

1. It contains a thin wire electrode aligned along the central axis of a cylindrical metal tube filled with gas at low pressure. When a high-energy particle enters the tube through a thin window at one end, some gas atoms are ionized, creating an avalanche of electrons that produces a current pulse, often connected to a speaker that clicks after every event. FTP—name this device used to detect radioactivity.

Answer: Geiger-Müller counter

2. In her first appearance, both her brother and father warn her against falling for her noble suitor. When she obeys her father, and does not see him, her suitor writes to her and bursts into her room, appearing madly in love with her. During a later conversation with him, she professes her love, only for him to tell her he never loved her at all. FTP—name this Shakespeare heroine who, insane, drowns herself.

Answer: Ophelia

3. Founded in 1901 as one of the original American League teams, they won their first league pennant in 1902. By 1909 this team had its famous "\$100,000 infield". They adapted their team insignia after John McGraw called them "The White Elephants." Noted for several bad trades with the Yankees in the 1950's and at least three wholesale dumpings of their best players after a string of winning seasons, the team won its last Series title in 1989 behind the power of the Bash Brothers. FTP name this team that moved from Philadelphia to Kansas City to its current home in Oakland.

Answer: Athletics

4. *Time's* 1953 Man of the Year, he entered politics as a moderate in 1905. Repeatedly harassed by the Gestapo during World War II after removing Nazi flags from Cologne in 1933, it was only by one vote that this Christian Democrat became chancellor in 1949. FTP name this leader of West Germany who directed that country's integration with the West.

Answer: Konrad Adenauer [AA-dih-NOW-ir]

5. Published at the author's expense in 1911, it went unnoticed during his life, as potential backers were bored and mystified by its naive folk appearance. It became its author's obsession and led to his mental breakdown. Re-released on Broadway in 1972 after new artists added more narrative and clarified the plot, it became a sell-out hit, although Scott Joplin was never able to hear it performed. FTP, name this opera, Scott Joplin's Pulitzer Prize-winning work.

Answer: Treemonisha

6. According to one legend, Milanion was her successful suitor. In any case, she and her suitor angered the gods by making love in the temple of Cybele; as punishment, they were turned into lions and yoked to Cybele's chariot. Meleager awarded the pelt of the Calydonian boar to—FTP—what woman, whom Hippomenes tricked into picking up some golden apples, so that he could beat her in a race?

Answer: Atalanta

7. The title of the novel comes from when Miss Maudie explains to Jem it is a sin to commit the titular act. The story is told from the point of view of Jem's 6-year-old sister Jean Louise, who is called Scout. When her father is hired to defend Tom Robinson, a black man accused of raping a white woman named Mayella Ewell, she is exposed to the racism and prejudice of the South. FTP, name this 1961 Pulitzer-Prize winning novel about Atticus Finch by Harper Lee.

Answer: To Kill A Mockingbird

8. Its mRNA is stabilized in cells with PRL. Its most common residues are leucine, lysine, valine, and aspartic acid. Its formaldehyde is useful as a plastic, and it has no crystal structure -- its primary structure is essentially random. In its natural form it exists in globs called micelles. The bond between its 105 and 106 amino acids is cleaved by the protein rennin. FTP, identify this protein, the emulsifying agent found in milk.

Answer: casein [KAY-seen]

9. It is believed he died in Italy around 424 B.C.; the last date referenced in his work is 430 B.C. Exiled to Lamnos to flee the rule of Lygdamis in his native Helicarnassus, his work was known enough in Athens that Aristophanes parodied it. The nine chapters of his only extant work were named after the Muses by Roman editors. FTP name this historian who chronicled the Persian wars.

Answer: Herodotus of Halicarnassus

10. Important landmarks in this Civil War battle include the Wheat Field and Culp's Hill. On the first day, the two sides were drawn up on parallel ridges while Confederate troops formed their famous "fishhook" shape. The battle degenerated into a series of miscues and faulty orders on both sides, most notably when no one had possession of Little Round Top. The South lost two days later in, FTP, what battle that began on July 1, 1863?

