Terrapin Invitational Tournament 2013: "Make your own judgments, but we wrote this set in good faith"
Packet by UVA [Evan Adams, Tommy Casalaspi, Daniel Hothem, David Seal, Matt Bollinger, Ron Enson]

Tossups

1. Assimomytis et al. used LDA to catalyze an unusually anionic version of one reaction that creates these compounds, and that reaction that makes these compounds has a photo- variant that proceeds via a mechanism involving the cleavage of a carbon-oxygen bond to produce a radical with three distinct resonance structures. Another reaction that makes six-membered rings usually begins with a Michael addition of two of these compounds to an enolate and proceeds with an aldol condensation to an enone. Those reactions are the Fries rearrangement and Robinson annulation. A negative result in the Tollens test for these compounds distinguishes them from aldehydes. For 10 points, name this type of compound with a carbonyl group bonded to two different substituents, the simplest of which is acetone.
ANSWER: **ketone**s
[edited]

2. Friedrich Schiller argued that the reintroduction of this literary device allows for the modern world to be transposed to the ancient realm in an essay intended as a preface to his *The Bride of Messina.* Depending on the context, this device is called the *sicinnis, codrax,* or *emmelia,* and it usually entered from the two *paradoi.* Its swaying from west to east is marked *antistrophe*, the opposite of a *strophe*. It functions as the *Erinyes* in the last member of *The Oresteia*, and in *The Suppliants,* this entity represents the Danaids. Before the introduction of the deuteragonist, it was the only entity with which the protagonist could interact. For 10 points, identify this mass of characters in ancient Greek drama that usually provided moralizing commentary.
ANSWER: Greek **chorus** [I can't think of any other acceptable answers, but answers like "the imaginary audience" are just wrong.]
[edited]

3. This kingdom's middle period, which ruled from the mid-15th century B.C. to about the beginning of the 13th century B.C., was a nadir in their culture, and as such almost no information is known about it. Zidanta and Hantili are two rulers of this kingdom's old period, which sacked Aleppo, the capital of the Yazhad Empire. Primary sources about this kingdom were written in the Nesili language. One of its kings married his daughter off to Shattiwaza as part of his scheme to conquer the Mitanni Kingdom. An edict of Telipinus tells us that their first king was named Labarna. Its last king Suppiluliuma II, perished when the invading sea peoples took over. Under their leader Muwatallis, these peoples fought Ramses II at Qadesh. For 10 points, identify these ancient Anatolians.
ANSWER: **Hittite** Kingdom [or **Hittite**s]
[edited]

4. Experiments currently studying these phenomena include Konus on Wind and a namesake Coordinates Network that continuously searches for them. These entities are often found in conjunction with type Ic ["one-C"] supernovae. Theories of their origins include the evaporation of primordial black holes, and their distribution can be explained by the collapsar model. In 2005, the first short one was observed, and that one was probably caused by the collision of two neutron stars. The satellite BeppoSAX played a role in mapping their distribution and location, which were first observed by Vela Satellites. They have a characteristic afterglow and are the most luminous phenomena in the universe. An instance of one near Earth would probably destroy us all. For 10 points, high-energy discharges of a namesake part of the electromagnetic spectrum characterize what events?
ANSWER: **gamma-ray burst**s [accept **grb**s or **gamma-ray burster**s]
[edited]

5. The one-eyed Irish hag Muircheartach inhabited one of these locations. A compendium of old Chinese folklore written by Yu the Great is named for mountains and these places. One of these places is also the residence of an Ugaritic *Elohim* that fought against the son of Dagan. In Chinese myth, a resident of one of these locations is a dragon who bonked his head into Mount Bùzhōu, forcing Nǔwā to fix its tilt. The god Yam dwells in one of these places, as does Gòng Gōng. A god from one of these places assists in building a bridge to Lanka when Rama fires arrows into his domain. It is the domain of Varuna. *The Lokasenna* takes place in a structure in one of these realms, which is ruled over by Ran, the mother of Heimdall. It is also ruled by Ran's wife, Aegir. The Greek god of one of these place was also in charge of horses and earthquakes. For 10 points, identify this domain of Poseidon.
ANSWER: **sea**s or **ocean**s [prompt on "the abyss" or anything similar; accept **shipwreck**s on the first clue]
[edited]

