

RTO 2016

Round 8

Tossups:

1. **In 1970, this man conducted an experiment to judge the influences of media consumption on anti-social behaviors. He also explored the idea of familiar strangers, or people that one is familiar with but has never met formally. Letters addressed to (*) "Friends of the Nazi Party" were less likely to be mailed in another experiment, known as the Lost Letters experiment. Mr. Jacobs acted as the recipient of letters in one experiment that established the idea of 6 degrees of separation. This was the Small World Experiment. FTP, name this psychologist, who conducted his namesake experiment in which 65% of participants fatally shocked the "learner."**

Stanley Milgram

2. **He wrote *The Naval War of 1812*, which established him as a historian and writer. In Milwaukee, he survived John Schrank's assassination attempt before a speech. He became a New York City Police (*) Commissioner at the age of 27, and then two years later was appointed Assistant Secretary of the Navy. This creator of "big stick" ideology was a leader of the Progressive "Bull Moose" Party, which ran in 1912. He took office after Leon Czolgosz assassinated William McKinley. FTP, name this Republican president from 1901 to 1909, who championed the "Square Deal" and "New Nationalism," and whose nickname provided the name for a toy bear.**

Theodore Roosevelt (or Teddy Roosevelt; or TR; prompt on Roosevelt)

3. **In this opera's final act, Annchen cheers up Agatha in her chambers by singing "My deceased cousin had a dream". Also in that act, the "black huntsman" attempts to kill the main character's love interest. In this opera, as Prince Ottokar waits for the (*) forester, Max, in his tent, a chorus of huntsmen sing "What excels the pleasures of the chase." In the second act, Max famously comes to the Wolf's Glen at night to enchant the magic bullets he uses to impress his love interest. For ten points, name this opera written by Carl Maria Von Weber in which Max tries to win Agatha's heart by showing a feat of great marksmanship.**

Der Freischutz (or the Freeshooter or Marksman, prompt on similar answers)

4. **This man's method of adequality was a precursor to infinitesimal calculus. His factorization method is commonly used for very large primes. This man is credited with the first rigorous probability calculation and his most famous theorem was proved with the (*) Taniyama-Shimura Conjecture. This man's "little theorem" deals with prime numbers. In 1994, this man's most famous theorem was proven. FTP, can you name this French mathematician whose eponymous Last Theorem states that $a^n + b^n = c^n$ (read as: a to the n plus b to the n equals c to the n) has no solution in integers for all integral n greater than 2.**

Pierre de Fermat

5. **One of this man's works proposed constitutional republics as a proper political means of attaining perpetual peace. Before G.E. Moore, this author of *Perpetual Peace* pointed out the leftness of a free-floating left hand to rebut "dogmatism" about absolute space, and argued that space and time are "forms of pure intuition" within the mind along with twelve (*) "categories of the understanding." In his attempt at a "Copernican revolution in metaphysics," this idealist argued that statements like "7+5=12" can be deduced from simpler propositions without any empirical experience, showing that synthetic a priori truths are possible. FTP, name this German philosopher who wrote *Critique of Pure Reason*.**

Immanuel Kant

6. **Before she became well-known, this person worked as a midwife who held weekly meetings at her house where she preached her religious understandings and criticized recent sermons. There, she criticized the "covenant of works" by the local ministers. This person was a major participant of the (*) Antinomian, or Free Grace controversy, which dictated that one would only attain salvation through faith and divine grace. For ten points, name this woman who was exiled from the Massachusetts Bay Colony and was one of the co-founders of Rhode Island.**

Anne Hutchinson

7. **Directions on how to make this structure are found in a book, which states that it should be 300 cubits by 50 cubits by 30 cubits, and smeared with pitch. This structure made of gopher wood inspired an educational theme park in Williamstown, Kentucky, which will open for business in summer, 2016. This structure was made for an event (*) that lasted "40 days and 40 nights" according to the book. The builder of this structure knows it is no longer needed when a dove first comes back with an olive branch, and later does not return. 7 pairs of clean animals are taken on this, and God makes a covenant sealed with a rainbow after the event that necessitated this structure. FTP, name this structure described in the Biblical book of Genesis that kept the builder, his family, and at least 2 of each kind of animal safe during the flood.**