Answer: Battle of Gettysburg

11. This novel takes place in the town of Macondo, which was founded by Jose Arcadio Buendia, his wife Ursula, and nineteen other families. The novel chronicles a century of the lives of the people in Macondo and seven generations of the Buendia family, including Colonel Aureliano Buendia, Remedios the Beauty, and Renata Remedios. FTP, name this most famous novel of Gabriel Garcia Marquez.

Answer: One Hundred Years of Solitude

12. There are actually two diseases by this name. One is caused by an inability of the kidney to conserve water due to a lack of vasopressin. The other disease is much more common and has two subtypes. One subtype usually occurs later in life and in obese people and is caused by a resistance to a certain hormone. The other subtype occurs in childhood and is, FTP, caused when the pancreas does not produce insulin.

Answer: Diabetes [do not accept diabetes mellitus; that's only the second subtype]

13. In 1900, he agreed to head a commission to end US military rule in the Philippines. A year later, he became civil governor of the islands and sponsored many reforms while preparing the Filipinos for self-government. In 1904, Teddy Roosevelt named him Secretary of War. FTP—name this man who couldn't keep the peace between conservatives and progressives as our most corpulent President.

Answer: William Howard Taft

14. Its name may come from the Phoenician word for "snakes," with which it was once infested. The highest peak on this 540 square mile island is the 4,000-foot summit of Atáviros. The largest of the Dodecanese islands—FTP—name this easternmost island in the Aegean Sea, separated from Turkey by the Strait of Marmara.

Answer: Island of Rhodes or Ródhos

15. He was influenced by Plato, Augustine, and Seneca, the latter of whom may explain his repressive attitude toward anything that involved pleasure. In his magnum opus, *Institutes of the Christian Religion*, he asserted the supremacy of the Bible as a source of knowledge, the total depravity of man, the absence of free will, and the divine predestination of those to be saved. FTP name this French-born Protestant reformer, whose theology formed the basis of Reformed, Presbyterianism, and Puritan churches.

Answer: John Calvin [or Jean Cauvin]

16. The churches referenced in this play may represent the author's Romantic early works; the female lead was inspired by a young girl who tried to seduce him during a trip to Austria. The title character, representing art facing its limitations, dies from a fall while trying to overcome his vertigo by climbing a high spire while the young Hilda watches in—FTP—what 1892 play about the decline and death of Harvald Solness, written by Ibsen?

Answer: *The Master Builder Solness* or *Bygmester Solness*

17. Its prototype was a 6th century church, now destroyed, built by Justinian; its marble columns and paneling were imported from the east. Built on the plan of a Greek cross, its five square segments are crowned with domes of copper and wood. FTP—name this majestic basilica, which shares its name with the surrounding square on the Grand Canal in Venice.

Answer: St. Mark's Basilica or Basilica di San Marco

18. It dominated the Sahel region of the southern Sahara when the Keita family converted to Islam after 750 AD. Its legendary founder was Sundjara, who ruled the kingdom from 1230-1255. FTP, identify this African Kingdom that succeeded the Ghana empire, whose most famous ruler was Mansa Musa in the 14th century.

Answer: Mali

19. He determined that sugar is converted into glucose and carbon dioxide during fermentation, and he aided the Montgolfier brothers in their successful 1783 demonstration of a hot air balloon—fitting, as he is best known for his study of gases. FTP—who is this French chemist whose namesake law states that, at constant volume, the pressure of a gas is directly proportional to its absolute temperature?

Answer: Louis Gay-Lussac

20. As an All-Star football player, he met President Kennedy. He became a war hero in Vietnam. A member of the first US table tennis team to visit China, he became a successful shrimp boat captain and ran across America. FTP—name this “slow” title character of a Winston Groom novel and a markedly modified Robert Zemeckis film, played by Tom Hanks.

