.

Ralph Ellison

The protagonist of Invisible Man joins this organization, a stand-in for the Communist Party. He dreams that its leader, Jack, castrates him.

The Brotherhood

8. 5-10-15, answer these questions about a painter.

5-This 17th-century Dutchman made money with The Syndics of the Cloth Guild

and other portraits, but also executed many religious works like The Blinding of Samson.

Harmensz Rembrandt van Rijn

10-This Rembrandt picture has Captain Coqc calling to Lieutenant van Ruytenburch as the men fall in. Its popular name arose after its varnish darkened.

The Night Watch

15-Rembrandt established his reputation with this painting of the Amsterdam College of Surgeons. Students' expressions and gestures are all unique.

The Anatomy Lesson of Dr. Tulp

9. Name these beings from Japanese mythology FTPE.

He formed the world by stirring water with a spear. His wife, Izanagi, died of burns while giving birth to the fire god and he divorced her in the underworld when he found her crawling with maggots.

Izanami

This kind of river goblin kills children and horses by pulling their guts out their anuses. His head is a saucer and he loses strength if the water in it spills.

Kappa

Born from Izanagi's tears, she was made ruler of heaven. She bore the children of her brother, Susanowo, and once shut herself in a cave until a goddess dancing nude enticed her out.

Amaterasu

10. Name these types of mixtures FTPE.

One type of this heterogeneous mixture is muddy water. Particles are large and will separate out if left alone.

Suspension

This type of suspension is a gas filled with either solid or liquid particles. Smoke and fog are two examples.

Aerosol

This mixture's solute size is greater than a suspension's and mayonnaise and jello are two kinds. Particles clump together, but remain dispersed in solution.

Colloid

11. Answer these questions about Scottish history FTPE.

His last request was to have his heart embalmed and carried to Jerusalem, but the knight bearing it was killed on the way. He won Scotland's independence at Bannockburn in 1314.

Robert the Bruce or Robert I

This first Scottish university was founded in 1410 when Scotland's students were forbidden to study in Paris after their country recognized anti-Pope Benedict XIII.

St. Andrew's University

Although married to Henry VII's daughter, James IV supported his ally, France, by fighting here in 1513. He and most of his nobles died in this horrible slaughter when he tried to hack his way to the English commander.

Flodden Field

12. Name the city in which the Olympics were held. Identifying the city from a description of the games is worth 10 points. If the year is needed, it is worth 5 points.

10-This city was awarded the 1940 Olympics, but it was never held. Thank God, it later triumphed over Detroit to host the first Asian games and first to include judo.

5-1964

Tokyo

10-The U.S. and its allies refused to participate and the host country swept medals. Nadia Comaneci won two golds in gymnastics.

5-1980

Moscow

10-These games were the first to include athletes from all continents. The photo-finish was introduced, as was the pentathlon, dominated by Jim Thorpe.

5-1912

Stockholm

13. Answer these questions about a school of philosophy FTPE.

An influence on St. Paul, it said God exists, but the universe operates solely by natural law. A man is free if he is rational and the evil of others won't harm him if he doesn't allow it.

Stoicism

This founder of Stoicism was a merchant from Cyprus until shipwrecked in Athens. He studied with Crates and taught in the covered marketplace, but killed himself after wrenching his finger.

Zeno of Citium (Need it all.)

Written in army camps while soldiers slept, this Stoic tome has Marcus Aurelius reminding himself to keep his will in harmony with nature. He declares his intention to overlook ill treatment and accept his destiny as emperor.

Meditations

14. Answer these questions about taxes FTPE.

These taxes are collected so people who benefit from a service also pay for its costs. A bridge toll is one example.

User Taxes

This is the extent taxation is applied to each additional dollar of income.

Marginal Tax Rate

These taxes collect an equal percentage of income from all, unlike progressive and regressive taxes.

Proportional Taxes

15. 5-10-15, answer these related questions about living things.

5- 800 million-years-old, they have no chlorophyll and never possess flagella, Their growth form is made of filaments and they secrete enzymes onto their food.

Fungi

10-The filaments of fungi, called hyphae, make up these larger forms that spread through their environments.

Mycelia or Mycelium

15-This most familiar fungi division includes mushrooms, toadstools and shelf fungi, as well as rusts and smuts. Unlike Ascomycetes, most have sex.

Basidiomycetes

16. Identify these 20th century Burmese leaders FTPE.

(Note to moderator: In two cases, I am not sure which is the surname, so please be lenient.)

The 75 kyat bill was introduced on his birthday and a new 90 kyat bill was created because that was his lucky number. Born Shu Maung, he changed his name to "Glory of the Sun" before slaughtering thousands in pursuit of the "Burmese Way to Socialism."

