1. Several lost pieces of its composer were incorporated into this work, including the Demons Dance around the Pipe and the Slaves Shuffle. The second movement is instructed to be played "as fast as possible" using the (*) sustaining pedal throughout. It includes the four movements "The Alcotts," "Hawthorne," "Thoreau," and "Emerson." For 10 points— name this piece depicting a transcendentalist hub, by Charles Ives.
answer: The Concord Sonata (or the Piano Sonata No. 2 of Charles Ives or equivalents)

2. It was the first of six examples which also included "have you a book on modern music?" It illustrates proposition 2.3 of the chapter "the independence of (*) grammar," and is immediately followed by a reordering which shows that semantics do not determine grammaticalness. For 10 points— name this grammatically sound but meaningless sentence from Syntactic Structures by Noam Chomsky.
answer: "Colorless green ideas sleep furiously."

3. One of his novels follows the anti-liquor campaigner Fernando, while another takes place after Barret has murdered the landholder Don Salvador and follows (*) Batiste Borrull's attempt to take over a farm. He also wrote about the fall of the Desnoyers family after they start a cattle ranch in Argentina. For 10 points— name this Spanish author of Mare Nostrum, The Cabin, and The Four Horsemen of the Apocalypse.
answer: Vicente Blasco Ibáñez

4. A song on this act's 2007 release claims "the cops couldn't care/when that crackhead built a boat" and refers to being "almost home" in "Carousel." Its oeuvre includes the records (*) Woman King and Our Endless Numbered Days, and it first gained attention next to the Shins on the Garden State soundtrack with a cover of The Postal Service. For 10 points— name this performer of the slow version of "Such Great Heights."
answer: Iron & Wine (or Samuel Beam)

5. At zero temperature, this quantity is equal to the Fermi level, and in semiconductors it lies halfway between the valence and conduction (*) bands. This quantity is zero for photons, and it can also be given as the derivative of the Gibbs free energy with respect to particle number. For 10 points— identify this thermodynamic quantity which represents the amount of energy needed to add another particle to a system.
answer: chemical potential
6. A major influence on this bill was the book Other People's Money, and How the Bankers Use It. Components of this bill were later expanded by the Kefauver Act and the (*) Robinson-Patman Act. Natural competitors were prohibited from divvying up sales territories under this law, which regulated conglomerate mergers for the first time and was signed by Wilson. For 10 points— name this 1914 piece of antitrust regulation.

answer: Clayton Antitrust Act

7. One component of this large work was the original source for Gawain and the Green Knight. In addition to Bricriu's Feast, it also contains the Yellow Book of Lecan. The story of (*) Noisi and Deirdre is in one section, and the attacks of Connaught under Queen Medb are described in The Cattle Raid of Cooley. For 10 points name this mythical cycle which tells of the Knights of the Red Branch, led by Cu Chulainn.

answer: Ulster cycle (or Uliad cycle)

8. The leader of the Philadelphia section of the 2008 anti-Scientology protests took the name of this product as a pseudonym. A version with chipotle sauce, Pepper Jack cheese, and (*) jalapenos was launched in March 2008, and like the original version can presumably sense your fear. For 10 points— name this 840-calorie hamburger with six strips of the namesake item, which Wendy's should be ashamed of.

answer: the Baconator

9. The tract Against the Slanders of the Greeks was a response to this man's beliefs on rituals. He was deposed by Isaac I four years after his showdown with Humbert of Silva Candida. Named (*) patriarch by Constantine Monomachus, he excommunicated various Western church leaders in 1054. For 10 points— name this Patriarch of Constantinople during the Great Schism.

answer: Michael Cerularius

10. The amino acids found in carbonaceous chondrite are in this state. The separation of one of these into constituent parts is known as (*) resolution, and a typical parameter describing these substances is known as specific rotation. For 10 points— identify this optically inactive mixture containing equal amounts of left-handed and right-handed enantiomers of a chiral molecule such as tartaric acid.

answer: racemic mixture (or racemate)

