Packet 16

Tossups

1. **By signing the Treaty of Picquigny, this ruler saved his country from an English invasion. That invasion occurred after the Battle of Barnet, which ended his plan for an alliance between the Earl of Warwick and Margaret of Anjou to keep Edward IV in exile. The power of this ruler was opposed by the League of the Public Weal, and in his early life he plotted against his father, Charles VII. After using Swiss forces to win the Battle of (*)** Nancy, this Valois monarch ended his long feud with the Duke of Burgundy, Charles the Bold. For 10 points, name this French king whose intricate scheming earned him the nickname of "the Universal Spider."
ANSWER: **Louis XI** the Prudent [prompt on the **Spider King** or the **Universal Spider** before mention]
<Cohen>

2. **In one work by this author, a character who never recovered his wits after being rendered unconscious by a flash of light attempts to foil the plans of the cat-murdering Johnnie Walker. Another of his works involves the mental prostitute Creta Kano and Kumiko's soulless politician brother, (*)** Noboru Wataya. May Kasahara exchanges letters with the protagonist in that novel, which opens with the protagonist, Toru, cooking spaghetti while thinking about his lost cat and is named for a mechanical toy animal. For 10 points, name this author of *Kafka on the Shore* and *The Wind-up Bird Chronicle*.
ANSWER: Haruki **Murakami** [accept names in either order]
<Kirsch>

3. **The first of these proteins to be discovered was isolated from *Haemophilus influenzae*, and, like many of its class, that example is nonfunctional when its target is methylated. Only one of their three types does not require ATP to function, and two of their types require AdoMet to function. Analysis by (*)** Southern blot may require a sample to be digested by these proteins, common examples of which are Xbal and EcoRI. These proteins create either sticky or blunt ends when they cleave at certain sequences, which are often palindromic. For 10 points, name this class of enzyme often used in experiments to cleave DNA at specific sites.
ANSWER: **restriction enzyme**s [or **restriction endonuclease**s]
<Kirsch>

4. **This composer included "Innocence" and "Idyll" in his set of eight "Bagatelles and Impromptus." One of this man's works includes a section titled "From" his native land's "Meadows and Forests" and another depicting a retreat into the mountain Blaník after a battle at (*)** Tábor. Towards the end of his first string quartet, the music breaks off and is replaced by a low tremolo and a long piercing note by the violin; that gesture represents this composer's hearing loss. A section of one of his works, based on the same folk tune as the Israeli national anthem, depicts the title river which runs through Prague, the Vltava or Moldau. For 10 points, name this composer of the string quartet "From My Life" and the Bohemian nationalist cycle *Má Vlast*.
ANSWER: Bedrich **Smetana**
<Bollinger>

5. **At one point, this man's government seized control of the opposition newspaper, *La Presna*, and several people were killed after gathering to meet him at the Ezeiza Airport. After paying off the national debt, this man issued the Declaration of Economic Independence and set up the state-run IAPI to control exports. Some of his supporters burned churches after the Catholic Church was implicated in the bombing of his presidential palace in 1955, while early on he attracted a youthful guerrilla force called the (*)** Montoneros. After his death, many of his desaparecidos were targeted in the Dirty War conducted by his successor, Jorge Videla. During periods of his rule, his vice president was Isabela, his second wife. For 10 points, name this leader of Argentina, the husband of Evita.
ANSWER: Juan Domingo **Perón**
<Bentley>

6. **In one work, this man argued that the title action represents the "recommencement of life" allowing the viewer to see the "awful parenthesis" caused by the title character's evil. This man contrasted the "Literature of Knowledge" with the "Literature of Power" and included "The English Mail-Coach" in *Suspiria de Profundis*. He wrote about the (*)** Porter scene in "On the Knocking at the Gate in Macbeth." This man wrote an autobiographical work in which he discusses being chased around a room by his own nightmares. For 10 points, name this English author whose addiction inspired his *Confessions of an English Opium-Eater*.
ANSWER: Thomas **De Quincey**
<Ray>

