

1. Its validity requires several assumptions, including a large sample size, no differential survival, no migration, no mutations, and non-random mating. Commonly applied to the case of one locus with two alleles, it requires that observed allele frequencies sum to one. FTP—name this equilibrium commonly used in genetics problems.

Answer: Hardy-Weinberg equilibrium

2. A 1998 translation of this work headed each of its eight sections with photographs by Robert Mapplethorpe. Begun when the author was 18, his work was delayed when he was shot in the wrist, after a lover's spat, by Paul Verlaine. The final poem, "Adieu," is sometimes considered his farewell to creative writing. FTP—name this poetry collection, including "Prelude" and "Evil Blood," by Arthur Rimbaud [ram-BOE].

Answer: A Season in Hell or Un Saison en Enfer

3. His quotes include "Snow fox at 12 o'clock," "Do you like to party?," and "Blank doesn't advertise." He tried to sell Homer on a certain style of music using a bar graph, but Homer noticed the goldfish in his platform shoes were dead. FTP—name this Simpsons character with an Afro and disturbing 70s clothes who loves a certain genre of music.

Answer: Disco Stu

4. Twenty-nine of these have series of one or more detached letters whose meaning are unknown. All but one begin with the same three words. All bear titles, and an indication of whether they were revealed in Mecca or Medina. FTP name these 114 chapters of the Qur'an.

Answer: Surahs [prompt on Qur'an]

5. His standard advice to newcomers was to always tell the truth because "that way, you don't have to remember what you told 'em the last time." After his first election in 1912, he never had a Republican challenger. Beginning in 1937 he served four years each as House Majority Leader and House Minority Leader. One of the architects of the New Deal, he was sometimes called "Mr. Democrat." FTP name this Texan, who served as Speaker of the House for 17 years and has since had a House building named for him.

Answer: Sam(uel) Taliaferro Rayburn

6. This artistic society, a reaction against European aesthetics, was founded in the bustling neighborhoods of New York. Luks, Sloan, Glackens, and Shinn worked as newspaper illustrator-cartoonists while creating works featuring saloons, tenements, pool halls, and slums. FTP—name this artistic group that included Maurice Prendergast, later absorbed into the Ashcan school, founded by Robert Henri.

Answer: The Eight [accept Ashcan School on early buzz]

7. Metcalf. Duluth. Piltchard. Danby. Halfcoat. Clevinger. Korn. Black. Havermeyer. Wintergreen. Aardvark. Dreedle. Cathcart. Schiesskopf. Snowden. Major. Minderbinder. Yossarian. All of these are surnames of characters in—FTP—what 1955 novel by Joseph Heller?

Answer: Catch-22

8. Like virtual photons, virtual forms of these particles could escape from a black hole. They would be massless, electrically uncharged particles traveling at the speed of light, emitted only by highly accelerating, extremely massive objects, including stars. FTP—name these quantum particles believed to mediate the gravitational force.

Answer: graviton(s)

9. A worldwide legend since its creation in 1849, its best-known feature may be its trademark square bottle with rounded corners. Created by brothers Adolphe and Édouard-Jean from various fruits found near their home in Angers [AHN-gare]—FTP—name this triple sec [sek] liqueur, a “blend of sweet and bitter orange peels.”

Answer: Cointreau [kwan-TROH]

10. Elected to the US Senate in 1823, he soon became a prominent spokesman for the South and the states’ rights doctrine. In 1832, he resigned from the Senate over the nullification debate; that year, he became governor of South Carolina. FTP—name this politician best known for his 1830 debate with Daniel Webster.

Answer: Robert Young Hayne

11. The lowest-ranked football team to receive a first-place vote this season in both the AP and USA Today Coaches’ Polls, this squad started the season 6-0 before losing back-to-back games to Boise State and Hawaii. FTP—name this California school led by quarterback David Carr, which may be better known for its basketball program, coached by Jerry Tarkanian.

Answer: Fresno State University [prompt on “FSU”]

12. The variety extracted from the D. aromatica tree in Southeast Asia is used for funeral rites. The more common type, an aromatic hydrocarbon of the terpene family, is extracted from the Cinnamomum tree and is used to make film, plastic, lacquer and explosives, as well as to treat mild pain and itching. FTP—name this substance, best known for its use as an insect repellent.