Noah's Ark (prompt on Ark)

8. **Epithets of this deity are; the divine hurler, the dart hurler, and a terror to the Mixteca. His name is often translated as left hummingbird, or southern hummingbird. (*) In one story about his birth, his four hundred stepbrothers, and his one stepsister were going to kill his mother. This deity "burst forth from his mother's womb in full armor and fully grown" and killed his stepsister. He then proceeded to chase his stepbrothers, as they scattered across the sky. The civilization that worshipped him believed that he needed human sacrifices to stay strong. FTP name this brother of Quetzalcoatl, the Aztec Sun god.**

Huitzilopochtli (wheat-zal-poke-tli))

9. **The author of this work heard a loud voice commanding seven angels to "pour out seven bowls of God's wrath on the earth". The author of this work subsequently sees a women (*) "drunk on the blood of the saints". In one of the most famous sections of this work, four living creatures are positioned around a throne incessantly crying out, "Holy, holy, holy, is the Lord God Almighty". For ten points, name this last book of the Bible, written by John of Patmos.**

The Book of Revelation (Do not accept 'Revelations')

10. **This man instructed the grand music maker of Lu that in order to play music, "all the parts... should be in harmony while severally distinct and flowing without break." In an exchange with one of his disciples, this man said that he loved the ceremony more than he loved the (*) sheep about to be sacrificed. This man influenced thinkers who came after him such as Mencius and Mo. His prominent ideas of filial piety and ritual propriety influenced much of East Asian thought. For ten points, name this Chinese philosopher whose ideas were collected in *The Analects*.**

Confucius (Also accept Kong Fuzi, Kongzi, or Master Kong)

11. **Early in his career, this author wrote a novel whose title he changed three times, from *The Second Coming* to *Jerusalem's Lot* before settling on *Salem's Lot*. This author also wrote *Firestarter* and the *Dark Tower* books. In one of his novels, Randall Flagg fights to survive and travels to Las Vegas in a post-apocalyptic world after a plague of viral influenza has wiped out most of the rest of the world. (*) That novel is *The Stand*. This author's first novel was *Carrie*. Perhaps his most famous novel is**

set in Boulder, Colorado, where son Danny has psychic abilities that allow him to see the Stanley Hotel's horrifying past. Supernatural powers there cause the father, Jack Torrence, to become insane and dangerous as the family is snowbound. FTP, name this famous author of horror, fantasy, and suspense novels, the writer of *The Shining*.

Stephen King

12. **This scientist began working with Crookes tubes in 1894 to investigate an "invisible" kind of radiant energy. He designed the Wardencllyffe Tower, intended for wireless power transmission and (*) worldwide broadcast, but that never came to be. He isn't Galileo Feraris, but he designed the rotating magnetic field which he displayed in his so-called "Egg of Columbus" at the 1893 World Columbian Exposition. This man was famous for his work with George Westinghouse, with his patented AC induction motor and transformer. FTP Name this Serbian-American who is best known for his feud with Thomas Edison and creating a namesake high frequency coil.**

Nikola Tesla

13. **This presidential candidate was the first to announce his campaign, and did it through an event at Liberty University. In this candidate's 2012 Senate campaign, this candidate beat David Dewhurst by fourteen points, even though Dewhurst spent three times as much money as this candidate did. During a (*) CNBC debate in October 2015, this candidate responded to a question about the debt limit by saying "the questions . . . illustrate why the American people don't trust the media." In early 2016, many activists, including Donald Trump, stated that this candidate is not a natural-born citizen because he was born in Canada. For ten points, name this current US Senator from Texas who read "Green Eggs and Ham" during a 21-hour filibuster in 2013.**