6. Near the end of this film, its protagonist dodges the police by leaving a house through Curly's car. While visiting his barber, the protagonist hears an extremely funny joke about a man that reads some Confucius before he resumes screwing his wife. Its protagonist visits the Mar Vista Resting Home, where he is nearly murdered by a man with a knife played by this film's director. A pair of bifocals discovered nearby a house pond leads its protagonist to suspect that Noah Cross is the murderer of Hollis. Near its climax, Evelyn is repeatedly slapped while admitting "She's my daughter!" and "She's my sister!" to detective Jake Gittes. For 10 points, name this neo-noir film about San Francisco's water wars, which starred Jack Nicholson and was directed by Roman Polanski.
ANSWER: ***Chinatown***

7. One character in this non-Zelda universe is known as the Daughter of the Nine Moons and is made the ruler of a polity bounded by the Sea of Storms. The main character of this universe uses a sword with herons on its hilt and is able to destroy the threads of one's existence with a technique called balefire. The first book in this series features a journey to Whitebridge by a group of characters from the Two Rivers District. *Towers of Midnight* and *The Path of Daggers* are two of the fourteen main novels that comprise the mythology of this series, which includes a figure that is constantly reborn as a Dragon to fight the Dark One. The title of this series comes from an entity that is spun by the Creator, which endows life with its spokes. For 10 points, identify this fantasy series created by Robert Jordan.
ANSWER: ***Wheel of Time***

8. In Edgar Allan Poe's *Eureka*, the two students of the master-philosopher Aries are a Dutchman who invented transcendentalism and this man. In a Vachel Lindsay poem, this man stood "on a sand-beach long ago" and drew a circle. A different poem titled after this intellectual states "let geese Gabble and hiss, but heroes seek release from dusty bondage into luminous air." That poem titled after this man urges "Let all who prate of Beauty hold their peace" and can be found in *The Harp-Weaver and Other Poems*. In addition to that Edna St. Vincent Millay poem that states this man alone "has looked on Beauty Bare," a tool used in a discipline this scientist founded is used to compare the love of two figures in "A Valediction Forbidding Mourning." For 10 points, name this ancient thinker who wrote *Elements* and founded geometry.
ANSWER: **Euclid** [or **Tuclid**]
[edited]

9. A great deal of the body of this law was written by William W. Evans. This bill was praised in Minnesota during the "Winona Speech." This legislation imposed a corporate tax that was upheld in the *Flint v. Stone Tracy Co.* case. This law was later modified by the Underwood Act, and this law included a provision allowing for free trade with the Philippines. This bill's passage was supported by a group known as the "standpatters," and the President who signed it into law described it as the "best tariff bill the Republican Party ever passed." It modified rates set by the Dingley Tariff and was signed into law by William Howard Taft over Robert LaFollette's objections. For 10 points, name this 1909 tariff named for two senators from New York and Rhode Island.
ANSWER: **Payne–Aldrich** Tariff

10. Numerologists are fond of noting that there are this many generations between Adam and Noah, and this many between Noah and Abraham. The Beast in the Book of Revelation has seven heads and this many horns. In a parable found only in the Book of Matthew, a group of this many virgins carry lamps as they await a bridegroom. In Judaism, the term *minyan* refers to the requirement that this many Jews be present for prayer. In Kabbalah, the Sephirot are a series of this many emanations. The 'Aseret Yemei Teshuva is a period sometimes known as this many days of repentance and lasts from Rosh Hashanah to the end of Yom Kippur. This is the number of Lost Tribes of Israel and the number of plagues Moses brought down on the Egyptians. For 10 points, name this number which is also the number of Commandments.
ANSWER: **ten** [or **10**]

11. This composer's separation from Imma von Doernberg inspired an orchestral work with *Andante con malinconia* and *Presto con malizia* movements, his *Symphony No. 1 in B-Flat Minor*. This composer's violin concerto, whose second movement is a scherzo labeled *Presto capriccioso alla napolitana*, was commissioned by Jascha Heifetz. In this composer's most notable peace, the chorus rejoices after yelling the word "slain!" "Lullaby for Jumbo" and "Through Gilded Trellises" are two sections of one work by this composer of *Variations on A Theme by Hindemith*. Edith Sitwell poems are set to music in his his *Façade*. Dennis Noble premiered the part of the baritone soloist in this composer's cantata setting text from Psalm 137, which focuses on an event from the Book of Daniel. For 10 points, name this English composer of *Belshazzar's Feast*.
ANSWER: William **Walton**
[edited]

