

1. Jane is a girl who never moves her kings in checkers. Old Spencer is a history teacher who has gripe. Ackley is a pimply phony with rotten teeth. Phoebe is a fourth grader who loves her brother and wants to go west with him. FTP, these characters, along with Pencey Prep drop-out Holden Caulfield, appear in what novel by J.D. Salinger?

Answer: The Catcher in the Rye

2. When Dante visits the first circle of hell, this writer is seen the company of such luminaries as Virgil, Homer, Horace, and Ovid. Like Brutus and Cassius, he was an aristocrat who hated the regime of the Caesars and wanted to restore the republic. Like Seneca, he joined Piso's conspiracy against Nero, eventually being ordered to commit suicide at age 25. FTP, name this Roman author who has been criticized for his exaggerated treatment of the war between Caesar and Pompey in his only extant work, the *Pharsalia*.

Answer: Lucan (LOO-can)

3. The neutrino was proposed by Pauli in 1930 to account for the nonconservation of energy in this process. In this type of decay, the nucleon number stays the same while the atomic number increases or decreases by one. FTP, name this type of radioactive decay, important in carbon dating, which results in the emission of an electron or positron.

Answer: beta decay

4. Founded by Michel Aflaq and Salah al-Dinal-Bitar during World War II, it takes its name from the Arabic word for "renaissance" because its founders hoped that anti-imperialism, Pan-Arabism, and socialism would together allow the Arab world to enjoy a renaissance. Due to the secular nature of this group, most of its constituents were urban professionals, as well as members of religious minorities. FTP, name this political movement that gained control in both Iraq and Syria in 1963.

Answer: Baath

5. Its exact composition is lost, but because of the nature of modern war weapons it is not important to rediscover except out of historical curiosity. It contained an inflammable petroleum fraction, potassium nitrate to supply oxygen, and quicklime which reacted with water to provide further heat, allowing it to burn the water's surface and destroy a wooden fleet. FTP, name the invention of Callinicus (kal-ih-NY-kus) used in A.D. 670 to repel an Arabic naval onslaught on Constantinople.

Answer: Greek fire

6. It has been called the first actual world war, with action occurring in such far-flung places as Africa, India, and North America. In Europe, it began when Prussia attacked Saxony in response to a threat from an alliance of Austria, France, and Russia. After its conclusion, the European map remained largely the same, but Britain had taken over France's possessions in India and the New World, including Canada. FTP, name this war which began in 1756 and ended with the Treaty of Paris in 1763.

Answer: Seven Years' War (accept French and Indian War 'cause, hey, we're Americans)

7. Of his marriage in 1927 his friend Man Ray wrote: "[He] spent most of the one week they lived together studying chess problems, and his bride, in desperate retaliation, got up one night when he was asleep and glued the chess pieces to the board. They were divorced three months later." FTP, name the American immigrant who was good enough to represent France in four chess Olympiades, but is better known for creating such works as *The Bride Stripped Bare by Her Bachelors, Even* and *Nude Descending a Staircase*.

Answer: Marcel Duchamp

8. The microorganism must be found in large numbers in all diseased organisms, but not in healthy ones. The organism must be isolated from a diseased animal and grown outside the body in a pure culture. When the isolated microorganism is injected into other healthy animals, it must produce the same disease. These are three of FTP, the four postulates of what German bacteriologist, which prove that an organism causes a particular disease?

A: Robert _KOCH_ or _KOCH'S_ Postulates

9. On a nighttime journey, an old man informs him that his grandfather, a constable, had been aided while lashing a Quaker woman "so smartly through the streets of Salem," and that his father had received a "pitch-pine knot" which was used to set fire to an Indian village in King Philip's War. Later, he recognizes the "rampant hag" Martha Carrier, the pious teacher Goody Cloyse, and his own wife Faith at a witches' Sabbath. FTP, identify this Puritan, and you've named the short story by Nathaniel Hawthorne.

Answer: Young _Goodman Brown_

10. Bertrand Russell once dreamed there was a special Hell for philosophers who have tried to refute him, where every time an inference is made, the next instance falsifies it. This theory is not so farfetched, since his theological views may be summed up in his denial of the existence of both miracles and God in ~Dialogues Concerning Natural Religion~. FTP, name this 18th-century Scottish philosopher best known for ~A Treatise of Human Nature~ and ~An Enquiry Concerning Human Understanding~.