Ted Cruz

14. **In one painting by this man, the subject is naked and has a red halo; in other versions of this painting, sperm are drawn in the border. In another painting, a red-headed woman bites the neck of a well-dressed man. In addition to painting *Madonna and Vampire*, this man painted another red headed girl looking to her left towards a crying woman with a grey bun in his (*) *Sick Child*. His *Frieze of Life* series often involved his sister, Sophie. In his most famous work, two boats are present as well as two men on a bridge under an orange sky and the subject in a moment of existential angst. FTP, name this Norwegian artist who painted *The Scream*.**

Edvard Munch (Moonk)

15. **This man was forced to flee to the Jinggang Mountains after the failed Autumn Harvest Uprising, and became the leader of his party at the Zunyi Conference. This man cracked down on his critics in the Anti-Rightist Movement after earlier letting (*) "a hundred flowers blossom," and his attempt to industrialize using backyard steel furnaces caused the greatest man-made famine in history. The Gang of Four was led by this man's wife, who had accompanied him on the Long March and during the civil war against the Kuomintang forces of Chiang Kai-shek. FTP, name this leader whose sayings are collected in the Little Red Book, the first Chairman of Communist China.**

Chairman Mao Zedong (Accept Mao Tse-tung, or Chairman Mao)

16. **Remnants of one of the groups organized to suppress this rebellion would fight on in another country as the Black Flags. The participants of this movement came from the Hakka, and it sought to outlaw gambling and tobacco use. This rebellion eventually took over (*) Nanking but was put down by Zeng Guofan's "Ever Victorious Army". One side of the conflict was led by Hong Xiuquan, who claimed to be Jesus' brother. For 10 points, name this rebellion against the Qing Dynasty that tried to form a Heavenly Kingdom.**

Taiping Rebellion or Taiping Revolt

17. A goddess of this was decapitated by her children after being impregnated. Native Hawaiians worshiped a goddess whose epithets included "the 'this'-eating woman." This was created out of the flesh of the ice giant (*) Ymir, after he was killed by Odin, Vili, and Ve. The rest of his body was used to create the heavens, the clouds, hills, oceans, and more. Earthquakes were supposedly the laughter of an Egyptian god of this, Geb. Like Geb, Uranus was separated from his wife, who was a goddess of this. FTP, name this domain, which Gaea ruled over, is usually the opposite of the sky, and is sometimes called by the name of our planet.

The **earth** (accept equivalents, like ground)

18. It was adapted into the musical *Lost in the Stars*. One character in this novel donates milk and hired an agricultural expert to demonstrate new farming techniques. The good Christian Mrs. Lithebe offers the protagonist a place to stay in this novel after he receives a (*) letter from Msimangu. That letter says that a character is ill while actually she is a prostitute. Gertrude leaves Ndotsheni (N-dot-shay-nee), leaving James to help rebuild the community. Arthur Jarvis is murdered by Absalom Kumalo in FTP, what anti-Apartheid novel by Alan Paton.

Cry, the Beloved Country

19. One city, one third of whose population is gay men, is home to Sunset Strip, a night-time hangout zone. Despite being home to many celebrities and actors, another city in this county used to be a Spanish ranch (*) for lima beans. Reina Scully, William Haynes, Joe Bereta, Steve Zaragoza, and the rest of the cast hosts a show from the SourceFed headquarters in Woodland Hills, a city in this county. The North American League Championship Series is played on Olympic Boulevard, a main road in this county. West Hollywood, Beverly Hills, and the namesake city are all located in FTP, this most populous county in California which is also home to all six famous film studios as well as many other corporate headquarters.

Los Angeles County (accept "L.A. County," prompt on "L.A.")

20. This quantity is proportional to the square root of the covalent radius times actual nuclear charge minus a screening constant determined by Slater's rules. When this property is large for certain atoms, it causes a relative increase in acidity (*) for adjacent protons according to the inductive effect. Due to d-block contraction, gallium and germanium have higher values of it than aluminum, but it generally increases going up and to the right on the periodic table. For 10 points, name this quantity that can be calculated as the mean of first ionization energy and electron affinity, the empirical property that reflects the ability of atoms to attract electrons in a bond.