7. **One protecting group incorporating this element is frequently removed by the quaternary ammonium salt TBAF. Convenient variations on the aldol and Michael reactions developed by Mukaiyama employ this element in replacing the nucleophilic intermediate with a stable reagent. Rods of this material may be grown using the (*)** decomposition of its trichloro acid, in the Siemens process. This element is substituted with four methyl groups in an internal standard for NMR spectroscopy. Its dioxide forms crystals called quartz. For 10 points, name this element used to manufacture computer chips.
ANSWER: **silicon**
<Watkins>

8. **Historical accounts of this faith include *God Passes By*, which recounts a declaration in the garden of Ridvan. Martha Root is among its select, saint-like group called the Hands of the Cause; that group was established by the son of this faith's founder in that son's *Will and Testament*, and disbanded from the 1920s until 1957 by its leader, Shoghi (*)** Effendi. Its founder wrote an allegorical text called *The Seven Valleys*, and its calendar includes a month-long, and thereby 19-day, fast. This faith's *Book of Certitude* describes progressive revelation and the unity of all world faiths. For 10 points, name this religion whose Universal House of Justice is in Haifa, Israel, a tolerant monotheistic faith begun in Persia by Baha'ullah.
ANSWER: **Bahá'í** faith
<Jackson>

9. **This artist once depicted an eagle eying a female figure who raises her hand to the beard of a god to protest her son's fate. In another of his works, a man has his left foot on a rock and points pensively to a winged figure. Those works are *Jupiter and Thetis* and *Oedipus and the Sphynx*. In a late work, this artist painted nude women surrounding a figure with her back turned that he had earlier shown in *The* (*)** *Valpinçon Bather*. A man presents a lyre to the title Greek poet, who is being crowned by a winged figure, in his *The Apotheosis of Homer*. In another of his works, the main figure holds a fan of peacock feathers as she lays on a divan gazing over her shoulder; that woman has an elongated back. For 10 points, name this painter of *La Grande Odalisque*.
ANSWER: Jean Auguste Dominique **Ingres**
<Austin>

10. **A law passed after this event provided restrictions on successive habeas corpus briefs and is commonly called AEDPA. Stephen Jones, the defense lawyer for one man involved in this incident, wrote the book *Others Unknown* that implicated a group from nearby Elohim City. For his complicity in this event, Michael Fortier was sentenced to 12 years in prison. A famous photo of its aftermath showed Baylee Almon being held by (*)** firefighter Charles Porter. One of its planners claimed it was in retaliation for the Ruby Ridge incident and the siege of Branch Davidians in Waco, Texas. For 10 points, name this act of domestic terrorism carried out by Terry Nichols and Timothy McVeigh in 1995 that saw the destruction of the Murrah Federal Building in the capital of the Panhandle state.
ANSWER: **Oklahoma City bombing** [or **OKBOMB**; accept equivalents for bombing; accept **bombing** of the Alfred P. **Murray** Federal Building before mention]
<Bentley>

11. **These objects, which are often assembled in modular cap and pin designs, can fail due to thresholds on "puncture" and "flashover." One type of these objects are transition metal oxides with a Coulomb potential more than twice the number of neighboring atoms times the transfer integral and were predicted by Nevill (*)** Mott. One of these materials separates two conductors in a capacitor. These materials, which possess a characteristic breakdown voltage, have a large band gap due to their tightly bound valence electrons. For 10 points, name these materials, also called dielectrics, that resist current flow.
ANSWER: **insulator**s [accept **dielectric**s before mention]
<Watkins>

12. **This author wrote a short story in which David Glover buys a gun with which he accidentally kills the mule Jenny. This author of "The Man Who was Almost a Man" opened a novel of his with the protagonist killing a rat with a skillet and sabotaging his gang's plan to rob a** (*) white-owned business; that protagonist is unsuccessfully defended by Boris Max. This author of *Uncle Tom's Children* wrote about that protagonist's murder of Mary Dalton and Bessie in his magnum opus. For 10 points, identify this African-American author who wrote about Bigger Thomas in *Native Son*.
ANSWER: Richard **Wright**
<Gupta>

