

1. The work's epilogue concerns a speech by Professor Pieixoto at a symposium held in 2195, where he discusses a series of cassette tapes in which the protagonist narrates her story, part of which concerns her affair with Nick, a member of the Eyes of God secret police force. Lydia and Elizabeth are "Aunts" who work at the Red Center indoctrinating women with the doctrines of the Republic of Gilead, where Offred serves as a surrogate womb for Serena Joy and the Commander. FTP, what is this dystopian novel by Margaret Atwood?

Answer: The **Handmaid's Tale**

2. This phenomenon is used in the detector of the same name to detect and count high energy charged particles. Discovered in 1934, it was explained in part by Igor Tamm and Ilya Frank, who found that it occurs when particles move through a transparent medium at a speed greater than the speed of light in that medium, causing a bluish light to be emitted. FTP, what is this type of electromagnetic radiation?

Answer: **C(h)erenkov radiation**

3. At the end of this film one of the main characters gains redemption by taking in an abandoned baby. In its third section a medium gives a description of the main plot development as seen through the eyes of a dead man, but his story is contradicted by those of his wife and a firewood dealer, who differ in their accounts of the rape and murder perpetrated by the bandit Tajomaru, played by Toshiro Mifune. FTP, what is this 1950 masterpiece about the subjectivity of truth, directed by Akira Kurosawa?

Answer: **Rashomon** (or In the Woods)

4. Many prisoners taken during this battle were slaughtered when French knights made a surprise attack on the English baggage train late in the day. It occurred when a large French army intercepted the British forces that had marched north after their capture of Harfleur. Ignoring the lessons of Poitiers and Crecy, the French cavalry advanced across a narrow, muddy front against the entrenched English archers and foot-soldiers, losing approximately 6,000 troops, thus opening the way for British conquest of Normandy. FTP, what was this October 25, 1415 victory for Henry V?

Answer: **Agincourt**

5. Margherita Peak is the highest point in this country, some of whose notable geographic features include Murchison Falls, Bwindi Impenetrable Forest, and Mountains of the Moon. In its center is Lake Kyoga, the country's largest, while the city of Jinja is found on the White Nile at its source in Lake Victoria. FTP, what is this country west of Kenya whose capital is Kampala?

Answer: **Uganda**

6. This thinker's belief that the sun was a white-hot stone and that the moon reflected the sun's rays led to a charge of blasphemy, prompting him to flee to Lampsacus. Rejecting the theories of Empedocles, he posited an infinity of particles, or "seeds", each unique in its qualities, which make up natural objects. Holding that the universe began as an undifferentiated mass, he claimed that the formation of the world resulted from rotary motion caused by an all-pervading mind, or "nous". A native of Clazomenae credited with moving the center of Greek philosophy to Athens, FTP, who was this thinker purported to be the teacher of Socrates?

Answer: **Anaxagoras**

7. This author wrote a series of sketches of England contained in "Our Old Home", and after his death four unfinished novels were discovered, including "Septimus Felton" and "The Dolliver Romance". Descended from a judge in the Salem witch trials, his sense of guilt for his family's past influenced his fiction, which included the novels "The Marble Faun", "Fanshawe", and "The Blithedale Romance". FTP, who is this 19th century author best-known for works like "The Minister's Black Veil" and "Young Goodman Brown"?

Answer: Nathaniel **Hawthorne**

8. It was proposed in the 1970s by Singer and Nicholson as an improvement to the earlier model by Davson and Danielli. It proposes that biological membranes contain proteins randomly embedded in a lipid bilayer, with some proteins restricted to one layer and others spanning both layers. A widely accepted model for the structure of biological membranes, FTP, what is this model named for the lateral movement it allows molecules in the membrane as well as the patchwork structure involved?

Answer: **fluid mosaic** model

9. It was once calculated that there was only a 21% likelihood that this leader would follow standard procedures in battle, as in the time as lieutenant of the Potemkin when he shut down his ship to hide in a magnetic pole. An amateur trombonist, his unwillingness to take a command of his own aroused the concern of Starfleet, although it is possible he remained as commander of his ship to stay near his former flame, Deanna Troi. Known as "number one", FTP, who was this second-in-command on the Enterprise on "Star Trek: The Next Generation"?

