

1. A subplot of this novel concerns the sale of a slave girl named Phebe on suspicion of her knowledge of the love affair of Annabelle Trice, a story discovered by one character in a journal written at Transylvania College. That character later exposes a bribery attempt by Hubert Coffee to gain a contract for Gummy Larson via a surgeon who goes mad after discovering his father's protection of the corrupt judge Montague Irwin, and who is driven to murder after his sister Anne Stanton's affair with the main character. FTP, name this novel narrated by Jack Burden surrounding the career of Willie Stark, by Robert Penn Warren.

Answer: *All the King's Men*

2. Much of this organization's early success was fostered by the magazine *The Link*, which swelled its ranks by joining it to an ongoing religious revival. Its platform, based largely on the Charter of Worker's Rights of the earlier Worker's Defense Committee, or KOR, was partially accepted by the Sejm, and its greatest triumph occurred after forming a coalition with the United Worker's Party, allowing for the election of Tadeusz Mazowiecki. FTP, name this party that first came to prominence during the Lenin shipyard strike in Gdansk in 1980 that frustrated the policies of Wojciech Jaruzelski under its leader, Lech Wałęsa.

Answer: Independent Self-Governing Trade Union **Solidarity** (Accept *Niezależny Samorządny Związek Zawodowy Solidarność* with considerable astonishment)

3. A minor version of this being is Behudety, the guardian of the village of Edfu. In his first incarnation, his wife Tasenetnofret helps him gain power over Ombo, but other stories state that he gained his most important position on the advice of Neith. Following his childhood in the marshes of Buto, his mother grants him a red cloak and teaches him about vengeance. Later, he loses an eye while fulfilling his mother's wishes, giving birth to his aspect as the god of the blind, but succeeds in castrating his uncle to usurp the throne of Egypt. FTP, name this slayer of Set and son of Osiris, the falcon-headed Egyptian god of light.

Answer: **Horus** (Also accept **Hrw** or **Hr** or **Haru**)

4. Compactification textures associated with these phenomena include eutaxitic arrays of lenticular discs known as fiamme, which form parallel to the collapse of their porosity, and lithophysae, or cavities excavated by escaping vapors. Their deposits are characterized by graded bedding, and coarsen from dust to lapilli to bombs toward their source. They exhibit grain fusion, and upon emplacement form welded tuff deposits. FTP, what are these extremely hot cascades of gas, ash and other tephra ejected from an erupting volcano, associated with the burial of Pompeii and named from the Greek for "fire fragments?"

Answer: **pyroclastic flow**, or **nuée ardente** (PROMPT on "extrusive igneous rock")

5. **NOTE: Year and team required.** This team had a 27 to 21 winning season opener against the Patriots. A low point occurred with its loss at the hands of the Giants 20 to 16 in the 15th Week, though its greatest win saw it avenge its only other loss, which occurred one week later, with a 38-3 win over the same team in the season's antepenultimate game. Vaughn Hebronn led the team in kick returns, while Terrell Davis and Rod Smith led in rushing and receiving yards, though it was hardly a banner year for quarterback John Elway. FTP, name this NFL team that beat the Atlanta Falcons 34-19 in Super Bowl 33, coached by Mike Shanahan.

Answer: **1998 Denver Broncos** (accept team name or mascot, but the year is needed)

6. This man's first term in office saw his co-authorship of a failed bill that would have turned election oversight in the South over to the Praetorian Guard of Deputy Marshals with George Hoar, and as senator, he authored a bill prohibiting the sale of alcohol to African Americans. Later, along with Hiram Johnson and William Borah, he formed a splinter faction of his party known as the "Irreconcilables," and wrote "14 Revisions" to support his best remembered effort. FTP, name this Massachusetts Republican who, as chairman of the Foreign Affairs Committee, successfully kept the U.S. out of the League of Nations.

Answer: **Henry Cabot Lodge Sr.** (The first bill was the Lodge-Hoar, or "Force" Act)

7. Finished after the composer's String Quartet #3 in E flat minor, as this piece opens, strings play four measures of a somber *moderato in modo di marcia funebre* passage in B-flat minor, followed by the dirge-like folksong "Come My Dearest, Why So Sad this Morning?" Its trio introduces an *allegretto* clarinet melody overwritten by the anthem "God Save the Czar," before its heroic recapitulation of the initial Serbian theme. Written as a fundraiser for soldiers wounded in the Russo-Turkish war, FTP, name this march reflecting on the shared ethnicity of the depicted people, a work by Tchaikovsky.

