ACF Nationals 2016
Packet by Oxford (Joey Goldman, Spence Weinreich, George Corfield, et al.),
Northwestern (Dylan Minarik, Greg Peterson, and Max Rong), and Florida (Taylor
Harvey, Alex Shaw, Jonathen Settle, and Julio Gonzalez-Zuluaga)
Tossups

1. Di-thi-ins (di-"thigh"-ins) are a class of molecules that exhibit this property. This property is possessed by the transition state of an intramolecular reaction which converts a quaternary ammonium salt or sulfonium to an amine or sulfide respectively; that mechanism is the intramolecular Stevens rearrangement. One molecule with this property was first isolated by Donald Cram when he degraded an alpha-pyrone inside a carcerand. That simplest compound with this property acts as both diene and dienophile when it dimerizes through a Diels-Alder reaction at temperatures as low as 35 Kelvin. When analysed by NMR, these molecules exhibit a positive nucleus-independent chemical shift because of their paratropic ring current. By adopting a tub conformation, cyclo-octa-tetra-ene avoids having this property. Cyclo-buta-diene exhibits, for 10 points, what property of cyclic, planar molecules with 4n pi electrons?
ANSWER: **antiaromatic**ity [do not accept or prompt on "aromaticity"]

2. A trio of lines in this poem beginning "Ever of her he thought" are followed by a section of "praise of the virtuous woman" based on Proverbs. A character in this poem angrily removes the arrows from a rattlesnake-skin, then fills the skin with powder and bullets. Another character in this poem dismisses the "misty phantoms of passion" as "delusions of Satan" and repeats the question "Must I relinquish it all?" while walking through the woods. This poem's fourth section, "The Lover's Errand", ends with the primary female character asking "Why don't you speak for yourself, John?" This poem ends with the ghost of the title character, previously killed by Indians, appearing to bless the wedding of John Alden and Priscilla Mullins. For 10 points, name this narrative poem about a love triangle involving the title "Captain of Plymouth", written by Henry Wadsworth Longfellow.
ANSWER: The **Courtship of Miles Standish**

3. This man's religious views were inspired by the pastor Daniel Lindley, including his belief that the Earth was flat. During one conflict, peace negotiations led by this man were nearly ruined by the death of opposing general George Colley in battle. At O'Neil's Cottage, he signed an armistice with Evelyn Wood to end hostilities. Three years later, he was the leader of a triumvirate that signed the London Convention with Hercules Robinson. In his youth, he was present at the Sand River Convention that created the nation he later led. He restricted the franchise to men who had been in his republic at least 14 years, after a gold rush led to a surge of *uitlanders* in his country. This participant in the Great Trek received a congratulatory telegram from Wilhelm II after putting down the Jameson Raid. For 10 points, name this late-19th Century Boer hero, the President of the Transvaal whose image was depicted on golden coins known as his namesake "rands."
ANSWER: Paul **Kruger** [or Stephanus Johannes Paulus **Kruger**]

4. The republication of this text in 1966 was the project of historian Carl Degler, and 30 years later, it was re-released with an introduction by Michael Kimmel and Amy Aronson. In this text, the author argues that historical crises happen before the majority of people know what is going on, like the first gun fired at Fort Sumter and the Boston Tea Party, then echoes Darwin in claiming that "the laws of social evolution do not wait for our recognition or acceptance." The term "race-energy" is used in this nonfiction work to mean the unconscious functioning of the social organism. Its author followed this work up with tracts like *Our Brains and What Ails Them* and *The Home: Its Work and Influence*. This 1898 manifesto, written by an author famously treated by S. Weir Mitchell, describes the "sex-relation" between men and women as a factor in social evolution. For 10 points, name this nonfiction work by Charlotte Perkins Gilman.
ANSWER: **Women and Economics** - *A Study of the Economic Relation Between Men and Women as a Factor in Social Evolution*

