

1. The author digresses lengthily several times on various subjects including one on Waterloo in Volume 2, Book 1. A number of saintly characters, most significantly Bishop Myriel, shelter the main character along the way. Various antagonists in the work include Tholomyes, who impregnates and then abandons one of the female protagonists, and the villainous innkeepers who abuse her daughter. The main antagonist, however, is an obsessed man who takes law and order too far. FTP name this Victor Hugo book which traces Inspector Javert's relentless pursuit of fugitive Jean Valjean.

Answer: Les Misérables or The Wretched of the Earth

2. It was the first satellite to observe ammonia clouds on another planet and performed the first flyby of an asteroid, when it passed Gaspra. It also discovered the first asteroid moon, Dactyl, and detected a series of "moonlets" which may have been ejected from the satellite Amalthea. It made other important discoveries about moons, such as detecting Ganymede's magnetic field, determining the sulfurous nature of Io's lava, and providing evidence for salt oceans under the surface ice of Europa. FTP, name this NASA satellite which orbited Jupiter from 1995 to 2003.

Answer: Galileo

3. One aspect of this deity is A'an, a baboon-headed deity who represents equilibrium. As the guardian of balance, he mediates the battles between good and evil, often healing one side or the other when they suffer a major defeat. He provided the magical incantations which allowed Osiris to be resurrected by Isis and, in some cosmologies, he spoke the words that created the world. When a lunar disk resting in a crescent is placed atop his head, this deity is thought to mete out the durations of the seasons and time. FTP, name this ibis-headed Egyptian god of writing, magic, and science.

Answer: Thoth

4. He was originally born in a Bedouin tribe, but left that life to pursue science. His eldest daughter was born to a Russian woman in the 18<sup>th</sup> Century and he had another daughter born to a woman he met at Woodstock. The first, Nyssa, finally got her revenge on her father for her suffering during the Holocaust in *Death and the Maidens*, while the later, Talia, had fallen in love with Batman, whom her father decided to make his heir. FTP, name this Batman villain and eco-terrorist who uses Lazarus pits to keep himself alive and who was portrayed by Liam Neeson in *Batman Begins*.

Answer: Ra's Al Ghul

5. Two members were killed in a gun-battle with members of the United Slaves on the UCLA campus, possibly at the instigation of the FBI, while Fred Hampton, a leading member in Chicago, was shot in a police raid after he had been drugged by an FBI informant. A schism developed between members in the East, who followed Eldridge Cleaver, and those in the west, who followed the organization's founders. FTP, what was this militant African-American civil rights organization founded by Bobby Seale and Huey P. Newton?

Answer: Black Panther Party for Self-Defense

6. An electron becomes displaced within a crystal lattice, creating a positive charge in its wake. This region of positive charge in turn draws another electron, creating a Cooper pair. At very low temperatures, the vibrations of the atoms are smaller than the force holding the Cooper pair together, and the Cooper pair moves throughout the lattice with ease. FTP, what is this theory dating from 1957 which explains the ability of metals to conduct electricity without resistance at very low temperatures?

Answer: BCS Theory, accept Type-II Superconductivity

7. The birth of its ethnic nationalism can be traced to the creation of the League of Prizren, which sought greater regional autonomy within the Ottoman Empire, in 1878. Its first foreign leader was William of Weid, a German prince, but the nation's throne had previously been offered to Aubrey Herbert, a British MP. This country was a bone of contention between Yugoslavia and Italy, with the Yugoslav-backed Ahmed Bey Zogu becoming King Zog in 1928. FTP, name this Balkan nation with capital at Tirana.

Answer: Albania

8. He wrote two novels dealing with his adolescence and early years in New York, *Vanity of Duluoz* and *The Town and the City*, his last major and first major novels respectively. Also portrayed in both novels is a murder by Lucien Carr, which inspired a collaborative, unpublished novel with William Burroughs, *And the Hippos Were Boiled in Their Tanks*. He wrote *Visions of Gerard* as a memorial to his deceased brother and the similarly-titled *Visions of Cody* about Neal Cassady, the inspiration of his most famous work. FTP, name this Beat author, best known for *On the Road*.