Answer: ***Marche Slave or Slavonic March***

8. This work begins by comparing the national flowering of poetry to the ascendancy of the Harp star as the new Polaris, stating that the millions who are "rushing into life" cannot subsist on "sere foreign harvests." Among its oft-criticized passages are one comparing the datedness of works to an inefficient vacuum pump and a comparison of the past clergy to women to illustrate the degradation of the title figure. Its three sections discuss the study of nature, the use of books to gather historical information, and action learning as three driving forces behind the title figure, portrayed as "Man thinking." FTP, name this 1837 lecture to Phi Beta Kappa extolling the virtues of academic independence by Ralph Waldo Emerson.

Answer: **"The American Scholar"**

9. Korzhinskii's modification of this tenet breaks one of its variables into inert and perfectly mobile elements, and for metamict solid solutions, that variable is given the lowest possible value. Coupled with Le Chatelier's principle, it may be used to predict the probability of spontaneity in a system, and when this equation yields zero, it identifies a system's invariant, which may correspond to a eutectic or triple point. FTP, name this rule of chemistry that states that the independent chemical species minus distinct states of matter plus two gives the number of degrees of freedom for a system in equilibrium.

Answer: **Gibbs's phase rule**

10. The only language of its continent in which the partitive case is used as a polar determiner, this tongue is further distinguished by its use of finite verbs to summarize noun phrases, and by the presence of the unmarked absolutive case. The Nostratic hypothesis links it with the South Caucasian family based on its ergativity. Its eight dialects were first described by Louis Bonaparte, and its standard is based on the Gipuzkoan dialect. Despite its loan word population from Spanish, it contains no European cognates, and is related only to the extinct Aquitanian. FTP, name this language isolate spoken in the western Pyrenees.

Answer: **Basque (Accept Euskaran before it is mentioned)**

11. The title character nearly receives his comeuppance for the strangling of Bernardine, but a French lute player shows up at the door of the pimp Pillia-Borza with a strange new flower and puts an end to those plans. His first victims are the suitors Lodowick and Mathias, who die in a duel he arranges to avenge the seizure of his estate, and to that end he forges an alliance that allows Calymath to overthrow Farneze. Much of his chicanery is actually engineered by his slave Ithamore, who poisons a nunnery that his daughter Abigail joined. FTP, name this tragedy about the crimes of the merchant Barabas, by Christopher Marlowe.

Answer: ***The Jew of Malta* (Accept Barabas on an early buzz)**

12. Johansen pioneered a version of this theory for a general equilibrium model in which the chief assumption behind it was replaced by the demand functions of Frisch. The final proof of the Heckscher-Ohlin model lay in this method, which proved that countries export intensively used abundant commodities, and it specifically predicts that entities are profitable if the sums of their respective columns in a consumption matrix are less than unity. FTP, name this economic analysis theory put forth by Wassily Leontief in which a grid is used to show goods and services sold and bought by industries.

Answer: **input-output analysis or theory**

13. Arrian notes that this man was so afraid of assassination that he never slept more than two nights in the same room of his palace, while other accounts of his rule are found in the *Arthashastras* and the reports of Megasthenes. His rise to power began during his exile in the forest of the Vindhya, where he met his eventual chief advisor, Kautilya, who advised him on how to take advantage of the rebellion of the Swat ruler Sasigupta and wrest the provinces of Aria and Arachosia from Seleucus I after his overthrow of the Nanda rulers of Maghada. FTP, name this general who established the Mauryan Empire.

Answer: **Chandragupta Maurya**

14. The type II size modulation associated with these structures involves the resolution of a D-loop and a Holliday Junction after derivation from their namesake protective loop, which nearly doubles their length. Mutations in Cdc13p hasten their destruction, giving rise to the Hayflick limit. Their extinction is forestalled by their namesake reverse transcriptase, a component of the germline that plays a role in the immortalization of tumor cells. Consisting of GT-rich strands, FTP, name these repetitive DNA sequences that protect protein-coding genes from damage, located at the ends of eukaryotic chromosomes.