Answer: Forrest Gump

21. She made her pro debut in October 1995 at age 14. In 1998 she became the ninth-youngest player in the Open Era to defeat a reigning world No. 1. In 2000 she was the fourth ranked doubles player in the world and played with Martina Hingis. Despite her doubles success, she has yet to win a singles title. FTP name this Russian tennis player who is more known for her looks than her playing ability.

Answer: Anna Kournikova

22. It is 190 feet across, 90 feet high, and 42 feet deep. After Augustus Lukeman was fired for working too slowly, Walter Hancock finished the carving using thermo-jet torches to carve away the granite. Dedicated in May 1970, it is the largest high-relief sculpture in the world. FTP—name this southern icon that features Jefferson Davis, Robert E. Lee, and Stonewall Jackson riding horseback.

Answer: Stone Mountain [no, there is no separate name for the sculpture – I checked]

23. The principal characters grow up at Dorlcote Mill, and among the loves of the female protagonist are Philip Waken and Stephen Guest, the fiancé of Lucy Deane with whom the female protagonist goes off only later to reunite with her brother Tom. FTP, identify this novel of George Eliot, whose main character is Maggie Tolleriver.

Answer: The Mill on the Floss

1. FTPE answer the following about a certain novel:

[10] This novel portrays an American in the Italian army named Frederic Henry who falls in love with an English nurse.

Answer: A Farewell to Arms

[10] Name the author of *A Farewell to Arms* for another ten points.

Answer: Ernest Hemingway

[10] Finally, name the English nurse that Frederic falls in love with for a final ten.

Answer: Catherine Barkley (Either name is acceptable)

2. FTPE, given a Ludwig van Beethoven work, provide its nickname:

[10] Symphony no. 3 in E Flat Major

Answer: Eroica

[10] Sonata in C Sharp Minor

Answer: Moonlight

[10] Piano Concerto no. 5 in E Flat Major

Answer: Emperor

3. Given a pair of adjacent elements in their ground state, name the orbital in which one would place the “extra” electron in the latter element, FTPE:

[10] Helium and lithium

Answer: 2s

[10] Manganese to iron

Answer: 3d

[10] Gold to mercury

Answer: 6s [Au has a full 5d shell]

4. The Eighties just won't die. Given a more recent clue, identify the musical artist or group FTPE. If you need some of their '80's song titles, you'll get 5 pts.

a) 10 pts.: They've enjoyed success with both their recent live album, *One Wild Night*, and their 2000 studio album *Crush*, which yielded the hit single “It's My Life.”

5 pts.: “Wanted Dead or Alive”, “You Give Love a Bad Name”

Answer: **Bon Jovi**

b) 10 pts.: He was set to headline an '80's nostalgia tour, but last week British authorities detained him as a suicide risk days after his arrest for assault and possession of a firearm after an incident at a London nightclub. There's already a new website that's campaigning for his release.

5 pts.: “Goody Two Shoes,” “Stand and Deliver”

Answer: **Adam Ant** [note: www.FreeAdamAnt.com]

c) 10 pts.: They returned to the charts in 2001 with the moody and dark “Dream On”. They won new fans in the Nineties by switching to a more guitar-led sound on the albums *Violator* and *Songs of Faith and Devotion*.

5 pts.: “See You,” “Enjoy the Silence,” “People Are People”

Answer: **Depeche Mode**

5. At the Versailles Conference, the U.S. delegation was of course led by Wilson. FTPE name these other leaders.

[10] Nicknamed “the Tiger”, he was the prime minister of France and wanted to make Germany pay for all of the damage that France suffered during the war.

Answer: Georges Clemenceau

[10] The Great Britain prime minister at the time, he believed that Germany shouldn't be treated too harshly.

Answer: David Lloyd George

[10] This Italian prime minister expected to be given the Adriatic coast because of the Secret Treaty of London in 1915.

Answer: Vittorio Orlando

6. Name these brain structures FTPE.

[10] This large band of axons connects the two hemispheres of the brain.

Answer: Corpus Callosum

[10] This large two-lobed structure forms the top of the brain stem. It consists of many pairs of nuclei, some of which are sensory relay nuclei.

