

Questions from Technophobia
(questions by Caltech, UCI, UCLA, Berkeley B, Berkeley A and Cal Poly Pomona).

1) Naomi Wolfe in *The Beauty Myth* describes their use in "treating" menstruation during the Victorian period. They are also useful for preventing venous congestion in retransplanted tissue, since although it is fairly easy to reattach arteries via a microscope, there is no easy way to allow blood to drain from the reattached tissue until the veins reform. A chemical derived from their saliva, hirudin, is also being used as an anticoagulant. Despite their benefits, they have to be used in conjunction with an antibiotic and can only be obtained from relatively expensive laboratories and not from the wild. FTP, identify this blood-sucking annelid regaining popularity in the medical community.

Answer: Leeches (*Hirudo medicinalis*).

2) Passepartout traded his for a Japanese one to help finance their trip to San Francisco. Tom Joad keeps a toad inside one. A fiddle for Hindley is crushed in Mr. Earnshaw's when he brings home Heathcliff. In Middlemarch, Rosamond strokes Will's, which incited his ire. Akakii Akakievich had one stolen from him as he was returning from a departmental dinner, and then haunted the streets of St. Petersburg stealing them from the shoulders of passers-by. FTP, identify this article of clothing named in a title of a short story by Nikolai Gogol.

Answer: Overcoat.

3) This island chain includes Flores and Corvo to the Northwest, Faial, Pico, Sao Jorge, Terceira, and Graciosa in the center and Sao Miguel, Santa Maria, and the Formigas islets to the east. These nine islands were uninhabited before they were settled in 1432 by Goncalo Velho Cabral. Before the advent of weather satellites, they were essential to forecasting the weather of Europe, and their strategic position made them hotly contested during England's conflict with the peninsular powers. FTP, identify this island group with capital at Ponta Delgada a thousand miles west of its owner, Portugal.

Answer: Azores.

4) As reported in *Science*, Yoshinori Tokura noted that the resistivity of a crystal made of strontium, ruthenium and oxygen did not change linearly with temperature, as expected, but varied non-monotonically, providing evidence for this phenomenon. The mass of 10^{16} (ten raised to the sixteenth power) giga-electronvolts predicted by grand-unified-theories makes these impossible to observe through experiment, thus necessitating such indirect observation methods. Their existence was linked to the quantization of electric charge by Dirac, who first put forward the concept in 1931. FTP, identify this as-of-yet unobserved magnetic point charge.

Answer: magnetic monopole.

5) Von Bismark, the gifted and experienced commander of the 21st division was killed by a mortar blast, and the Italians were making slow progress. Despite the attacking General's infamous Fingerspitzengefühl [feeng-EHR-spit-zen-GAH-fool], he followed the advice of Bayerlein and pressed forward to take Alam Halfa, which was defended by the British 44th. The sinking of a tanker off of the nearby port of Tobruk, taken earlier by the Germans, caused severe fuel shortages and forced the Africa Korps to withdraw from Montgomery's lines. FTP, identify this North African battle of World War II that saw the tide turn against Rommel.

Answer: Second Battle of El Alamein.

6) Tom pre-buys the Armgard's crop, has an abscessed molar extracted, and dies soon thereafter. Christian goes insane and gets into a homosexual relationship with Kai and wants to die. Elisabeth painfully dies of pneumonia, and the servants plunder her clothing. Gerda sells the home and family firm, which had been going well under the direction of Tom, thus ending a Lubeck institution. FTP, identify this family, the subjects of a novel of decay by Thomas Mann.

Answer: Buddenbrooks.

7) Three rough divisions of this type of music are cakewalk, bordello, and firework, though pieces tend to overlap. It is characterized by bass notes on the beat and melodic notes often off the beat. It was the title of

a play by Terrence McNally and a book by Doctorow, which were adapted into a 1998 Broadway musical with songs like "Coalhouse's Soliloquy" and "Wheels of a Dream." FTP, name this genre of music, most famously composed by Joseph Lamb, James Scott, and Scott Joplin.