Answer: David _Hume_

11. She was not born, but arose from a furrow when her father Janaka, king of Videha, was plowing, and was offered in marriage to the man who could bend the bow of the archer-god Rudra. Captured by the demon Ravana, she was rescued with the assistance of Hanuman, whose monkeys constructed a bridge to Ceylon. Despite proving her chastity in a trial by fire on her return, she was exiled to the hermitage of Valmiki, where she gave birth to twin sons. FTP, name this avatar of Lakshmi and faithful wife of Rama.

Answer: _Sita_ (SEE-tah)

12. He majored in history at Harvard, can be seen in the background of an SNL sketch with Wayne Gretzky spoofing Elvis movies, and also played the doorman of the five timer's club in another SNL sketch featuring Tom Hanks. He also spent some time as writer for "The Simpsons". FTP, who is this "freakishly tall" red haired successor to David Letterman on "Late Night"?

ANSWER: Conan O'BRIEN

13. Invented in 1913, it consists of a cylinder containing a gas under an electric potential not quite high enough to overcome the resistance of the gas. If a high-energy subatomic particle enters, one of the gas molecules will be ionized. Pulled toward the cathode, the ion will collide with other atoms to produce an "avalanche" of ionization, which conducts a momentary electric current that can be recorded as a clicking sound. FTP, name this device used to detect radioactivity.

Answer: _Geiger counter_

14. This illegitimate son of a prince was originally trained in medicine and went on to study science at Heidelberg. At the age of 31 he was appointed to chair the chemistry department in St. Petersburg, but he's better known today as a member of "The Five." FTP, name the 19th-century composer of the ~Polovetsian Dances~ from the unfinished opera ~Prince Igor~, and the tone poem ~In the Steppes of Central Asia~.

Answer: Alexander _Borodin_

15. Among this general's more infamous accomplishments was his abandoning of fifteen soldiers in battle and his court-martial for abusing soldiers. During the Civil War he was McClellan's aide-de-camp and was the youngest soldier ever to be promoted to general. FTP, name this general, given the name "Son of the Morning Star" by the Cheyenne because of his blond hair, best known for his "last stand" at the Little Bighorn River.

Answer: George Armstrong _Custer_

16. This man claimed that he had but one regret in life, and that was that he wished he had drunk more champagne. This member of the Bloomsbury group wrote prophetically that the war reparations imposed on Germany after the First World War would actually cause it to become even more militant. FTP, name the economist whose works include ~The Economic Consequences of the Peace~ and ~The General Theory of Employment, Interest and Money~.

Answer: John Maynard _Keynes_

17. This atoll, south of the Maldives, is located in the British Indian Ocean Territories. It has no natives, and the only civilians who live there work for the military, which is why this tiny atoll is important. FTP, name this atoll that is in the news because of its strategic location near the Middle East and home to B-52s.

Answer: _Diego Garcia_

18. It owes its creation to a minor civil servant who was originally sent to report on prison conditions in the United States, but who ended up traveling around the country and observing as much as he could. First published in the 1830s, it is considered the first impartial and systematic study of American institutions. FTP, name this book by Alexis de Tocqueville.

Answer: _Democracy in America_

19. In this book's chapter entitled "The Joy of Sesquipedalians," the author reports that in "five or six years of competition" in College Bowl, her university "lost only to Brandeis and Colorado College." Other chapter titles include "The Catalogical Imperative," "Insert a Caret," "The Literary Glutton," "Never do that to a book," and "Marrying Libraries." FTP, name this collection of essays by Anne Fadiman which takes as its title a two-word Latin phrase meaning "from the books or library of."

Answer: _Ex Libris_ (LIB-rees)

20. Election to the U.S. House of Representatives in 1916, a loss in 1918, and then re-election in 1940 made it possible for this pacifist to be the only person to vote against U.S. entry into both World Wars. For ten points, name the Montanan who was also the first woman to be popularly elected to Congress before women were even given the right to vote nationally.