5. This piece features a dueling tenor saxophone solo followed by the trumpets playing a short fanfare beginning with the notes A-flat, B-flat, C, D-flat, E-flat, A-flat. The most famous arrangement of this piece was recorded because the original arrangement by Artie Shaw was too long to fit on one side of a record. In one section of this piece, the main theme is repeated three times, first accompanied very quietly by the trombones, then fortissimo by the trumpets. This piece, written by Joe Garland, ends with a rimshot as the trombones sustain the tonic pitch. Its most famous theme was taken from the "Tar Paper Stomp" and consists of the saxophones playing arpeggios divided into groups of 3. This was the best-known song recorded by a bandleader who went missing while flying over the English Channel during World War II. For 10 points, name this big band-era swing standard most famously recorded by Glenn Miller.
ANSWER: "**In the Mood**"

6. In ancient Armenian myth, the fire god Vahagn accidentally performed this action while escaping after stealing straw from the king of Assyria. The Cherokee believed that this occurred after villagers drove away a spirit dog who was stealing cornmeal, while in a Navajo myth, Coyote performs this action out of impatience with Black God. A Maori myth relates how this action was accomplished by Tamarereti throwing pebbles out of his canoe. In a Chinese myth, the Queen Mother of the West separates a pair of forbidden lovers, the mortal cowherd and divine weaver girl, by performing this action with her hairpin. in the *Enuma Elish*, Marduk uses the tail of Tiamat as the basis for this action. For 10 points, identify this action, performed inadvertently when Hera awoke to find herself nursing an infant Heracles and pulled the baby away, causing her breast milk to spurt across the sky.
ANSWER: the **creation** of the **Milky Way** [accept word forms and synonyms; prompt on "creation of the stars" or equivalents]

7. John Whitelocke negotiated for the surrender of troops occupying this city against the forces of Santiago de Liniers. Shortly afterwards, this city's namesake Junta was dissolved by its governor, Francisco de Elío. This city, founded by Bruno de Zabala, was ruled for a time by two bodies known as the Defense Government and the Cerrito Government. It was briefly captured in 1807 by Charles Stirling and Samuel Auchmuty, and is the subject of a historical novel by Alexandre Dumas, *The New Troy*. This city was liberated by a man who declared "Cure the injured and mercy to the vanquished" after winning the Battle of Las Piedras. That native son of this city, José Gervasio Artigas, secured its independence years after it was home to the "33 Orientals" under Lavalleja. A civil war in this capital saw a clash between Manuel Oribe and Fructuoso Rivera, of its Colorado party. For 10 points, name this city which remains the capital of Uruguay.
ANSWER: **Montevideo**, Uruguay

8. This person developed the ritual of "The Mystic Marriage and the Consummation of the Elements," in which five people would perform the Eucharist and eat a Cake of Light. This man wrote about the Gnostic Mass in one of his *Libri*, a set of books he divided into five classes. While in Tunisia, he had a formative experience after having sex on a mountain and meeting Choronzon, the "Dweller of the Abyss." After being expelled from the Typhonian Order, this man founded the *Astrum Argentum*, which combines Vedanta and Kabbalah. This religious figure, who drew upon Rabelais for his motto "Do what thou wilt," was the model for Dr. Trelawney in *A Dance to the Music of Time*. This practitioner of Enochian magic often called himself "The Great Beast 666" and was once a member of the Hermetic Order of the Golden Dawn. For 10 points, name this British occultist founder of Thelema.
ANSWER: Aleister **Crowley** [Edward Alexander **Crowley**]

9. A group of methods for performing this task generates Van Vleck coefficients and their associated Heine-Stieltjes polynomials. The Parker-Sochacki method for doing this task may expand its input functions and output a Maclaurin series as a result. Fuchs' theorem states that when a function is analytic, and when regular singular points exist, the results of this task can be written as a power series. One method for doing this task applies a namesake operator that converts two expressions into zero and then builds a basis from the resulting characteristic equation. Methods for doing this task include the annihilator method and the Frobenius method. The results from this task are guaranteed to exist and be unique under certain conditions by the Picard-Lindelof theorem. For 10 points, name this task, one example of which is the method of separation of variables.
ANSWER: exactly **solving** ordinary **differential equation**s [accept anything indicating **solving differential equation**s; or more specific types of **ODE**s, such as "**solving a homogeneous differential equation**" accept **solving difference** equations as well.]