Answer: Thalamus

[10] This part of the brain stem houses the reticular formation and blocks motor signals from being conducted to major muscle groups during REM sleep.

Answer: Pons

7. Given a description of the humanoid race from *Gulliver's Travels*, name the island FTPE.

[10] The inhabitants of this island are all about sixty feet tall.

Answer: Brobdingnag

[10] This island houses the sorcerers and magicians, who have the talent of calling people back from the dead for 24 hours.

Answer: Glubdubdrib

[10] On this island, the people all had heads reclined to either the left or right, with one eye turned inward and the other turned directly up. Their clothes were covered with suns, moons, stars and musical instruments.

Answer: Laputa

8. Name these rebellions from U.S. history FTSNOP.

[5] This 1794 rebellion was in response to a federal tax on corn liquor.

Answer: Whiskey Rebellion

[5] This 1831 insurrection killed at least 57 whites in four days, before the rebellion was stopped.

Answer: Nat Turner's Rebellion

[10] This 1786-87 rebellion against state courts was a result of the heavy taxes Massachusetts levied in order to reduce their debt.

Answer: Shays' Rebellion

[10] This 1842 rebellion in Rhode Island started because the colonial charter of 1663 and its restrictions on suffrage were still in effect.

Answer: Dorr's Rebellion

9. Identify the following terms from Zen Buddhism, TPE.

[10] This word is defined as, "all processes governing cosmic life, the laws of the universe, known or as yet unknown."

Answer: dharma

[10] This is the term for the short sayings or stories which are used meditatively. Dogen is one of the most famous utterers of these.

Answer: koan

[10] This is a term widely misunderstood as some kind of cosmic law of retribution, but is literally the word for "action".

Answer: karma

10. FTPE, given a description of a hominid discovery, name its genus and species

[10] This adult female skeleton, later named Lucy, was found at Hadar, Ethiopia, by Donald Johanson in 1978.

Answer: Australopithecus afarensis

[10] Peking man was an example of this species, discovered there by Davidson Black in 1927.

Answer: Homo erectus

[10] Named by Louis Leakey and John Napier in 1964, its remains were first found in 1959 at Olduvai Gorge.

Answer: Homo habilis

11. Name these African authors from works, 10 points each.

[10] *A Dance of the Forests, Death and the King's Horsemen, The Lion and the Jewel.*

Answer: Wole Soyinka

[10] *The Lying Days, The Conservationist, July's People.*

Answer: Nadine Gordimer

[10] *Midaq Alley, Palace Walk, Children of Gebelawi.*

Answer: Naguib Mahfouz

12. Identify the philosopher from works, FTPE.

[10] *Origins of Totalitarianism, Eichmann in Jerusalem*

Answer: Hannah Arendt

[10] *The Open Society and Its Enemies, The Logic of Scientific Discovery*

Answer: Karl Popper

[10] *On Liberty, The Irish Land Question*

Answer: John Stuart Mill

13. Identify the following battles of the Persian wars, TPE.

[10] Fought in 490 BC, Miltiades led the Greeks to victory over the Persians despite being outnumbered.

Answer: Battle of Marathon

[10] Fought in 480 BC, Leonidas defended this pass from Xerxes.

Answer: Thermopylae

[10] Aided by Themistocles, the Greeks later crushed the Persians at this naval battle following Thermopylae.

Answer: Salamis

14. How well do you think under pressure? Answer these questions about pressure, 10 points each.

[10] Within one, how many kilopascals of pressure are there at standard pressure?

Answer: 101.325 kPa [accept 100.325 to 102.325]

[10] Standard pressure is defined as one of these units.

Answer: atmosphere(s)

[10] This unit of pressure equals approximately 987 millionths of an atmosphere.

Answer: millibar(s)

15. Name these wide receivers for the San Francisco 49ers, FTPE.

[10] Number 80, he has more touchdowns than any player in NFL history.

Answer: Jerry Rice

[10] Number 81, this vocal UTC alum made the Pro Bowl in 2001, and was one of this season's leading receivers.