13. **The standard in this case was limited in *Whitney vs. California*, which replaced it with the nebulous "bad tendency" standard. The material tested in this case included leaflets distributed that urged people not to "submit to intimidation." *Brandenburg vs Ohio* superseded entirely the test from this case with its "imminent lawless action" test; that test, established in this case with the example of** (*) "shouting fire in a crowded theater," is the clear and present danger test. For 10 points, name this 1917 First Amendment case that limited the free speech of a man speaking against the draft.
ANSWER: *__Schenck__ v. United States*
<Meade>

14. **A woman who married into this dynasty was later exiled abroad and rumored to be having an affair with her courier, Bartolomeo Pergami. One member of this dynasty secretly married Maria Fitzherbert and would later try to divorce his actual wife, Caroline, using the Pains and Penalties Bill. Another monarch from this house faced invasions named for years like the Forty Five and the Fifteen. A monarch from this family mingled with critics of his father like Charles Townshend in** (*) Leicester House before taking the throne and personally commanding troops at the Battle of Dettingen. Thanks to the Act of Settlement, the heirs of Sophia from this family were granted the right to succession over Roman Catholics in the Stuart family. For 10 points, name this house of British monarchs including George I.
ANSWER: House of **Hanover** [or **Hanover** Dynasty; or **Hanover** family; or the **Hanoverians**; or House of Brunswick and Lüneburg, **Hanover** line; prompt on **House of Welf**]
<Bentley>

15. **Shrake and Rupley introduced a rolling ball algorithm to calculate a form of this quantity applied to biomolecules that had been developed earlier by Lee and Richards. The polar form of this quantity should be limited to sixty square angstroms for molecules intended to cross the blood-brain barrier. Schwarz demonstrated that different methods of approximating this quantity, unlike** (*) arc length, as using limiting polyhedra can give different values. This quantity is infinite in Gabriel's horn, and the folds formed by the mitochondrial inner membrane exist to maximize this quantity. Its ratio to volume is minimized for the sphere. For 10 points, name this measure of a solid, equal for a sphere to four times pi times the radius squared.
ANSWER: **surface area**
<Watkins>

16. **The *Megalensia* festival celebrated a Black Stone belonging to this deity, who was also worshipped at the *Hilaria* festival. In the *Aeneid,* a row of beached ships are turned into sea nymphs by this goddess. This deity was worshipped by a cult of dancer-warriors called Corybantes. According to tradition, she resurrected and deified a (*)** castrated lover named Attis and had a chariot drawn by lions, often held to be Atalanta and Hippomenes transformed after they consummated their marriage in this goddess's temple. Conflated with Rhea and the Roman Magna Mater, for 10 points, name this Phrygian goddess of growth, fertility, and the earth.
ANSWER: **Cybele** (SIBB-uh-lee) [or **Kubele**ya; prompt on **Magna Mater** until mention; prompt on **Kubaba**; prompt on **Kubebe**]
<Jackson>

17. **This philosopher had a longstanding feud with *The Corsair*, which culminated in his publishing of *Dialectical Result of a Literary Police Action*; the feud originally arose from criticism of his work *Stages on Life's Way*. One of his works sought to undermine the difference between truth and subjectivity, which he claimed were the same thing; that work, (*)** *Concluding Unscientific Post-script,* was written after one which considered the feelings of Abraham upon being asked to sacrifice Isaac. This author of *Fear and Trembling* published another work that theorized a choice between an ethical and aesthetic life. For 10 points, name the many-pseudonymed Danish author of *Either/Or*.
ANSWER: Soren Aabye **Kierkegaard**
<Meade>

18. **In one of this man's operas, the male lead sings *Ah! Lève-toi, soleil!*, while the female lead revels in her youthful freedom before falling in love in the earlier *Je veux vivre*, her namesake waltz. In another work, the villain entertains a group of villagers with *Le veau d'or est toujours debout*. One character in that work sings the "Jewel Song" and the (*)** "Spinning Wheel Song." This composer used a Bach prelude as the base for an *Ave Maria* and wrote the *Funeral March for a Marionette*. Like Berlioz, he wrote an opera that ends with the death of Marguerite and is loosely based on Goethe. Another of his works includes an aria about Queen Mab sung by Mercutio. For 10 points, name this French composer of the operas *Roméo et Juliette* and *Faust*.
ANSWER: Charles **Gounod**
<Rosenberg>