10. In a late novel by this author, Jack Shearwater engages in a menage a trois with his wife Franca and mistress Alison, while, Alfred Ludens seeks out his former teacher Marcus Vallar to heal his friend Patrick Fenman. This author of *The Message to the Planet* wrote a novel in which Toby Gashe discovers the title object at the bottom of a lake, while the prospective nun Catherine Fawley is driven mad by her love for the schoolmaster Michael Meade, the owner of Imber Court. The protagonist of her first novel plots to kidnap the movie star dog Mr. Mars and adapts his conversations with Hugo Belfounder into the book *The Silencer*. Charles Arrowby retires to a cottage where he encounters his former love Mary Hartley Fitch in another novel by this author. For 10 points, name this Irish-English author of *The Bell*, *Under the Net*, and *The Sea, The Sea*.
ANSWER: Iris **Murdoch** [or Dame Jean Iris **Murdoch**]

11. One variant on this technology, the LAR, was created by Israel after it captured several prototypes in the Six Day War. This technology was developed at the RNII facility, and one strategy for its use was known as "shoot and scoot." In one incident, a group of insurgents attached one of these to donkey carts. This weapon was designed by Georgy Langemak, who was subsequently executed during the Great Purge. It is significantly more dangerous than the smaller Qassam. A special unit of the NKVD was trained in its use, and it was first deployed at Rudnya during Operation Barbarossa. This weapon was used by Hezbollah to attack Israel during the 2006 Lebanon War, and it is named for a 1938 folk ballad about a woman separated from her lover during the war. For 10 points, name this Soviet multiple-rocket launcher which had a capital "K" stamped on it.
ANSWER: **Katyusha** rocket launcher [accept **BM**-13; accept **Stalin's Organ**; accept **Kostikov** Gun; accept **rocket launcher** until "Six Day War" and prompt thereafter]

12. This philosopher argued against the pseudonymous Lindamour's justification for suicide in a work that argues "suicide is [only] good from a theatrical point of view". That appears in a series of letters between Euphranor the Epicurean and the wiser Theocles, which is part of this author' 1761 set of essays *Philosophical Writings*. Leo Strauss argued that this philosopher championed "purified Spinozism" in a set of dialogues framed as a conversation between Philopon and Neophil. This philosopher claimed that God impels souls toward mortal perfection in a set of three dialogues structured like Plato's works which defend the immortality of the soul. His correspondence with Gotthold Lessing on the poetics of tragedy inspired Lessing to write his treatise *Laocoon*. For 10 points, name this author of *Phaidon*, a leading member of the Jewish Enlightenment and grandfather of a German composer.
ANSWER: Moses **Mendelssohn**

13. This writer used the description of the Epicureans in the Third Circle to argue that Anglo-Saxon visions inspired the spirit of *The Divine Comedy* in one of his *Nine Dante-esque Essays*. Another essay by this writer inverts Plotinius' method to provide a "history of eternity"; this author later followed up that essay with "A New Refutation of Time." In another essay, this author wrote that Blaise Pascal "hated the universe and yearned to adore God" and that he believed Nature is a "Fearful Sphere" whose "center is everywhere, circumference nowhere." This writer credits Kurt Lasswitz's *Traumkristalle* with inspiring one of his stories, whose epigraph is Robert Burton's line "By this art you may contemplate the variation of 23 letters." That story by this writer describes Purifiers who destroy "nonsense" books and describes the all-powerful Crimson Hexagon. For 10 points, name this author of "The Library of Babel."
ANSWER: Jorge Luis **Borges**

14. The "Kafka" sketchbook in the British Library provides the only source for the melody of a lost concerto in F for this instrument. A C-major trio for an English horn and two of these instruments was written by a composer who used that same ensemble for a set of variations on a duet sung between Zerlina and Don Giovanni, "Là ci darem la mano." Beethoven's seventh symphony opens with an A major orchestral flourish followed by this instrument playing A E C-sharp F-sharp. This instrument has a brief cadenza before the recapitulation of Beethoven's fifth symphony, and is used in his sixth symphony to represent a quail. In the second act of a ballet, a high G, followed by four eighth notes rising from C to F, begins this instrument's solo rendition of the theme from that ballet, *Swan Lake*. For 10 points, name this instrument that represents the duck in *Peter and the Wolf*, the highest pitched standard double reed instrument.
ANSWER: **oboe**s [or **hautbois**]

