

**ST. LOUIS OPEN – 1999**  
**Round Three**

**Toss-Up Questions**

1. Bob Acres loves Lydia Languish, and challenges Ensign Beverly to a duel over her hand. However, Acres is not aware that Beverly is actually his friend, Captain Absolute, in a guise to please Lydia's romantic dream of an elopement. Absolute's father, Sir Anthony Absolute, wishes for his son to marry Lydia, as does Lydia's humorous and often misquoting aunt. By the play's end, Beverly is discovered to be Captain Absolute and he marries Lydia happily. FTP, identify this 1775 play by Richard Sheridan that features the character Mrs. Malaprop.

Answer: *The Rivals*

2. In 1993, British Science Minister William Waldegrave challenged particle physicists to explain on a single page what it is and why they are so eager to find it. It is predicted to have a mass between 60 giga-electron volts and one tera-electron volt. If it is relatively light, it may be seen in electron-positron annihilations produced in association with Z particles. In this case, it would decay into a bottom quark and a bottom antiquark. FTP, identify this elusive particle that would complete the Standard Model upon its discovery and explain why objects in the universe have mass.

Answer: Higgs particle or boson or Higgson

3. He was famous for his paucity with words. When a White House guest bet she could get more than two words out of him, he replied laconically, "You lose." He was born in Plymouth, Vermont, in 1872, and as a staunch, very conservative Republican, he rose to the post of governor of Massachusetts. In 1928, he stated the most famous of his terse quips: "I do not choose to run for President in 1928." FTP, name this man who was sworn in as President at 2:30 a.m. on August 3, 1923, becoming the thirtieth President of the United States.

Answer: Calvin Coolidge

4. It was exhibited at the Paris Salon of 1824, causing a French critic to comment, "Look at these English pictures – the very dew is on the ground." A small dog walks the bank of the river in the foreground of the picture and a field stretches out to a forest on the opposite bank. A small tree-enshrouded mill is the destination of the two men who are leading an ox-drawn cart through the River Stour, which courses through the center of the painting. FTP, identify this 1820 pastoral painting, the most famous example of the work of John Constable.

Answer: *The Hay Wain*

5. In his most recent television appearances, he has dressed up in sunglasses, ripped jeans and leather jacket and jumped on stage to play lead guitar for a rock band. He's also been spotted driving down the highway in a customized convertible, as well as in a monster truck, and has even turned an entire supermarket into a thirst-quenching party zone for children. FTP, identify this soft-drink "spokespitcher" that bursts through the wall whenever someone is thirsty, and shouts "Oh yeah!"

Answer: Kool-Aid Man

6. Its title is taken from John Keats' *Ode to a Nightingale*. Set on the French Riviera, it concerns the tragic romance of between a young actress, Rosemary Hoyt, and a successful psychiatrist who is married to one of his former patients. Nicole Diver's wealth slowly goads her husband Dick into a lifestyle not his own, and her growing strength highlights his demise. Nicole eventually has an affair with longtime suitor Tommy Barban, effectively ending her marriage to Dick and the novel. FTP, identify this 1934 novel, the fourth published by F. Scott Fitzgerald.

Answer: Tender is the Night

7. This scientist made the first of his many expeditions to Greenland in 1906. He died in 1930 during one such expedition, but his most important work wasn't vindicated until 1960 by Harry Hess, who proposed the mechanism of sea-floor spreading to explain how the continents moved. This was fifty years after this scientist first noticed the continents looked like they were once pieced together. FTP, name this German meteorologist who, in 1910, first purported the idea of continental drift.

Answer: Alfred Wegener

8. They are named for their ancestral castle located near Hechingen, Swabia, now in the state of Baden-Württemberg. Conrad III was made burgrave of Nürnberg and spawned a new branch, the Franconian. The Swabian branch ceded their territory to Prussia in 1849, and died out 20 years later. Some of its more prominent leaders include John Sigismund, the first duke of Prussia, and Frederick William, The Great Elector, but none exceeded the fame of Frederick the Great. FTP, identify this European dynasty that ruled Prussia and Germany until the end of World War I.

Answer: Hohenzollern

9. He is the hero of the fifth book of the *Iliad*. This son of Tydeus met Glaukus on the field of battle and recognized him as a relative. The two swore not to fight and exchanged armor so they would recognize each other. He accompanies Odysseus in stealing the Palladium from Troy and recovering the bow and arrows of Herakles from Philoktetes. Athena grants him the power to injure the gods and he does so, wounding Ares and Aphrodite. FTP, identify this Greek hero of the *Iliad* who shares his name with the owner of a group of flesh-eating mares.