Answer: Terrell Owens

[10] Number 87, he made "The Catch" that got the 49ers into their first Super Bowl. He later worked in the front office in San Francisco and Cleveland.

Answer: Dwight Clark

16. Given a description of those it derided, give the political epithet FSNOP.

[5] These writers of the early 20th century wrote to expose corruption in businesses and politics.

Answer: Muckrakers

[5] This was a Southern term for Northerners who came south and ran for office as Republicans during Reconstruction.

Answer: Carpentbaggers

[10] These people were white Southerners, often Republicans, who cooperated with blacks and Northerners to implement Reconstruction.

Answer: Scalawags

[10] This term referred to independent Republicans who abandoned Blaine in the 1884 election to back Cleveland.

Answer: Mugwumps

17. Answer these questions about branches of chemistry, FTPE.

[10] Zymurgy is the study of what process?

Answer: fermentation [reluctantly accept beermaking, brewing, other equivalents]

[10] What 13-letter name is given to the analysis and calculation of the quantities of reactants and products in a chemical reaction?

Answer: stoichiometry

[10] What branch of chemistry deals with compounds containing ligand-bound metal ions?

Answer: coordination chemistry

18. Identify the playwright whose last name begins with W from plays FTPE.
 [10] *The Glass Menagerie, Cat on a Hot Tin Roof, A Streetcar Named Desire.*
 Answer: Tennessee **Williams**
- [10] *Fences, The Piano Lesson, Joe Turner's Come and Gone.*
 Answer: August **Wilson**
- [10] *Any Women Can't, Isn't It Romantic, The Heidi Chronicles.*
 Answer: Wendy **Wasserstein**
19. Name these pop artists, 10 points each.
- [10] This American used silk screens to create his canvases of Chairman Mao and Campbell's Soup.
 Answer: Andy **Warhol** or Andrew **Warhola**
- [10] This Swede created public participation pieces called "happenings," but he is better known for such works as a giant shuttlecock in Kansas City or Yale's "The Lipstick."
 Answer: Claes Thure **Oldenburg**
- [10] This French pop artist used ink doodles on paper for his "Hourloupe" style, which used interlocking, heavily outlined blobs to create tragic figures like 1973's *The Inquisitor*.
 Answer: Jean **Dubuffet** [doo-boo-FAY]
20. Name these calculus theorems, 15 points each.
- [15] This theorem states that the line integral of the sum of two functions f and g of x and y is equivalent to the double integral of the difference of certain partial derivatives of f and g .
 Answer: **Green's** Theorem
- [15] This higher-order version of Green's theorem states that the line integral of a vector-valued function F equals the double integral over the surface of the dot product of the curl of F and the normal vector n .
 Answer: **Stokes'** theorem
21. Hey, we have myths too. Name these American folk tale figures, FTPE.
- [10] This huge dude is best remembered for digging the Grand Canyon and owning a big blue ox named Babe.
 Answer: Paul **Bunyan**
- [10] The love of Slue-footed Sue, coyotes raised this legendary cowboy after he fell from his parents' wagon.
 Answer: **Pecos Bill**
- [10] He named himself owner of the Eel River, which he discovered with his sister Molly. This West Virginian had two oxen, Hannibal and Goliath; he chopped trees down two at a time.
 Answer: Tony **Beaver**
22. For 5 pts. each, given the year that the games took place, give the city that hosted the summer Olympics.
- [5] 1996
 Answer: **Atlanta**
- [5] 1936
 Answer: **Berlin**
- [5] 1980
 Answer: **Moscow** or Moskva
- [5] 1904
 Answer: **St. Louis**
- [5] 1968
 Answer: **Mexico City** or Ciudad de Mexico
- [5] 1912
 Answer: **Stockholm**
23. Name the winners of these 2001 elections FTPE.
- [10] New York City Mayor
 Answer: Michael **Bloomberg**
- [10] Virginia Governor
 Answer: Mark **Warner**
- [10] New Jersey Governor
 Answer: James **McGreevey**