19. **In May 2010, Patrick Mahoney launched a campaign to link this organization to the Ku Klux Klan, echoing comments made in April by Herman Cain about this organization's supposed role in promoting genocide of blacks. Florida representative Allen West claimed that its main purpose is to make men "subservient" to women, and that same month Mitch Daniels signed a bill to (*)** block funding for it in Indiana. Jon Kyl was "not intend[ing]" to make a "factual statement" when he explained erroneously that 90 percent of the services it provides relate to abortion. The 2011 budget fight centered on, for 10 points, what organization that specializes in women's health?
ANSWER: **Planned Parenthood**
<Haddad-Fonda>

20. **This man was the original poet of a work beginning "They flee from me who sometime did me seek," which was translated by Sir Thomas Wyatt. This writer wrote a series of dialogues in which he discusses faith with Saint Augustine, known as the *Secretum*. One of his works centers on a** (*) woman he met on Good Friday and who supposedly died on Good Friday. His other works include a letter about his ascent of Mount Ventoux and an unfinished epic poem about Scipio's invasion of the title continent, *Africa*. For 10 points, name this Tuscan poet who created a namesake type of sonnet and wrote about Laura in his *Canzoniere*.
ANSWER: Francisco **Petrarca** [or **Petrarch**]
<Nediger>

21. **Reforms instituted by this emperor included the division of his provinces among twelve vicars, each of whom supervised a diocese. He went by the signa Jovius, and his wife Prisca was once made to publicly sacrifice to the gods. He would become emperor after defeating Carinus, the son of his predecessor, Carus, at the Battle of Margus, a victory that ended the rule of the Illyrian emperors. He held a council at Carantum to resolve a succession crisis, and this author of the Maximum** (*) Price Edict delegated some of his powers to Maximian early in his reign. His ascendancy ended the Crisis of the Third Century, and this man created a system wherein two men were appointed augustus and two men caesar called the Tetrarchy. For 10 points, name this Roman emperor known for his Great Purge of Christians.
ANSWER: **Diocletian**
<Bentley>

22. **This author published a collection of poetry called *Temple of the Lark*, and his university lectures were published as *Architecture of the New Life*. This man translated the Popul Vuh into Spanish and later used it as the basis for a lyrical set of fairy tales named after his home country that won the Silla Monsegur prize. This author decried the United Fruit Company in his** (*) *Banana Trilogy*. In another of his stories, Gaspar Ilom leads a revolution against the planter caste. In his most famous work, General Canales escapes an attempt on his life but Cara de Angel is made to believe Camila has become the titular character's mistress. That titular character is based on the dictator Estrada Cabrera. For 10 points, name this Guatemalan Nobel Laureate who wrote *El Señor Presidente*.
ANSWER: Miguel Angel **Asturias**
<Guth>

23. **One treatment currently under development for this disease involves pharmacological delivery of the enzyme sialidase. This disease, which is closely related to Sandhoff disease, can be tested for by measuring the body's breakdown of 4-methyl-lumbelli-ferone. An insertion mutation causing this disease results in a deficiency of** (*) hexosaminidase A; this leads to buildup of gangliosides in the brain and causes the hyperacuisis and lack of muscle control associated with this disease. One signifier of this degenerative disease, which usually leads to death before age 5, is a red spot on the retina. For 10 points, name this autosomal recessive disorder most common among Ashkenazi Jews.
ANSWER: **Tay-Sachs** disease
<Kirsch>