Answer: William **Riker**

10. The basic principles contained in these writings hold that the supreme Godhead is incommunicable but "realizable", that the phenomenal world of appearance exists on the relative plane of lower truth and appears to be real without being so, that the individual, or atman, is also the universal self, or Brahman, but is unaware of this, and that yoga is necessary to effect the union of atman and Brahman. 112 are extant, and they were written from about 600 BCE to 300 BCE. FTP, what are these speculative writings of the Vedas?

Answer: **Upanishads**

11. This novel was followed by the sequel "Rupert of Hentzau". At the end, the hero gives up the hand of his beloved, Princess Flavia. Earlier, Rudolf Rassendyl had spent three months impersonating the king of the central European kingdom Ruritania while the king was held in the title castle. FTP, what is this popular English romance by Anthony Hope Hawkins?

Answer: **The Prisoner of Zenda**

12. This politician began his career on the extreme left, advocating a revolutionary general strike and founding the socialist newspaper "L'Humanite", but soon moved toward the center. As Minister of Public Instruction and of Religion he implemented the separation of church and state in France, where he served 11 times as Prime Minister from 1909-29. The first to launch the idea of a United States of Europe, he shared the Nobel Prize with Gustav Stresemann for the Locarno Pact. Known as the "apostle of peace", FTP, who is this statesman who sought to outlaw war in a pact with Frank Kellogg?

Answer: Aristide **Briand**

13. Fluctuations in the quantity governed by this law depend in part on the decision of workers to marry and have children, implying a 15-18 year lag for it to take effect. A combination of the wages fund doctrine and Malthus' law of population, the term was invented in 1862 by Ferdinand Lassalle, who used Marx's theories to hold that personal income under capitalism would always remain at a level just sufficient to afford the bare necessities of life. FTP, what is this law of economics most famously associated with David Ricardo?

Answer: **iron law of wages** (or brazen law of wages)

14. In July 1944 this man was made Plenipotentiary for the Pursuit of Total War. Originally head of the Nazi Party in Berlin starting in 1926, he obtained a doctorate from Heidelberg after being absolved from military service due to a deformed foot which was later held by some to be the cloven hoof of the Devil. FTP, who was this Nazi who as Minister of Public Enlightenment and Propaganda greatly influenced the Nazi cause with his skills of mob oratory?

Answer: (Paul) Joseph **Goebbels**

15. Changes in their color can be used to determine temperature to within an accuracy of 0.1 degree Celsius. First observed by Friedrich Reinitzer in 1888 while working with cholesteryl benzoate, they come in cholesteric, nematic, and smectic varieties, and can be made darker using a small electrical impulse, leading to their most famous use. FTP, what are these substances which have some order in the arrangement of their molecules but which still flow like liquids, used in the namesake displays?

Answer: **liquid crystals**

16. Fighting in this conflict began with the burning of Fort Sandusky, leading to a series of attacks on other forts, including Fort St. Joseph and Fort Miami. Sparked by dissatisfaction with British garrisons south of the Great Lakes, the Indian alliance was weakened by Henry Bouquet's victory at Bushy Run, which broke the siege of Fort Pitt. This, combined with the failure of the rebellion's namesake to take Fort Detroit, forced the Indian alliance to sign the Treaty of Oswego. FTP, what was this 1763 Indian rebellion?

Answer: **Pontiac's Rebellion or War**

17. A pupil of Chardin and Boucher, he won the Prix de Rome in 1752 and soon thereafter spent 5 years in Italy, where he disdained the High Renaissance masters but admired Tiepolo. It was a historical work in the grand manner, *Coroesus Sacrificing himself to Save Callirhoe*, that got him admitted into the Academy, but he soon abandoned that style for more lighthearted fare. His star burned out quickly with the rise of neoclassicism, and Madame DuBarry returned the four-canvas series many consider his best work, *The Progress of Love*. FTP name this Rococo artist whose best-known work is *The Swing*.