Answer: camphor or 2-bornanone or 1,7,7-trimethyl-bicyclo[2.2.1]heptan-2-one

13. Arising in the late 1700s, possibly an offshoot of the Freemasons, their origin is unknown, though they claimed King Francis I as one of their patrons. Advocating liberal and patriotic ideas, they were the main source of opposition to the conservative regimes Napoleon imposed after conquering Italy, and they forced the King of Naples to endorse a constitution. FTP—name this secret political society whose name is Italian for “charcoal burners.”

Answer: Carbonari

14. Set in puritan New England, the story is about a man and his faith in himself, his wife, and the community they reside in. The protagonist must venture on a journey into the local forest, refuse the temptations of the devil and return to the village before sunrise. FTP—name this highly allegorical short story by Nathaniel Hawthorne.

Answer: “Young Goodman Brown”

15. In 1818, he took the chair of philosophy at the University of Berlin which had been vacant since the death of Fichte [FEEKH-tuh]. His tutelage produced many well-known philosophers, including Bakunin and Marx. FTP—name this German philosopher who, using his own dialectical method, wrote the *Aesthetics*, *Philosophy of Religion*, *Philosophy of History*, and *Philosophy of Right*.

Answer: Georg Wilhelm Friedrich Hegel

16. This plant produces a type of nut that bears high-quality oil used for centuries in the Orient which is similar to olive oil but with a milder taste. Its oil can also be used in cosmetics, medicines, inks and sunscreens. Its seed husks can be used for animal feed and fertilizer, while some species are used to make tea. FTP name this evergreen bush, prized by Southern gardeners for its showy, ornamental flowers.

Answer: Camellia

17. The title refers to a passage in *Timon of Athens* that the narrator has only in a mistranslation. It also refers to a poem written by the fictitious John Shade, 999 lines long, that in a bizarre metafictional twist, alludes to the author’s own *Lolita*. “The moon . . . snatches from the sun” the title object of—FTP—what novel by Vladimir Nabokov?

Answer: Pale Fire

18. In 1995 a fossilized jaw resembling that of this species was discovered near Koro Toro, Chad, some 2,400 kilometers west of the Eastern Rift Valley. First proposed in 1978, its skull was relatively apelike and had a braincase only slightly larger than that of a modern chimpanzee. FTP—name this ancestor of man first designated by Donald Johanson and Timothy White based on fossil remains collected by Mary Leakey from a site at Laetoli, Tanzania.

Answer: Australopithecus afarensis [ah-fuh-REN-sees] [prompt on australopithecus]

19. Made Lord Avon, he titled his memoirs *Facing the Dictators*. Serving the Leamington constituency, he became foreign minister under Stanley Baldwin just as Mussolini and Hitler began their aggressive actions, and served until his hard line became unfashionable under Neville Chamberlain. FTP name this British statesman who resigned after the 1956 Suez crisis.

Answer: (Sir Robert) Anthony **Eden**, Viscount Eden of Leamington SPA

20. Joan Tower wrote three in response to the most famous American one. J.J. Mouret's [moo-RAYz] is used at the beginning of Masterpiece Theatre. Stravinsky wrote one for the opening of the New York State Theater. This musical genre commonly employs triplets and dotted rhythms. John Williams wrote one for the Olympics. FTP, one of these was written by Aaron Copland "for the common man."

Answer: **fanfare**

21. This word was used in a Times Saturday Review article explaining how the Bard's misogynistic sentiments had been diluted. This eponymous term comes from an editor of Shakespeare's plays who removed explicit sexual references and avowedly vulgar elements. FTP—name this verb, which refers to censoring or expurgating a text by removing or altering objectionable elements.

Answer: **bowdlerize** [accept word forms]

22. The youngest of three sons of the caretaker of the municipal pawnshop, he began his musical studies with Giovanni Simone Mayr, the musical director of Sta. Maria Maggiore – Bergamo's chief church. He scored his first success with Enrico di Borgogna, and during the next 12 years composed no less than 31 operas. FTP name this composer best known for *The Daughter of the Regiment* and *Lucia di Lammermoor*.

Answer: Gaetano **Donizetti**

23. In December 2001, this author married anesthesiologist Neil Murray. She wrote her first short story, "Rabbit," at age six. She got the idea for her first novel on a long train ride from Manchester to London. She wrote it to entertain her daughter, not expecting to sell over 100 million books. FTP—name this author of the *Harry Potter* saga.

