

## RTO 2015

### Round 1 - Tossups

1. **In this book, a character is amazed by a person from her school who pours syrup over all his food. Later in the novel, that boy's father saves the main character from a mob outside the courthouse. The main character and her brother go to an all black church with (\*)** Calpurnia. After being shot at in a ham costume, the main character is saved by Boo Radley. That family has gained their respect after their father stood up for Tom Robinson. FTP, name this novel that involves Atticus Finch and his offspring Jem and Scout, written by Harper Lee.

#### **To Kill a Mockingbird**

2. **This event involving the death of Sean Smith occurred on September 11. Ahmed Abu Khattala is allegedly the leader of Ansar al-Sharia who led this attack. The attack left J. Christopher (\*) Stevens dead along with three other Americans. Immediately after the event it was reported that the anti-Muslim video "Innocence of Muslims" was the root cause of the event. Name this terrorist attack occurred in 2012 and have been surrounded by controversy since.**

The 2012 **Benghazi** Terrorist Attack.(Accept equivalents as long as Benghazi is mentioned)

3. **Alfred Graf von Waldersee led expeditions after the main fighting of this conflict. Claude MacDonald led one side's defense of the Tartar Wall during this rebellion. This conflict led to the occupation of T'ang-shan by (\*) Russian troops. It pitted the Eight-Nation Alliance against forces backed by the Empress Dowager Cixi [TSEE-shee]. FTP, name this rebellion led by the Society of Righteous and Harmonious Fists.**

#### **The Boxer Rebellion**

4. **This man's reputation sank after the Champs de Mars Massacre and the Flight to Varennes, and he was one of the leaders of the 1789 Revolution as well as leader of the (\*) French National Guard. Known as the "Hero of Two Worlds," this man led the American forces at the Battle of Barren Hill, and informed Washington about the Conway Cabal. FTP name this French aristocrat who helped persuade Louis XVI to aid the United States in the American Revolution.**

Marquis de **Lafayette** (Accept Marie-Joseph Paul Yves Roch Gilbert du Motier de Lafayette)

5. **Two days before this battle, General Drouet d'Erlon's corps was occupied marching back and forth as it was counter-ordered in different directions, and was unable to affect fighting at either Quatre Bras or Ligny. Sir William Ponsonby was killed when a cavalry counterattack took a heavy toll on his Union Brigade in this battle, which also saw heavy fighting throughout the day at (\*) Hougomont. During this battle, Marshal Michel Ney led a cavalry charge against Allied infantry that effectively formed squares in response. The arrival of Gebhard von Blücher's army turned the tide of, for ten points, which battle fought in Belgium that forced the final abdication of Napoleon Bonaparte?**

#### **The Battle of Waterloo**

6. **This philosopher argued in one work that a large number of religious groups decreases civil unrest. He was a rival on the Board of Trade with William Blathwayt and was employed by Ashley Cooper, the Earl of Shaftesbury. An early work by this man attacks a treatise, *Patriarcha*, by Richard (\*) Filmer and this thinker's other works include *The Reasonableness of Christianity* and *The Constitutions of Carolina*. His theories of "government with the consent of the governed" and individual rights to life, liberty, and property, informed the U.S. founding**

fathers. FTP name this English philosopher of *An Essay Concerning Human Understanding* and *Two Treatises on Government*.

John Locke

7. **This programming language was developed by Rasmus Lerdorf in 1994. It has evolved to include a command-line interface capability and can be used in standalone graphical applications. In this language, normal functions are not first-class and can only be referenced by their name directly, or dynamically by a variable containing the name of the function. The `uniqid` (pronounced unique ID) function of this language is based on the `microtime`. It can be intermingled with HTML code as long as the code is in delimiters. For ten points, name this server-side scripting language commonly used for web development.**