Answer: **Jean Fragonard**

18. Its developer claimed that it had already been used in literary works like "Piers Plowman". In it, a foot consists of from one to four syllables, and is often mixed, utilizing multiple feet like the accentual trochee and dactyl, which are often broken or interrupted by outrides. The frequent juxtaposition of single stressed syllables that results gives it its name. FTP, what is this poetic rhythm designed to approximate the natural rhythm of speech, associated with Gerard Manley Hopkins?

Answer: **sprung rhythm**

19. This man always carried with him a copy of Gauss' "Disquisitiones arithmeticae". Gaining early fame with his proof of the $n=5$ case of Fermat's Last Theorem, his work correcting the earlier work of Poisson and Cauchy has led him to be considered the founder of the theory of Fourier transforms, while his namesake theorem holding that there are an infinity of primes in any arithmetic series in which the first term and difference are relatively prime made him the founder of analytic number theory. FTP, who was this German who established the modern definition of a function and the pigeonhole principle?

Answer: **Peter Gustav Lejeune Dirichlet**

20. This author's novel "You're Only Old Once!" was a bestseller. His script for the documentary "Design for Death" won him an Academy Award, as did his 1950 animated cartoon "Gerald McBoing Boing", but he is better known for works like "And to Think I Saw It on Mulberry Street", "The 500 Hats of Bartholomew Cubbins", and "Yertle the Turtle". Originally named Theodor Geisel, FTP, who is this author of "The Cat in the Hat"?

Answer: **Dr. Seuss (accept Theodore Seuss Geisel)**

21. According to one myth, this god descended to Mictlan, gathered the bones of the humans of previous epochs, and sprinkled them with his own blood, thus creating the humans of the fifth epoch, which he ruled. As a god of the wind he takes the form Ehecatl, while various myths hold that he was either driven away by Tezcatlipoca or left on a raft of snakes over the sea, and would return as a light-skinned, bearded man. FTP, who is this Aztec sky-god, known as the "plumed serpent"?

Answer: **Quetzalcoatl**

22. In June 1984 a group of militant separatists were massacred in this city famous for its Golden Temple, which is set in the middle of a lake. Founded in 1577 by Ram Das, the fourth guru, as a sacred Sikh city, it is best-known for an event which occurred in Jallianwala Bagh park. FTP, what was this site of a notorious April 1919 massacre of Indian nationalists by British troops?

Answer: **Amritsar**

23. In the third and final section of this poem the speaker describes his lover as "cruel and sudden", having just purpled her fingernail with the "blood of innocence". In the second section he describes the title creature as their marriage temple, having mingled the blood of he and his beloved, using this fact to argue that she should yield to him. FTP, what is this humorous love-poem named for a pest by John Donne?

Answer: **The Flea**

1. FTPE, name the following people involved in the Battles of New Orleans.

1. (10 points) This British general commanded the fifty ships that entered New Orleans in late 1814, but his exposed troops were decimated by the entrenched forces of Andrew Jackson, leading to his defeat and death.

Answer: Edward **Pakenham**

2. (10 points) In the Civil War battle of New Orleans, 43 ships commanded by this man breached the chain cables blocking the Mississippi, forcing the withdraw of 3,000 Confederates under Mansfield Lovell.

Answer: David **Farragut**

3. (10 points) After Farragut's victory, this commander and his troops took the city, but he was soon recalled for his harsh rule.

Answer: Benjamin **Butler**

2. FTPE, name these pioneers of Gestalt psychology.

1. (10 points) This man's 1924 book "Growth of the Mind" did much to generate interest in the Gestalt movement.

Answer: Kurt **Koffka**

2. (10 points) This man was director of a research center at Tenerife, Canary Islands, where his work with problem solving in apes was important to Gestalt development. He wrote "The Mentality of Apes".

Answer: Wolfgang **Kohler**

3. (10 points) This man fled Germany for the US in 1933, when he joined the New Institute for Social Research.

Discoverer of the phi phenomenon, much of his research is detailed in the posthumously published "Productive Thinking".

Answer: Max **Wertheimer**

3. FTPE, stuff about a German author.

1. (10 points) Novels by this author include early works like *Peter Camenzind*, *Gertrud*, and *Rosshalde*.