11. An Earl Lovelace novel discusses Norbert's intermittent employment with a titular member of this profession, Arnold. Joshua Rann does this for a living in Adam Bede, and another one of these ensures the marriage of Rose and Lacy after he is appointed (*) Lord Mayor of London by Henry V. For 10 points— name this type of person who, in a Thomas Dekker play, has a "holiday."

answer: shoemakers (prompt on cobblers)

12. He provoked the ire of opposition movements by giving a decoration to General Bava Beccaris, who had fired on rioters. He was head of state when his country joined the Triple Alliance with Germany and (*) Austria, and later when the Battle of Adowa turned back his country from Ethiopia. For 10 points— name this man assassinated by Gaetano Bresci in 1900, the father of Victor Emmanuel III and king of Italy.

answer: Umberto I

13. The man who held this post in the 1970s was a pioneer in nonlinear acoustics who wrote Waves in Fluids, James Lighthill. The first person to hold this post resigned in order to become a priest, though not before discovering how to calculate the (*) slope of a tangent. Gabriel Stokes was its longest holder. For 10 points— name this prestigious Cambridge post held by such figures as Isaac Newton and Stephen Hawking.

answer: Lucasian chair or Lucasian professorship of mathematics
14. In 2007, one sports team in this city finished behind the Talons and the Twisters in the National Conference Central of AF2. In addition to the Yard Dawgz, this host of the Women's College (*) World Series will soon have a permanent major sports tenant in its Ford Center, after borrowing a team for one year due to Hurricane Katrina. For 10 points— name this brief home to the Hornets and future location of the SuperSonics.

answer: Oklahoma City

15. A comic interlude in this play involves a man complaining about his neighbor's pigs fouling his pond, only to see T. Stedman Harder chased off. In its first scene, a man speculates as to whether a scheme to interrupt a sexual encounter with a shotgun is being hatched. Taking place on (*) Phil Hogan's farm, for 10 points— name this Eugene O'Neill play about the fate of James Tyrone, Jr. after Long Day's Journey Into Night.

answer: A Moon for the Misbegotten

16. This policy was the subject of a 2006 study which said that the nearly ten thousand firings it caused have cost 200 million dollars. Northwestern sociologist Charles Moskos designed this idea in 1993, and in 2007, Marty Meehan introduced the (*) Military Readiness Enhancement Act to repeal it. For 10 points— name this Clinton administration compromise which allows gays to discreetly serve in the military.

answer: "don't ask, don't tell"

17. Cities such as Upington, Bethulie, and Prieska are on its banks. After passing over Augrabies Falls, it flows through Little Namaqualand into Alexander Bay. Much of its silt is composed of (*) Drakensberg lava. Its main tributary is the Vaal, and it originates in Lesotho. For 10 points— name this river which marks the southern extent of the Kalahari and separates South Africa from Namibia.

answer: Orange River

18. One of the negotiators of the treaty ending this war was shot by a fanatic from the victorious country, leading the embarrassed host to grant more favorable terms. Starting ten years after the (*) Li-Ito Convention cooled tensions, this war was sparked by intervention in the Tonghak rebellion. For 10 points—the Pescadores, the Liaotung Peninsula, and Port Arthur changed hands in what 1894 war ended by the Treaty of Shimonoseki?

answer: First Sino-Japanese War

19. The genus theorem gives a condition under which one class of them can be solved. They are the subject of Matiyasevich's theorem, which states that no general algorithm for (*) solving them exists, thus giving a negative answer to Hilbert's tenth problem. Including such examples as Pell's equation, for 10 points— identify these types of equations with integer coefficients for which integer solutions are sought, named for the Greek author of the Arithmetica.

answer: Diophantine equations

20. At the end of this book, the fake missionary William Habakkuk is discovered. The characters studied in the bulk of this work worship Ydgrun and use a corps of "Straighteners" to treat men like (*) Senoj Nosnibor, who is diagnosed with embezzlement. Musical banks are among the other innovations found by Higgs in the titular anagram-happy place. For 10 points— name this 1872 Samuel Butler novel about "nowhere."