Answer: Diomedes

10. It is tuned to a microtonally flattened A, with the chanter covering a nine-note range from G to A, with a flattened seventh. This flattening casts most tunes into a mixolydian mode. The three drones are likewise tuned to A; the two tenors are one octave below the chanter; and the large bass drone is two octaves below. FTP, name the instrument being described, known as a dudelsach in Germany, but better associated with the lads and lasses of Scotland.

Answer: bagpipes

11. He wrote some 1000 poems, 24 plays, eight novels, executed 3000 paintings, and composed 2000 songs, including the Indian National Anthem. He was introduced to the West by Ezra Pound and William Butler Yeats, who wrote the introduction to his collection of poems *Gitanjali*. His plays *Chitra* and *The King of the Dark Chamber* received worldwide acclaim and his poem *Four Acres of Land* was made into a film by Indian director Balraj Sahni. FTP, identify this foremost Bengali author and poet who received the Nobel Prize for Literature in 1913.

Answer: Rabindranath Tagore

12. The two definitions proposed for this quantity produce values that are nearly proportional. Linus Pauling's definition states that it is equal to 0.102 times the square root of delta. Two years later, in 1934, Robert Mullikan defined it as a number proportional to one-half the ionization energy plus the electron affinity, obtaining whole numbers easier to use in equations. Its values range from 0.79 for cesium to 3.98 for fluorine. FTP, identify this quantity that measures the net tendency of one atom to attract electrons from another atom to which it is bonded.

Answer: electronegativity

13. Also called the Treaty of San Lorenzo, it recognized the thirty-first parallel as the southern boundary of the United States, and the nation with which it was signed agreed to withdraw troops north of the

border. Americans were granted the privilege of duty-free deposit, or temporary storage, at New Orleans for three years with an option to renew. The United States was also granted free use of the Mississippi River's mouth, and Spain granted many other commercial privileges to the U.S. FTP, identify this treaty named after the man who negotiated it with Spain in 1795.

Answer: Pinckney's Treaty

14. While at the University of Louvain, he constructed a terrestrial globe with Myrica and Frisius in 1536. The next year they constructed a globe of the stars. He was charged with heresy in 1544, partly for his Protestant beliefs, partly because he aroused suspicion by traveling so much to gather information for his maps. He created maps of Lorraine, the British Isles, and even updated the maps of Ptolemy in 1578. FTP, name this Belgian scientist and cartographer who, in 1538, published the map projection named for him.

Answer: Gerardus Mercator

15. The term was introduced in 1753 by the German philosopher Alexander Gottlieb Baumgarten, but it has been a subject of study since at least Plato. Hegel delivered an entire lecture series on the subject between 1820 and 1829, but its philosophical origins soon filtered into literature, exemplified by Walter Pater's *Marius the Epicurean* and Oscar Wilde's *The Picture of Dorian Gray*. The Impressionists also adopted this philosophical school, proclaiming "art for art's sake." FTP, identify this doctrine of philosophy concerned with the essence and perception of beauty.

Answer: aesthetics or aestheticism

16. This novelist was born in Mississippi and educated at both Michigan State University and the University of Michigan. Some of his works include *A Piece of My Heart*, *The Ultimate Good Luck*, and a collection of short stories entitled *Rock Springs*. His 1986 novel *The Sportswriter* won him special acclaim. It is a first person narrative about a sportswriter whose decision to give up sports journalism is emblematic of other life choices. FTP, name this author whose greatest laurel was winning the 1997 Pulitzer Prize in Fiction for his novel *Independence Day*.

Answer: Richard Ford

17. William Whiston, Nicolas Saunderson, Edward Waring, Robert Woodhouse, Thomas Turton, Sir George Airy, Charles Babbage, Sir George Stokes, Paul Dirac, Sir Isaac Newton, and, of course, Stephen Hawking. FTP, what chair did all these men hold, first held by Isaac Barrow in 1664, the most prestigious academic position at Cambridge University?

Answer: Lucasian Professorship of Mathematics

18. It pioneered a "cell" approach to leadership in which group consensus was needed to adopt policy. Unlike other organizations at the time, it sought to adopt the concerns of southern Black communities. Founded initially as an organization to promote interracial democracy, the organization slowly became militant and directed itself towards the goal of separate Black communities. FTP, identify this radical student organization of the 1960s that, under the leadership of John Lewis and Stokely Carmichael, adopted the phrase "Black Power" as its philosophy.