Answer: Jeannette _Rankin_

21. This word's etymology is rooted in the Latin term for "mechanical device" or "instrument." In publishing, it is a means of communicating the thoughts and opinions of an organization or political group. In music, it refers to an instrument that utilizes compressed air to sound pipes. FTP, identify this word which in biology names a specialized structure composed of groupings of tissues.

Answer: _organ_

22. He was born the last of fourteen children in 1834. As he was finishing high school his blind father died and his family glass factory burned down. Fortunately for the world of chemistry, his mother took him to St. Petersburg and worked to get him into college there. His most famous achievement, published in 1869's ~Principles of Chemistry~, surpassed current attempts at classifying the elements. FTP, name this Russian chemist who is considered the father of the periodic table.

Answer: Dmitri _Mendeleev_

1. Name the colonizer from American history, for 10 points each.

1. In 1565, he brought 1500 soldiers and settlers to Florida and established Saint Augustine as the first permanent settlement in what is now the present-day U.S.

Answer: Don Pedro Menendez de Aviles

2. In 1610, this Spanish governor founded Santa Fe, the oldest present-day state capital.

Answer: Pedro de Peralta

3. In 1769, this Catholic missionary founded San Diego as the first Spanish mission in California.

Answer: Father Junipero Serra

2. Identify the eponymous mathematical principle, for the stated number of points.

(5 points) The limit of a quotient of functions is equal to the limit of the quotient of their derivatives, provided that the limit of the former is an indeterminate form of type zero divided by zero or infinity divided by infinity.

Answer: L'Hospital's Rule

(10 points) If a function F is both continuous on the closed interval $[A,B]$ and is differentiable on the open interval (A,B) , and if F of A equals F of B , then there is a number C in the open interval (A,B) such that F -prime of C equals zero.

Answer: Rolle's Theorem

(15 points) The substitution of t for the tangent of one-half x , which converts any rational function of $\sin x$ and $\cos x$ into an ordinary rational function of t .

Answer: Weierstrauss substitution

3. Identify the German loan word from its definition, for 10 points each.

1. Additional territory deemed necessary to a nation, especially Nazi Germany, for its continued existence or economic well-being.

Answer: lebensraum (LAY-benz-room)

2. To attack -- ground troops, for example -- with a machine gun or cannon from a low-flying aircraft.

Answer: strafe (strayf)

3. An environmental cue, such as the length of daylight or the degree of temperature, that helps to regulate the cycles of an organism's biological clock.

Answer: zeitgeber (TSIGHT-gay-ber)

4. Name the figure from Greek mythology associated with Apollo FTPE.

1. This daughter of the river god Peneus was loved by Apollo and escaped by being changed into a laurel tree.

Answer: Daphne

2. She ridiculed Leto for bearing only 2 children; Apollo & Artemis avenged the insult by killing her many sons and daughters. Zeus then turned her to stone on Mount Sipylus, whence a river of tears continually flows.

Answer: Niobe

3. This Phrygian flutist challenged Apollo to a contest of skill and, failing to win, was flayed alive for his hubris.

Answer: Marsyas

5. Name the medieval philosopher from his epithet, for 5 points each.

1. The Angelic Doctor.

Answer: Thomas Aquinas

2. The Admirable Doctor.

Answer: Roger Bacon

3. Doctor Subtilis (sub-TEE-lis).

Answer: John Duns Scotus

4. The Universal Doctor.

Answer: Albertus Magnus

5. The Seraphic Doctor.

Answer: Saint Bonaventure

6. The Invincible Doctor.

Answer: William of Occam

6. Answer the following about the neuron FTPE

1. Dendrites receive stimuli from sensory receptors or other neurons while this threadlike extension transmits information to other neurons.

Answer: axon

2. This layer, formed when Schwann cells wrap around an axon, increases conduction velocity in neurons.

Answer: Myelin sheath

3. These are small gaps in the myelin sheath that occur at regular intervals of 1-2 millimeters.

Answer: nodes of Ranvier

7. Given the story whence his name is derived, name the Roman emperor, for 10 points each.

1. He won his nickname from an army joke, because he grew up among the legions in Germany and wore the miniature uniform of a private soldier.