answer: Erewhon

21. Its D isozyme is inhibited not by its product, but by action of fructose 6-phosphate on its regulatory protein. With a low Michaelis constant in muscles, it is followed by (*) phosphoglucone isomerase and phosphofructokinase. Inhibited by its product glucose 6-phosphate, for 10 points— name this phosphoryl group transferase enzyme that phosphorylates 6-carbon glucose during the first step of glycolysis.

answer: hexokinase
22. He is credited with elevating the concept of "reification" in the twentieth century. His works of literary criticism include The Historical Novel and Soul and Form, and he wrote a work later repudiated in the USSR as "utopian" after serving as culture and education commisar in the (*) Béla Kun government. For 10 points— name this author of History and Class Consciousness, a Hungarian Marxist philosopher.
answer: György Lukács

23. Abbot Thayer's A Virgin and Augustus Saint Gaudens's Sherman Monument were both modeled on this work, which was made to honor the Cabeiri after the events of either Side or (*) Myonnisos. Perhaps executed by Pythokritos, it was placed on top of a model ship's prow around 200 BCE. For 10 points— name this work recovered from a Greek island in 1863, a fragmentary statue honoring a Rhodian naval triumph.
answer: Nike of Samothrace (or Winged Victory of Samothrace)

24. One way of preventing this phenomenon is through the Flue process. In lakes, this phenomenon results in the increase of the population of the Sphagnum moss, and it can also result in the loss of the (*) zooplankton population. Its formation was also reduced when cars switched to catalytic converters. Formed in the atmosphere from various oxides of nitrogen and sulfur, for 10 points— identify this phenomenon which results in a precipitation with decreased pH.
answer: acid rain

25. Its northeast extensions are Lameque and Miscou, and an internal body of water on here is by such cities as Chipman and Minto. Found to the south of Chaleur Bay, its interior includes the Miramichi and (*) St. John rivers, and Grand Manan island is part of it, while Sackville and Port Elgin are near its southeastern boundary with Nova Scotia. For 10 points— name this Canadian province that also abuts Quebec and Maine.
answer: New Brunswick

26. The Turnverein gyms founded by Friedrich Jahn were suppressed by them, and they forced the repeal of the constitution issued by Charles Augustus. They gave sole (*) censorship rights to one body and disbanded nationalist student clubs. For 10 points— name these laws, spurred by Karl Sand's assassination of August von Kotzebue, which were passed at a conference called by Metternich in 1819.
answer: Carlsbad Decrees
1. His namesake equation gives the derivative of the equilibrium constant with respect to temperature as a function of enthalpy change over temperature squared. For 10 points each:
   A. Identify this chemist.
      answer: Jacobus Henricus van't Hoff
   B. Van't Hoff is more famous for his namesake factor, which governs these types of properties that depend only on relative concentration of solute rather than the makeup of the solution.
      answer: colligative properties
   C. The van't Hoff equation has the same form as this other more famous equation which describes the shape of a phase boundary on a pressure-temperature graph.
      answer: Clausius-Clapeyron

2. For 10 points each— name these Caribbean authors.
   A. This Barbadian wrote a trilogy of lengthy poems consisting of Mother Poem, Sun Poem, and X/Self as well as the play Odale's Choice.
      answer: Edward Kamau Brathwaite
   B. This author of Beef, No Chicken is a St. Lucia native whose major works include Omeros and Dream on Monkey Mountain.
      answer: Derek Walcott
   C. This author of A Brighter Sun used a recurring character in such works as The Lonely Londoners and Moses Ascending.
      answer: Samuel Selvon

3. For 10 points each— name these Russian painters.
   A. This precursor to socialist realism created such works as Zaprorozhian Cossacks and Volga Bargemen.
      answer: Ilya Yefimovich Repin
   B. This early fifteenth century monk at the Trinity-Sergius monastery worked with Theophanes the Greek to create Russian icon painting.
      answer: Andrei Rublev
   C. This creator of the Proun paintings and Beat the Whites with the Red Wedge was a leading constructivist.
      answer: Eliezer Marcovich "El" Lissitzky