PHP

8. **This man's daughter, Roshanara, sent him a box with his son's severed head inside. That son sought to unify the empires dual faiths in *The Mingling of Two Oceans*, before losing at Samugarh. This man's forces lost four times to Sikh Guru Hargobind, and this man ordered his father-in-law, (\*) Asaf Khan, to kill all of his potential rivals. He lost control of Kandahar to the Persians, and in the mounting struggle for succession between his four sons this man grew ill and was imprisoned by his own son in Agra. His reign saw the building of the massive Red Fort and the casting of the Peacock Throne. FTP name this fifth Mughal emperor, grandson of Akbar who buried his wife Mumtaz, in the Taj Mahal.**

Shah Jahan

9. **This country contains the Rwenzori Mountains that are glaciated despite the rest of this country's tropical climate. Mount Nyarigongo and Mount Nymulagira erupted in 2002 in this country, and its highest peak is Mount Ngaliema or Mount (\*) Stanley. A notable rebellion in this country took control of Goma; that rebellion is the M23 rebellion. A major province in this country is Katanga. FTP, name this country whose capital is Kinshasa, formerly ruled by Mobutu Sese Seko who named it Zaïre.**

The Democratic Republic of the Congo (prompt on Congo, do not accept the Republic of the Congo), accept Zaïre before mentioned.

10. **The exposition of the first movement of this composer's first String Quintet in A Major ends with a surprise scherzando section in F-sharp minor. This composer's String Quartet No. 2 in A Minor is bookended by A-major sections derived from his song "Ist es wahr?" One of his pieces begins with two flutes playing E and G sharp, then the winds playing the chord progression B major, A minor, E major. This composer invented a "light and (\*) airy" style that he used in scherzos, like one in G minor inspired by the *Walpurgisnacht* scene in Goethe's *Faust*. The last movement of that piece by this composer quotes the "And He shall reign for ever and ever" theme from the "Hallelujah Chorus." One of his pieces uses a descending major ninth to depict the braying of the donkey head of Bottom. FTP, name this precocious German Romantic composer of an *Octet in E-Flat Major* and an overture to *A Midsummer Night's Dream*.**

Felix Mendelssohn-Bartholdy

11. **During a stop in this novel, a master and his disciples are encouraged to eat fruit shaped like newborn children. Earlier in the novel, one of those disciples is burned alive in a furnace, where he gained magical eyes able to see through all disguises. Another one of the disciples of the novel was accidentally reborn in the womb of a (\*) pig, and was born a hideous half-man half-boar monster. The bodhisattva Guanyin teaches the pilgrim master a special mantra to control his most unruly disciple by squeezing his head with a magic band. In the**

beginning Sun Wukong is taught the secrets of immortality in, FTP, what Chinese novel about the Tang Priest and his 3 disciples traveling in the title compass direction?

**Journey to the West**

12. **The protagonist of this novel bakes a rope ladder into a "witch pie" in an attempt to rescue another character. One character's father locks him in the cabin when he is going out, and returns home drunk and beats the character. Two of the characters in this book rescue (\*)** con artists who claim to be from England and France. The protagonist of this novel runs to Jackson's Island after faking his own death and escaping from his father. FTP name this Mark Twain novel which is a sequel to *The Adventures of Tom Sawyer*.

**The Adventures of Huckleberry Finn**

13. **Born in Spain to a middle-class family, this man believed that he was a reincarnation of his dead brother. He became close friends with (\*)** Man Ray with whom he experimented in Cubism. His iconic personal appearance was modeled on his hero, the painter Diego Velazquez. He collaborated on a 1929 film with Luis Buñuel, *Un Chien Andalou*, FTP Name this surrealistic painter who painted *The Elephants*, *Swans Reflecting Elephants* and is best known for *The Persistence of Memory*.