Answer: **telomeres**

15. The “Star Scraping Ridge” rises to the north of this city within White Cloud Mountain park, which forms a subset of the Yanshan Range. Its suburban population is centered on the southern Baiyun Hills, which slope downward onto the overpopulated floodplain of its central river. Its old section contains the Tomb of 72 Martyrs and the Temple of the Six Banyan Trees, home to its celebrated Flower Pagoda, and its more modern buildings include the Conquering the Sea Tower and the Sun Yat-sen Memorial Hall. FTP, name this city on the Pearl River Estuary that gives its name to the chief southern dialect of Chinese.

Answer: **Guangzhou or Canton**

16. Prior to this engagement, Colonel Wood discovered that the desertion of Walk-in-the-Water and his followers had left the enemy line vulnerable to a cavalry attack by Johnson’s company. Following this engagement, one general was reprimanded for cowardice after retreating to Burlington Heights. Frontiersmen eager to avenge their loss at Raisin River broke the British lines, which were retreating from Malden after the Battle of Lake Erie. FTP, name this battle of the War of 1812 in which the troops of Henry Proctor were defeated by William Henry Harrison, and during which Tecumseh was killed.

Answer: **Battle of the Thames (Accept Moraviantown)**

17. The heat evolved from overcoming this measure during vaporization of rubidium and cesium plus the volume expansion term is constant with respect to temperature, and in accordance with the Eötvös-Ramsey expression it exhibits a power dependence on temperature. La Place’s law governs the set of substances that minimize this factor, which may be measured with a stalagmometer, and which has a value of 0.425 for mercury, and 0.0728 for water. FTP, name this physical property of a liquid defined as the energy necessary to increase the exposed area of a meniscus by 1 square meter, symbolized by gamma.

Answer: **surface tension**

18. Food sacred to practitioners of this faith is known as I-tal, and its gatherings on holy days such as August 1st and April 21st also feature a dance known as the nyabingi. Its texts include the *Holy Piby* of Robert Rogers, as well as the *Kebra Nagast*, and its members also accept the Six Principles, laid out by Leonard Howell. Its chief tenet holds that the equilibrium established when the creator, Jah, assigned continents to each of the races was upset by the seizure of lands by an entity called Babylon. FTP, name this religion that reveres Haile Selassie as the savior of Africans from European colonialism.

Answer: **Rastafarianism or Rasta**

19. F. Munson Ebert completed the twin-corridor entrance and surrounding arboreal and steel barrier for this structure’s lobby. Its initial designer may have copied the plan for its truss from the second and third-floor windows of his earlier University Library in San Diego. Supported by horizontal and vertical cross-bracing above its ground floor, it is crowned with a 212-foot hollow aluminum spire upheld by two projecting wings, which allow for a design that preserves the view from Nob Hill. FTP, name this tapered structure located in Redwood Park and designed by William Pereira, the tallest building in San Francisco.

Answer: **Transamerica Pyramid**

20. One of this author’s recent novels contrasts the creator of the socialist Worker’s Palace with her grandson, who abandons society for the Marquesas Islands. His criticism includes a lambasting of *Madame Bovary* entitled *The Perpetual Orgy*, and he wrote about Agustin Chabral’s experience with the Trujillo regime in *The Feast of the Goat*. However, his better known works center on the ethnography of his home country, including one about Saul Zurata’s attempt to join the Machiguengua tribe, *The Storyteller*, and he is best known for a novel in which the dramas of Pedro Camacho parallel the relationship of young Mario with a much older relative. FTP, name this Peruvian author of *Aunt Julia and the Scriptwriter*.

Answer: **Mario Vargas Llosa** [pron. *YO-suh*, but accept plausible attempts; prompt on partial answer]

21. Only two angels from this man's first commission survived the Earthquake of 1789, but his *Crucifixion* graces a complete altarpiece, the *Città di Castello*, for the same town. His *Madonna of the Blue Diadem* and *The Vision of Ezekiel* contain contributions from his pupil Giovanni Penni, and he borrowed the polygonal temple in his *Engagement of the Virgin* from his own master, Perugino. His portraits include *Baldassare Castiglione* and *Leo X*, but he's best known for depicting Bramante as Euclid and Michelangelo as Heraclitus in a scene inspired by Apelles. FTP, name this artist of *The School of Athens*.