PACE NSC 2011
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Packet 16

Bonuses

1. He was made a eunuch after the fall of Yunnan in 1381, and his family claimed descent from the King of Bukhara. For 10 points each:
[10] Identify this man, who brought King Alagonakkara of Ceylon back to his home country as a captive on one of his trips.
ANSWER: **Zheng He** [or **Cheng Ho** or **Zheng Ho** or **Ma San Pao** or **Ma He**]
[10] Zheng He's fleet was dispatched by this Chinese dynasty, which ruled the country from 1368 until 1644.
ANSWER: **Ming** Dynasty [or Empire of the Great **Ming**]
[10] Zheng He was a member of this group of Chinese Muslims. Today, this group has an autonomous region in Ningxia and is prominent in cities such as Lanzhou and Xi'an, although in the mid-19th century they participated in the Dungan Revolt, which was named for an alternate appellation for these people.
ANSWER: **Hui** [or **Hwei**; or **Huihui**; or **Tonggan**; or **Pathay**]
<Bentley>

2. Its second part includes a *payada,* or improvised singing contest, between the title figure and the brother of a black man he knifed in a bar years earlier. For 10 points each:
[10] Name this 2300-line mini-epic by José Hernández in which the protagonist fights Vizcacha, deserts the army, and returns with Sergeant Cruz from life among his country's natives.
ANSWER: ***Martín Fierro***
[10] *Martín Fierro* is considered the national epic of this country, whose other literary productions include *Facundo*, a satire by Domingo Sarmiento.
ANSWER: **Argentina**
[10] *Martin Fierro* is a famous example of the literary genre named after these cowboys who live on the *pampas*.
ANSWER: **gauchos** [or **gaucho** literature, etc.]
<Jackson>

3. Zaha Hadid's design for one of these buildings in Vilnius was cancelled in 2011 when the location suddenly shifted to Helsinki, and another is expected to open in 2013 in Abu Dhabi. For 10 points each:
[10] Name this family of museums, the first of which was built on East 88th Street and Fifth Avenue in New York. That one is painted white and composed largely of a coiled helical structure surrounding a skylight, which functions as the main gallery.
ANSWER: Solomon R. **Guggenheim** Museum
[10] This man designed the Guggenheim in New York. His house designed for the Kaufmann family atop a stream is called Fallingwater.
ANSWER: Frank Lloyd **Wright**
[10] Wright designed this Prairie Style building on the University of Chicago's campus in Hyde Park. It is based on a series of horizontal planes which jut out over the interior.
ANSWER: Frederick C. **Robie** House
<Jackson>

4. In its first step, acetyl co-A and oxaloacetate combine to form CoA-SH and its namesake compound. For 10 points each:
[10] Name this cycle that occurs in the mitochondrial matrix and produces one ATP and three NADH per turn.
ANSWER: **citric acid** cycle [or **Krebs** cycle; or **t**ri**c**arboxylic **a**cid cycle]
[10] Decarboxylation of this molecule forms the acetyl-CoA that is used in the Krebs cycle. Glycolysis converts glucose into this molecule.
ANSWER: **pyruvate** [or **pyruvic acid**]
[10] This other compound of the citric acid cycle is dehydrogenated to form fumarate and FADH2, thus donating electrons to the electron transport chain.
ANSWER: **succinate** [or **succinic acid**]
<Kirsch>

5. This work suggests that a man who has experienced every shade of blue but one should be able to imagine the color of the remaining shade. For 10 points each:
[10] Name this work, which woke Kant from a "dogmatic slumber."
ANSWER: An ***Enquiry Concerning Human Understanding***
[10] The *Enquiry* was written by this Scottish philosopher.
ANSWER: David **Hume**
[10] This problem of meta-ethics, proposed among other places in *An Enquiry Concerning Human Understanding,* states that one cannot derive a moral imperative from an existential statement.
ANSWER: **is**-**ought** [accept equivalents to "getting an **is** from an **ought**"]
<Watkins>

6. Two years after this event took place, the Bank of England raised its rediscount rates, triggering another economic disaster. For 10 points each:
[10] Identify this financial downturn that significantly harmed the presidency of Martin Van Buren.
ANSWER: **Panic of 1837**
[10] Among the causes of the Panic of 1837 was President Andrew Jackson's refusal to renew the charter of this financial institution. Jackson frequently clashed with this organization's head, Nicholas Biddle.
ANSWER: **Second Bank of the United States** [prompt on less specific answers]
[10] The Specie Circular was issued by this Treasury Secretary under Jackson. Following the panic, he laid the groundwork for what would be known as an "independent Treasury System".
ANSWER: Levi **Woodbury**
<Cohen>