Answer: Ragtime.

8) This role-playing game includes the "Fabtabulous Contrapulator," a sidequest where you distill sewage into useful potions. Locations you may encounter include Faerun, Charwood, and Port Llast. Side characters include a sorcerer named Wanev, the almighty god Tyr, various magical familiars, and any of the henchmen you may hire to help your questing. As for you, you start out as a student under the elven Lady Aribeth, then pick and choose your way through modules of adventures that lead you to the ultimate secret of the title location. FTP, name this AD&D-based game by Bioware, with a recent expansion pack called "Shadows of Undrentide."

Answer: Neverwinter Nights.

9) After his father Senzangakona died, this man took over his father's former position. After his mother Nandi died, he ordered the sacrifice of several thousand of his people and a three month fast for the rest, leading to massive starvation. He invented a new weapon, the iKlwa, and trained his warriors, called impis, to crush the enemies of their tribe and of the Mtetwa. Given his chieftom by Dingiswayo and murdered by his half-brother Dingaan, name, FTP, this African warrior, king of the Zulus.

Answer: King Shaka Zulu.

10) A member of Drexel Burnham's trading division pioneered the use of these to raise large amounts of cash in a short period of time. In the American market, these must pay an average of more than 5% more than the prevailing rate in order to attract investors---hence more than 35% of those issued end up defaulting, thus leading to the downfall of Michael Milken at Drexel Burnham. FTP, identify this derogatory term for securities officially rated as "below investment grade."

Answer: junk bonds.

11) This natural alkaloid has antipyretic and analgesic properties, and chemical formula C₂₀H₂₄N₂O₂. It was probably discovered by Peruvian Jesuits, who used this then-rare substance to treat various fevers, and today it is still a useful medicine. In 1944 Robert Woodward and William Doering found a way of synthesizing it from coal tar, which was preferable to cutting down cinchona trees from the Andes. The story goes that it was so good at treating a certain tropical disease, but tasted so bitter, that British colonels in India mixed it with gin to produce gin-and-tonic. FTP name this medicine, best known for preventing and treating malaria.

Answer: Quinine, (do not accept or prompt on any derivatives).

12) There is no such word as herring in his dictionary. He owns a calculator which can cast the I-Ching and calculates any quantity greater than 4 to be "A Suffusion of Yellow." He has charged Mrs. Sauskind 150 pounds for triangulating the vectors of interconnectedness of all things, but saving the world comes free. He has been to Valhalla with Kate Shechter and solved the mystery of the death of Gordon Way, which was caused by an Electric Monk. Originally named Svlad Cjelli, FTP, identify this protagonist of *A Long Dark Tea-Time of the Soul*, whose holistic detective agency solves the whole crime and finds the whole person, a creation of Douglas Adams.

Answer: Dirk Gently (accept Svlad Cjelli before it is mentioned).

13) It was first read in 1960 for the Boston Arts festival, and commemorates one of poet's ancestors and at the same time alludes to the current civil rights movement. The speaker of this poem compares his nose to a snail crawling on the glass of the old aquarium in Boston, now abandoned "in a Sahara of snow." The speaker assigns immortality to the monument by Gauden to Colonel Robert G. Shaw, while at the same time recognizing the futility and mortality of the white leader of the 54th Regiment of black soldiers during the Civil War. FTP, what is this elegiac poem by Robert Lowell?

Answer: For the Union Dead.

14) Despite the fact that this artwork's creator was a founding member of the Society of Independent Artists, when he sent it to its first exhibition, it was refused, because he had not signed it with his own

name. The artist acquired it directly from J. L. Mott Iron Works, and the only changes he made were rotating it 90 degrees and signing it "R. Mutt 1917." FTP, name this work, the first of Marcel Duchamp's "ready-mades," an ordinary urinal made art.

Answer: Fountain.