Answer: **Raphael Sanzi or Raffaello Sanzio**

22. This writer claims to have taught the athlete Hero of Gyara to run in one fragment, and other works by this poet warn a woman not to take too much pride in a ring she has found, eulogize the bachelor Timas, and implore some carpenters to "Raise high the roof-beam" for a really tall bridegroom. Erinna of Telos is perhaps the most famous pupil of this greatest author of the Aeolic dialect who invented an unrhyming quatrain of eleven and five syllable lines to describe her love for Attis and Anactoria. FTP, name this poet who with Alcaeus founded the school of Lesbos, whom Plato called "the tenth muse."

Answer: **Sappho (or Psappha)**

23. The remainder term for this algorithm is less than or equal to the upper bound of the fourth derivative of the function of interest over ninety times the step-size to the fifth power. This Newton-Cotes formula is derivable from integration of a third order Lagrange interpolating polynomial at three equidistant points, and it may be extended to an odd number of divisions using the more accurate version, the $3/8^{\text{th}}$ rule. FTP, name this method of estimating integrals useful for quadratic functions and using weights of 2 and 4, in which a parabola approximates the curve of interest, named for an English mathematician.

Answer: **Simpson's Rule**

1. FTPE, answer the following questions about works and an American author.

A: This novel about the building of a subway system focuses on the career of the ambulance-chasing lawyer George Baldwin, who represents the injured milkman Gus McNeil and marries Ellen Thatcher.

Answer: **Manhattan Transfer**

B: This author of social novels like *Airways, Inc* and *The Three Soldiers* wrote *Manhattan Transfer*.

Answer: John Roderigo **Dos Passos**

C: This work begins with the defection to Mexico of Fainy McCreary, and tells of the career of airplane manufacturer Charley Anderson on the eve of, prior to, and following World War I. Notable for its use of the camera eye technique, it includes biographies of Thomas Edison, Woodrow Wilson, and Henry Ford.

Answer: **U.S.A. Trilogy** (do not accept any of the individual volumes within the trilogy, since the clues cover the entire series)

2. FTPE, name these battles involving Julius Caesar.

A: Caesar smashed a rebellion of Vercingetorix at this hill fortress of the Mandubii tribe at this turning point of the Gallic Wars in 52BCE.

Answer: **Alesia**

B: After being repulsed at Dyrrhachium, Caesar's army surrounded and defeated the army of Pompey at this site on the River Enipeus in Thessaly, bringing the War of the First Triumvirate to a close.

Answer: **Pharsalus**

C: After becoming king of Colchis and massacring the citizens of Amisus, Pharnaces II was defeated by a small cavalry attachment at this site, following which Caesar sent his famous message, "Veni, vidi, vici."

Answer: **Zela**

3. Identify these characters from James Bond films, FTPE:

A: This first bride of 007 is the daughter of the head of the Union Corse whom he first saves from suicide, then from a gambling debt. She is murdered by Blofeld in *On Her Majesty's Secret Service*.

Answer: Countess Teresa di **Vicenzo** or **Tracy**

B: This *Moonraker* villain attempts to wipe out humanity with a series of 50 toxic globes, but Bond defeats him with the help of his own henchman, Jaws.

Answer: Sir Hugo **Drax**

C: In *The Living Daylights*, this leader of the Mujahedin helps Bond and Kara Milovy escape a Soviet airbase in Afghanistan, and later wins a battle when 007 drops a partially defused bomb on the Soviets.

Answer: **Kamran Shah**

4. The last bonus was about Bond... James Bond. This one is about bonds... chemistry bonds. FTPE:

A: This set of five rules for crystals governs coordination polyhedra around ions, the stability of face and edge-sharing polyhedra, and sharing of bonds between cations of high-valency and low coordination number. They also include the electrostatic valency principle and the principle of parsimony.

Answer: **Pauling's Rules**

B: Bonded atoms share their eight outer electrons according to this rule that sometimes breaks down for transition elements.

Answer: **octet rule**

C: According to these tenets for determining bond character, if ionic charge is high, the cation is small and the anion is large, or the cation possesses a noble gas configuration, covalency dominates.

Answer: **Fajan's Rules**

5. Name these paintings by Edouard Manet, FTPE:

A: This work depicts a man in a top hat wrapped in a brown cloak and seated on a concrete bench. At his feet rests an empty bottle, and to his right is a glass filled with the title green liquid.

Answer: **The *Absinthe Drinker* or *L'Absinthé***

B: Based upon the earlier *Fete Champetre*, this painting depicts two reclining Frenchmen in the company of a partially nude female figure. In the foreground are grapes, leaves, a loaf of bread, and a fruit basket.