Salvador Domingo Felipe Jacinto **Dalí** i Domènech

14. **The refined oil of this plant usually does not cause allergic reactions, but unrefined oil contains allergenic proteins. It was General Joe Stilwell's nickname for Generalissimo Chiang Kai-Shek. This plant is a good example of geocarp. It is falsely named since the botanical definition technically makes this plant a (\*)** legume. Alan Shepard brought one of these to the moon. A man who famously studied this plant wanted to find uses of this plant as opposed to cotton and is credited with discovering over three hundred uses for it. FTP, name this plant commonly used in oil and butter form for cooking and that was famously studied by George Washington Carver.

**Peanut**

15. **One depiction of this man is noted for its psychological intensity as is visible in his tightened mouth and clenched teeth in a sculpture by Bernini. Another depiction of this man shows a (\*)** feather coming most of the way up his inner thigh. This man also wears a soft hat contrasted with the war helmet also present in this sculpture by Donatello. In the most famous depiction of this man, his eyes are focused on something to his left and is presumably about to use the stone in his right hand and the slingshot in his left. FTP, name this man who killed Goliath and was sculpted by Michelangelo.

**David**

16. **This disease has three classifications: sporadic, familial, and Guamanian. It has taken the lives of former vice president of the United States Henry A. Wallace and U.S. Army General Maxwell Taylor, striking people between the ages of 40 to 50. While it is incurable, there is only one drug, riluzole, that slows the progression of the disease. This disease causes the degeneration of (\*)** neurons that affect voluntary movements and muscle power, resulting in muscle weakness in the hands, arms, or legs and difficulty swallowing or breathing. For ten points, name this neurodegenerative disease that recently became part of a viral trend, the ice bucket challenge.

**Amyotrophic lateral sclerosis** (accept **ALS**) or **Lou Gehrig's Disease**

17. **The first mention of this phenomenon was by Moore and Winmill to explain why one base is stronger than another. Different numbers of this phenomenon account for why the human genome contains about as many C bases as G bases. Responsible for (\*)** protein secondary structure like beta sheets, it lowers the volatility and raises the boiling point of water. For 10 points, name this type of extremely strong dipole-dipole interaction between its namesake element and an extremely electronegative element such as nitrogen or oxygen.

**Hydrogen Bond**

18. **A paper on heat by this man is likely the first to speculate that heat is actually the motion of matter, but remained unknown until this century. He was so reclusive that he only communicated with his housekeeper by letter, and it is mostly for this reason that his discoveries of (\*)** Dalton's Law of Partial Pressures, Coulomb's Law, and Ohm's Law, among others, were not known until the late nineteenth century. An apparatus designed by John Michell permitted him to accurately calculate the mass of the earth by measuring the gravitational force of 350-pound lead spheres. For ten points, name this eighteenth-century English physicist who was the first to isolate hydrogen.

Henry **Cavendish**

19. **This author was born into a wealthy family which created an adding machine named for themselves. This author got a civilian disability discharge from WWII due to mental instability. This author spent some years in Mexico where he accidentally shot and killed his wife while trying to shoot an (\*)** apple off of her head. This author collaborated with Jack Kerouac in "And the Hippos were Boiled in Their Tanks." This author was a prominent member of the beats movement and is credited for inventing the word "Junkie." Name this author best known for his novels "Junky" and "Naked Lunch."

William S. **Burroughs**

20. **This scientist stated that planetary orbits were modeled by Platonic solids but was later discredited. His namesake problem involves the relationship between to gravitationally bound objects also called the (\*)** two body problem. This man based a lot of his work on the work of Tycho Brahe. He famously stated that the sun is the focus of an elliptical orbit. FTP name this scientist who is the namesake of three laws of planetary motion.

Johannes **Kepler**

21. **At one battle, men under this man's command overran Missionary Ridge without orders; at that time, he was in command of the Military Division of the Mississippi. He commented, "A brigade today, we'll try a corps tomorrow" when discussing how to overrun the "Mule Shoe" at the Battle of (\*)** Spotsylvania Courthouse, where he was effectively in control of George G. Meade's Army of the Potomac. His first name was originally Hiram, but it was changed by his congressman. He received the nickname "Unconditional Surrender" for the capture of Fort Donelson. For ten points, name this commander of Union land forces during the latter part of the Civil War and president from 1869-1877.