15) In 1822, as Superintendent of Indian Affairs, he supervised part of the removal of Indian tribes from eastern Kansas. After being governor of the Missouri Territory from 1813-1820, he failed in his bid to become its governor after it became a state. Following his brothers Jonathan's and George Rodgers' footsteps, his military career included serving under General Anthony Wayne and fighting at Fallen Timbers. Co-leader of the "Corps of Discovery," FTP, what was this explorer forever linked with his friend and colleague, Meriwether Lewis?

Answer: William Clark.

16) The expansion of this branch of Christianity is responsible for the Uighur and Mongolian alphabets. This sect caused the rise to theological prominence of Alexandria, as Cyril's opposition to this sect won a major theological victory for Alexandria over Constantinople. Theorizing that there are two separate natures in Christ and that Mary was the mother of Christ and not God, this is what branch of Christianity condemned at Ephesus, alternatively called Antiochene or Syriac Christology and named after its fifth-century BC founder.

Answer: Nestorianism. (Accept Syriac or Antiochene Christology or equivalents before mentioned).

17) He is born with an unlucky sneeze and a sixth finger, which gets him the blame for his father's death. An orphan, he is shuttled around to various relatives' homes and gets a job as a sign painter until he stumbles into a marriage that seals his fate with the Tulsi family. He resents their opulence, organization, and oppressive patriarchy, but nevertheless depends on them for his material existence until he finds economic and intellectual freedom in writing for the *Sentinel*. His captive state in the "Hanuman House" is seen as a parallel to the colonial experience. FTPE, identify this character created by V.S. Naipaul who never had a home of his own.

Answer: Mohun Biswas (Accept A House for Mr. Biswas).

18) It is open whether this is solvable for machines with four states, but it is not for those with five states since it includes Collatz class functions. For four states or fewer, however, it is solvable. The general problem, however, assumes infinite memory capacity, so in actuality, one could enumerate all possible states reachable by the program and determine if there is a reachable cycle of states that could allow the program to run indefinitely. First proved unsolvable in the general case by Turing in 1937, FTP, what is this problem of determining if an algorithm will eventually stop?

Answer: Halting problem or Entscheidungsproblem.

19) The national anthem of this country claims that Bonaparte has shown its people the way to victory, and that said people will beat up the Swedes. Under Mieszko [MEES-ko] I, its people became Christian, and to this day its people are predominantly Roman Catholic. In the 14th century, they united with Lithuania with the marriage of Wladyslaw II [vlad-EH-slav] and Jadwiga [yahd-VI-gah]. Although its modern-time military record is less than impressive, in the 15th century they defeated the Teutonic Knights at Tannenberg, and at least one of its past citizens earned, by military valor, his own holiday in certain American cities. FTP name the homeland of Casimir Pulaski with capital at Warsaw.

Answer: Republic of Poland or Rzeczpospolita Polska.

20) Her name means "the essence," and she was often referred to as "First and Last." When Apollo and Poseidon simultaneously proposed to her, she declined both offers, thus averting a possible war between the two gods; in thanks, Zeus declared that her name was always to be invoked first in prayer and that she was to receive the first portion of any sacrifice. She was the keeper of the sacred flame of Delphi that survives today in the Olympic torch. The first Olympian god born to Rhea, she was the last to be vomited up by Cronus -- thus her sobriquet. FTP, name this Greek goddess who gave up her golden throne on Olympus to Dionysus, whose responsibility was the hearth and whose Roman counterpart was Vesta.

Answer: Hestia (do not accept Vesta).

1. Answer the following about a biblical king for ten points each.

1. Although the bible claims he is the son of Nebuchadrezzar [NEB-uh-ka-DREZ-har], Babylonian accounts say he was the eldest son of Nabonidus, who went into 550 BC and left his son regent. He died after the Persians entered the city in 539 BC.

Answer: Belshazzar

Don't be picky about pronunciation

2. All or nothing: what Aramaic words appeared on Belshazzar's wall and later appeared as the refrain of a Heinrich Heine poem?