Answer: **The *Luncheon on the Grass* or *Le Dejeuner sur l'herbe***

C: Five versions of this work with allusions to Goya exist. In the foreground of the original, two men, one of whom wears a sombrero, hold the title figure's hand as six figures fire into his chest.

Answer: **The *Execution of Maximilian* or *L'Exécution de Maximilien***

6. FTPE, identify the following about a short-lived American colony.

A: Founded in 1638 at Fort Christina by settlers who arrived on the *Fogel Grip* and the *Kalmar Nyckel*, within 15 years it expanded as far east as Cape May. Its capital was Tinicum Island in the Delaware River.

Answer: **New Sweden**

B: This Dutchman founded New Sweden along with the Finnish captain Klas Fleming. Twelve years earlier he gained fame by purchasing the island of Manhattan from the Lenape people for New Netherland Colony.

Answer: **Peter Minuit**

C: The hegemony of New Sweden was brought to an end by this one-legged director-general of New Netherland and former governor of Curaçao who captured Fort Christina in 1655.

Answer: **Peter Stuyvesant**

7. Identify these things in common with planets and gravity, FTPE:

A: These three laws define the orbits of planets as ellipses, imply that a planet moves fastest when closest to the sun, and demonstrate that a planet's period of orbit is proportional to its radius of orbit.

Answer: **Kepler's Laws of planetary motion**

B: Tidal forces begin to tear an orbiting body with zero tensile strength apart at this limit at which the gravitational attractions of a parcel of the satellite to the satellite itself and to its planet are in equilibrium.

Answer: **Roche Limit**

C: This envelope around an orbited body named for an American astronomer approximates the gravitational influence of the two bodies considering gravitational perturbations caused by a planet and moon and the centrifugal force experienced by a reference point with the moon's angular frequency.

Answer: **Hill Sphere**

8. Name these figures associated with gateways from various mythologies, FTPE:

A: Roman legionnaires departed for war through this deity's portal in the Forum. He is the Roman god of beginnings and endings, as well as gates and doors, and is usually depicted with two faces.

Answer: **Janus**

B: A demoness of transitions in Slavic myth, specifically the guardian of the gates of death, the gateway to her house on chicken's legs is a skull with razor-sharp teeth, which she can lower by reciting an evil rhyme.

Answer: **Baba Yaga**

C: As the guardian of the Gates of Kur, this keeper of the Babylonian underworld admits Ishtar at the price of seven articles of clothing, but Ereshkegal orders him to block her passage out until Tammuz agrees to take her place.

Answer: **Neti or Nadu**

9. FTPE, name these European authors who wrote about genocidal themes.

A: *All Rivers Run to the Sea* discusses this man's personal experiences with the Holocaust, and his novels about the Holocaust *The Town beyond the Wall*, *The Oath*, and *Night* led to a 1986 Nobel peace prize.

Answer: **Elie Wiesel**

B: This post-Stalinist poet states "I am every old man executed here...I am every child murdered here" in a poem exposing the lack of an official monument to Jews executed by the Nazis at Babi Yar.

Answer: **Yevgeny (or Eugene) Yevtushenko**

C: Though he's better known for *The Song of Bernadette*, this Austrian author's novel *The Forty Days of Musa Dagh* concerns Gabriel Bagradian's attempt to hold off a 1915 Turkish siege during the Armenian genocide.

Answer: **Franz Werfel**

10. Name these famous flatland areas from around the world, FTPE:

A: Situated in and around the Seronera Valley, this dry savanna adjacent to Lake Victoria in northern Tanzania is known for its large populations of wildebeest, gazelles, lions, and zebras.

Answer: **Serengeti Plain**

B: This wide, grassy plain extends from the Negro and Colorado rivers in the south as far north as the Paraná River. It contains the city of Buenos Aires and supports nearly half of Argentina's population.

Answer: the **Pampas**

C: The world's largest area of exposed limestone, this treeless plain lies north of the Great Australian Bight and south of the Great Victoria Desert. Its main city of Kalgoorlie is known for its gold deposits.

Answer: **Nullarbor Plain**

11. Answer some questions about a concept from computer science, FTPE:

A: This is any tree-based data structure whose base datatype is some ordered set in which the greatest or least element is always the root node. It is the basis for an unstable sorting algorithm.

Answer: **heap**

B: One common use of heaps, especially the binary heap, is in implementation of large examples of these abstract data types with add and remove operations whose elements all have some desired aspect.