4. He joined with Max Weber and Ferdinand Tonnes to found the German Society for Sociology. For 10 points each—
   A. Name this author of The Philosophy of Money and The Metropolis and Mental Life.
      answer: George Simmel
   B. Another guy who wrote about the metropolis was this art historian of Sticks and Stones, The Culture of Cities, and The City in History.
      answer: Lewis Mumford
   C. This author of The Social Life of Small Urban Spaces may be better known for The Organization Man.
      answer: William Whyte
5. Ismeno tells King Aladine to steal a statue of Mary in this work. For 10 points each—
A. Name this Italian epic about the Crusades, which also contains the episode of Tancred's duel with the 
disguised Clorinda.
answer: Jerusalem Delivered or Gerusalemme liberata or Jerusalem Liberated
B. This author of Aminta wrote Jerusalem Delivered as well as Jerusalem Conquered.
answer: Torquato Tasso
C. This title character of an earlier Tasso poem is noted as the most valorous member of the Crusaders in 
Jerusalem Delivered despite a misunderstanding at a joust.
answer: Rinaldo

6. For 10 points each— name these Venezuelan cities:
A. Larger than Caracas when considering only the population within city limits, this capital of the Zulia state 
is found on a channel to its namesake lake.
answer: Maracaibo
B. Found where the Monagas, Anzoategui, and Bolivar provinces meet, this city shares its name with a 
country that borders Venezuela.
answer: Ciudad Guyana
C. This capital of Carabobo is found where the Cabriales River flows into its namesake lake and was named 
for the Spanish hometown of its founder.
answer: Valencia

7. For 10 points each— name these defunct American car manufacturers:
A. The Lark, Avanti, and Starliner were auto models from this onetime dominant force in the horse-buggy 
market, which went dark in 1966.
answer: Studebaker
B. Studebaker had merged with this company in 1954. It once commanded a hefty segment of the upscale 
market with its "Ask the Man Who Owns One" slogan.
answer: Packard
C. This company was absorbed by Chrysler in the 1980s after making such axiomatically disastrous cars as 
the Gremlin and the Pacer.
answer: AMC or American Motors Corporation

8 This composer of "In Mist" was the first white man to become prominent as a jazz soloist. For 10 points 
each—
A. Name this raging alcoholic member of the Frank Trumbauer band, whose signature pieces included "Singin 
the Blues," and "I'm Coming, Virginia."
answer: Leon Bix Beiderbecke
B. Smaller than the flugelhorn and more conical than the trumpet, this common instrument in early jazz was 
played by Beiderbecke as well as King Oliver.
answer: cornet
C. Perhaps the most famous cornetist was this composer of "Memphis Blues," "St. Louis Blues," and "Beale 
Street Blues."
answer: William Christopher Handy

9. This son of Oder and Frigg rode Sleipnir to the underworld and jumped over that realm's gates. For 10 
points each—
A. Name this wielder of Gambantein and messenger of the Norse gods.
answer: Hermod
B. Hermod went to Helheim to find out how to revive this god, who was accidentally killed with mistletoe by 
his brother Hoder.
answer: Balder
C. One thing that didn't help bring back Balder was when this son of Odin and Rind fulfilled his only function 
in Norse myth by killing Hoder.
answer: Vali
10. He teams up with the Schofield Kid and Ned Logan to avenge an incident in Big Whiskey. For 10 points each—
A. Name this character played by Clint Eastwood, an elderly bounty hunter who seeks out some sadistic cowboys.
answer: William "Bill" Munny
answer: Unforgiven
C. Ned Logan was played by this actor, who portrayed Lucius Fox in Batman Begins and God in Bruce Almighty and its atrocious sequel.
answer: Morgan Freeman

11. It was in effect, in various forms, from 1836 to 1844. For 10 points each—
A. Name this rule, opposed by Joshua Giddings and John Quincy Adams, which forbade the House of Representatives from discussing petitions about slavery.
answer: gag rule
B. The gag rules were a response to petition drives launched by this group, which William Lloyd Garrison founded in 1833.
answer: The American Anti-Slavery Society
C. This AASS agent, whose Slavery As It Is was an inspiration for Uncle Tom's Cabin, was the attorney for Adams when he was tried for violating the gag rule.
answer: Theodore Dwight Weld