15. Zwanzig developed a method of estimating changes in this quantity by averaging exponentials of potential differences; that method is generally considered inferior to the Bennett acceptance ratio. Crooks' formulation of the fluctuation theorem can be used to derive an equation that states the mean value of "e to the minus W times beta" equals "e to the negative change in this quantity times beta." Mean field theory states that this quantity is bounded by the expectation value of the Hamiltonian minus temperature times entropy. Temperature replaces entropy as an independent variable when computing this quantity via a Legendre transform of internal energy. In the canonical ensemble, this quantity is proportional to the natural log of the partition function. Temperature and volume are the natural variables of, for 10 points, what thermodynamic quantity symbolized A or F?
ANSWER: **Helmholtz free energy** [accept **A** or **F** before mention, prompt after, prompt on "free energy," do not accept or prompt on "G" or "Gibbs free energy"]

16. The only work by this artist in the National Gallery in London was acquired by the government in 2000 in lieu of taxes and was originally part of a diptych that included a depiction of the *Flagellation* that is now in the Frick collection. An infant garbed in an unusual pink-violet wrap flails its limbs, caressing its mother's bulging cheek with one hand, in this man's *Castelfiorentino Madonna*. A *Crucifixion* painted by this man whose colors have deteriorated so much that most figures are primarily black can be found in the apse of the Basilica of St. Francis of Assisi. Two quartets of angels flank the central figures in a painting by this man that also features a throne whose base contains three arches displaying portraits of four prophets. This artist supposedly discovered his most famous student drawing pictures of sheep on a rock. For 10 points, name this artist of the *Santa Trinita Maesta*, who according to Vasari was the teacher of Giotto.
ANSWER: **Cimabue** [accept **Cenni di Pepo,** **Cenni di Pepi**, or **Gualtieri Giovanni**]

17. This book's main character had "begun to doubt his reason" after he strangled four canaries and cut off his own little finger when he is terrorized by the color blue. In this novel's first chapter, "The Morning Walk," the protagonist is offended that a passerby gives a blind beggar a button, prompting him to give all of his money to the beggar. Its protagonist is haunted by a dream in which Mexican priests disguised as jaguars sacrifice him in its first section "A Head without a World." In this novel, the protagonist is horrified when his wife sells his most valuable possessions at the Theresanium, which is run by a chess-playing dwarf named Fischerle. It largely takes place in a high-rise apartment where the protagonist rouses his books to battle and is married to a maid named Therese Krumbholz, who liquidates his library. For 10 points, the Sinologist Pieter Kien appears in what novel by Elias Canetti?
ANSWER: *Auto-da-Fé* [or Die *Blendung* or *Tower of Babel* according to one bonkers translation]

18. This publication once wrote a story connecting Dennis Cardoza to the murder of a woman actually killed by Ingmar Guandique. Its founder, William Griffin, was arrested for lowering war morale due to his isolationist articles, and gangster Frank Costello may have bankrolled its later purchase. Roger Stone, who believes LBJ conspired to kill JFK, may have planted a recent article in this publication. The case of *New York Times v. Sullivan* was distinguished by the California Court of Appeals in a 1983 court case on this publication. For fanning the flames of the Chandra Levy scandal, this publication was sued by Gary Condit's wife. It was the first to announce both the Rielle Hunter scandal and Bristol Palin's pregnancy, and was sued by Carol Burnett in a landmark 1983 case. For 10 points, name this publication that recently leaked a still-unconfirmed Ted Cruz sex scandal.
ANSWER: *National Enquirer*

19. This general's son became the first President of Tulane University after serving as an aide-de-camp. After refusing to fire in a duel with Felix Huston, this man lost command of the Army of Texas, where he would later serve as Mirabeau Lamar's Secretary of War. In this man's final battle, his staff included the recently-deposed Governor Isham Harris. As a colonel, his forces took over for Edmund Alexander and successfully installed Alfred Cumming as governor during the Utah War, in which he camped at the burned-out Fort Bridger. This man's decision to send reinforcements resulted in disastrous losses at Fort Donelson, after which he concentrated forces at Corinth. This man was fatally shot in the leg near the "Peach Orchard" in what Jefferson Davis called the "turning point" of the Confederacy's fate. For 10 points, name this Confederate general who commanded the entire Western Theatre, and died at the Battle of Shiloh.
ANSWER: Albert Sidney **Johnston**