Ulysses Simpson **Grant**

## Bonuses: Round 1

1. Aristotle was a pretty cool dude, but he was also wrong about a lot, including his identification of only five senses. FTPE, name these other senses that he didn't know about.

A. It's not touch, but this is something you would perceive when in contact with a mug of coffee or some ice. This would be measured objectively with a thermometer.

**Thermoception** (accept equivalents like the **perception of temperature**)

- B. This sense is affected when you're drunk, which is why policemen will make you try to walk in a straight line. It is also associated with the vestibular system in the ear.

**Equilibrioception** (accept **equilibrium** or **sense of balance** or equivalents)

- C. This sense is also affected when you're drunk, but testing it is done quite differently: police officers will make you try to touch your nose with you eyes closed.

**Proprioception** (accept the **sense of different body parts' positions** or equivalents)

2. FTPE, name the artistic movement with which the given artists and works are associated.

A. Picasso, Braque, *Guernica*, *Les Demoiselles d'Avignon*, *Violin and Candlestick*

**Cubism**

- B. Seurat, *A Sunday Afternoon on the Island of La Grand Jatte*, *The Beach at Heist*, *Bathing at Asnieres*

**Pointillism**

- C. Jean Arp; *Why Not Sneeze*, Rose Selavy (say-la-vee); Hugo Ball Tristan Tzara who wrote the movement's manifesto

**Dadaism** or **Dada**

3. Great individuals have their quotes tacked up on inspirational and demotivational posters, calendars, and many others. FTPE name these famous individuals through their quotes.

A. "The only thing we have to fear is fear itself."

**Franklin** Delano **Roosevelt** (Accept FDR, equivocants, prompt on Roosevelt)

- B. "It is better to be feared than loved, if you cannot be both."

Niccolo **Machiavelli**

- C. "The best argument against democracy is a five minute conversation with the average voter."

Winston **Churchill**

4. FTPE, give the element.

A. This component of bicarbonate is the most abundant element in the universe.

### **Hydrogen**

- B. The U.S. penny was originally made of copper, but now it is mainly made of this element with a thin skin of copper.

### **Zinc**

- C. Marie Curie won the Nobel Prize in 1911 for discovering these two elements. For five points each, name both.

### **Radium and Polonium**

5. FTPE name these world famous rivers.
- A. This 4,258 mile long river is fed by two colorful tributaries that flow from Lake Victoria and Lake Tana.

### **Nile River**

- B. This river has very high pollution levels and affects around 400 million people. Hindus bathe in this river, as it is a sacred river in Hinduism. It flows between India and Bangladesh.

### **Ganges River**

- C. This river's tributaries include the Drava and the Tisza, and it was known to the ancient Greeks as the Ister.

### **Danube River (Accept Donau)**

6. FTPE, answer these questions about trigonometry.
- A. This function is defined as the ratio of the side opposite the angle to the hypotenuse.

### **Sine**

- B. This shape has radius one and helps define trigonometric functions like sine.

### **Unit Circle**

- C. This function is the reciprocal of sine

### **Cosecant**

7. For ten points each, given the undignified manner of death, name the ruler.
- A. This ruler was defeated by Aetius at the Battle of Chalons and later called off an invasion of Italy, supposedly after meeting Pope Leo I. The next year, he apparently died of a nosebleed.

### **Attila the Hun**

- B. This Holy Roman Emperor went on the Third Crusade, but drowned while attempting to ford a river along the way.

**Frederick Barbarossa or Frederick I**

- C. This Roman emperor and son of Septimius Severus was on campaign when he suddenly had an attack of diarrhea; he apparently jumped off his horse and pulled his pants down, and his bodyguards took the opportunity to assassinate him while both his hands were occupied.