Answer: mene, mene, tekel, upharsin

3. For a final ten points, what old testament figure was called in to interpret the "writing on the wall," perhaps better remembered for his time spent in a den of lions?

Answer: Daniel

2. Identify these ambassadors to Russia.

1. He won the national book award for *Soviet-American Relations* and the Pulitzer for his memoirs. Recalled to service after his retirement to be appointed ambassador to Yugoslavia in 1961, his time there influenced his theory of "containment."

Answer: George Frost Kennan

2. He was appointed as ambassador to Russia to stop a conflict in the Democratic party between him and George Dallas, when he returned in 1834, he was elected as a senator from Pennsylvania.

Answer: James Buchanan

3. Madison appointed him as America's first Minister to Russia, where he reported on Napoleon's retreat from Moscow, and served as Monroe's Secretary of State after being recalled after 1817. Despite serving adeptly as Jackson's Secretary of State, he ran against Jackson in the 1924 election.

Answer: John Quincy Adams

3. Peter Agre was awarded half of the 2003 Nobel Prize in Chemistry. Answer the following questions about his work.

1. He won for discovering what long hypothesized mechanism for regulating cellular osmotic pressure?

Answer: Water Channel

Accept clear knowledge equivalents that talk about water going in and out of the cell

2. The function of water channels are thought to be especially important in the function of glomeruli, which function as water sieves, in what organ?

Answer: Kidney

3. It is thought that what hormone controls the function of water channels in the kidney and thus regulates the reabsorption of water from urine?

**Answer: vasopressin
Accept Antidiuretic hormone"**

4. Answer the following about the first Opium War FTPE.

1. For ten points, name either the minister charged with cleaning up China of opium or the British Chief Superintendent of Trade in China who called in the cavalry after his stocks of opium were seized.

Answer: Lin Zexu or Charles Elliott

2. The treaty ending the war was signed in this Chinese city.

Answer: Nanjing (accept Nanking)

3. Five ports were opened as a result of the treaty ending the Opium War. Name any two FTPE.

Answer: Guangzhou (accept Canton), Shanghai, Xiamen (accept Amoy), Fuzhou, Ningbo (accept Ningpo)

5. For ten points, name each of these novels by Michael Crichton based on a plot summary.

1. A guy who makes CD-ROM drives called "Twinkle" is sexually assaulted by a female superior, and quickly finds out she screwed him in more ways than one.

Answer: Disclosure

2. This novel involves a bad tennis player who happens to be the king of 14th century France.

Answer: Timeline

3. A woman, who was *not* pregnant, is killed by a botched "abortion", and a pathologist goes to much pain to figure out what exactly happened.

Answer: A Case of Need

6. For ten points, each, name these things found in the hospital:

1. It stops the uncoordinated twitching of an arrested heart, thus providing a "jump start" a heart that has stopped beating.

Answer: defibrillator

2. This is the general term for a device that measures blood pressure; in hospitals it is usually an uncomfortable fabric collar Velcroed to your arm and squeezed tight.

Answer: sphygmomanometer or sphygmometer

3. It is a surgical instrument having circular saw-like edges, used to cut out disks of bone, usually from the skull.

Answer: trephine or trepan

7. Identify the works featuring these women, for ten points each.

1. For ten, Emilia, the wife of Iago.

Answer: Othello, the Moor of Venice

2. For ten, Emilia, the narcissistic member of the Brigata (brih-GAH-tuh).

Answer: Decameron

3. For ten, Emilia, who falls in love with Jaanus but is engaged to Kuno.

**Answer: The Revenger
accept Tasuja**

8. Name the following famous Anarchists from history for ten points each.

1. A former officer in the Russian Imperial Guard, his criticism of Marx's methods as conducive to the emergence of totalitarianism got him expelled from the International in 1870.