12. Also known as Tamo and Daruma, this figure spent nine years staring at a cave wall in Loyang. For 10 points each—
A. Name this figure who denounced good deeds to emperor Wuti and cut off his eyelids while founding a sect of Buddhism.
answer: Bodhidharma
B. The sect Bodhidharma founded was this branch of Mahayana Buddhism that uses koans and seeks satori.
answer: Zen
C. Bodhidharma was born a member of this Hindu caste, responsible for military and political leadership and often at odds with the Brahmans.
answer: Kshatriya

13. In the 1980s and 90s, he removed rival leaders such as Joseph Nkomo and Canaan Banana. For 10 points each—
A. Name this autocratic ruler of Zimbabwe.
answer: Robert Mugabe
B. Formed from a merger of Mugabe's and Nkomo's guerilla movements, this ruling party has benefitted from rigged elections in the country.
answer: Zanu PF or Zimbabwe African National Union-Patriotic Front
C. This leader of the Movement for Democratic Change is the major opposition figure to Mugabe.
answer: Morgan Tsvangirai

14. The B, R, and S types of them consist of rhodium-palladium junctions, and they can be combined in parallel or serial to form thermopiles. For 10 points each—
A. Identify these devices.
answer: thermocouple
B. The principal effect behind the thermocouple is this effect, in which a temperature difference across a metal results in an electric potential difference.
answer: Seebeck effect
C. This ferroelectric mineral, calcium titanium oxide, whose structure is often replicated by superconducting ceramics, has a very high Seebeck coefficient.
answer: perovskite
15. This son of Mircea the Elder joined a group founded by Emperor Sigismund to fight the Turks. For 10 points each—
A. Name this Wallachian king and member of the "Order of the Dragon," who thus gave his impaling son a nickname.  
answer: Vlad II or Vlad Dracul (prompt on Vlad; do not accept Vlad Dracula or Vlad Tepes)  
B. Vlad Dracul's days were numbered after he betrayed this Hungarian "White Knight" and father of Mathias Corvinus during an attempt to fight Murad II.  
answer: John/Janos Hunyadi  
C. This 1444 battle resulted in the death of its instigator, king Ulászló I, and opened the door for further Ottoman expansion in Eastern Europe.  
answer: Battle of Varna

16. He has announced plans to run against Joe Knollenberg for a House seat in 2008. For 10 points each—
A. Name this doctor, currently on parole after being convicted of assisting in the 1998 suicide of Thomas Youk.  
answer: Jack Kevorkian  
B. Youk was suffering from this condition when he sought to end his life.  
answer: ALS or amyotrophic lateral sclerosis or Lou Gehrig's Disease  
C. Kevorkian will run for a seat in this state, whose other politicians include Carl Levin, Jennifer Granholm, and John Conyers.  
answer: Michigan

17. Justin Bruening was the star of the TV movie that kicked off a purported new version of this series in 2008. For 10 points each—
A. Name this show in which Val Kilmer took over William Daniels's role as the voice of a major character.  
answer: Knight Rider  
B. This actress, whose recent credits include Mallory on Veronica Mars and Rebecca on Joan of Arcadia, also appeared in the pilot as Carrie Rivai.  
answer: Sydney Tamiia Poitier  
C. This German-loved and German-beer-loving actor reprised his role as Michael Knight from the original Knight Rider. He also was a fixture on Baywatch.  
answer: David Hasselhoff

18. Examples of them include Thue's constant, Liouville's constant, and pi. For 10 points each—
A. Identify these types of numbers which are not roots of any polynomial over the integers.  
answer: transcendental numbers  
B. This theorem holds that if a number $a$ is algebraic while $b$ is algebraic and irrational, then $a$ raised to the power $b$ is transcendental.  
answer: Gelfond-Schneider theorem  
C. By the Gelfond-Schneider theorem, it can be shown that this number raised to the $\pi$ is transcendental. Hermite proved that it was transcendental in 1873.  
answer: $e$