7. Georges Bizet wrote a Symphony in this key at the age of 17. For 10 points each:
[10] Name this major key used by Terry Riley for an early minimalist piece. It has no sharps or flats.
ANSWER: **C** major
[10] This key is the relative minor of C major.
ANSWER: **A** minor
[10] This church mode on C is identical to C major. This mode is identical to the major scale.
ANSWER: **Ionian** mode
<Bollinger>

8. This structural element withstands a load by its ability to resist bending. For 10 points each:
[10] Name these objects, which prominently include examples shaped like a capital I.
ANSWER: **beam**s
[10] This equation applies the theory of elasticity to model beams subjected to lateral loads for small deflections. It is named for two Swiss mathematicians.
ANSWER: **Euler-Bernouilli** beam equation
[10] These two quantities of chief concern to the Euler-Bernouilli model, or indeed to any structure, refer to the applied load and the resulting deformation.
ANSWER: **stress** and **strain**
<Watkins>

9. One chapter of this book, entitled "Of the Faith of the Fathers" declares that the connection between black social movements and black churches must be ended for progress to occur. For ten points each:
[10] Name this collection of sociological essays which claimed that "the problem of the Twentieth Century is the problem of the color-line."
ANSWER: The *Souls of Black Folk*
[10] *The Souls of Black Folk* was written by this sociologist and civil rights leader.
ANSWER: William Edward Burghardt **Du Bois**
[10] Another thinker to confront issues faced by black people was this man, who wrote about "epidermalization" of shame in books like *The Wretched of the Earth* and *Black Skins, White Masks*.
ANSWER: Frantz **Fanon**
<Meade>

10. Identify the following about some religious figures who have shaped European History, for 10 points each.
[10] Preaching the idea that way to get closest to God was through prolonged sexual debauchery, he nevertheless had much control over the family of tsar Nicholas II for his supposed abilities in treating Aleksey's hemophilia.
ANSWER: **Rasputin** [or Grigory Yefimovich **Novykh**]
[10] This more reputable theologian helped advance the doctrines of Lutheranism in his work, *Loci communes*. He'd expand on Luther's statements in another work, *The Apology of the Augsburg Confession*.
ANSWER: Philipp **Melanchthon** [or Philipp **Schwartzerd**]
[10] Before becoming an Augustinian monk, this man preached a 1099 sermon on the Mount of Olives. He helped drum up support for a military campaign with Walter the Penniless.
ANSWER: **Peter the Hermit** [or **Pierre l'Ermite**]
<Bentley>

11. This country's fragile unity was symbolized by the completion in 2004 of repairs to an Ottoman bridge over the Neretva River. For 10 points each:
[10] Identify this country in which the Stari Most bridge was destroyed and then rebuilt.
ANSWER: **Bosnia** and **Herzegovina** [do not accept just "Bosnia"; the bridge is in Herzegovina]
[10] The Stari Most bridge stands in this cultural capital of Herzegovina.
ANSWER: **Mostar**
[10] This Bosnian city, which was also heavily damaged by a Serbian siege from 1992 to 1996, is the capital of Bosnia and Herzegovina.
ANSWER: **Sarajevo**
<Haddad-Fonda>

12. This artist depicted the sudden death of William Pitt in his *Death of Chatham* and a portrait of Paul Revere. For 10 points each:
[10] Name this artist who showed a black man throwing a rope to a boy in a painting set in Havana harbor.
ANSWER: John Singleton **Copley**
[10] This is the aforementioned work by Copley. Its first title figure is attempting to escape from the second, a sea creature with an open mouth.
ANSWER: *Watson and the Shark*
[10] This other American artist painted portraits of Copley and other well-known figures of his day, including the Landsdowne and Athenaeum portraits of George Washington.
ANSWER: Gilbert Charles **Stuart**
<Gaurav Kandlikar>