Answer: J(oanne) K(athleen) **Rowling**

1. Name these model organisms, FTPE:

- [10] While most strains of this model bacterium found naturally in the human GI tract are harmless, the O157:H7 strain causes serious food poisoning and has in recent years resulted in high-profile fatal outbreaks.

Answer: **E. coli** or **Escherichia coli**

- [10] This simple fruitfly, whose genome has been fully sequenced, was introduced by Thomas Hunt Morgan as a model for genetics study but is today more widely used as a model of embryonic development.

Answer: **Drosophila** or **Drosophila melanogaster**

- [10] Also called the African clawed frog, it has been used in pregnancy tests for humans and in models of development.

Answer: **Xenopus** [ZEE-noh-puss] or **Xenopus laevis**

2. Name these John Keats poems from lines, FTPE:

- [10] “She took me to her elfin grot,/And there she gaz’d and sighed deep,/And there I shut her wild sad eyes—/So kiss’d to sleep”

Answer: **“La Belle Dame Sans Merci”**

- [10] “Thou still unravish’d bride of quietness,/Thou foster-child of silence and slow time”

Answer: **“Ode on a Grecian Urn”**

- [10] “Seem’d taking flight for heaven without a death,/Past the sweet Virgin’s picture, while his prayer he saith”

Answer: **“The Eve of St. Agnes”** or **“St. Agnes’ Eve”**

3. Food and violence sometimes go together. FTPE:

- [10] Maggot-infested meat caused a 1905 rebellion aboard this Russian battleship in the Black Sea.

Answer: **Potemkin** or **Potjomkin**

- [10] Excessive taxes caused this group of Boston patriots to vandalize a tea shipment.

Answer: **Sons of Liberty**

- [10] Muslims thought it was pig grease, Hindus thought it was from cows. Either way, the result of rumors about the grease used in British cartridges was this 1857 rebellion in India.

Answer: **Sepoy** Mutiny or Rebellion

4. Name these John Cusack movies, FTPE:

- [10] In this 1985 film, Cusack, as lovelorn teenager Lane Myer, defeats the captain of the ski team in the final scene and walks off triumphantly with exchange student Monique.

Answer: **Better Off Dead**

- [10] In this madcap portrayal of William Lightbody’s stay at the health farm run by Dr. John Kellogg, which features nude scenes by Camryn Manheim [pause for cringes], Cusack plays Charles Ossining.

Answer: **The Road to Wellville**

- [10] As Eddie Thomas, Cusack also goes off to a wellness guru’s retreat in this comedy pairing him romantically with both Catherine Zeta-Jones and Julia Roberts. Tough life.

Answer: **America’s Sweethearts**

5. Given the Australian city, name the state or territory for 5 points each:

A. Perth

Answer: **Western Australia**

B. Darwin

Answer: **Northern Territory**

C. Melbourne

Answer: **Victoria**

D. Cairns

Answer: **Queensland**

E. Sydney

Answer: **New South Wales**

F. Alice Springs

Answer: **Northern Territory**

6. FTPE answer the following about an art critic turned impresario:

a) As founder and director of the Ballets Russes, this man reshaped modern ballet with the help of choreographers like Georges Balanchine and dancers like Vaslav Nijinsky.

Answer: Sergei **Diaghilev**

b) His eye for talent led Diaghilev to secure the works of such composers as Stravinsky, Debussy, and this man, whose works included *Daphnis et Chloe* and *Bolero*.

Answer: Maurice **Ravel**

c) Among the artists who designed sets for Diaghilev's productions were Picasso, Braque, and this fellow Russian emigré, whose works include *The Rabbi of Vitebsk* and *I and the Village*.

Answer: Marc **Chagall**

7. Name these things related to volcanic activity, for the stated number of points.

[5,5] The two most prevalent types of volcanoes, exemplified respectively by Mount Fuji and Mauna Loa.

Answers: **stratovolcanoes** and **shield** volcanoes

[10] Crater Lake in Oregon is an example of this type of feature, the enormous crater left behind by a volcanic blast.

Answer: **caldera**

[5,5] These two Hawaiian words designate smooth and rough flows of basaltic lava.