**Caracalla**

8. FTPE, name these organs associated with the digestive system.
- A. This organ contains such regions as the fundus and the pyloric antrum. Hydrochloric acid in this organ activates enzymes such as pepsin in it, and it is where food goes after the esophagus.

**Stomach**

- B. This is where bile is stored before being released into the small intestine. People can get "stones" in this organ, and it can be removed if these get to be too much of a problem.

**Gallbladder or Cholecyst**

- C. This largest section of the small intestine is where the abundant Peyer's patches are found in addition to more fat in the mesentery than the previous section, the jejunum.

**Ileum**

9. This war has a misleading name, since it lasted for 116 years. FTPE, answer these questions about the Hundred Years' War.
- A. The Hundred Years' War started when England claimed the throne of France after the death of this French King.

**Charles IV**

- B. This heroine of France was burned at a stake at the age of 19. She was nicknamed The Maid of Orleans.

**Joan of Arc** (accept **Jeanne d'Arc**, prompt on Joan)

- C. This war is sometimes considered an extension of the Hundred Years' War. Its name refers to the rulers of the kingdoms involved: Castile and Aragon.

**War of the Two Peters**

10. An article by Scienceheroes.com ranked scientists by the number of lives their discoveries have saved. Answer these questions about the top ten scientists on this list.
- A. Name this process whose developers are ranked first and second on the list for the 2.7 billion lives who have been saved by their development of a process that developed synthetic fertilizer by producing ammonia from nitrogen and hydrogen gases.

**Haber-Bosch** process

- B. Coming in at third place for having saved over a billion lives is Karl Landsteiner for his work classifying these groups thus making possible today many routine medical procedures in surgery and transplants.

**Blood** groups or types

- C. Name this winner of the 1970 Nobel Peace prize who is regarded as the "father of the green revolution" and is credited with saving over a billion lives for his work developing a disease-resistant wheat and other research in fertilizer and irrigation that has helped increased populations in Asia and Africa in spite of dire predictions of global famines. His wheat is credited with providing "roughly 23% of the world's calories."

Norman **Borlaug**

11. FTPE, name these minerals.

- A. This mineral is made up of silicon dioxide, and has a hardness of seven on the Mohs scale. Amethyst is a popular form of this mineral.

**Quartz**

- B. This mineral leaves a white streak and is often used in baby powders. It has a Mohs' hardness of one.

**Talc**

- C. It is a form of aluminum oxide,  $Al_2O_3$ . Gems of it that gain a red color due to chromium are known as rubies, and other colors are sapphire. Name this mineral that is number 9 on the Mohs scale of hardness.

**Corundum**

12. For ten points each, answer these questions about Giuseppe Verdi.

- A. Verdi was a prominent composer during this era. Its literary counterpart is famed for its rejection against rationalization and the Enlightenment.

**Romantic** era

- B. This last of Verdi's twenty-eight operas is based on Shakespeare's *The Merry Wives of Windsor* and *Henry IV*. It begins with the title character and his servants Bardolfo and Pistola drinking at an inn.

**Falstaff**

- C. In this two-act opera set in Northern Italy in 1288, Cuniza, Imelda, and Riccardo are characters. This opera was also Verdi's first.

**Oberto**, *Conte di San Bonifacio*

13. FTPE, name these 19th century Americans with elderly nicknames.

- A. The nickname "Old Hickory" was given to this President by his soldiers and later adopted by his supporters during the election of 1828.

Andrew **Jackson**

- B. This President was given the nickname "Old Rough and Ready" also because of his performance in battle as a general, namely during the Mexican-American War.



Zachary **Taylor**

- C. This general was called "Old Fuss and Feathers" and "Grand Old Man of the Army."

Winfield **Scott**

14. FTPE, answer these questions about a shooting in August 2014

- A. After robbing a convenience store, this 18 year old black man was shot after he ran from a cop who asked him to stop. It was later determined that the cop had not known about the robbery, sparking a huge controversy.