Ne Win

Ne Win considered him an opponent and refused to let him return until his death, when his body was dumped in a small cart at the airport. He led the U.N. from 1961 to 1971.

U Thant

Winner of the 1991 Nobel Peace Prize, this Oxford-educated opposition leader is the daughter of Burma's Founding Father and is under arrest most of the time.

Aung San Suu Kyi

17. Name these Nigerian authors FTPE.

He wrote the short story collection *Girls at War* and the children's book *Chike and the River*, but is famous for the story begun in *Things Fall Apart* and continued in *No Longer at Ease*.

Chinua Achebe

He founded two theater companies and directed the drama school of his alma mater, Ibadan University. He wrote *Death and the King's Men* and *The Lion and the Jewel*.

Wole Soyinka or Akinwande Oluwole

She moved to London with her husband, but ended up alone and poor with two children. Her most famous work, *The Joys of Motherhood*, tells of Nnu Ego's unhappy marriage and the ungrateful, rich son whose only assistance is paying for her funeral.

Buchi Emecheta

18. Answer these questions about a German statesman FTPE.

Mayor of Cologne for 16 years until forced out by Nazis, he was leader of West Germany from 1949 to 1963 and made it democratic and prosperous.

Konrad Adenauer

This famous policy of Adenauer's said the Federal Republic would have ties with no state, except the U.S.S.R., that recognized East Germany.

Hallstein Doctrine

Dominant for most of the postwar period, this party of Adenauer and Helmut Kohl lead in integrating eastern Germany. They lost in 2002 with Edmund Stoiber.
Christian Democrats

19. 30-20-10-5, name the author from works.
30-Ode to Liberty, The Avaricious Knight
20-Ruslan and Ludmila, The Stone Guest
10-The Queen of Spades, Boris Godunov
5-Eugene Onegin
Aleksandr Sergeyevich Pushkin

20. 5-10-15, name these Greek mathematical discoveries.
5-A right triangle's hypotenuse squared has a value equal to the sum of the squares of the other sides.
Pythagorean Theorem
10-This method for finding primes involves marking out multiples of numbers in a list until until only a few remain.
Sieve of Eratosthenes
15-It says if x is any real number, there is a natural number n such that n is greater than x . Its namesake credited it to Eudoxus.
Axiom or Property of Archimedes

21. Answer these questions about a mountain range FSNP.
5-Found on the isthmus separating the Black and Caspian Seas, this range divides Europe and Asia. It has several countries and a huge number of languages.
Caucasus
5-At 18,510 feet, this peak of the Caucasus is the highest mountain in Europe. German troops raised a Nazi flag on it on August 23, 1942.
Mount Elbrus
10-This Caucasian quasi-state is east of Chechnya. Home to more than 36 nationalities, its independence has been declared by at least a couple of Islamic rebel armies.
Dagestan
10-This Armenian enclave was the prize in a bloody war of the Nineties. Its capital is Stepanakert and it connects to its motherland through the Lachin corridor.
Nagorno-Karabakh or Mountainous Karabagh or Artsakh

22. FSNP, answer these questions about American stock exchanges.
10-This city founded the first American stock exchange in 1807. Its thriving business prompted New York to start one, too.
Philadelphia
10-The panic named for this company caused bank distress all across America in 1907. J.P. Morgan saved the day by herding all New York banks into a trust.
Knickerbocker Trust Company

F5PE, name the Dow's best year, when it rose 81.7%, and its worst year, when it fell -52.7%. You may be off by three years high or low.

Best: 1913 Worst: 1931

23. Answer these questions about Cambodian architecture FSNP.

5-The largest section of this huge temple complex is dedicated to Vishnu and many parts represent Mount Meru, home of Shiva. Made of sandstone, laterite and wood, newer sections are Buddhist in character.

Angkor Wat or Vat

15-The earliest extant example of Cambodian architecture and found in all Hindu lands, these are massive stone penises that represent Shiva.

Lingas or Lingam

10-Portrayed as balustrades and door guardians and often chased by their enemies, man-bird garudas, these treasure-hoarding serpents are popular because Cambodia's first queen was one.

Nagas

24. Name these literary little girls from descriptions FTPE. All are title characters and you will get only 5 points if you need authors' names.

10-This orphan moves in with her aunts, Miranda and Jane, and makes friends with the wealthy Adam Ladd.

5-Kate Douglas Wiggins

Rebecca of Sunnybrook Farm or Rebecca Wilkins

10-She lives in the Villa Villekulla with her dad, Efram, and gets in trouble dancing with burglars and fighting Adolf, the world's strongest man.

5-Astrid Lindgren

Pippi Longstocking

10-Weirdly adored in Japan, this orphan lives on a Prince Edward Island farm. Her enemy is a classmate who laughs at her red hair, but she later dyes it green.

5-Lucy Maud Montgomery

Anne of Green Gables