12. Corticated outgrowths of these organisms' thalli that are used in reproduction are called isidia, and soredia are another of their reproductive structures. Spore body types found in these organisms include apothecia, perithecia, and pycnidia. One genus of these organisms with a porous thallus is Parmelia. Different types of these organisms have either leafy, flat and painted, or branched growth forms. Those describe the fruticose, foliose and crustose types of these organisms. They consist of a mycobiont and a phycobiont, the latter of which may be cyanobacteria but is more commonly an alga. For 10 points, name these symbiotic organisms that consist of a fungus and a photosynthetic lifeform.
ANSWER: **lichen**s [prompt on "fungus"]

13. This figure came to power after finding the prophetic items of inscribed stones and a stone ox. The historiographer Bān Gù accuses this man of being inflicted with megalomania, who apparently employed a man that thought he could fly, but who utterly failed. This man's scholar Liú attempted to overthrow him after his disastrous loss at the Battle of Kūnyáng. This man was regent and relative to Emperor Chéng due to his connections to the wife of Emperor Yuán. This emperor moved his capital to Cháng'ān and was opposed by a peasant revolt led by Mother Lǚ and Fán Cháng. He attempted to create a society based on the Confucian Classics, but the ensuing chaos resulted in his overthrow by the Red Eyebrows. For 10 points, name this ruler of the short-lived Xīn Dynasty, which briefly interrupted the reign of the Hàn.
ANSWER: **Wáng Mǎng** [prompt on "Wáng"]

14. The major work of logic by this author defines the title entities as "parts of an argument that give the speaker and his audience confidence" and juxtaposes Cicero's and Themistius's treatment of the same subjects. This thinker's most famous work contains a discussion on the paradox surrounding how the good have power, while the bad are powerless. This author of *De Topicis Differentiis* argued that understanding God's foreknowledge is impossible in a treatise that includes a section wherein a woman reminds the author that he too, was once fortunate. This author's major work was rendered into English by Geoffrey Chaucer and was written after he was accused of necromancy by

Theodoric. For 10 points, identify this medieval thinker who wrote about the "wheel of fortune" in *The Consolation of Philosophy*.
ANSWER: Anicius Manlius Severinus **Boethius**
[edited]

15. One section of this novel is written in the second person and provides a list of "passwords" for the country of the protagonist. Its last chapter begins with the birth of the protagonist and is written with a series of ellipses interspersed with the word scalpel. Its main character, who was born after Atanasio raped his mother Isabel on the Cocuya estate, is unable to divorce his wife and marry Regina, the woman he truly loves. This book is about a man who begins delivering false promises of agrarian reform to the peasants that have refused to till Don Gamaliel's land. As this novel opens, Catalina and her daughter Teresa have gathered around the title character as a priest performs extreme unction. For 10 points, name novel about a revolutionary and tycoon recalling his life during his last moments, a novel by Carlos Fuentes.
ANSWER: The **Death of Artemio Cruz**

16. This artist included ten angels, some of whom hold meditative items from Christ's passion, as part of his religious painting *The Virgin as Intercessor*. At the end of his tutelary period, this artist included a statue of Minerva for his portrait of Isabella Brant that was a parting gift for his teacher. A series of small monochrome portraits that he intended to have engraved and published are known as his *Iconography*. He helped decorate the Banqueting House at Whitehall, a building whose ceiling was painted by his teacher Rubens. He painted a self-portrait of himself with a sunflower. He made a painting of five young princes and princesses with a large dog and one of Henrietta Maria of France. He also painted the hunting party of an English monarch. For 10 point, name this Dutch artist who painted numerous portraits of Charles I.
ANSWER: Anthony van **Dyck**
[edited]