Answers: **pahoehoe** (pa-HOY-hoy) and **aa** (ah-ah)

8. In 1777, one general sent another general a letter criticizing the Continental Army's commander-in-chief. FTPE:

[10] This general's name is often (unfairly) lent to the "Cabal" that tried to oust Washington, but the phrase which caused the most controversy wasn't in his letter.

Answer: Gen. Thomas **Conway**

[10] Conway and other politicians wanted this general who had won at Saratoga to fill Washington's shoes.

Answer: Gen. Horatio **Gates**

[10] The bogus phrase was circulated by this general, a scoundrel who later turned up later as a paid agent of Spain trying to get the West to secede, and still later as co-conspirator-turned-star-witness in Aaron Burr's treason trial.

Answer: Gen. James **Wilkinson**

9. Name these short stories, FTPE:

[10] A criminal must choose between two doors. He faces a lose-lose situation: be eaten by a beast, or be betrothed to a woman he doesn't know.

Answer: "The **Lady or the Tiger**"

[10] A stubborn plantation owner defends his land against an army of insects.

Answer: "**Leiningen Versus the Ants**"

[10] The marooned Rainsford is hunted by Count Zaroff.

Answer: "The **Most Dangerous Game**"

10. Answer the following questions about Maxwell's equations FTPE:

[10] One equation states that this type of vector derivative of the electric field is 0, the same as saying that the electric field is conservative.

Answer: **curl**

[10] This names the equation stating that the electric flux out of a closed surface is proportional to the enclosed charge.

Answer: **Gauss's** law for electricity

[10] It states that the path integral of the magnetic field around the boundary of a surface is proportional to the current passing through the surface.

Answer: **Ampere's** law

11. Name these Jewish philosophers, FTPE:

[10] This court physician to Saladin, born in Muslim-ruled Spain, wrote *Guide for the Perplexed*.

Answer: **Maimonides** or Rabbi Moses ben **Maimon**

[10] This German focused on the encounter, or dialogue, of man with other beings, as elucidated in his *I and Thou*.

Answer: Martin **Buber**

[10] Nietzsche called this Dutch lensgrinder, exponent of Pantheism and author of *Ethics*, his philosophical "precursor."

Answer: Benedict de **Spinoza** or Baruch **Spinoza**

12. Given a political party and a year, give that party's candidate for president, for the stated number of points.

[5] Green, 2000

Answer: Ralph Nader

[5] Reform, 1992 and 1996

Answer: H. Ross Perot

[10] Progressive, 1924

Answer: Robert LaFollette

[10] American Independent, 1968

Answer: George C. Wallace

13. Tastes in trash can be so different, so we'll give you your choice: '80's music or recent TV. Choose now. [PAUSE]

IF '80's MUSIC: Given hit songs, name the 80s hair band, FTPE:

[10] "Lay It Down," "Round and Round," "Lovin' You's a Dirty Job"

Answer: Ratt

[10] "Easy Come, Easy Go," "Seventeen," "Headed for a Heartbreak"

Answer: Winger

[10] "Heaven," "Down Boys," "Cherry Pie"

Answer: Warrant

IF TV: Name these actors from *Spin City* given other roles, FTPE:

[10] Lawyer Garnet Hines on *Muscle*; Stanley Babson on *Arliss* [Arli\$\$]

Answer: Michael Patrick Boatman

[10] Kenny on *Blue Skies*; Pongo, the Friendly Dragon on *Oswald*; a regular on *Carol & Company*

Answer: Richard Kind

[10] Alex Burton on *Going Places*, Amanda Woodward on *Melrose Place*

Answer: Heather Deen Locklear

14. Identify these works by Salman Rushdie FTP each.

[10] Rushdie won the Booker Prize for this novel following the lives of several people who were born at the moment India and Pakistan both became independent.

Answer: Midnight's Children

[10] This book tells the parallel stories of two men who survive falling from a plane and fall into the extremes of good and evil. Its satirical treatment of Islam led to the Ayatollah Khomeini pronouncing a *fatwa* (death sentence) on Rushdie.

Answer: The Satanic Verses

[10] This is Rushdie's most recent novel, in which an angry, doll-obsessed professor named Malik Solanka finds much to loathe in New York.

Answer: Fury: A Novel

15. 30-20-10. Name the mythological figure.

[30] Born from nine virgins who raised him on a diet of the strength of the Earth, the moisture of the sea, and the heat of the sun, he grew to full size in just a few days.