Answer: Caligula (Gaius Caesar Germanicus)

2. He was nicknamed after the long, hooded tunic worn by the Gauls, which he wore after he became emperor.

Answer: Caracalla (Marcus Aurelius Antoninus)

3. The origin of his surname is unclear. It may have come from the resin smeared on the torches used by his ancestor Sulpicius in the siege of a Spanish town; the poultice which he resorted to during a long illness; or the Gallic word for fat.

Answer: Servius Sulpicius Galba

8. Name the character from Sophocles' ~Antigone~, for 10 points each.

1. Antigone performs a token burial for him, despite a decree that he shall lie unburied.

Answer: Polynices

2. This Theban king condemns Antigone to be buried alive for violating his decree.

Answer: Creon

3. Name either of the two characters besides Antigone who commit suicide at the end of play: One is the son of Creon who is affianced to Antigone; the other is Creon's wife.

Answer: Haemon or Eurydice

9. Identify each of these shirts from history, for 10 points each.

1. This name was given to the Nazi SA during the 1930s.

Answer: Brown Shirts

2. Troops who invaded Sicily and Naples under Giuseppe Garibaldi were called this.

Answer: Red Shirts

3. Chiang Kai-shek's anti-communist militarists were known as this.

Answer: Blue Shirts

10. How much March Madness did you watch this year? Identify these teams from three NCAA conferences, for the stated number of points.

1. (5 points each) The West Coast Conference sent two teams to the tournament, and each won its first game. Name these two schools which defeated Indiana and Louisville, respectively.

Answer: Pepperdine Waves and Gonzaga Bulldogs

2. (10 points) This Ivy League school lost to Illinois in the first round.

Answer: Pennsylvania Quakers

3. (10 points) This school was the unexpected champion of the Big Sky Conference and lost in the first round to St. John's.

Answer: Northern Arizona Lumberjacks

11. Given an art work with a classical theme, name the painter, for 10 points each.

1. ~Saturn Devouring his Children~.

Answer: Francisco de _Goya_

2. ~The Death of Socrates~.

Answer: Jacques-Louis _David_

3. ~Et in Arcadia Ego~.

Answer: Nicholas _Poussin_

12. 30-20-10-5. Identify the city.

(30 points) In 1799, it was the scene of the first major gold discovery in the United States.

(20 points) Although for most of its history it was not known as a banking center, it has now grown to be the third largest banking center in the United States even though there is no Federal Reserve Bank there.

(10 points) Located where I-77 intersects I-85 in North Carolina, it was named after George III's wife.

(5 points) In the Revolution it was called a "hornet's nest" of rebellion -- hence the nickname of its NBA team.

Answer: _Charlotte_

13. Answer the following about the quantization of light FTPE.

1. In 1900, he proposed that electromagnetic radiation must be quantized in integral multiples of some constant h times the frequency.

Answer: Max _Planck_

2. In 1923, he published papers explaining the change in frequency of photons scattered by electrons, an effect that bears his name.

Answer: Arthur _Compton_

3. This law relates the maximum frequency of a metal's characteristic x-rays to the kinetic energy of the electrons striking the metal, and was used by its two discoverers to obtain a value for h in agreement with Planck's.

Answer: _Duane-Hunt_ law

14. 30-20-10. Identify the author.

1. (30 points) He left school at age seventeen to become a journalist, and in 1962 his two short plays, ~The Dissolution of Dominic Boot~ and ~M is for Moon among Other Things~ were broadcast on the radio.

2. (20 points) He was born in Czechoslovakia in 1937, but only lived there for two years before moving first to Singapore, where his father died, and then to England when he was nine, taking his last name from the English officer his mother married.

3. (10 points) He is best known for riffing on Shakespeare -- writing a one-act play about two obscure characters in Hamlet, and co-writing the film named best picture at the 1998 Oscars.

Answer: Tom _Stoppard_ (original name Tom _Straussler_)

15. Identify the following about Niccolo Machiavelli, for the stated number of points.

1. (5 points) Machiavelli's early experience as an envoy for this city gave him firsthand knowledge of Italian political squabbles and intrigues.