Answer: **priority queue**

C: This heap is a collection of non-prescribed trees in which the node degree is limited by $O(\log n)$ and the size of a subtree rooted in a node with any number of children is given by the corresponding member of the namesake set of numbers plus 2. It is used to shorten the running time of Dijkstra's algorithm.

Answer: **Fibonacci heap**

12. Answer the following about some related Supreme Court decisions and historical events surrounding them, FTSNOP:

A: 10 Points: Ruling that tourism is a form of interstate commerce, the Supreme Court struck down the appellant business's rule that barred customers from service based on race in this 1964 case.

Answer: **Heart of Atlanta Motel versus United States**

B: 5 Points: The Heart of Atlanta Motel case upheld this recent act which prohibited discrimination based on color, race, religion, or national origin in public places covered by interstate commerce.

Answer: **Civil Rights Act of 1964**

C: 10 Points: The Heart of Atlanta Motel case was not the first civil rights case to consider Interstate Commerce issues. This 1960 decision overturned the conviction of an African American for trespassing in a restaurant in a Richmond bus station marked "whites only" for violation of Interstate Commerce laws.

Answer: **Boynton versus Virginia**

D: 5 Points: These events were organized by James Farmer to test bus terminal desegregation following the decision in Boynton versus Virginia.

Answer: **Freedom Rides**

13. Name these authors from the Caribbean, FTPE:

A: This author is well-known for adapting European themes to a Caribbean atmosphere, including his poem "Castaway," which was based on *Robinson Crusoe*, and his epic setting of the Iliad in St. Lucia, *Omeros*.

Answer: **Derek Walcott**

B: While living in New York, he wrote articles on Emerson and Walt Whitman, as well as the essay *Simon Bolivar*, but this poet of the Cuban Revolution is best known for his military adventures, which he records in his *Diary from Cape Haitien to Dos Rios*.

Answer: **José Martí**

C: This novelist also made her way to New York, and became a staff writer for the New Yorker. She is best known for her novels *Lucy* and *Annie John* and for her collection *At the Bottom of the River*.

Answer: Jamaica **Kincaide** or Elaine Potter **Richardson**

14. Answer the following about a cellular process, FTPE:

A: This biochemical pathway begins with either NADH or FADH₂ and, utilizing ubiquinone and various cytochrome complexes, creates a charge gradient to power ATP synthesis by transferring hydrogen ions across a membrane. It is the final step in aerobic respiration.

Answer: **electron transport chain**

B: The electron transport chain is located in this organelle sometimes referred to as “the cell’s power house.”

Answer: **mitochondrion**

C: These membrane folds within the mitochondrion host the electron transport chain.

Answer: **cristae**

15. FTPE, identify these Old Testament prophets.

A: This native of Anathoth shattered a clay jar and walked around Jerusalem with a yoke on his neck in order to signify the impending captivity of Judah by Babylon. He later mourned the fall of Jerusalem in the Book of Lamentations, and is sometimes called “the weeping prophet.”

Answer: **Jeremiah**

B: His namesake book takes the form of a complaint that the injustice of Judah is avenged by the even more unjust Chaldeans, and evolves into a direct challenge of God’s tolerance of evil.

Answer: **Habbakuk**

C: This pupil of Haggai’s prophecies concern the vision of the flying scroll, the parable of the lampstand and two olive trees, and the coronation of Joshua. His most important prophecy concerns the Branch of David, which is believed to refer to Jesus Christ.

Answer: **Zechariah**

16. Identify these archaeologists, FTPE:

A: He disproved the theory that the site of ancient Troy was located at Bunarbashi through his excavations of a hill at Hissarlik, at which he found two large gates, a relief of Apollo, and treasure.

Answer: **Heinrich Schliemann**

B: He discovered the route of Simon Bolivar’s 1819 journey across Venezuela and excavated the Incan capital of Vitcos in 1911, but remains best known for stumbling across Macchu Picchu the following year.

Answer: **Hiram Bingham**

C: This British anthropologist excavated two early Neolithic sites at Hacilar and unearthed several bull heads and obsidian weaponry from Çatal Hüyük, believed to be the world’s oldest city.

Answer: **James Mellaart**

17. Name these poems of William Wordsworth from lines, FTPE:

A: “Alone she cuts and binds the grain, / And sings a melancholy strain; / O listen! For the Vale profound / Is overflowing with the sound.”