[20] He sleeps lighter than a bird and can see one hundred travel days in all directions.

[10] He will blow the Gjallerhorn to call the Aesir to Ragnarok, where he will kill and be killed by Loki.

Answer: Heimdall

16. "Well, Generalissimo Francisco Franco is still dead!" FTPE:

[10] Franco fought for this party in the Spanish Civil War.

Answer: Nationalist(s)

[10] What title did Franco assume in January 1938?

Answer: El Caudillo [kaw-DEE-yoh]

[10] This king, still ruling, succeeded Franco upon his 1975 death.

Answer: Juan Carlos I or Juan Carlos Alfonso Victor Maria de Borbón y Borbón

17. Written for its composer's daughter, its movements include "Jimbo's Lullaby," "The Snow is Dancing," "The Little Shepherd," and "Golliwog's Cakewalk." FTPE:

[10] Name this 1908 piano suite.

Answer: Children's Corner

[10] Name the composer of *Children's Corner* and the 1890 *Clair de lune*.

Answer: (Achille-)Claude Debussy

[10] The last movement in this three-movement Debussy work is titled "Games of the Waves."

Answer: *La Mer* or *The Sea*

18. Answer these questions about *Sir Gawain and the Green Knight* FTP each.

[10] Name Sir Gawain's horse.

Answer: Gringolet

[10] Gawain accepts this gift from the lady of the castle who lies to him, saying it is magical and will give him invincibility. Gawain later learns he had been tricked and that it was not magical at all.

Answer: a green belt or green girdle

[10] This evil sorceress sent the Green Knight to test Gawain and King Arthur's knights.

Answer: Morgan le Fay

19. Name these sociologists, FTPE:

[10] This German sociologist and political economist is best known for *The Protestant Ethic and the Spirit of Capitalism*.

Answer: Max Weber [VAY-bir]

[10] He coined the term sociology, and penned *System of Positive Polity*.

Answer: (Isidore)-Auguste-(Marie-François-Xavier) Comte

[10] When you use this American sociologist's "looking-glass self" model, you assess yourself in terms of what you believe others think about you.

Answer: Charles Cooley

20. FTPE, name the following reactions from organic chemistry.

[10] This reaction is a cycloaddition reaction in which an alkene adds to a 1,3-diene to form a 6-membered ring.

Answer: Diels-Alder reaction

[10] This type of reaction commonly starts with bases such as NaOH or KOH that form an enolate. The enolate reacts with an alpha, beta unsaturated ketone via conjugate addition with a carbanion nucleophile.

Answer: Michael addition reaction

[10] Cyclization by way of a base-catalyzed intramolecular Claisen reaction of esters with active delta or epsilon-methylenes demonstrates this type of reaction.

Answer: Dieckmann reaction

21. FTP each, name these literary devices.

[10] Deliberate exaggeration for emphasis or effect.

Answer: hyperbole

[10] A particular form of understatement, is generated by denying the opposite or contrary of the word which otherwise would be used.

Answer: litotes [lye-TOE-teez]

[10] An elaborate, usually intellectually ingenious poetic comparison or image, such as an analogy or metaphor in which, say a beloved is compared to a ship

Answer: conceit

22. Name these cold-water ocean currents, FTPE:

[10] This current flows along South America's west coast.

Answer: Peru or Humboldt current

[10] Flowing near its eponymous island, this North Atlantic current collides with the Gulf Stream to form the rich fishing grounds of the Grand Banks.

Answer: Labrador current

[10] This current circles the earth at 60° south latitude.

Answer: Antarctic circumpolar current

23. Name these astrophysicists involved in atomic weapon design FTP each.

[10] Responsible along with Zwicky and Landau for work on neutron stars, he is better known for a post-bomb hearing at which Teller's testimony led to the removal of his security clearance.

Answer: J. Robert Oppenheimer

[10] He named black holes, as well as the "no hair" theorem, and wrote a well-known textbook on relativity, before helping Teller construct the H-bomb.

Answer: John Archibald Wheeler

[10] Best known for the effect that bears the names of both Sunyaev and himself, he was also lead theorist along with Kurchatov on the Soviet Plutonium-239 reactor and instrumental in making the H-bomb.

Answer: Yakov Borisovich Zel'dovich