Answer: Hermann **Hesse**

2. (10 points) This last major work of Hesse tells of Knecht, chosen to study under Thomas von der Trave, the highest teacher of the Order in the imaginary intellectual have of Castilia.

Answer: **Magister Ludi** or **The Glass-Bead Game** or **Das Glasperlenspiel**

3. (10 points) This Hesse novel, his first major success, tells of the youth of Emil St. Claire.

Answer: **Demian**

4. FTPE, name the following about black holes.

1. (10 points) Elliptical in shape for rotating black holes, this is the surface of the hole, in which the escape velocity is equal to the speed of light.

Answer: **event horizon**

2. (10 points) This is the region just outside the event horizon in which any observer is forced to rotate with the black hole. Its outer boundary is the static limit.

Answer: **ergosphere**

3. (10 points) Energy can be extracted from the ergosphere of a rotating black hole by this process, in which a mass is sent into the ergosphere against the direction of rotation. It was discovered by and named for the scientist who discovered the singularity theorems with Stephen Hawking.

Answer: **Penrose process**

5. FTPE, answer the following about a "whack" football player.

1. (10 points) The second-leading rusher in the only season of the XFL became its best-known player due to this name he wore on his jersey.

Answer: **He Hate Me** (prompt on Rod Smart)

2. This is "He Hate Me"'s real name, the one he used when he played at Western Kentucky.

Answer: Rod **Smart**

3. (10 points) After the XFL season He Hate Me was signed as a back-up running back by this NFC Eastern Division champion team.

Answer: **Philadelphia Eagles** (accept either name)

6. FTPE, name these people involved in the last days of the Incan empire.

1. (10 points) Shortly after winning a civil war against his brother Huascar, this Incan ruler was defeated by Pizarro.

Answer: **Atahualpa** (or Atabalipa)

2. (10 points) The empire reached its greatest extent and power under this last of the great emperors, who hastened the fall of his empire by dividing the realm between the legitimate heir Huascar and his favorite son Atahualpa.

Answer: **Huayna Capac**

3. (10 points) Sharing his name with the legendary founder of the Incan empire, this third son of Huayna Capac was crowned king of the Incas by Pizarro in 1534, but soon rebelled against Pizarro, laying siege to the great fortress Sacsahuaman in Cuzco. After his army deserted to harvest crops, he fought a guerrilla war until treacherously murdered by followers of Diego de Almagro.

Answer: **Manco Capac**

7. FTPE, answer the following about the birth of a novel.

1. (10 points) Characters in this novel include Robert Walton, Justine Moritz, Henry Clerval, and Elizabeth Lavenza.

Answer: **Frankenstein: The Modern Prometheus**

2. (10 points) The inspiration for *Frankenstein* came from a ghost writing contest which also led this physician to pen "The Vampyre", the first modern treatment of the subject.

Answer: **John Polidori**

3. (10 points) The protagonist of "The Vampyre", Lord Ruthven, is supposedly based on this poet of "The Prisoner of Chillon" and "The Bride of Abydos".

Answer: **George Gordon, Lord Byron**

8. Name these amino acids given their R-component, FTPE.

1. (10 points) a single hydrogen atom

Answer: **glycine**

2. (10 points) CH₃

Answer: **alanine**

3. (10 points) HS CH₂

Answer: **cysteine**

9. FTPE, answer the following about a group of gods.

1. (10 points) The Norse nature gods, these gods were received at Asgard after a war with the Aesir.

Answer: **Vanir**

2. (10 points) The Vanir were led by this god of the sea whose name means "benefactor". The protector of seafaring men and ruler of winds, his wife was Skahdi, and his home was Noatun.

Answer: **Njord**

3. (10 points) This daughter of Njord and Skahdi was the first wife of Odin, but was rejected due to her love of finery. The goddess of love, fecundity, and death, according to various myths she either flies through the air with the wings of a falcon or rides in a chariot drawn by two cats.

Answer: **Freya** (or Fria, Frigga, or Frigg)

10. FTPE, stuff about a composer .

1. (10 points) This Russian composer of "The Fiery Angel", "Alexander Nevsky", and "War and Peace" died on the same day as Stalin.