13. The largest of this religion's shrines is torn down and rebuilt every two decades, and its priests wave wands decorated with *shide,* or paper strips. For 10 points each:
[10] Name this traditional religion whose followers build many shrines to Sarutahiko, Inari, and other spirits called *kami.*
ANSWER: **Shinto**ism [or **kami-no-michi**]
[10] Literally meaning "bird perch," these gates are usually built with two cross-bars at the top and mark the entrances of sacred Shinto shrines.
ANSWER: **torii**
[10] Shinto shrines often feature *temizuya*, structures which let visitors perform this action before entering. Converts to Judaism use a *mikvah* for it, and in Islam it is known as *wudu* or *ghusl*.
ANSWER: ritual **wash**ing with water [accept ritual **cleans**ing; prompt on **ritual purification**; do not accept "handwashing" since each one of these rituals involve washing more than the hands]
<Jackson>

14 .His works in eight-syllable rhyming couplets include a Tristan and Isolde-esque parody called *Cligès*. For 10 points each:
[10] Name this poet, whose long works include *Yvain, Knight of the Lion* and *Lancelot, Knight of the Cart*.
ANSWER: **Chrétien** de Troyes
[10] Chretien de Troyes belonged to a north French group inspired by these Occitan love poets, who in popular imagination wandered with lutes singing about chivalry and courtly love, but more realistically stayed in one court for years at a time.
ANSWER: **troubadour**s [prompt on **trouvères**, the north French name for such a poet]
[10] This medieval poem's protagonist sees *il miglior fabbro,* the troubadour Arnaut Daniel, on the Terrace of Lust, the last of seven such terraces, before walking through a wall of fire.
ANSWER: *Purgatorio* [or Dante's *Purgatory*; prompt on Divina **Commedia**; prompt on **Divine Comedy**]
<Jackson>

15. Members of one of these units often wielded a long spear, and they combined hoplites into a single group. For 10 points each:
[10] Identify this fighting formation of the ancient Greeks.
ANSWER: The **Phalanx** [or **Phalanxes** or **Phalanges**]
[10] The Roman legion was proven superior over the Greek phalanx at the 197 BCE Battle of Cynoscephalae when forces under Titus Quinctius Flamininus defeated those commanded by this monarch.
ANSWER: **Philip V**
[10] The Roman legions were standardized and turned into a standing army as part of the military reforms conducted by this man. He had earlier served under Quintus Metellus in a campaign against Jugurtha.
ANSWER: Gaius **Marius**
<Bentley>

16. The *pons asinorum* is this man's fifth proposition. For 10 points each:
[10] Name this Greek geometer who wrote the 13-book treatise *Elements*.
ANSWER: **Euclid**es
[10] Euclid's fifth postulate also goes by this name. It is equivalent to Playfair's axiom and the Pythagorean theorem, and systems that reject it are called non-Euclidean geometries.
ANSWER: **parallel** postulate
[10] In this non-Euclidean geometry, any two lines intersect at exactly one point, which may be at infinity. According to the duality principle, points and lines are interchangeable in this system, which deals with invariants under certain transformations.
ANSWER: **projective** geometry [accept word forms]
<Tabachnick>

17. In this novel, former chaplain Albert Taylor Tappman is arrested for spreading radioactivity after he begins to urinate heavy water. For 10 points each:
[10] Name this book in which onetime tailgunner Sammy Singer recalls the Coney Island of his youth and such figures as a sixteen-year-old Western Union messenger who is an author insertion.
ANSWER: *Closing Time*
[10] This twice-divorced ex-bombardier sets up a wedding in a bus station in *Closing Time*. In an earlier novel, this protagonist fails to save the injured Snowden and is pursued by "Nately's whore".
ANSWER: Captain John **Yossarian**
[10] Yossarian first appears along with fellow soldiers on Pianosa such as Milo Minderbinder and Major Major Major Major in this Joseph Heller novel.
ANSWER: *Catch-22*