20. David Kingsley et al drew parallels between the evolution of human skin pigmentation and this organism's pigmentation by changes in cis-regulation of the Kit ligand. Freshwater populations of this organism exhibit loss of pelvic spines and body armor due to the reduced transcription of the Pitx1 gene. Nova Scotia populations of this organism build nests out of filamentous algae rather than digging pits. Those populations of this organism have been designated "white" and do not give parental care to their young. Males of this species secrete a glycoprotein called spiggin to create their nests. This species' scientific name is Gasterosteus aculeatus. In one study, the male species of this organism responded consistently and attacked a model with a red belly, but in contrast, courted a model with a swollen belly. Niko Tinbergen studied fixed action patterns in, for 10 points, what organism, a fish characterized by three dorsal spines?
ANSWER: three-spined **stickleback** (accept **G**asterosteus **aculeatus** before mention)

Tiebreaker: When considering the formation of a spherical colloidal crystal, this quantity is multiplied by two in the numerator of an expression which gives the radius at which such a crystal is metastable. For a multicomponent system at constant temperature, the differential of this quantity is equal to the sum over all components of the product of the adsorption density and the differential of chemical potential. This quantity is multiplied by the divergence of the normal vector of an interface to calculate the pressure difference across an interface. For a droplet on a surface, the contact angle depends on three values of this property. The Young-Laplace equation describes pressure differences caused by this quantity, which is defined as Gibbs free energy per unit surface area. For 10 points, name this quantity which explains why water in a test tube forms a meniscus.
ANSWER: **surface tension** [or **gamma**]

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Bonuses

1. For 10 points each, answer some questions about Christian persecution in Edo Japan.
[10] This first Tokugawa shogun and victor at Sekigahara, alarmed by the Spanish conquest of the Philippines, expelled missionaries from Japan in 1614.
ANSWER: Tokugawa **Ieyasu** [prompt on "Tokugawa"]
[10] Tokugawa's decision may have been influenced by this close advisor of his, the first Englishman and European Samurai in Japan. This sailor's ship, the *Liefde*, brought nineteen bronze cannons to Japan.
ANSWER: William **Adams** [or **Miura Anjin**]
[10] After this 1637 rebellion by Catholic peasants near Nagasaki, prompted by raised taxes and persecution of Catholics, both its leader, Amakusa Shiro, and Matsukura Katsuie, the local lord whose policies caused it, were beheaded.
ANSWER: **Shimabara** Rebellion

2. In one story, this man amazes his friend, the narrator, by tracing the mental path he had used to determine that that narrator had been thinking about the ineffectual lead in a production of Crebillon's play *Xerxes*. For 10 points each:
[10] Name this fictional detective who solves "The Murders in the Rue Morgue." He was created by Edgar Allan Poe.
ANSWER: C. **Auguste Dupin** [accept either underlined portion]
[10] This author argued that a well-written fictional detective must be "a complete mate and a common man and yet an unusual man" in his essay "The Simple Art of Murder", which opens with the assertion "Fiction in any form has always intended to be realistic".
ANSWER: Raymond **Chandler** [or Raymond Thornton **Chandler**]
[10] In this Jonathan Lethem detective novel, Conrad Metcalf investigates the murder of a notable Californian urologist and has to put up with a mob-associated kangaroo and hyper-intelligent children called "babyheads".
ANSWER: *Gun, with Occasional Music*

3. For 10 points each, answer the following about processes that transport soil down hillside slopes:
[10] Darwin's *The Formation of Vegetable Mould through the Action of Worms* is the first work to discuss this process, the movement of soil by organisms. Tree uprooting also causes this process, measured using the BI.
ANSWER: **bioturbation** [accept word forms]
[10] Horton overland flow causes soil to move down a hill when this substance has exceeded the infiltration capacity. Its namesake "shadow" often forms on the side of a mountain.
ANSWER: **rain** [prompt on precipitation; prompt on water]
[10] George Merrill coined this term for the collection of loose rock, soil, duricrust, and other materials on top of hills that functions as a "blanket" over hillside slopes. This powdery substance also covers the Moon.
ANSWER: **regolith**