Answer: **“The Solitary Reaper”**

B: “The cocks did crow to-whoo, to-whoo / And the sun did shine so cold / --Thus answered Johnny in his glory / And that was all his travel’s story”

Answer: **“The Idiot Boy”**

C: “Once again / Do I behold these steep and lofty cliffs, / That on a wild, secluded scene impress / Thoughts of more deep seclusion...”

Answer: **“Lines Composed a Few Miles Above Tintern Abbey, On Revisiting the Banks of the Wye During a Tour. July 13, 1798”**

18. Answer these physics questions about rotating discs, 5-10-15:

A: 5 Points: This device utilizes a heavy-rimmed disc mounted in a double gimbal that allows its axis to adopt any orientation in space. It operates via its namesake type of inertia.

Answer: **gyroscope**

B: 10 points: A rotating disc is also subject to this variation in its rotation axis. For a gyroscope, the angular velocity of the disc is equal to the nutation plus this quantity.

Answer: **precession**

C: 15 Points: This problem of special relativity states that a rapidly rotating disc should contract because its circumference is parallel to its direction of motion, but cannot because its radial segments are perpendicular to its direction of motion.

Answer: **Ehrenfest Paradox (do not accept “Ehrenfest theorem”)**

19. Answer these questions about a European monarch:

A: Coming to power after his father's 1849 defeat at Novara, this king allied with France, Britain, and the Ottomans in the Crimean War, and later with Napoleon III against Austria, though the former double-crossed him by signing the Treaty of Villafranca di Verona.

Answer: **Victor Emmanuel II** or **Vittorio Emanuele II**

B: This premiere of Sardinia provided much of the impetus of the reforms and the popularity of Victor Emmanuel II with his newspaper, *Il Risorgimento* and diplomacy with Britain and France.

Answer: Camillo Benso, Conte di **Cavour**

C: Victor Emmanuel II was proclaimed king of a united Italy shortly after plebiscites in favor of unification in Naples and Sicily convinced this last ruler of the Kingdom of the Two Sicilies to abdicate.

Answer: **Francis II**

20. Name these composers of vocal pieces, FTPE:

A: This kappelmeister at the court of Albrecht V of Bavaria is famous for his prolific output of motets like *Prophecies of the Sibyl*, and is best known for his *Penitential Psalms of David* and *The Tears of St. Peter*.

Answer: Orlande (or Orlandus) de **Lassus** or Orlando di **Lasso**

B: Though it was Beethoven who invented the Romantic lied, it was this composer's 610 examples, such as *The Miller's Beautiful Daughter*, *Winterreise* and *Erkönig*, that brought the form to its nadir.

Answer: Franz **Schubert**

C: This expressionist who pioneered the Sprechstimme wrote pieces for orchestra and voice such as *Pierrot Lunaire* and *A Survival from Warsaw*.

Answer: Arnold **Schönberg**

21. Following his death, his critical essays were published in *Chance, Love and Logic* by Cohen. FTPE:

A: Name this American philosopher whose best known contribution was published in an 1878 edition of *Popular Science Monthly* and argued that an idea's essence lay in the examination of its consequences.

Answer: Charles Sanders **Pierce**

B: Name the term Pierce used to describe his system of ideas, whose ethical aspect maintains the choice of means to an end and the choice of the end itself are equalized by a reality of knowledge that leads to values.

Answer: **pragmatism**

C: Pierce hammered out the ethical and practical forms of pragmatism as a definition of meaning in *sensu strictu* in this 1883 collection of essays that also extended the title subject to mathematics via pragmatism.

Answer: ***Studies in Logic***

22. Answer these questions about the history of an African nation, FTPE:

A: This home of precolonial empires like Kongo, Ndongo, and Ovimbundu gained independence under Agostinho Neto following a 14-year guerilla war with Portugal waged by the MPLA, FNLA, and UNITA.

Answer: **Angola**

B: This Marxist leader of the MPLA succeeded Agostinho Neto in 1979 and maintained control of Angola with the aid of Cuban troops. He ended the civil war in 1991 by coming to terms with Jonas Savimbi.

Answer: José Eduardo **dos Santos**

C: Renewed fighting caused by Savimbi's refusal to accept dos Santos's reelection was temporarily ended by this series of 1994 agreements signed in a neighboring country that promised mutual disarmament.

Answer: **Lusaka** Accords or Protocol