Answer: **Sergei Prokofiev**

2. (10 points) Prokofiev's most famous symphony was this work, his opus 25, which uses modern tonal techniques within the context of the symphonic form utilized by Haydn and Mozart.

Answer: **Classical Symphony, or Symphony #1**

3. (10 points) Prokofiev was close friends with this great Russian cellist who finished Prokofiev's Cello Concertino on his death. Considered the greatest cellist of his generation, he also served as piano accompanist to his wife, the soprano Galina Vishnevskaya.

Answer: **Mstislav Rostropovich**

11. FTPE, answer the following about the Boston Massacre.

1. (10 points) It occurred when 7 redcoats under this captain attempted to aid a British customs-house guard being harassed by colonists.

Answer: Thomas **Preston**

2. (10 points) The prosecution of Preston and his men was conducted by this eventual Massachusetts attorney general and signer of the Declaration of Independence.

Answer: Robert Treat **Paine**

3. (10 points) Along with Josiah Quincy, this future president defended the redcoats, and gained an acquittal on murder charges.

Answer: John **Adams**

12. FTPE, name the following about an author and his work.

1. (10 points) This unique author was known for the black comedy seen in works like "Miss Lonelyhearts". His life was cut short when he and his wife Eileen McKenney were killed in an automobile accident attending F. Scott Fitzgerald's funeral.

Answer: Nathanael **West** (or Nathanael Weinstein)

2. (10 points) The most famous Nathanael West book is this novel in which artist Tod Hackett works as a set designer in Hollywood, encountering such characters as Faye Greener and Homer Simpson.

Answer: The **Day of the Locust**

3. (10 points) One of West's few other works, this parody of the Horatio Alger story centers on Lemuel Pitkin.

Answer: A **Cool Million**

13. FTPE, answer the following about a class of subatomic particles.

1. (10 points) This class consists of any particles constructed from quarks and which interact via the strong force.

Answer: **hadrons**

2. (10 points) Protons and neutrons both belong to this subclass of hadrons, all of which consist of three quarks.

Answer: **baryons**

3. (10 points) Proposed to explain the scattering of very high energy electrons from protons at large angles, hadrons are supposed to be composed of these hypothetical, point-like particles.

Answer: **partons**

14. FTPE, answer the following about an art movement.

1. (10 points) Primarily an art of ornament, this movement flourishing from 1890 until WWI reacted against academic historicism in its use of sinuous, asymmetrical lines. Its members included Aubrey Beardsley, Alphonse Mucha, and Victor Horta.

Answer: **Art Nouveau**

2. (10 points) This Scot is known for both his interior design, often in collaboration with his wife Margaret Macdonald, such as the four Glasgow tea-rooms for Catherine Cranston, and for his architecture, especially the Glasgow School of Art.

Answer: Charles **Mackintosh**

3. (10 points) This man's architectural masterpiece was the loggia of the main entrance to Laurelton Hall, but he is better-known for redecorating the White House in 1882-83 and for his decorating firm known for its highly distinctive glassware.

Answer: Louis Comfort **Tiffany**

15. 30-20-10, name the mathematician.

1. (30 points) The only non-cyclic four-element group is named for this mathematician. Heavily influenced by Riemann, he redefined Riemannian surfaces so that they came to be regarded as an essential part of function theory.

(20 points) In 1872 he announced his Erlangen Program, which sought to unify the different geometries devised during the 19th century. He showed that each geometry is associated with a group of transformations.

(10 points) He is best-known for his bottle, which is one-sided and has no boundary.

Answer: (Christian) Felix **Klein**

16. Fun with ferns: FTPE, provide the requested answers concerning ferns.

1. (10 points) This is the phylum comprising the ferns.

Answer: **filicinophyta**

2. (10 points) Ferns bear these large conspicuous leaves.

Answer: **fronds or megaphylls**

3. (10 points) Ferns are anchored by these horizontal, underground stems which enables them to survive from season to season.

Answer: **rhizome**

17. 30-20-10, name the literary work from clues.

1. (30 points) Inspired by Harriet Beecher Stowe's "The Pearl of Orr's Island", its characters include the former fisherman Elijah Tilley and the narrator's landlady's mother Mrs. Blackett.