17. This organization practiced a form of street fighting known as Kale Borroka and its youth wing was the Jarrai. This organization lost popularity after its 1997 killing of a councilor from the Popular Party and it killed former Health Minister Ernest Lluch. It was largely responsible for the shutting down of a nuclear power plant in Lemoniz. It formed in 1959 when frustrated members of the PNV decided to form their own group. This group's political wing was the Herri Batasuna. During the 1980s, they found themselves in conflict with the GAL, which billed itself as an anti-terrorism group. They carried out Operation Ogre in 1973, in which a car bomb killed Franco's chosen successor, and in 2006 this organization carried out a bombing at Madrid's airport that killed two Ecuadorian immigrants. For 10 points, name this Basque separatist group.
ANSWER: **E**uskadi **T**a **A**skatasuna [or **ETA**]
[edited]

18. John of Salisbury records that the metaphor about these objects was first introduced in a book by Bernard of Chartres. A 2003 book named for these objects provides translations and commentaries of *On the Revolution of Heavenly Spheres, Dialogues Concerning Two Chief World Systems*, and other texts. That book was compiled by Stephen Hawking. A modern attempt to track down the origins of the phrase that discusses these objects suggests that Didacus Stella was the first to employ them as a metaphor. That book, which was written in the style of *Tristram Shandy*, is also titled for these objects and was written by Robert Merton. The first modern use of the phrase describing these objects appeared in a letter to Robert Hooke about the necessity of the achievements of Descartes and punned on the author's theory of vision introduced in his *Opticks.* For 10 points, Isaac Newton famously stated that the only reason he saw further was by standing atop of what large body parts?
ANSWER: standing on the **shoulders of giants** [prompt on partial answers; accept equivalents]
[edited]

19. One of this author's characters receives a plastic penis with the word "Wanker" written on it and is ordered to use a "nocturnal mensurator" by the doctor Proinsias Rosenberg. In one of this author's novels, an attractive and chaste primary school teacher is pursued by the grammarian Patrick Standish. He wrote about a man who returns to his birth home and relives his past with Peter Thomas and Charlie Norris with his wife Rhiannon in one novel. That character created by this author, Alun Weaver, suddenly drops dead. This author of *Jake's Thing* created a character who nearly burns down a man's home after falling asleep with a lit cigarette in his hand. That character abandons Margaret Peel at a dance before getting hammered and lambasting Professor Welch at a lecture about "Merrie England." For 10 points, name this British author of *Take a Girl Like You, The Old Devils,* and *Lucky Jim.*
ANSWER: Kingsley **Amis** [do not accept "Martin Amis," though I doubt anyone is that clumsy.]
[edited]

20. A technique using this type of light uses truncation rods to describe atomic surfaces in interfacial systems. The spectrum generated by absorption spectroscopy with light in this portion of the electromagnetic spectrum is split into K-edge, L-edge, and M-edge forms depending on the principal quantum number of the electron excited. This type of light is used to determine lattice parameters in the Debye–Scherrer powder method, and this type of light is used in the transmission and back versions of the Laue method. A law giving the angles at which photons scatter coherently is named for Bragg and used in technique using this portion of the spectrum, which was also used by Rosalind Franklin to produce images of DNA. For 10 points, name this type of light with wavelength between that of gamma rays and ultraviolet light.
ANSWER: **X-ray** radiation [accept equivalents to radiation, accept **gamma** radiation on second clue]
[edited]

Extras

21. The Palace of the Shirvanshahs is a UNESCO World Heritage Site located in this city's Inner City, wherein the Maiden Tower also lies. This city's Crystal Hall hosted the 2012 Eurovision Song Contest. The SOCAR Tower, which is currently under construction, will be this city's tallest building, and other buildings being built in this city include the Flame Towers. The March Days was an event in this city where Bolsheviks killed between 12,000 and 30,000 civilians, mostly Muslims. For 10 points, name this city which once produced over half of the world's petroleum, the current capital of Azerbaijan.
ANSWER: **Baku** [or **Bakı**]

22. One synthetic form of this molecule is levonorgestrel and AKR1C1 catalyzes the metabolism of it. In sperm this molecule promotes the release of Ca^{2+}, which regulates chemotaxis. When secreted this hormone prevents the creation of a new follicle and it can also reduce the likelihood that a woman who has had a preterm birth will have another. Mifepristone, also known as RU-486, acts by antagonizing the receptors for this hormone. Luteinizing hormone stimulates production of this hormone that is produced in the corpus luteum with estrogen and it prepares the uterine wall for a fertilized egg. For 10 points, name this hormone that causes menstruation when its levels decrease.
ANSWER: **progesterone**