4. In the Spanish village of El Carpio de Tajo, this sport is practiced every July to celebrate the Reconquista. For ten point each:
[10] Name this blood sport popular in 19th century Europe and North America, in which a person riding a horse at full gallop would attempt to grab the namesake animal attached to a greased rope and then yank its head off.
ANSWER: **goose pulling** [or just "**goose pull**"]
[10] This other animal-based blood sport was popular with Henry VII and Elizabeth I, the later of whom overruled parliament's ban on this activity on Sundays. During this sport, bets were usually taken about how many trained dogs would be needed to kill a larger captive animal.
ANSWER: **bear baiting** [prompt on just baiting]
[10] These animals were "tossed" for height using a two-person sling in another blood sport, which explains the nickname of Polish ruler Augustus the Strong. The organized hunts of these animals in Great Britain were banned in 2005.
ANSWER: **fox**es

5. One collaboration between these two museums resulted in a Rem Koolhaas-designed addition to the Venetian casino in Las Vegas. For the stated number of points each:
[5,5] For five each, name these two museums that also collaborated on a still-unbuilt project in Vilnius. The one in New York was designed by Frank Lloyd Wright and features an upwardly-widening spiral design, while the one in St. Petersburg was founded by Catherine the Great.
ANSWER: The Solomon R. **Guggenheim** Museum and the State **Hermitage** Museum
[10] For ten, the Vilnius Guggenheim Hermitage Museum was designed by what recently-deceased Iraqi-British architect of the Guangzhou Opera House and the Bridge Pavilion in Zaragoza?
ANSWER: Zaha **Hadid** [or Dame Zaha Mohammad **Hadid**]
[10] For a final ten, Hadid's only work in the United States is the Rosenthal Center, which is in what US city? Other buildings in this city include the Venetian Gothic Music Hall.
ANSWER: **Cincinnati**, Ohio

6. For 10 points each, answer the following about Russian adaptations of Shakespeare:
[10] This playwright's 1852 *The Taming of an Evil Wife*, an adaptation of *The Taming of the Shrew*, was banned for indecency, but he had more success with realist works such as *The Storm*. His play *The Snow Maiden* was the basis for Rimsky-Korsakov's opera of the same name.
ANSWER: Aleksandr (Nikolayevich) **Ostrovsky**
[10] This poet notes "The rumbling has quieted. I walk out on the stage," in his poem, "Hamlet." This fictional doctor created by Boris Pasternak competes with Pasha for the love of Lara in a novel named for him.
ANSWER: Dr. **Yuri** Andreievich **Zhivago** [accept either underlined name]
[10] In a collaboration between Edward Gordon Craig and Constantin Slanislavski, *Hamlet* was produced in 1911 by this theatre, which also produced Chekhov's *Seagull* in 1898.
ANSWER: **Moscow Art Theater** [accept "**MAT**," "**MKhAT**," or **Moskovski Khudozhestvenniy akademicheskiy teatr**]

7. The Tuxedo suite of programs is used to process data from a technique in which this molecule is sequenced. For 10 points each:
[10] Name this type of RNA which is often separated from rRNA and tRNA by specifically pulling down molecules with a poly-A tail. This type of RNA encodes proteins.
ANSWER: **messenger RNA** [or **mRNA**]
[10] The quality of a sequencing read is usually given in terms of a logarithmic scale denoted by this letter. A coenzyme denoted by this letter is commonly given to prevent statin-associated muscle breakdown.
ANSWER: **Q** [accept **Q-score** or coenzyme **Q**10]
[10] This is the name given to the computational procedure of finding reproducible differences between reads and the reference genome. This procedure is used to find insertions, deletions, and SNPs ("snips").
ANSWER: **variant** calling or **variant** detection [accept equivalents that specifically use the word "variant"]

8. In a letter about how to read this work, Thomas Merton stated that it represents the "other side of attainment," and its author drew a diagram suggesting that one meets with God after the title journey. For 10 points each:
[10] Name this 16th century poem, which begins by describing the speaker "In a dark night / with longings kindled in love." It is one of two works its author wrote describing "The Dark Night of the Soul."
ANSWER: *Ascent of Mount Carmel* [or *Subida del Monte Carmelo*]
[10] *Ascent of Mount Carmel* is a work by this Spanish theologian and mystic, who with Saint Teresa of Avila founded the Discalced Carmelites.
ANSWER: St. **John of the Cross** [or *San* **Juan de la Cruz**; prompt on John or Juan]
[10] The term discalced in the name of the discalced Carmelites indicates that its members have this characteristic. Before entering a mosque, worshipers must remove a certain object so that they have this trait.
ANSWER: **barefoot**ed [or having **no shoe**s; accept equivalents]