(20 points) It is a series of sketches narrated by a summer visitor to Dunnet Landing, who describes characters like Almira Todd and Captain Littlepage.

(10 points) It is the best-known work by Sarah Orne Jewett.

Answer: **The Country of the Pointed Firs**

18. FTPE, name these people in the life of Jacob.

1. (10 points) After arousing the ire of his brother Esau, Jacob fled to this uncle in Paddan-aram, where he fell in love with his daughter Rachel.

Answer: **Laban**

2. (10 points) After working for Laban for 7 years to gain Rachel, Jacob was instead given this daughter of Laban as a wife.

Answer: **Leah**

3. (10 points) Because she was infertile, Rachel encouraged Jacob to have children by this servant.

Answer: **Bilhah**

19. FTPE, answer the following about the reign of Michael Romanov.

1. (10 points) Michael Romanov's election as Tsar ended this period of Russian history lasting from 1598-1613, which was marked by social and political upheaval.

Answer: **Time of Troubles**

2. (10 points) Michael was elected as Czar by this body, a Russian form of estates originally called by Ivan the Terrible to help with law-making. It was dissolved by Peter the Great in 1694.

Answer: **Zemski Sobor**

3. (10 points) Much of the business of government was actually conducted by this able leader, Michael's father.

Answer: Patriarch **Filaret** (or Fedor Nikitch Romanov)

20. You can't go five minutes without seeing ESPN try to cram down our collective throats footage of NC State's last second 1983 NCAA basketball championship. Name these people involved, FTPE.

1. (10 points) This was the coach of NC State.

Answer: **Jimmy Valvano**

2. (10 points) This NC State player heaved the desperation jumper with seconds to go that ended up missing the basket by about 68 feet, only to see it put in by a teammate with 1 second left.

Answer: **Derrick Wittenberg**

3. (10 points) This teammate of Derrick Wittenberg's made the shot to win the game, then slowly drifted back into obscurity.

Answer: **Lorenzo Charles**

21. FTPE, answer the following about a painting characteristic of an art movement.

1. (10 points) This movement founded by Marinetti glorified the modern world, emphasizing its machinery, speed, and violence. Its members included Boccioni, Gino Severini, and Luigi Russolo.

Answer: **Futurism**

2. (10 points) In this futurist painting the title animal is in the lower left center, with its chain held by the figure going off the canvas at the top. The movement of both black figures is indicated with the use of numerous superimposed images.

Answer: **Dynamism of a Dog on a Leash**

3. (10 points) Name the artist of "Dynamism of a Dog on a Leash", also known for "Girl Running on a Balcony" and "Mercury Passing in Front of the Sun".

Answer: **Giacomo Balla**

22. In 79 AD, the eruption of Vesuvius destroyed three Roman cities. 5 for 1, 15 for 2, and 30 for all 3, name them.

Answer: **Pompeii, Herculaneum, Stabiae**

23. FTPE, answer the following about the geography of Australia.

1. (10 points) Albatross Bay and Blue Mud Bay are parts of this gulf which divides the northern parts of Queensland and the Northern Territory.

Answer: **Gulf of Carpentaria**

2. (10 points) The Gulf of Carpentaria is an extension of this sea found between the Northern Territory's Arnhem Land and New Guinea.

Answer: **Arafura Sea**

3. (10 points) To the east of the Gulf of Carpentaria is this major peninsula which is separated from New Guinea by the Torres Strait.

Answer: **Cape York Peninsula**

24. FTPE, name these figures of the Frankfurt School.

1. (10 points) This thinker believed that capitalism resulted in the transformation of culture into a "fetish", and argued against what he called the "dialectic of the Enlightenment", which he believed was creating increased dependence on the capitalist economic system.

Answer: **Theodor Adorno**

2. (10 points) Combining Marxism and Jewish mysticism, this thinker's most ambitious works were "The Origin of German Tragic Drama" and "The Work of Art in the Age of Mechanical Reproduction.

Answer: **Walter Benjamin**

3. (10 points) Using philosophy to develop a "humanist psychology", this German extended Freud to include social and environmental causes for psychoses. He is best known for "Escape From Freedom".

Answer: **Erich Fromm**