Bonuses

1. Rexford Tugwell was an advisor to this president. For 10 points each:
[10] Name this New Deal President who was advised by Tugwell and other members of the "Brain Trust."
ANSWER: **F**ranklin Delano **Roosevelt** [accept **FDR**]

[10] This fellow Columbia professor and writer of *The Modern Corporation and Private Property* also served as a member of Roosevelt's original "Brain Trust" along with Rexford Tugwell. He has an unfortunate first name.
ANSWER: Adolf **Berle**
[10] This supervisor of the WPA was one of Roosevelt's closest advisors and served as Secretary of Commerce for Roosevelt near the end of his second term. He served as FDR's primary emissary to Britain during WWII and oversaw the lend lease program.
ANSWER: Harry **Hopkins**

2. One part of this complex is the Maritime Theatre, which consists of a large pool surrounding a small island which was reached with retractable wooden swing bridges. For 10 points each:
[10] Name this private retreat at Tivoli.
ANSWER: **Hadrian's Villa** [or **Villa Adriana**]
[10] Hadrian's Villa made use of these kinds of columns, which had women supporting the entablature and "standing" on the stylobate.
ANSWER: **caryatid**
[10] Hadrian's villa used columns that are an example of a Roman twist on this order. This simplest Greek order had fluted columns which did not rest on pedestals or bases, unlike Ionic and Corinthian columns.
ANSWER: **Doric** columns

3. The narrator of this novel works like hell during the week only to blow it all on the weekends, when he enjoys one of the title 52 holidays of the year. For 10 points each:
[10] Identify this novel about Arthur Seaton, who begins the novel partying with Brenda. By the close, he has chosen to marry Doreen.
ANSWER: *Saturday Night and Sunday Morning*
[10] This English author wrote *Saturday Night and Sunday Morning*. He also wrote about Colin Smith, a youth sent to a borstal after robbing a bakery in "The Loneliness of the Long Distance Runner."
ANSWER: Alan **Sillitoe**
[10] Sillitoe is often grouped with this consortium of disillusioned British writers, whose most famous member is the author of *Look Back in Anger*, John Osborne.
ANSWER: **Angry Young Men**

4. A generalization of this distribution co-named for Jüttner can be used for relativistic systems. For 10 points each:
[10] Name this classical equivalent of Fermi–Dirac statistics, a distribution describing the relative energy of particles in a gas.
ANSWER: **Maxwell–Boltzmann** distribution
[10] In the relativistic case, the denominator of the Maxwell–Boltzmann distribution contains one of these functions. These functions are the solution of Laplace's equation in cylindrical coordinates.
ANSWER: **Bessel** functions
[10] Bose–Einstein statistics reduce to Maxwell–Boltzmann statistics when this quantity becomes infinite. That's because the exponential term in the governing equation blows up, suggesting that the number of particles in each quantum state is much less than one.
ANSWER: **temperature**

5. One of the most famous examples of these occurred in 1988 when Henry Kravis and KKR outbid Ross Johnson for RJR Nabisco and they often take the form of leveraged buyouts. For 10 points each:
[10] Name these transactions in which an acquirer takes over a company without management approval.
ANSWER: **hostile takeover** [accept **hostile acquisition**; prompt on "takeover" or "acquisition"]

[10] One of the most important defenses to hostile takeovers are these provisions, also known as Shareholder Rights Plan. They allow shareholders to buy additional shares if someone acquires a certain number of shares.
ANSWER: **poison pill**
[10] Acquisitions can be used for this kind of consolidation, which is the management of an entire supply chain. Wikipedia helpfully points one example of this type of integration can be seen in American Apparel, since they manage its retail locations, advertisements and production within their own company.
ANSWER: **vertical** consolidation [or **vertical** integration]