Answer: Jack Kerouac

9. The central idea appeared in early Indian linguistic studies and was widely popularized in the US by the work of Franz Boas, under whom one of its namesakes studied. Like Boas, both its namesakes studied Native American languages, which helped them to develop the concept. The concept has surfaced in numerous works of fiction, including Ayn Rand's *Anthem*, Jorge Luis Borges's "Tlön, Uqbar, Orbis Tertius", and George Orwell's *1984*. FTP, name this linguistic hypothesis which proposes that perception and thought are determined by the language or languages that one knows.

Answer: Sapir-Whorf Hypothesis

10. Guiditta Pasta was the first soprano to sing in the title role when it premiered December 26th, 1831 at La Scala. It takes place in Gaul where the daughter of Oroveso is called to lead her people into battle, though she must fight against her secret love. She considers murdering her children when she discovers her lover's unfaithfulness. However, she instead gives them to his new love Adalgisa and admits her guilt as a Druid priestess who loved a Roman. She mounts a pyre and her love, the proconsul Pollione, joins her. FTP, name this Bellini opera whose most famous aria is "Casta Diva."

Answer: Norma

11. The author of this book is challenged by the false prophetess Noadiah, who is cited by some feminists as proof that female prophets were not unknown. Chapters 8-10 refer to this book's attributed author in the third person and discuss the religion of the Hebrews at the time of the work's composition. Following this is a census of the city as well as lists of the chiefs and high priests. The primary focus of this book is the author's attempts to rebuild the wall of Jerusalem. FTP, name this book of the Old Testament which follows Ezra.

Answer: Book of Nehemiah

12. Like Ramsay MacDonald, he was a member of the Fabian Society, and, after serving as Mayor of Stepney, he was elected to Parliament, where he served as Private Secretary to MacDonald. He served as a Deputy Prime Minister in the War Cabinet under Winston Churchill's coalition government. Following the resignation of George Lansbury in 1935, he became the leader of the Labour Party, which he led until his resignation in 1955, making him the longest-serving leader of that party. FTP, who is this British politician who succeeded Churchill as Prime Minister in 1945?

Answer: Clement Richard Attlee, 1<sup>st</sup> Earl Attlee

13. It occurred first in Switzerland in 1956 and the 52nd one will take place in Helsinki, Finland. Johnny Logan is the contest's most successful artist, having won three times as either singer or composer. While Great Britain has the most second place wins, with 15, Ireland has the most first place wins with 7. Better-known winners have included Lulu, who was already well-known at the time, and Celine Dion – oddly, representing Switzerland. FTP, name this singing contest which helped propel ABBA into stardom when they won with their song "Waterloo."

Answer: Eurovision Song Contest

14. Atoxyl was the first drug developed to combat this disease, but caused blindness in many patients. Other drugs used to treat it include melarsoprol, which can cause irreversible brain damage, and eflornithine, which is the most modern. The second stage, which sees the infective protozoan enter the brain, is the source of this disease's name, while the first stage sees intense swelling of the lymph nodes as the protozoa enter the lymphatic system. FTP, what is this disease endemic to sub-Saharan Africa and which is often transmitted to humans via the tsetse fly?

Answer: African Sleeping Sickness or African Trypanosomiasis

15. There is a contest at the beginning which sees the protagonist and his slave Xanthias compete in dirty jokes. There is a later contest, in which each time a character finishes a line, the other interjects with "and lost his oil lamp". There are two different choruses in this play, the first which is found only while Dionysus is crossing the lake and the second after he and Xanthias arrive in the Underworld proper. FTP, name this Aristophanes play which sees Dionysus seek to bring Euripides back to life, but take Aeschylus instead.

Answer: *The Frogs* or *Hoi Batrachoi*

16. He had an intense fascination with the work of Paul Cezanne, a fact which is seen in many of his later works, such as *Still Life (with Jug, Bowl, and Cutlery)*. He fell into the Futurist movement, but produced only one painting on the theme of war, *The Charge of the Lancers*, though his interest in movement resulted in the painting *Dynamism of a Soccer Player* and the sculpture *Synthesis of Human Dynamism*, which presaged his most famous work. FTP, name this sculptor and painter, best known for the statue *Unique Forms of Continuity in Space*, which can be found on the Italian 20€ euro.