Answer: Student Nonviolent Coordinating Committee or SNCC (pronounced *snick*)

19. It flows through a valley that was followed by pioneers using the Oregon Trail and by Mormons migrating to Utah during the mid-19<sup>th</sup> century. The Union Pacific Railroad also follows this river. It rises in the Rocky Mountains in Colorado and generally flows east until it reaches Missouri, near Omaha. It is formed by the junction of the North and South rivers that bear its name, and it is a tributary of the Missouri River. FTP, identify this major waterway that courses through the state of Nebraska.

Answer: Platte River

20. He was chief among the publicans and a tax collector who always took more than he should have asked for. He was so small of stature that he had to climb a sycamore tree to see Jesus when he was visiting Jericho. Jesus saw him in the tree and invited himself over for dinner. This must have had a profound effect on the man, for he promised to give back what he took from the citizens fourfold. FTP, identify this Biblical character that had a change of heart as told by the Gospel according to Luke.

Answer: Zacchaeus

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**Bonus Questions**

1. Identify the school of painting given a list of some of its painters FTPE.

- a) Robert Henri, George Bellows, Edward Hopper

Answer: Ashcan school or The Eight

- b) Paula Modersohn-Becker, Erich Heckel, Ernst Ludwig Kirchner

Answer: Die Brücke (prompt on Expressionism or equivalents)

- c) François Daubigny, Camille Corot, Jean-François Millet

Answer: Barbizon school

2. Identify the following concerning the movements in a baroque suite FTPE.

- a) It is a 16<sup>th</sup> and 17<sup>th</sup> century dance for a line of couples originating in Germany. It was developed into an independent form by 17<sup>th</sup> century English harpsichord composers and became the usual first movement of a baroque suite.

Answer: allemande movement

- b) This court dance was popular between 1600 and 1800. The Italian type was in fast triple meter. The slower French type was contrapuntal in style. It came to prominence as the usual second movement in a baroque suite.

Answer: courante movement

- c) Originally a sung dance popular in Latin America and Spain, it was banned in 1583 for its suggestive movements and became a slow processional dance by the time it reached the French court in the 17<sup>th</sup> century. It is typically the third movement in a baroque suite.

Answer: sarabande movement

3. Name this author, 30-20-10.

- a) Among his more unusual pseudonyms were Eye Witness and Heliostropolis, Secretary to the Emperor of the Moon.
- b) While hiding in a cemetery as a fugitive during Monmouth's failed rebellion in 1685, he saw a name on a headstone that he used for a title character 34 years later.
- c) He used the name from the headstone for a book inspired by the 1704-1708 adventures of Alexander Selkirk.

Answer: Daniel Defoe

4. Given a description, identify the gland FTSNOP.

- a) (5 points) This gland secretes somatotrophic hormone (STH), follicle-stimulating hormone (FSH), and vasopressin.

Answer: pituitary gland

- b) (10 points) This set of four glands in humans secretes hormones that control the levels of calcium and phosphorus in the blood.

Answer: parathyroid gland

- c) (15 points) This gland secretes the hormone chorionic gonadotropin, which forms the basis for pregnancy tests. It also produces progesterone and the estrogens and hormones producing lactation after birth.

Answer: placenta

5. Answer the following questions about famous revolutions that took place in 1848 FTPE.

- a) Identify the man who led the socialists in ousting King Louis Phillipe of France in February of 1848, starting France's Second Republic.

Answer: Louis Blanc

- b) This patriot assumed control of a breakaway government and declared independence for all Hungarian lands from Austria. His extreme nationalism caused the Serbs, Croats, and Transylvanians to put down his bid for independence with the help of Austrian and Russian troops in 1849.

Answer: Lajos Kossuth

- c) Revolution in Italy forced the flight of Pope Pius IX and led this advocate of unification to set up a short-lived republic in 1849. The Italian states, however, proved too protective of their independence to achieve unity until 1861.

Answer: Giuseppe Mazzini

6. Identify the Knights of the Round Table being described FTPE.

- a) This knight was entrusted to escort Iseult to wed King Mark of Cornwall, but they fell in love. He carried on a secret affair with her until they were discovered. He was mortally wounded and Iseult died from grief. He is the subject of a Wagner opera.