6. Immature varieties of these cells are called "veiled" and the discovery of their role in adaptive immunity won Ralph Steinman a posthumous Nobel in 2011. For 10 points:
[10] Name these antigen-presenting cells that are present in tissues in contact with the external environment.
ANSWER: **dendritic cell**s
[10] The specialized dendritic cells in the skin are named after this German pathologist, who also names certain islets in the pancreas containing endocrine cells.
ANSWER: Paul **Langerhans**
[10] Dendritic cells can bind to this virus via the DC-SIGN receptor. This virus commonly uses the CCR5 or CXCR4 as co-receptors and its genome includes the gag, pol and env genes.
ANSWER: **HIV** or **human immunodeficiency virus**

7. A book that responds to A.J. Ayer's *The Foundations of Empirical Knowledge* concludes that humans can only experience *these* rather than real things by distinguishing between illusion and delusion. For 10 points each:
[10] Name this sometimes hyphenated term from ordinary language philosophy which refers to the mind dependent objects that humans are aware of in perception.
ANSWER: **sense-data** [accept **sense-datum**, do not prompt on partial answers]
[10] If one believe that sense-data exists, then one might adopt this stance, since sense-data depends on the mind. This stance suggests there is a mind-body split and is associated with Descartes's views.
ANSWER: **dual**ism
[10] This other ordinary language philosopher wrote about the problem of Cartesian dualism in his book *The Concept of Mind*.
ANSWER: Gilbert **Ryle**

8. This phrase originated from an article in *Pravda* in which a certain politican claimed that his followers believed that "We can achieve anything!" and that "there is nothing we can't do." For 10 points each:
[10] Identify this phrase used in an article to stop the process of collectivization, because many of a certain politician's followers, have reached the title state of accomplishment.
ANSWER: "**Dizzy With Success**"
[10] This man used the term "dizzy with success" in some speeches and articles. He was a leader of the Soviet Union known for his purges and having his lackeys doctor photos.
ANSWER: Joseph **Stalin**
[10] Stalin was originally allied with this man, before he had this author of *Imperialism and World Economy* killed during the Great Purge.
ANSWER: Nikolai **Bukharin**

9. The title character of this novel, Jacques Lantier, drives an engine called "La Lison" and plots to kill Roubaud with Severine after hearing a description of the grisly murder of Grand-Morin. For 10 points each:
[10] Identify this novel in the *Les Rougon-Macquart* sequence whose title refers to a person with a wild sexual passion that drives one to kill.
ANSWER: *La **Bête Humaine*** [or *The **Human Beast***]

[10] *La Bête Humaine* was written by this French author of *Germinal* and "J'Accuse."
ANSWER: Émile **Zola**
[10] Zola also wrote this other novel about a woman who becomes a comic actor, a courtesan, a client for le Comte Muffat de Beuville and then the boss of a lesbian prostitute named Satin. Ironically, she dies of smallpox.
ANSWER: *Nana*

10. This show garnered four consecutive Emmy awards for outstanding performance in a drama series as it describes the goings-on of the titular portion of the White House. For 10 points each:
[10] Name this Aaron Sorkin–created series in which Martin Sheen plays Josiah Bartlet, the President of the United States.
ANSWER: The **West Wing**
[10] President Bartlet's daughter, Zoey, is kidnapped by terrorists in response to the American assassination of the defense minister of this fictional Middle-Eastern nation.
ANSWER: **Qumar**
[10] The kidnapping results in the President temporarily stepping down from office by invoking this constitutional amendment that governs executive succession.
ANSWER: the **25**th Amendment

11. Its peoples worshipped the god Nzambi and its capital was located at Mbanza. For 10 points each:
[10] Name this African kingdom that allowed the Portuguese to create the colony that would become Angola.
ANSWER: **Kongo** Kingdom
[10] This king of the Kongo was originally known as Mvemba a Nzinga, but took a Christian name when the Portuguese arrived. He helped organize the slave trade in the Kongo to ensure no one was illegally sold into slavery.
ANSWER: **Afonso** [or **Alfonso**]
[10] The Portuguese colony in the Kongo was originally based out of this city, which eventually became the capital of Angola.
ANSWER: **Luanda**