9. The Marquis de Lafayette, together with John Overton, helped organize this community, whose founder aimed to educate slaves so they could participate in "unified labor." For 10 points each:
[10] Name this utopian community founded by Fanny Wright when she purchased a group of 15 slaves and settled them near Memphis, Tennessee on the Wolf River.
ANSWER: **Nashoba** Community
[10] After the failure of Nashoba, Wright moved to this Indiana community run by Welsh reformer Robert Owen, who had acquired a pre-existing Rappite settlement. A group of schools in this utopia was dubbed the "boatload of knowledge."
ANSWER: **New Harmony**
[10] The last 31 residents of Nashoba were personally ferried by Fanny Wright to this country, where they were greeted by president Jean-Pierre Boyer. An earlier revolution in this country was led by Toussaint L'Ouverture.
ANSWER: Republic of **Haiti**

10. Historians have pointed out that this artist's martyr portrait *The Death of Bara* deliberately effeminized its subject to idealize its subject's devotion to his country, innocence, and heroism for the Republic. For 10 points each:
[10] Name this artist, many of whose paintings, such as *The Lictors Bring to Brutus the Bodies of His Sons* and *The Death of Marat*, portray his sympathy for the French Revolution.
ANSWER: Jacques-Louis **David**
[10] To get into the Academy, David created this 1781 historical painting. Depicting a soldier's shock when he recognizes the blind title figure, this painting is seen as expressing David's pre-revolutionary radical sympathies.
ANSWER: *Belisarius Begging for Alms* [or *Bélisaire demandant l'aumône*]
[10] A late painting created during David's self-exile in Belgium that now appears in the Royal Museums of Fine Arts in Brussels shows this male figure being disarmed by a female goddess and three Graces.
ANSWER: **Mars** [accept *Mars Disarmed by Venus and the Three Graces*]

11. The four-line epigraph to this poem begins "Late, late yestreen I saw the new Moon". For 10 points each:
[10] Name this poem whose seventh section begins with the speaker choosing to "listen to the wind" instead of to the "viper thoughts" that "coil around my mind".
ANSWER: "**Dejection**: An Ode"
[10] This Romantic poet described how his "genial spirits fail" in "Dejection: An Ode". An interruption by the "person from Porlock" prevented him from finishing his poem "Kubla Khan".
ANSWER: Samuel Taylor **Coleridge**
[10] "Dejection: An Ode" was a response to this poem. Its speaker laments the early deaths of Thomas Chatterton and Robert Burns, but is eventually given "human strength, by apt admonishment" after an encounter with an old leech-gatherer.
ANSWER: "**Resolution and Independence**" [by William Wordsworth]

12. Strong evidence for this theory would be provided by the observation of the Primakoff effect in stars. For 10 points each:
[10] Name this theory, which postulates the existence of a global U(1) symmetry which is spontaneously broken by a psuedo-Goldstone boson. It adds a theta-term to the QCD Lagrangian.
ANSWER: **Peccei-Quinn** theory [accept names in either order]
[10] If Peccei-Quinn theory is true, it would explain why the strong force does not violate this symmetry. This combination of two symmetries flips the sign of electric charge and flips the system's coordinates through an inversion center.
ANSWER: **CP** symmetry [or **charge-parity** symmetry]
[10] James Cronin and Val Fitch won a Nobel Prize for observing the violation of CP symmetry in the weak-force mediated decay of these particles.
ANSWER: neutral **kaon**s [or **K** mesons]

13. Answer the following about the Hurrian god Kumarbi, for 10 points each.
[10] After overthrowing him, Kumarbi bit off his father Anu's genitals, an act that eventually resulted in the birth of Teshub, Tasmisu, and the god of this river, whose Hittite name was Aranzah. A Sumerian source describes how it was filled with water by the ejaculation of Enki.
ANSWER: the **Tigris** River
[10] Kumarbi's efforts to overthrow Teshub included a plan in which he fathered Ullikummi, a sentient pillar of volcanic rock, which he then placed on the shoulder of this titanic "dreaming god".
ANSWER: **Upelluri**
[10] Kumarbi is identified with this Sumerian wind god, who forms a triad with Anu and Ea, or Enki. He fathered the moon god Nanna with his wife Ninlil.
ANSWER: **Enlil**