Answer: Tristram or Tristan

- b) This knight defeated the Red Knight to avenge King Arthur's honor and retrieve his golden drinking cup. This subject of a Wagner opera eventually married Blanche fleur and became the King of Carbonek after finding the Holy Grail.

Answer: Percivale or Parsifal

- c) This knight came to Arthur's court one Easter announcing that he had seen a white stag with golden horns, prompting Arthur to make a present of it to Guinevere. He became a Knight of the Round Table after he forced the knight Yder to apologize to Guinevere for insulting one of her maids.

Answer: Geraint

7. FTPE, answer the following questions taken from a section entitled “Cognitive Processes in Simple Learning” in Ken’s general psychology book.

- a) In the 1920s, this psychologist conducted an experiment with rats running through mazes to develop the concept of the cognitive map. Despite barricades, the rats always found the shortest route to the food at the end of the maze.

Answer: Edward Tolman

- b) This researcher became stranded on Tenerife in the Canary Islands while researching chimpanzees during World War I. His book *The Mentality of Apes* explores the operation of insight in problem solving by chimps.

Answer: Wolfgang Köhler

- c) This psychologist developed the idea of observational learning, or modeling, when he conducted his famous “Bobo doll” experiment. Children observed a film of an adult repeatedly hitting a doll. Afterwards, children who had observed the film played much more aggressively with the doll than those that had not.

Answer: Albert Bandura

8. Identify the American novel given its first line FTPE, or FFPE if you need the author and the year it was published.

- a) (10 points) “I had the story, bit by bit, from various people, and, as generally happens in such cases, each time it was a different story.”

(5 points) Edith Wharton, 1911

Answer: Ethan Frome

- b) (10 points) “Under certain circumstances there are few hours in life more agreeable than the hour dedicated to the ceremony known as afternoon tea.”

(5 points) Henry James, 1881

Answer: The Portrait of a Lady

- c) (10 points) “One January day, thirty years ago, the little town of Hanover, anchored on a windy Nebraska tableland was trying not to be blown away.”

(5 points) Willa Cather, 1913

Answer: O Pioneers!

9. Given a description, identify the physical law FTPE.

- a) This law states that when each of two systems is in equilibrium with a third, the first two systems must be in equilibrium with each other. This shared property of equilibrium is their temperature.

Answer: zeroth law of thermodynamics

- b) Named after a Dutch mathematician, this law states that the product of the refractive index and the sine of the angle of incidence of a ray in one medium is equal to the product of the refractive index and the sine of the angle of refraction in a successive medium.

Answer: Snell's law

10. Given a description, identify the following American utopian communities FTPE. (Hint: Brook Farm is not the answer to any part of this bonus.)

- a) Founded by Robert Owen in Indiana in 1824, this socialist community of some nine hundred persons soon failed due to the "disease of laziness."

Answer: New Harmony

- b) Frances Wright, who purchased an old plantation in Tennessee, founded this utopian society in 1825. She installed there a small group of slaves, her idea being that they could learn valuable skills and pay off their cost by their labor.

Answer: Nashoba

- c) Founded by John Humphrey Noyes in 1848 in New York, the idea of this community was to combine perfectionism with socialism. They employed the system of "complex marriage," where all men were married to all women. The community became a corporation in 1880.

Answer: Oneida

11. Identify the following archaeologists given a description FTPE.

- a) In 1923, this French archaeologist made an expedition to French Indochina to discover antiquities like Angkor Wat. He became active in the struggle of the Annamese revolutionaries to gain independence from France and wrote the novels *The Conquerors* and *The Royal Way* based on his experiences there.

Answer: André Malraux

- b) This archaeologist became famous for his excavations of Crete, particularly the palace at Knossos, a huge building that covered over five acres. He was instrumental in the deciphering of Linear B, an early Greek dialect found on some 3000 tablets on Crete.

Answer: Sir Arthur Evans

- c) Because of this scholar's excavations at Hissarlik and Mycenae, most believe that Homer's account of the Trojan War has some basis in fact. He eventually discovered the ruins of Troy under many strata of the ruins of other civilizations.

Answer: Heinrich Schliemann

12. Given a list of titles, identify the comic book company that created them FTPE.

- a) *The Savage Dragon*, *WildC.A.T.S.*, *Spawn*

Answer: Image Comics

- b) *Nightwing*, *Shadow of the Bat*, *The Man of Steel*

Answer: DC or Detective Comics

- c) *The Uncanny X-Men*, *X-Factor*, *X-Force*

Answer: Marvel Comics

13. Given a description, identify the following works by Fyodor Dostoyevsky FTSNOP.

- a) (5 points) Raskolnikov, the hero of this novel, a nihilist governed by “reason,” makes his own definition of good and evil and commits murder to serve a “better” end.