12. George Dantzig developed the "simplex method" used in these programs, which consists of picking a vertex on a polygon and seeing if a function as a higher value on any adjacent vertex. For 10 points each:
[10] Name this type of optimization method used to find maxima for a function, subject to constraints modeled as polynomials of degree 1.
ANSWER: **linear programming** [or **linear program**]
[10] Linear programming can be used to solve this problem in computer science, in which the title businessman must try to visit every city on a map while traversing the shortest total distance.
ANSWER: the **traveling salesman** problem [accept **tsp**]
[10] When working with the travelling salesman problem in a Euclidean topology, you can use the Christofides algorithm to efficiently solve the problem. The Christofides algorithm begins by generating one of these structures, which is also the output to Boruvka's algorithm.
ANSWER: **minimum spanning tree** [do not prompt on any partial answers]

13. Margaret Lawson used high resolution photographs of this work to identify the distinct works of these artists, referring to them as the painterly hand, the drawing hand, and the elegant hand. For 10 points each:
[10] Name this group of artists best known for a work of art that makes use of expensive ultramarine pigment, and is divided into sections named after the months.
ANSWER: **Limbourg** brothers [Their names are Herman, Paul and Johann.]
[10] The Book of Hours by the Limbourg brothers is one of these kinds of manuscripts, whose name indicates that illustrations accompany the presumably boring text.

ANSWER: **illuminated** manuscript [accept word forms]
[10] Another popular type of medieval illuminated manuscript is this kind of book that provides illustrations and stories about animals. The *Physiologus* may be are best preserved one.
ANSWER: **bestiary**

14. Near the end of the first act, its main character gets beaten up by the swindler Kuheiji the oil merchant, who had stolen money from him previously. For 10 points each:
[10] Identify this drama that ends with Tokubei and the courtesan putting themselves to death in the forest of Tenjin.
ANSWER: The ***Love Suicides of Sonezaki*** [or ***Sonezaki Shinjū***]
[10] Chikamatsu's *The Love Suicides of Sonezaki* is a play in this genre, which makes use of traditional Japanese puppets. It should not be confused with kabuki.
ANSWER: **bunraku**
[10] A performance of *The Love Suicides of Amijima* is central to this 20th century novel, which trace the dissolving marriage of Kaname and Misako. Some scholars argue that the impending divorce in this novel is a modern day "double suicide."
ANSWER: ***Some Prefer Nettles*** [or ***Tade kū mushi***]

15. This group survived crashing rocks called the Symplegades. For 10 points each:
[10] Name this Jason-led group which sought the Golden Fleece.
ANSWER: **Argonauts**
[10] This Argonaut became devastated when his youthful companion Hylas was abducted by water nymphs.
ANSWER: **Heracles** [or **Hercules**]
[10] While on the way to Colchis, Zetes and Calais, the son of this god, dispatched the harpies that were tormenting the blind king Phineus. One legend states that he fathered some horses with the mares of Erichthonius.
ANSWER: **Boreas**

16. When hearing arguments regarding this piece of legislation in *Shelby v. Holder*, John Roberts asked whether "citizens in the South are more racist than citizens in the North." For 10 points each:
[10] Name this landmark 1965 act that established federal oversight of the elections systems and required racist states to request preclearance before changing their election law.
ANSWER: **Voting Rights Act**
[10] The 5-4 decision in this 1993 Supreme Court case involving the redistricting of North Carolina ruled that redistricting based on race must be in compliance with the Voting Rights Act and held to a standard of strict scrutiny.
ANSWER: ***Shaw*** v. ***Reno***
[10] *Shaw v. Reno* occurred under this Chief Justice, whose tenure also saw *Roper v. Simmons* and *Bush v. Gore*.
ANSWER: William **Rehnquist**

17. Name these authors of slave narratives. For 10 points each:
[10] This orator who ran the abolitionist newspaper *The North Star* also wrote about his experiences working in a shipyard and as a caulker in Baltimore while serving Thomas Auld.
ANSWER: Frederick **Douglass**
[10] This woman wrote of her secret affair with Mr. Sands while serving the sexually predatory Dr. Flint in her *Incidents in the Life of a Slave Girl*.
ANSWER: Harriet **Jacobs**
[10] This rival of Frederick Douglass also wrote a slave narrative, but he is more famous for writing the first novel by an African American, *Clotel*. He shares his last name with the author of *Edgar Huntly* and *Wieland*.
ANSWER: William Wells **Brown** [accept Charles Brockden **Brown**]