Answer: Umberto Boccioni

17. It unintentionally gave the US control of the Mesabi Iron Range and it required the US to provide ships for the confiscation of illegal slaves from Africa from American ships. Actions prompting it included the so-called *Caroline* Affair, which saw the British destroy an American ship, which had aided Canadian insurrectionists and American adventurers during the Canadian Revolt of 1837. FTP, what is this treaty which most famously established the border between Maine and New Brunswick and re-affirmed the border from the Great Lakes to the Rockies along the 49<sup>th</sup> parallel?

Answer: Webster-Ashburton Treaty

18. The line "When the stars threw down their spears/ And watered heaven with their tears", is believed to be a reference to *Paradise Lost*. Another possible reference to that poem is found in the lines, "On what wings dare he aspire?/What the hand seize the fire?", which also contain imagery of industrialization, which the poet felt was a blight. Found in the collection *Songs of Experience*, FTP, what is this poem of William Blake whose title character is "burning bright"?

Answer: *The Tyger*

19. It interferes with the production of serotonin and enters the brain via the same pathways taken by tryptophan. It cannot be produced by animals, but is widely found in plants, especially avocados, legumes, and nuts. It exists in two forms, the D and L varieties, which are reported to have painkilling and antidepressant properties. Of these two, only the L variety is used in protein synthesis. It was the first amino acid to have its genetic codon discovered. FTP, name this amino acid, the L variety of which is converted into L-DOPA, which in turn can become dopamine or epinephrine.

Answer: Phenylalanine

20. Among the gulfs and bays found around this sea are the Pagasetic Gulf, the North and South Evian Gulfs, which are connected by the Euripus Strait, and the Thermian and Strymonian Gulfs which are separated by the three-pronged Chalcidice Peninsula. This sea is also divided into a number of smaller seas, including the Euboic to the west and the Myrtoan, which separates the Cyclades from the Peloponnese. FTP, name this arm of the Mediterranean which lies between Turkey to the east and Greece to the west.

Answer: Aegean Sea

21. During its Norian stage, the first turtles appeared, and it also saw the rise of the first modern corals in the Induan and Olenekian stages. Its name is derived by the distinctive rock layers of red beds, chalk, and black shale found throughout northern Europe and dating from this period. It ended with a mass extinction which wiped out nearly all species of marine reptiles, excluding ichthyosaurs and plesiosaurs. FTP, name this period which followed the Great Dying of the Permian, the first period of the Mesozoic era.

Answer: Triassic

22. The Ingrian Wars with Sweden and the Dymitriad Wars with Poland-Lithuania, which grew of this event, came to an end with the treaties of Stolbovo and Deulino respectively. During this time, a Polish claimant to the throne, Wladislaus, had attempted to convert the country to Catholicism, sparking stronger national unity. It began with the death of Feodor Ivanovich, the son of Ivan the Terrible, and the accession to the throne of his chief minister, Boris Godunov in 1598. FTP, what is this fifteen-year period in Russian history which ended with the rise of the Romanov dynasty in 1613?

Answer: Time of Troubles

1. F10PE, identify each of the following about the small intestines.

A. This is the sphincter muscle that controls the passage of chyme from the stomach into the duodenum, the first section of the small intestine.

Answer: Pylorus or Pyloric Sphincter

B. The passage of chyme through the small intestines is aided by this series of wave-like contractions, which also help food pass through the esophagus.

Answer: Peristalsis

C. These are the tiny projections which line the walls of the small intestine, increasing its surface area in order to aid in the absorption of nutrients.

Answer: Villus or Villi

2. Identify these characters from Arthur Miller's play *The Crucible*, F10PE.

A. This expert in witchcraft is summoned to Salem by Reverend Parris and he quickly agitates the town to action. However, upon witnessing the witch trials, he has a change of heart and argues against them.

Answer: Reverend John Hale

B. This is Reverend Parris's Barbadian slave, whom the girls initially claim led them to do black magic in the woods. She denies this at first, but eventually breaks down and names names.

Answer: Tituba

C. This is one of the play's main antagonists, as she claims Elizabeth Proctor performs witchcraft, which she witnessed while working there. She had an affair with Elizabeth's husband, John, and tries to seduce him.