Michael **Brown**

- B. This police officer who committed the shooting had to stand trial to determine whether or not he had probably cause for the killing.

Darren **Wilson**

- C. The grand jury investigation took place in this county of Missouri.

**Saint Louis** County

15. For ten points each, answer these questions about really big explosions.

- A. Multiple times, on the Western Front of this war, immense mines were detonated with sounds that could be heard as far away as London, such as that of the Lochnagar mine at the Battle of the Somme.

**World War I**

- B. When a white dwarf in a binary star system accretes too much matter, this type of massive explosion can occur; however, it does not destroy the star.

**Nova** (do not prompt on or accept supernova)

- C. The explosion of this Indonesian supervolcano some 70,000 years ago may have reduced the human population of the earth to as few as 3,000 people.

**Toba**

16. For ten points each, name the geologic period in which these events occurred.

- A. Out of the five major extinctions, the second largest one occurred after this period.

**Ordovician**

- B. First significant adaptive radiation of land organisms. Placoderms were killed off at the end of this period.

**Devonian**

- C. The end of this period is defined by the K–Pg boundary.

**Cretaceous**

17. For ten points each, answer these questions about Chimamanda Ngozi Adichie.

- A. In an Adichie novel titled after half of a yellow one of this object, Kainene runs a refugee camp during a civil war. Lorraine Hansberry's play about the Younger family is titled after A Raisin in [this object].

Sun

- B. That civil war occurred when this nation attempted to secede from Nigeria..

Republic of Biafra

- C. Adichie's short story of this title ends with a professor realizing he must look forward in life. An Ibsen play of the same title follows the Alving family's struggles with syphilis.

Ghosts (accept Gengangere)

18. FTPE, name these famous mathematicians.

- A. This man's father was a tax collector and educated his children by himself. His namesake triangle was originally made for binomial expansion, but you can find the Fibonacci Sequence and the powers of two in it as well.

Blaise Pascal

- B. This man saw Euler's Identity and is said to have immediately commented "anyone who cannot see this immediately will never become a first class mathematician." He is also known for his ability to quickly add the first hundred numbers.

Carl Friedrich Gauss

- C. This English mathematician is well known for number theory and mathematical analysis. He is more well known for bringing Ramanujan to the limelight. Their namesake number is 1729.

G. H. Hardy

19. For 10 points each, name these musicians.

- A. This band was formed in 2002 by Ryan Tedder and Zach Filkins. They released their first album, *Dreaming Out Loud*, with their hit single *Apologize* featuring Timbaland.

One Republic

- B. This rapper is known for his harsh and explicit language in his songs. He starred in the 2002 movie *8 Mile*. His alter ego is Slim Shady.

Eminem or Marshall Bruce Mathers III

- C. This reptilian band lasted from 1965 to 1970, led by their vocalists Howard Kaylan and Mark Volman. They were best known by their hit song *Happy Together*.

The Turtles

20. FTPE name these famous TV duos. Must give both names, all or nothing.

- A. Name these two brothers who carry on their father's legacy by combating demons and evil spirits in the show Supernatural.

**Sam** and **Dean** Winchester

- B. This married couple solve murder mysteries. One is a writer and one is a cop, and they and their shippers call them Caskett.

Kate **Beckett** and Richard **Castle**

- C. These two are neighbors, co-workers, best friends and members of the Loyal Order of Water Buffaloes. They prove that men were always hotheads with a soft spot dating all the way back to the Stone Age.

**Fred Flintstone** and **Barney Rubble**

21. FTPE, answer these questions about cat memes.

- A. This cat is featured in a broad range of memes since its face is locked in a perpetually annoyed gaze due to a form of dwarfism.

**Grumpy Cat**

- B. Cats said to be on this substance are featured all around the internet. The cats are really just wide-eyed and have had rainbow colors photoshopped in or around them.

**Acid** (accept **LSD** or other equivalents)

- C. Most memes use all caps in this font.

**Impact**