Answer: Mikhail Bakunin

2. A friend of Bakunin's, this Frenchman probably became a socialist under the tutelage of Charles Fourier. He is most famous for his phrase "Property is theft."

Answer: Pierre-Joseph Proudhon

3. The premiere anarchist thinker of 19th-century America, he translated much of Proudhon's work into English and advocated a utopian system of free thought and free love in order to produce philosophical anarchism.

Answer: Benjamin Tucker

9. Given some members, name the literary movement, for ten points each.

1. John Wain, Leslie Allen Paul, Kingsley Amis, John Osborne

Answer: Angry Young Men

2. Theodore de Banville, Francois Coppee, Rene Francois Armande Sully-Prudhomme, and Charles Leconte de Lisle.

Answer: Parnassians

3. Leopold Sedar Senghor, Leon Damas, and Aime Cesaire

Answer: negritude

10. Identify some quantum mechanical phenomena for ten points each.

1. What is the term for the splitting of energy levels in an atom that results from the magnetic dipoles of the electrons aligning parallel or anti-parallel to an applied magnetic field?

Answer: Zeeman effect

2. This analog of the Zeeman effect results when an applied electric field polarizes the atom and interacts with the resulting dipole.

Answer: Stark effect

3. This effect results from the interaction between the spins of the nucleon and the electrons. It gets its name from the fact that the energy gap between two levels split this way is proportional to the third power of a dimensionless constant equal to about 1/137.

Answer: hyperfine splitting (or interaction)

11. Identify these mythic races from various European mythologies for ten points each.

1. A group of nature and fertility gods who initially opposed the Aesir, this race of Norse dieties is represented in the Norse pantheon by the god Njord and his children, Frey and Freya.

Answer: Vanir

2. The predecessors and competitors of the gods in Greek myth, these dieties were the twelve children of Uranus and Gaia.

Answer: Titans

3. With a name meaning "men of the Sacks" this Irish race was originally from Greece and were the 4th wave of invaders to Ireland. They were conquered by the Tuatha de Danann at the Battle of Megh Tuiredh.

Answer: Fir Bolg.

12. Are you tired of cute lead-ins that claim things are somehow related? This question writer figured as much. So for 10 points each, name these completely unrelated battles.

1. This October 14, 1806 battle saw a more numerous French force defeat Prussian and Saxon forces trying to meet with their Russian allies. Davout's victory the same day at Auerstadt left only Russia to fight Napoleon.

Answer: Jena

2. This May 1905 naval battle severely depleted the Russian fleet, leading directly to the Treaty of Portsmouth.

Answer: Tsushima [soo-SHE-ma] Strait

3. The last major battle in the War of the Triple Alliance, this March 1, 1870 battle is now a national holiday in Paraguay.

Answer: Cerro Corá

13. Answer these questions about minor colonial powers for ten points each.

1. This nation occupied parts of India like Tranquebar and the Nicobar Islands, but is better known for its brutal hold on the Virgin Islands.

Answer: Denmark or Danmark

2. For ten, it occupied the last foreign-held part of modern-day Pakistan aside from Indian Kashmir until the 1950's, the port of Gwadar. It more famously controlled the island of Zanzibar and is now the last sultanate in the Middle East.

Answer: Sultanate of Oman

3. For fifteen, this Baltic Sea duchy now part of present-day Latvia at one time held Gambia and Tobago under its mercantilist Duke James.

*Answer: Duchy of Courland
or Kurzeme*

14. Given a list of characters, identify the play by Eugene O'Neil.

1. Ephraim Cabot, his sons Simeon, Peter, and Eben, and Abbie Putnam

Answer: Desire Under the Elms

2. Charles Marsden, Professor Henry Leeds, Edmund Darrell, and Madeline Arnold

Answer: Strange Interlude

3. Larry Shade, Dom Parrit, and Harry Hope.

Answer: The Iceman Cometh

15. Answer the following questions about flatulence for the stated number of pointseach.

1. For five, this constituent gas of flatulence increases in proportion the longer that one holds in a fart since it isn't absorbed through the intestinal wall.