Answer: Abigail Williams

3. Identify each of the following which resulted from Lyndon Johnson's "Great Society" program F10PE.

A. Including the FAA, FTA, and the NHTSA, this cabinet-level department was created in 1966 to unify numerous federal regulatory commissions.

Answer: Department of Transportation

B. Through a namesake act, this non-profit entity was created in 1967 and resulted in the creation of both PBS and NPR.

Answer: Corporation for Public Broadcasting or CPB

C. Originally created by the Economic Opportunity Act of 1964 as a domestic version of the PeaceCorps, this group is now part of the AmeriCorps.

Answer: VISTA or Volunteers in Service to America

4. 5 for 1, 10 for 2, 20 for 3, and 30 for all 4, identify each of the following inmates of Tartarus from a description of their punishment.

A. This king of the Lapiths and father of Chiron is cursed to spin on a burning wheel for all eternity.

Answer: Ixion

B. This Lydian or Phrygian king and father of Pelops is condemned to be able neither to reach the food above him or the drink the water below him.

Answer: Tantalus

C. Like Prometheus, this son of Zeus and Elara is stretched across Tartarus, where two vultures feast on his liver everyday.

Answer: Tityas

D. This Corinthian king and potential father of Odysseus must roll a large boulder up a hill, only to see it roll down the other side.

Answer: Sisyphus



5. FTPE, identify each of the following characters from *Heroes*.

A. A Japanese geek with the power to manipulate the space-time continuum, he is perhaps the most upright character and the one who encourages the other powered humans to help him save the world.

Answer: **Hiro** Nakamura

B. An precognitive artist who at first believes he needs heroin to use his powers, he writes the comic 9th Wonders! and paints pictures of what will happen to the other heroes in the future.

Answer: **Isaac** Mendez

C. The 'cheerleader' whom Hiro insists must be saved, she has incredible healing powers, having even healed after being dead. Her adoptive father knows of the superpowered beings.

Answer: **Claire** Bennett

6. F10PE, identify each of the following symphonies by Joseph Haydn from clues.

A. This symphony is the second of the twelve "London Symphonies" composed near the end of Haydn's life. Its common name comes from a single loud note played during an otherwise gentle section of the second movement.

Answer: *Symphony No. 94 in G Major* or *The Surprise Symphony*

B. This symphony is one of the most popular of Haydn's early symphonies and its common name comes from the brooding, contemplative melody and the question-answer format of the first movement.

Answer: *Symphony No. 22 in E flat Major* or *The Philosopher Symphony*

C. This symphony is the ninth of the "London Symphonies". It received its common name for the gentle "ticking" rhythm found throughout the second movement.

Answer: *Symphony No. 101 in D Major* or *The Clock Symphony*

7. Identify each of the following Carolingians, none of whom are Charlemagne, from clues F10PE.

A. The illegitimate son of Pippin the Middle, this Mayor of the Palace was the namesake of the Carolingian line. He is best remembered today for his victory over the Umayyads at Tours in 732.

Answer: **Charles Martel** or **Charles the Hammer**

B. Son of Charles Martel and brother of Carloman, this man was the first Carolingian king of the Franks and is best known today as the father of Charlemagne.

Answer: **Pepin the Short** or **Pepin the Younger** or **Pepin III**

C. This son of Charlemagne succeeded him as emperor and King of the Franks in 814. He is best known for dividing the empire amongst his three sons, Lothar, Charles the Bald, and a namesake son.

Answer: **Louis the Pious** or **Louis I** or **Louis the Fair** or **Louis the Debonair**

8. F10PE, identify the following concepts related to electricity.

A. This set of laws explains how a current is split between multiple branches when it encounters a fork in the circuit.

Answer: **Kirchoff's** Laws (or Rules)

B. This equation states that the voltage at a point in a circuit is equal to the current times the resistance.

Answer: **Ohm's Law** or **Ohm's Equation**

C. This law states that the force between two point charges is equal to the product of the two charges and a constant, divided by the square of the distance between the two charges.

Answer: **Coulomb's Law** or **Coulomb's Equation**

9. Identify each of these Salman Rushdie novels from a brief description F10PE.

A. This 1981 novel tells of the people born with special powers at the same time as the split between Pakistan and India.