Electronegativity

21. In electrodynamics, this effect leads to the formation of an instantaneous voltage called the Christoffel voltage, and cyclostrophic flow results in zero contributions from friction and this effect. The ratio of net acceleration of a fluid to acceleration due to this effect is the (*) Rossby number. It is the cause of the rotation of sunspots and creates the geostrophic winds. This effect generates because of the deflection of an object on the Earth's rotation. FTP, name this effect that causes cyclones on Earth to rotate counter-clockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere

Coriolis Effect

Bonuses Round 8

1. FTPE name these pillars of Islam.

A.

This pilgrimage to Mecca is required for all able bodied adults during their lifetime.

hajj

B. This pillar of Islam must be performed five times a day.

Salah or **Salat** (prompt on **prayer**)

C. This Muslim declaration of faith is translated to "There is no god but Allah. Muhammad is the messenger of God."

shahada

2. FTPE, answer these questions about butterflies.

A.

In a short story by this author, a hunter steps on a butterfly after going back in time and changes the way the English language is spelled due to the compounding effects of changing something so small. This author is better known for writing Fahrenheit 451.

Raymond Douglass "Ray" **Bradbury**

B. Several butterflies are seen in this painting, most notable a rusty colored one above a dog in the painting. This famous pointillist work by Seurat depicts interesting things such as a monkey on a leash.

A Sunday Afternoon on the Island of La Grand Jatte

C. The butterfly valve is a part of this car part that blends air and fuel for combustion. This part isn't found in cars with fuel injection and thus is decreasing in use.

Carburetor

3. The introductory poem to this novel was part of a volume of twenty-one ballads of history written by Yang Shen. FTP,

A.

[Name this novel with characters such as Liu Bei, Cao Cao ("TSAO TSAO") and Sun Quan ("CHUEN"), set during the end of the Han Dynasty and the period succeeding it.

Romance of the Three Kingdoms

B. Romance of the Three Kingdoms was written during the Ming Dynasty of this country, where Journey to the West and Dream of the Red Chamber were also produced.

China [or **Zhongguo**; do not accept "People's Republic of China"]

C. The characters of this other Ming Dynasty novel rebel against the Song government and, after being granted amnesty, are sent to put down the Fang La rebellion in the south, during which most of them die in battle.

Water Margin [accept **Outlaws of the Marsh**, **All Men are Brothers**, **Tale of the Marshes**, **Men of the**

Marshes, or The Marshes of Mount Liang]

4. This type of money doesn't have intrinsic value. FTPE,
A.
Name this 4-letter word describing items that are only given value because of the law. This form of payment must be accepted in exchange for goods and services.

Fiat Money

B. Fiat is also the name of an Italian automaker that merged with this other American automobile manufacturer. They produce Dodge, Jeep, and, Ram vehicles.

Chrysler (do not accept FCA or Fiat Chrysler Automobiles)

C. Fiat usually produces this vehicle which was most recently used by its namesake rider in September 22-27 2015.

popemobile

5. FTPE, name these European rivers.
A.
This river flows from the Black Forest into the Mediterranean, passing through many capitals such as Vienna, Belgrade, and Bratislava.

Danube River

B. This longest river in Spain forms part of Spain's border with Portugal before flowing into the Atlantic Ocean at Lisbon.

Tagus River

C. This river is the fourth longest in Europe and travels through much of Russia and Ukraine, including Kiev.

Dneiper River

6. FTPE, name these stories where people are killed by acquaintances.
A.
This Shirley Jackson story centers around the namesake event, in which the winner is stoned by the townsfolk.

The Lottery

B. In this Edgar Allen Poe short story, Fortunato is sealed inside a dungeon by his friend. The novel ends with that friend saying "In pace requiescat" or "may he rest in peace."