Answer: Nitrogen

2. Five points apiece, name any of the three types of galacto-oligosaccharides, which humans and other monogastric animals cannot break down, and are often found in beans.

Answer: verbascose, stachyose, and raffinose

3. For ten points, what is the term given to the hive-defense mechanism used by ants and termites where individuals use a build-up of gastric gas to explode.

Answer: autothysis

16. Given an opening line of a work by Dickens, give the work on a 5-10-20-30 basis.

1. Marley was dead: to begin with. There is no doubt whatever about that.

Answer: A Christmas Carol

2. "Now, what I want is, Facts. Teach these boys and girls nothing but Facts. Facts alone are wanted in life."

Answer: Hard Times

3. The kettle began it! Don't tell me what Mrs. Peerybingle said. I know better.

Answer: The Cricket on the Hearth

4. My father's family name being Pirrip, and my Christian name Philip, my infant tongue could make of both names nothing longer or more explicit than Pip.

Answer: Great Expectations

17. Name these terms associated with animal behavior for ten points **Leach** from descriptions.

1. It is an innate behavior that is typically carried to completion despite being unable to fulfill the goal. An example is the graylag goose executing a series of neck motions to return a stray egg and does so all the way back to the nest despite the egg rolling away.

Answer: fixed action pattern
prompt on FAP

2. Discovered by Konrad Lorenz, this innate programming occurs during the critical period of an animal's life that becomes a permanent irreversible behavior. The classic example is the birthing and return of salmon to rivers.

Answer: imprinting

3. A form of associated learning, it is also called trial-and-error learning. This type of conditioning is where an acquired behavior is associated to an environmental response like B.F. Skinner's experiment with providing food for pressing the right lever and shocks for the wrong ones.

Answer: operant conditioning

18. Given some operatic roles, name their vocal ranges, for ten points 1 each.

1. Azucena in Il trovatore, Carmen

Answer: mezzo soprano
DO NOT prompt on or accept ``soprano''

2. Wotan in the Ring Cycle, Sarastro in The Magic Flute

Answer: bass

3. Erda in Das Rheingold, Mama Lucia in Cavalleria Rusticana

Answer: contralto or alto

19. Answer some questions about the short rule of James II of England for ten points 1 each.

1. In 1688, James II was formally ousted by parliament and replaced with William of Orange and his daughter Mary in this event, so named for the lack of bloodshed it entailed.

Answer: Glorious Revolution

2. In the same year that he was crowned, James II had to fend off an attempted coup by this half-brother, the illegitimate son of Charles II and his mistress Lucy Walter. Fortunately for the king, this man's drive for the throne failed after he was defeated at Sedgemore and he was executed.

Answer: James Scott, Duke of Monmouth

3. Following Monmouth's defeat, this series of court sessions was held to try Monmouth's co-conspirators. Although many had pled guilty under a promise of leniency, Chief Justice George Jeffries had many of them executed anyway, giving these trials this collective name.

Answer: Bloody Assizes

20. Identify these Russian works of art and architecture for ten points 1 each.

1. First created for Friedrich III, Elector of Brandenburg, the panels lining the inside of this room of the a certain palace were stolen by Nazis in 1941, when they were taken to Konigsberg and their trace was lost. A restored version is now on exhibit, but don't expect to find any mosquitoes trapped in the walls.

Answer: Amber Room

2. The Amber Room is one of the many stylized rooms of this palace, conceived by and built for Catherine the Great. This St. Petersburg compound currently houses one of the largest art collections in the world and contains the Winter Palace.

Answer: Hermitage

3. Located outside of St. Petersburg proper, this summer residence of Peter the Great contains the palaces of Marly and Montplaisir, as well as its famous fountains. Its name translates from the German as, "Peter's hope," or if you drop the final letter, "Peter's courtyard."

Answer: Peterhoff