Answer: **Midnight's Children**

B. This 1988 novel tells several stories related to Islam through the dreams of Gibreel Farishta, who suffers from schizophrenia.

Answer: *The **Satanic Verses***

C. This 1995 novel is about a family of Portuguese immigrants living in Mumbai. It takes its title from a frequently mentioned site in Granada, Spain.

Answer: *The **Moor's Last Sigh***

10. Name the following cities from the state of South Dakota F10PE.

A. Home to the South Dakota School of Mines and Technology, this city is the hub of the Black Hills and the western half of the state. It lies on a namesake Creek and is the state's second-largest city.

Answer: Rapid City, South Dakota

B. Located at the junction of I-90 and I-29, this city is the state's largest and a hub for much of the eastern half of South Dakota.

Answer: Sioux Falls, South Dakota

C. At approximately 14,000 people, this is the second-least populated state capital in the country.

Answer: Pierre, South Dakota

11. Identify the following about Jewish scripture from clues F10PE.

A. This is the term applied to the first five books of the Old Testament, which are said to have been authored by Moses.

Answer: Torah

B. Added to the Torah are these two collections, which translate as "Prophets" and "Writings". Name either.

Answer: Nevi'im or Ketuvim

C. The Torah, Nevi'im, and Ketuvim combine to form this work, the Hebrew Bible. It is known to Christians as the Old Testament.

Answer: Tanakh

12. F10PE, identify each of the following related to a French playwright.

A. This playwright wrote satires such as Tartuffe, the Bourgeois Gentleman and The Imaginary Invalid.

Answer: Moliere or Jean Baptiste Poquelin

B. One of Moliere's most famous plays, this work deals with Alceste and his hatred of hypocrisy, as well as a court case whose loss Alceste refuses to challenge, preferring isolation instead.

Answer: *The Misanthrope*

C. Alceste's lover in The Misanthrope, her flirtatious behavior draws criticism from Alceste and others and she eventually drives all suitors away from her, save Alceste, though she refuses to accompany him into isolation.

Answer: Celimene

13. 5 for 1, 10 for 2, 20 for 3, and 30 for all 4, identify the following organic chemistry functional groups from a description.

A. A nitrogen atom triple bonded to a carbon atom.

Answer: Nitrile group

B. An oxygen atom single bonded between a carbon atom and a hydrogen atom.

Answer: Hydroxyl group or Alcohol

C. A sulfur atom single bonded between a carbon atom and a hydrogen atom.

Answer: Sulfhydryl group or Thiol

D. An oxygen atom is double bonded to a carbon atom, which in turn is single bonded to two other carbon atoms.

Answer: Ketone group

14. Identify each of the following about the work of Donatello F10PE.

A. This work by Donatello was the first free-standing nude statue of the Renaissance. It depicts the hero standing triumphant over the head of his foe and holding that enemy's sword.

Answer: *David*

B. This work was the first equestrian statue completed since ancient times. It depicts the figure holding a large stick in his right hand and looking off slightly toward the left.

Answer: *Gattamelata*

C. Donatello also developed this style of sculpture, in which parts of the figure are left in the stone. It creates the impression of the figure attempting to break free of its confines and was later used extensively by Michelangelo.

Answer: Non Finito

15. Several men achieved the rank of general during the Civil War, despite having graduated last in their class at West Point. F10PE, identify each of the following examples.

A. Graduating last in 1846, this man was injured while fighting with Stonewall Jackson during the Peninsular Campaign. He is best known for his failed charge at the Union center on the third day of Gettysburg.

Answer: George Pickett

B. Said to be the only officer in the Army of Northern Virginia addressed by his given name by Robert E. Lee, this man graduated last in 1847. His engagement of John Buford against orders sparked the Battle of Gettysburg.

Answer: Henry "Harry" Heth

C. As a cavalry commander, he was responsible for cutting Lee's forces off and forcing the surrender at Appomattox and he was promoted to general directly from the rank of lieutenant. He graduated last in his class in 1861.

Answer: George Armstrong Custer

16. Answer the following about the geometry of triangles F10PE.

A. This law allows for the calculation of the length of one side of a triangle, given the lengths of the other two sides and the angle between them.