The Cask of Amontillado

C. In this Mark Twain story, a man kills his entire family with an axe but nothing happens to him as usually does to the people named James in the Sunday school books; instead, he becomes a respected politician.

The Story Of The Bad Little Boy

7. Interest groups are very important in American politics. For ten points each, name these interest

groups in American history.

A.

This former federation of labor unions, initially led by Samuel Gompers, merged with the Congress of Industrial Organizations in 1955. Unlike the Knights of Labor, this group opened itself up to many religions and ethnicities.

American Federation of Labor (or **AFL**)

B. This feminist organization's Statement of Purpose was written by Betty Friedan and Pauli Murray. It is currently led by Terry O'Neill.

National Organization for Women (**NOW**)

C. This interest group sets academic standards for law schools.

American Bar Association (**ABA**)

8. FTPE answer these questions about recent ISIS attacks.

A.

A Russian Jet crashed in this desert region of Egypt, killing 224.

Sinai

B. Abdelhamid Abaaoud was the mastermind of the attacks in Paris that killed 129 including the attack on the Bataclan Theater where this American rock band was playing.

Eagles of Death Metal

C. Attacks in this Lebanese capital left 43 dead.

Beirut

9. FTPE, name these epics.

A.

This epic was based on the Battle of Roncevaux. Along with *The Poem of the Cid*, it is an example of chanson de geste.

The Song of Roland (or La Chanson de Roland)

B. This epic is about the king of Uruk and a man that he befriends after a fight. It begins with five poems about the title character.

Epic of Gilgamesh

C. This epic tells of Siegfried, the dragon-slayer, and his murder. Then his wife Kriemhild avenges him. Richard Wagner (ree-card vahg-ner) wrote a cycle based on it.

Nibelungenlied (do not accept The Ring Cycle, The Ring of the Nibelungen, or Der Ring des Nibelungen)

10. Pure crystals of this element may be created using the Czochralski process. FTPE:

A.

Name this element whose oxide is a major component of quartz and asbestos.

Silicon or **Si**

B. Tetramethylsilane, which contains silicon surrounded by four methyl groups, is used as an internal standard for this spectroscopic technique often used to determine the identity of organic molecules

Nuclear Magnetic Resonance spectroscopy or **NMR**

C. Teruaki Mukaiyama found out that enol ethers of silicon can be used to catalyze this reaction, which adds a carbanion to an alpha, beta unsaturated carbonyl.

Michael addition or **reaction**

11. FTPE, answer these questions about gross indecency in Britain.

A.

Gross indecency was used to convict many men with this characteristic. It was removed from the American Psychiatric Association's mental health list in 1973.

homosexuality or being **gay** or clear knowledge equivalents

B. This man was one of the most famous convicted for gross indecency. He wrote plays such as *An Ideal Husband* and *The Importance of Being Earnest*.

Oscar **Wilde**

C. This novel, the only one written by Wilde, was thought by many to be indecent and even had roughly five hundred words removed by an editor before its first publication. In this novel the main character kills Basil Hallward who created the titular object.

The **Picture of Dorian Gray** (do not accept the Portrait of Dorian Gray)

12. FTPE, answer these questions about a particular Latin phrase.

A.

The poem "Dulce et Decorum est" is written by Wilfred Owen and contains the line "Gas! Gas! Quick, boys! An ecstasy of fumbling." That poem is about this war.

World War One (accept obvious equivalents)

B. The phrase "dulce et decorum est pro patria mori" and other famous quotes like "deus ex machina" were coined by this Greek author of the Odes.

Horace

C. This other phrase created by Horace is often translated to "seize the day."

carpe diem

13. FTPE, give the location of these civilizations.

A.

All or nothing, these two rivers form the Mesopotamian region. Cuneiform was the first writing to be developed along these rivers.

Tigris and **Euphrates** rivers

B. The civilizations along those rivers were known to trade with this region, until it was destroyed. It is proposed that a change in the course of the river caused their decline. Harappa and Mohenjo-Daro, some of its cities, had the world's first system of sewage disposal.