Answer: Crime and Punishment

- b) (10 points) Originally titled *A Confession*, this novel recounts the humiliation and suffering of a forty-year-old who aims not to be good or great or rich, nor to be rational, but only to affirm his independence as a human soul.

Answer: Notes from the Underground

- c) (15 points) Dostoyevsky’s first work, it tells of the frustration of a lonely clerk who hopelessly schemes for respectability but whose life is warmed only by love for an orphan girl.

Answer: Poor Folk

14. Identify the following chromatography techniques F15PE.

- a) This type of chromatography uses a tube packed with a porous material, frequently a silica gel on which water has been adsorbed. In some cases, it is most efficient to use different solvents in succession to separate the components of a mixture. As solute fractions reach the bottom of the tube, they are separated and used for analysis.

Answer: column chromatography

- b) The sample to be analyzed is vaporized and passed through a column, carried in a stream of inert gas such as helium or nitrogen. The residence time of any substance on the column depends on its partition coefficient from the vapor to the liquid in the column. The result is a chromatogram, with a peak corresponding to each substance in the mixture.

Answer: gas chromatography (accept gas-solid or gas-liquid chromatography)

15. Identify these historical figures with sobriquets FTSNOP.

- a) (5 points) Name the English king who captured Acre from the Saracens in 1191.

Answer: Richard the Lion-Hearted or Richard Coeur de Lion or Richard I

- b) (10 points) Identify the sobriquet of Aethelred, who ruled England from 978-1016.

Answer: Aethelred the Unready or Ill-Counseled

- c) (15 points) He was a son of Ragnar Lothbrok, and he and his brother Halfdan led a powerful Viking force that landed in East Anglia in 865. Give the first name and sobriquet of this unforgettably named Viking.

Answer: Ivar the Boneless [Editor’s note: He was rumored to have a skeleton made of gristle.]

16. Identify this philosopher, 30-20-10.

- a) His famous lecture series, *Heroes, Hero Worship and the Heroic in History*, detailed the many men he considered heroes: Odin, Muhammed, Dante, Knox, Burns, and Napoleon, for example.

- b) Some of his lesser-known works include his 1837 *French Revolution*, and his 1843 *Past and Present*, as well as a monumental six-volume biography of another one of his heroes, Frederick the Great of Prussia.
- c) This Scottish philosopher's most famous work is *Sartor Resartus*, which translates as "Tailor Retailored."

Answer: Thomas Carlyle

17. Given a description, identify the role being described in a mosque FTPE.

- a) This person sits atop the minaret and makes the public call to prayer five times a day.

Answer: muezzin

- b) This person leads the community prayers in a mosque and acts as leader of a Muslim community. He usually conducts marriages and funerals.

Answer: imam

- c) This person is a spiritual leader that specifically leads the Friday sermon.

Answer: khatib

18. Identify these Australian authors from works FTPE.

- a) *Happy Valley, The Tree of Man, Voss*

Answer: Patrick White

- b) *Tiburon, The Joyful Condemned, The Battlers*

Answer: Kylie Tennant

- c) *Schindler's Ark, The Chant of Jimmie Blacksmith*

Answer: Thomas Michael Keneally

19. This terribly exciting bonus is all about the anatomy of fungi. Identify the following terms FTPE.

- a) These filaments are the primary constituents of the body of a fungus.

Answer: hyphae or hypha

- b) This is the densely branched network of hyphae that forms the structure of a fungus.

Answer: mycelium

- c) This is a mutualistic association of plant roots and fungi. The two components aid each other in obtaining nutrients and propagating each other's offspring.

Answer: mycorrhizae

20. Identify the African country given a list of countries that surround it FTPE.

- a) Sudan, Central African Republic, Cameroon, Nigeria, Niger, Libya

Answer: Chad

- b) Mali, Niger, Benin, Togo, Ghana, Ivory Coast

Answer: Burkina Faso

- c) Equatorial Guinea, Cameroon, Congo

Answer: Gabon

21. Given a presidential candidate, identify the third party he once represented FTPE.

- a) Robert LaFollette

Answer: Progressive Action

- b) George Wallace

Answer: American Independence

- c) Strom Thurmond

Answer: Dixiecrats or States' Rights