18. In the Vedas, this term is used to explain the acts of creation that allow the gods to transform the divine into the physical. For 10 points each:
[10] Name this principle used to account for the gap between true existence and the physical world around us. It is often translated as "illusion."
ANSWER: **Maya**
[10] Maya is an important concept in the Vedanta school of this religion. Some adherents of this religion worship the gods Brahma and Vishnu.
ANSWER: **Hindu**ism
[10] This other Hindu term can refer to either a surface ignorance of correct religious behavior or, on a deeper level, the ignorance that prevents people from seeing past the Maya illusion. In Buddhism, this term refers to the inability to fully understand the Four Noble Truths.
ANSWER: **avidyā**

19. In the Langmuir equation, the product of this quantity and a constant is divided by this quantity times that constant plus one. For 10 points each:
[10] Name this quantity, equal to force over area, sometimes measured in pascals.
ANSWER: **pressure**
[10] The Langmuir equation describes a relatively simple form of this phenomenon, which is the adhesion of molecules to a surface. The Freundlich equation also models it.
ANSWER: **adsorption** [do not accept "absorption" or other wrong answers]
[10] BET theory, an extension to the Langmuir equation, is far more accurate because it can handle the case where this quantity is greater than one. The BET constant incorporates the differences in the heat of adsorption for the various heats stemming from each one of these individual quantities.
ANSWER: **layer**s [accept more specific answers that mention **layer**s]

20. This event occurred after Sir Arthur Paget gave its members an ultimatum and one of its leaders was Brigadier General Gerald Hough. For 10 points each:
[10] Name this 1914 event in which 57 officers of the British Forces in Ireland elected to give up their posts.
ANSWER: **Curragh Mutiny**
[10] The Curragh Mutiny occurred during the Ministry of H. H. Asquith, who preceded this man as Prime Minister. This Welshman led the Coalition Government in Britain from 1916 to 1922.
ANSWER: David **Lloyd George**
[10] Lloyd George delivered the Mansion House Speech in response to this international incident, in which the German boat *Panther* drove up to the namesake African town to say "Hello," as the French made moves to annex Morocco.
ANSWER: **Agadir** Crisis

Extras

21. This composer's "The Lamentations of Gilboa" is the fourteenth section of his oratorio *Le Roi David*. For 10 points each:
[10] Name this French composer of the "symphonic movements" *Rugby* and *Pacific 231*.
ANSWER: Arthur **Honegger**
[10] Honegger was a member of this group of French composers that also included Darius Milhaud and Francois Poulenc.
ANSWER: Les **Six**

[10] Inspired by the requiem mass, this Honegger symphony contains three movements: "Dies irae," "De profundis clamavi ad te," and "Dona nobis pacem."
ANSWER: Symphonie _**Liturgique**_ [or Symphony No. _**3**_]

22. These geographical features typically come in "chains," such as the Himalayas or the Appalachian. For 10 points each:
[10] Name these large protrusions of rocks from the Earth's surface. K2 is the second tallest one in the world.
ANSWER: **mountain**
[10] These warm and dry winds form of the lee sides of mountains, when rain shadowing occurs. In the US, these winds are known as Chinook winds.
ANSWER: **foehn** wind
[10] Foehn wind occurs when the air on the other side of the mountain experiences this type of cooling. The dry type of this lapse rate is followed when no heat transfer occurs between a rising air parcel and its surroundings.
ANSWER: **adiabatic**

23. Name some rivers associated with the Mississippi River. For 10 points each:
[10] Beginning in Colorado, this tributary of the Mississippi flows west such as Wichita, Tulsa, and Little Rock emptying into the Mississippi in its namesake state.
ANSWER: **Arkansas** River
[10] Beginning northwest of Baton Rouge this _dis_tributary flows out of the Mississippi and flows south through central Louisiana. The Old River Control Structure prevents the Mississippi from diverting its course to this river.
ANSWER: **Atchafalaya** River
[10] This river in the state of Mississippi flows into the Mississippi near Vicksburg. The area between it and the Mississippi River forms the Mississippi Delta region, famous for its blues.
ANSWER: **Yazoo** River