Indus River Valley

C. The pre-Aztec city-state of Teotihuacan is located in this region, while the city of Tenochtitlan (Ten-o-cheet-lan) is on an island on Lake Texcoco here.

Valley of Mexico

14. What did the god of the Nile and the devourer of hearts have in common? Apparently, their heads.
A.
FTPE, name this animal, whose head is given to Sobek and Ammit in Egyptian mythology.

Crocodiles (do not accept alligators)

B. The crocodile version of these are considered to be insincere expressions of sadness.

Tears

C. These almond-shaped glands secrete the aqueous layer of tears.

Lacrimal glands

15. For ten points each, answer these questions about CBS.
A.
This journalist anchored the CBS Evening News in the 1960s and 1970s. He covered the Vietnam War, the death of John F. Kennedy, and the Watergate scandal.

Walter **Cronkite**

B. This CBS drama series stars Jonny Lee Miller as Sherlock Holmes and Lucy Liu as Dr. Joan Watson.

Elementary

C. Scott Pelley is a host on this CBS newsmagazine program that airs for an hour on Sunday nights.

60 Minutes

16. For ten points each, name these pomaceous fruits.
A.
The name "pomaceous" comes from the Latin word for fruit, *pomum*. This most widely-grown pomaceous fruit is *pomme* in French.

Apple

B. This fruit is similar to a quince. It's in the family Rosaceae and includes Bosc and Green Anjou varieties.

Pear

C. In pomaceous fruits, these structures are fused around the core. These are the female reproductive organs of a flower, and consist of a stigma, style, and ovary.

Carpel

17. For ten points each, name these methods in traditional Chinese medicine.

A.
This form of alternative medicine is often used for pain relief. It takes place when needles are inserted underneath the skin.

Acupuncture

B. This system of coordinate body movement serves to coordinate the namesake "qi" (chi) or "life energy" inside the body.

Qigong

C. This Chinese massage is based on Taoist principles and is based on the stimulation of various acupressure points around the body.

Tui na

18. FTPE, answer these questions about cell division

A.
This part of the cell cycle is undergone by all somatic cells and contains steps such as prophase, prometaphase, metaphase, anaphase, and telophase.

mitosis (do not accept **meiosis**)

B. To begin mitosis, a mitosis promoting factor must be formed. They are made when cyclins combine with one of these molecules.

Cyclin **D**ependent **K**inase

C. CDKs are also used in this process for nerve cells. It is when totipotent or pluripotent cells such as stem cells turn into adult somatic cells.

differentiation (accept word forms)

19. FTPE, name the author from the given famous children's book or books.

A.
Fox in Socks, One Fish Two Fish Red Fish Blue Fish, Horton Hears a Who, and the Lorax

Dr. Seuss or Theodore Seuss **Geisel**

B. *The Very Hungry Caterpillar*

Eric **Carle**

C. *Alexander and the Terrible, Horrible, No Good, Very Bad Day*

Judith **Viorst**

20. The Romans called this man's sword the Sword of Mars. FTPE,

A.
Name this leader of the Huns, called "the Scourge of God" by his victims.

Attila

B. Attila most famously supposedly died of this, which he didn't notice after falling asleep while drunk.

Nosebleed (accept equivalents)

C. This brother of Attila shared the kingship with Attila until his untimely death, probably the result of Attila's command.

Bleda

21. The 2016 presidential race begins early, and many hopefuls do not even make it to the primaries. FTPE, answer these questions about presidential candidates that dropped out of the race before the Iowa Caucuses.

A.

This governor of Wisconsin dropped out in September of 2015, hoping to limit the number of candidates so that Trump would not receive the nomination.

Scott **Walker**

B. This Indian American Governor of Louisiana dropped out in November, saying, "I've come to the realization that this is not my time."

Bobby **Jindal**

C. This former Democratic Senator has A Navy Cross and A Silver star from his military service. He dropped out in October 2015.

Jim **Webb**