18. Upon arriving at Arthur's court, this man is mockingly called "Beaumains" for his soft hands. For 10 points each:
[10] Name this son of Lot and Morgause who is continually mocked by Lady Lynette, yet manages to defeat the Red Knight and rescue Lyonesse.
ANSWER: Sir **Gareth**
[10] This knight, Gareth's brother, married the hideous Lady Ragnelle and survived two encounters with the Green Knight.
ANSWER: Sir **Gawain**
[10] Gareth is called "Beaumains" by this haughty seneschal to King Arthur. This son of Sir Ector was raised as Arthur's brother.
ANSWER: Sir **Kay**
<Bollinger>

19. In this work, Artegal is aided by a flail-wielding robot named Talus, who pitilessly carries out the letter of the law. For 10 points each:
[10] Name this work, in whose second book Guyon destroys the Bower of Bliss.
ANSWER: The ***Faerie Queene**__
[10] *The Faerie Queene* was written by this Elizabethan poet, who also penned some *Amoretti* and *The Shephearde's Calendar*.
ANSWER: Edmund **Spenser**
[10] This character defeats Sansfoy, Sansloy, and Sansjoy, and survives the seductions of Duessa in the Palace of Pride, in order to win the hand of Una.
ANSWER: The **Redcrosse Knight**
<Wynne>

20. This model's namesake constant is the substrate concentration at which half of the maximum enzyme velocity is reached. For 10 points each:
[10] Name this doubly eponymous model of enzyme kinetics.
ANSWER: **Michaelis-Menten** kinetics
[10] This type of inhibition will lower the Vmax while leaving Km the same. According to this mechanism, an inhibitor binds reversibly to an allosteric site, affecting the rate at which the enzyme functions without preventing the substrate from binding.
ANSWER: **noncompetitive** inhibition
[10] This concept has replaced the strict "lock and key" conception of enzyme-substrate binding. According to this concept, the binding of a substrate to an enzyme molds the active site to facilitate better and stronger bonding.
ANSWER: **induced fit**
<Kirsch>

21. This man negotiated with Edward Irwin, who invited him to attend the Round Table Conference. For 10 points each:
[10] Identify this leader who also advocated the making of a type of cloth called *khadi*.
ANSWER: Mohandas K. **Gandhi** [or Mahatma **Gandh**]
[10] Irwin's decision to negotiate with Gandhi followed the latter's 1930 march to the sea at Dandi to make this product, which was in violation of British law.
ANSWER: **salt**
[10] Gandhi negotiated at the Round Table Conference on behalf of this group, whose other leaders included Jawaharlal Nehru and Subhas Chandra Bose. Today, this political party is the rival of the BJP.
ANSWER: Indian National **Congress** [or **INC**; or **Congress** Party]
<Haddad-Fonda>

22. In his most famous work, Helena's orchestrations lead to Alison leaving her abusive husband Jimmy, and Helena takes up as Jimmy's mistress but ultimately leaves him anyway. For 10 points each:
[10] Identify this author of *The Entertainer* and *Look Back in Anger*.
ANSWER: John **Osborne**
[10] Osborne was a member of this group of British Playwrights who were unhappy with traditional British values. They were prominent in the '50s and other members included Kingsley Amis.
ANSWER: **Angry Young Men**
[10] Another Angry Young Man was this author who wrote about a juvenile troublemaker named Colin Smith, who finds a sense of purpose in the short story "The Loneliness of the Long-Distance Runner."
ANSWER: Alan **Sillitoe**
<Gautam Kandlikar>

23. The Drude model assumes that the delocalized electrons in a metal form one of these. For 10 points each:
[10] Name this model, whose equation of state sets the product of pressure and volume equal to the product of a namesake constant R, times mole number, times temperature.
ANSWER: **ideal gas**
[10] The Saha equation describes the degree of ionization in one of these entities as a function of temperature, density, and ionization energy. The Saha equation assumes that these entities may be modeled as three superposed ideal gases: one of electrons, ions, and neutral atoms.
ANSWER: **plasma**
[10] At low temperatures, quantum ideal gases separate into two models, which contain small correction terms to quantities like pressure, depending on this quantity for the particles described.
ANSWER: **spin** [accept **whether they are fermions or bosons** or other clear-knowledge equivalents]
<Watkins>