19. For 10 points each— name these National League closers.
A. Acquired in a trade for Chris Resop in 2006, this former Angel performed an adequate job for the Marlins.  
answer: Kevin Gregg  
B. Along with Brad Penny and Russell Martin, this Yhency Brazoban replacement represented the Dodgers in the All-Star Game.  
answer: Takashi Saito  
C. This longtime Astros closer wielded his triple-digit fastball for two years with the Phillies before arriving on the Mets in 2006, where he remains.  
answer: Billy Wagner
20. The fictional title character of this novel is the author of *Travel Light* and goes to Russia, Romania, and Bulgaria. For 10 points each—
A. Name this first novel-length treatment of a recurring character who was later "Back" and "At Bay."
answer: *Bech: A Book*
B. This author of *Bech: A Book* has a more famous recurring character, Rabbit Angstrom, and also wrote *Terrorist.*
answer: John Updike
C. The storm goddess Alexandandra Spofford, flying cellist Jane Smart, and love-spell-casting reporter Suki Rougemont are the title characters of this Updike novel.
answer: *The Witches of Eastwick*

21. A topological space has this property if every open cover of the space possesses a finite subcover. For 10 points each—
A. Identify this property of metric spaces.
answer: compactness
B. Using the Bolzano-Weirstrass theorem, it can be shown that a subspace of a Euclidean space is compact if and only if it is closed and bounded, a result known by this name.
answer: Heine-Borel theorem
C. Tychonoff's theorem states that performing this operation on two compact spaces returns a compact space.
answer: taking a Cartesian product

22. John Dalrymple was given a perfunctory punishment for this incident. For 10 points each:
A. Name this 1692 murder of Alexander MacDonald and his relatives for failure to swear loyalty to the English king.
answer: the Glen Coe massacre
B. The king in question was this Dutch-born husband of Mary II.
answer: William III
C. Scotland's muted outrage did not compare to Ireland's attempt to screw with William by supporting James II's move to recapture the throne at this 1690 battle.
answer: Battle of the Boyne

23. This group's name was revived in the 1990s by Umberto Bossi, a regional secessionist. For 10 points each—
A. Name this confederation of northern Italian towns, formed by Pope Alexnader III as a bulwark against German imperial expansion in the late twelfth century.
answer: the Lombard League
B. The most notable opponent of the Lombard League was this Hohenstaufen, the grandson of Barbarossa, who was Holy Roman Emperor for thirty years.
answer: Frederick II
C. A high point of Frederick's Italian campaign was the 1237 victory over the Lombard League at this battle, thanks to the help of the treacherous Ezzelino da Romano.
answer: Battle of Cortenuova

24. It includes the heat-loving thermophiles and the aerobic thermoplasma. For 10 points each—
A. Name this group of organisms who don't have peptidoglycan in their cell walls.
answer: archaeabacteria
B. These archaea produce gas in the stomachs of animals by reducing carbon dioxide. They also live in volcanic vents at 100 degrees celcius.
answer: methanogens
C. These archaea contain carotenoids and can be seen as pink spots in the Dead Sea. They survive salty environments at pH of up to 11.5.
answer: halophiles
25. Adapted into a symphonic poem by Granville Bantock, this epic features a man who journeys to the Domdaniel. For 10 points each—
   A. Name this poem about an Arabian figure who is aided by Simorg in an attempt to defeat some evil magicians.
   answer: *Thalaba the Destroyer*
   B. *Thalaba the Destroyer* was written by this author of *Madoc* and longtime poet laureate, author of "The Battle of Blenheim" and some Napoleonic histories.
   answer: *Robert Southey*
   C. Southey collaborated with Coleridge on this 1794 play, which ends with the reflections of Barrere on an event that happened earlier that year in France.
   answer: *The Fall of Robespierre*

26. For 10 points each— name these early photographers.
   A. This early adopter of calotypes and daguerrotypes documented the architecture of Chartres and Paris while making paintings from his prints.
   answer: *Charles Negre*
   B. He issued the 1850 *Gallery of Illustrious Americans* and hired a staff of twenty to document the Civil War.
   answer: *Mathew Brady*
   C. His emblematic *White Fence* represented his move away from pictorialism, and this creator of *Wall Street* later founded Frontier Films to make documentaries.
   answer: *Paul Strand*