Answer: _Florence_

2. (10 points) This book is a commentary on the first ten books of Livy's history of Rome and advocates a free republic like ancient Rome.

Answer: _Discourses_

3. (15 points) This man is mentioned often in ~The Prince~ for his successful ruthlessness in obtaining control of Romagna in Italy.

Answer: _Cesare Borgia_

16. Answer the following about rotation, for 10 points each.

1. Symbolized by I , this property of an object and its axis of rotation is calculated by integrating mass times the distance of the axis of rotation squared over its entire volume.

Answer: moment of inertia or inertial moment

2. This quantity is equal to the rate of change of the angular momentum of an object.

Answer: external torque

3. A cylinder, a hoop, and a sphere--all of equal mass--are set at the top of an incline. If they are allowed to roll down at the same time, which will reach the bottom first?

Answer: sphere

17. 30-20-10. Name the composer.

(30 points) Because of his poor health, he stopped composing in the 1920s, receiving little public attention until 1947, when he was awarded the Pulitzer Prize for music.

(20 points) He played baseball at Yale University and supported himself with a prosperous insurance firm.

(10 points) Among his best known pieces are ~Central Park in the Dark~ and the ~Concord Sonata~.

Answer: Charles Ives

18. Given lines from a poem, name the person or persons being referred to, for 10 points; or 5 points, if you need the author. (Hint: The answer is also the title of the poem.)

1. (10 points) I have always been scared of you,/With your Luftwaffe, your gobbledygoo./And your neat mustache/And your Aryan eye, bright blue./Panzer-man, panzer-man, O You--

(5 points) Sylvia Plath.

Answer: Daddy

2. (10 points) Two who are Mostly Good./Two who have lived their day,/But keep on putting on their clothes/And putting things away.

(5 points) Gwendolyn Brooks.

Answer: The Bean Eaters

3. (10 points) Shape without form, shade without colour,/ paralysed force, gesture without motion;

(5 points) T. S. Eliot.

Answer: The Hollow Men

19. Name the African-American literary pioneer from a description of works, for the stated number of points.

1. (5 points) She is America's first woman writer who tried to make a living by the use of her pen, but before an early death was only able to publish ~Poems on Various Subjects, Religious and Moral~, the first book by an African American.

Answer: Phillis Wheatley

2. (10 points) In nonfiction, his publications include ~Three Years in Europe~, the first travel book by an African American; and ~The Negro in the American Rebellion~, the first military history of the African American in the U.S. He is also the first African American to author a novel, ~Clotel; or, The President's Daughter~, and a drama, ~The Escape; or, A Leap for Freedom~.

Answer: William Wells Brown

3. (15 points) Her volume of poetry and essays, ~Poems on Miscellaneous Subjects~, went through twenty editions in less than twenty years. She also published the first short story by an African American, "The Two Offers," and is best known for her classic novel ~Iola Leroy~.

Answer: Frances Ellen Watkins Harper

20. Name the congressional act from the 1920s, for 10 points each.

1. Prohibition was implemented by this 1920 act, which made it illegal for anyone to make, sell, or transport any drink that contained more than one-half of 1 percent alcohol by volume.

Answer: _Volstead_ Act

2. Social feminists were successful in gaining enactment of this 1921 act, which provided for federal aid to establish state programs for maternal and infant health care.

Answer: _Sheppard-Towner_ Act

3. In 1924, Congress adopted this act, which limited immigration from Europe to 150,000 a year; allocated most of the available slots to immigrants from Great Britain, Ireland, Germany, and Scandinavia; and banned all Asian immigrants.

Answer: _National Origins_ Quota Act

21. Answer the following questions about superconductors, for the stated number of points.

1. (10 points) When a type I superconductor is cooled below its critical temperature, the magnetic field, inside must be zero. What is this effect known as?

Answer: _Meissner_ effect

2. (10 pts) According to the BCS theory of superconductivity, electrons move through a superconductor in pairs at low temperatures. What are these pairs which are named for one of the authors of the BCS theory?

Answer: _Cooper_ pairs (named after Leon _Cooper_)

3. (5 points each) Who are the two other originators of BCS theory?

Answer: John _Bardeen_ and J. Robert _Schrieffer_