Answer: Law of Cosine(s)

B. This equation states that the area of a triangle squared equals the semiperimeter times the difference of each side length from the semiperimeter.

Answer: Heron's or Hero's formula

C. This is the name given to the point where the three altitudes from each angle intersect. It may appear inside or outside the triangle, depending on how large the biggest angle is.

Answer: Orthocenter

17. F10PE, identify each of the following related to the work of H.P. Lovecraft.

A. This book is a central plot element to many Lovecraft stories and is his most famous creation. It was written by the "Mad Arab" Abdul Alhazred and contains information on spells and rituals, among other things.

Answer: Necronomicon

B. This Ivy League-like university in Arkham is a central location in many of Lovecraft's works and houses an extensive collection of rare and strange books on the occult, including one of the few copies of the Necronomicon.

Answer: Miskatonic University

C. This is a god-like being which has lent its name to the mythos August Derleth ascribes to Lovecraft. He is variously described as vaguely humanoid, with his head covered in tentacles or feelers and with large claws and wings.

Answer: Cthulhu

18. F10PE, identify each of the following characters from Fyodor Dostoevsky's *Crime and Punishment*.

A. This is the novel's protagonist. He murders a pawnbroker and spends the most of the novel torn between an obsession with confession and remaining free.

Answer: Rodion "Rodya" Romanovich Raskolnikov

B. This man is a suitor of Raskolnikov's sister, Dunya. He is wealthy and is suspected of having committed numerous crimes, including murder, before committing suicide at the end of the novel.

Answer: Arkady Ivanovich Svidrigailov

C. This is the detective charged with investigating Raskolnikov's murders. He is convinced of Raskolnikov's guilt and pursues numerous conversations with him, in order to press him to confess.

Answer: Pyotr Petrovich Porfiry

19. F10PE, identify each of the following about 20<sup>th</sup> Century Iranian history.

A. Operation Ajax was the code name for the joint CIA-MI-6 operation in 1953 to overthrow this democratically elected Prime Minister in favor of the restoration of the monarchy.

Answer: Mohammad Mossadegh

B. This man was restored to power as Shah by Operation Ajax and, while friendly to the West, was increasingly despotic within his own nation.

Answer: Mohammad Reza Pahlavi (prompt on Pahlavi but must have Mohammad. Reza Pahlavi was his father)

C. Mohammad Reza Pahlavi was overthrown in the 1979 Iranian Revolution, which saw this exiled cleric return to Iran and take power over an Islamic Republic.

Answer: Ayatollah Ruhollah Khomeini

20. FTPE name the following quantum numbers from their symbol and range.

A.  $n$ ; anything from 1 to infinity

Answer: Principal Quantum Number

B.  $L$ ; from 0 to  $n-1$

Answer: Azimuthal Quantum Number or Orbital Quantum Number or Total Angular Momentum Quantum Number

C.  $m_L$ ; from  $-L$  to  $+L$

Answer: Magnetic Quantum Number

21. F10PE, identify each of the following related to the Celtic god Lugh.

A. Lugh's father was this man who is often listed with his brothers, Cú and Cethen, and whose name means distance. He mated with Lugh's mother after she was locked in a tower by her father.

Answer: Cian

B. Lugh was a member of this group and eventually became their king. He was preceded by Nuada and led them to victory over the Formorians at the second battle of Magh Tuireadh.

Answer: Tuatha Dé Danann

C. Lugh also fathered this hero of the Ulster Cycle, who is known for his part in the Cattle Raid of Cooley and for his death at the hands of Lugaid.

Answer: Cúchulainn

22. Identify each of the following organizations associated with early attempts to secure the right to vote for women, F10PE.

A. This organization was founded in 1866 in order to secure rights for both blacks and women. It split in 1869 because of its two competing goals.

Answer: American Equal Rights' Association or ERA or AERA

B. This conservative organization founded in 1869 by Lucy Stone and Julia Ward Howe dedicated itself solely to the acquisition of the right to vote.

Answer: American Woman Suffrage Association or AWSA

C. This more militant organization was founded in the same year as the AWSA by Susan B. Anthony and Elizabeth Cady Stanton. In 1890, it merged with its rival organization, before growing more conservative itself.

Answer: National Woman Suffrage Association or NWSA