14. For 10 points each, answer the following about Allied operations before the Normandy Landings on D-Day.
[10] The first Allied soldier to be killed on D-Day, Den Brotheridge, was shot in Operation Deadstick, an attempt to capture this bridge, which was christened with a name from Greek mythology. Along with Ranville, this was one of the two bridges leading into the city of Caen.
ANSWER: **Pegasus** Bridge [or **Bénouville** Bridge]
[10] A British attempt to capture the gun battery in this French village proved unsuccessful; fortunately, that gun battery here was unable to fire accurately on Sword Beach as feared because it lacked clear sight of the beach.
ANSWER: **Merville** Gun Battery
[10] US Army Rangers suffered heavy casualties and were reduced to 90 men while scaling Pointe du Hoc, a fortified cliff between Utah Beach and this westernmost beach, named for an American city, on the morning of June 6th.
ANSWER: **Omaha** Beach

15. For 10 points each, answer the following about dialetheism, the view that a sentence can be true and false.
[10] This philosopher argued against dialetheism with the so-called "argument from exclusion," which holds that a sentence only has meaning if it rules something out. In another paper, he argued for *The Unreality of Time*.
ANSWER: J.M.E. **McTaggart** [or John McTaggart Ellis **McTaggart**]
[10] This Chinese philosopher's argument "The boundaryless boundary is the boundary without a boundary" is often interpreted as supporting dialetheism. That sentiment appears in a book containing a passage in which the speaker is unsure if he is a dreaming butterfly.
ANSWER: **Zhuangzhi** [do not accept "Zhuang zhou"]
[10] This philosopher, the author of *In Contradiction*, is one of the foremost modern supporters of dialetheism, holding that Nagarjuna's thought and Buddhist philosophy exemplify the idea of "beyond true and false".
ANSWER: Graham **Priest**

16. These compounds cause mutarotation of light by flipping the two substituents on their hemiacetal carbon, which is referred to as the "anomeric" carbon. For 10 points each:
[10] Name these compounds, which can form epimers based on the axial or equatorial configuration of their hydroxyl groups.
ANSWER: **sugar**s or **carbohydrate**s
[10] Sugars can be visualized using "projections" named for this scientist, who names an acid-catalyzed "esterification" of a carboxylic acid and an alcohol.
ANSWER: Hermann Emil **Fischer**
[10] There are two ways to convert one Fischer projection to another valid Fischer projection for the same sugar. One way is to take the three substituents at one end and interchange them via a cyclic permutation. Name the other way.
ANSWER: **rotation** of **180 degree**s in the plane of the page [accept word forms for "rotation" like "**rotate**", accept "**pi radian**s" in place of "180 degrees," prompt on "rotation," do not accept or prompt on answers which use the word "flip"]

17. The sorrow this character feels at the death of his mistress Tove is expressed in the "Wood Dove's Song". For 10 points each:
[10] Name this character who sings the song "Tis the Hour of Midnight" in a cantata that represents his vassals as three men's choruses in four parts. The third part of that cantata opens with him calling his dead vassals back to life.
ANSWER: **Waldemar** [or **Valdemar**; accept **Valdemar** Atterdag or **Valdemar** IV]
[10] Jens Peter Jacobsen's poems about Valdemar form the basis of this composer's *Gurre-Lieder*. This composer of *Pierrot Lunaire* also founded the Second Viennese School.
ANSWER: Arnold **Schoenberg**
[10] Schoenberg's symphonic poem *Pelleas und Melisande* includes one of the first explicitly notated glissandi for this brass instrument. Christian Lindberg is a modern virtuoso on this instrument.
ANSWER: **trombone**

18. For 10 points each, answer the following about Bengali literature:
[10] Perhaps the best-known work in Bengali is this poetry collection, published in 1910 with 157 poems in Bengali, then republished in English in 1912 with 50 of the originals plus 53 of Rabindranath Tagore's other works.
ANSWER: *Gitanjali* [accept *Song Offerings*]
[10] A Bengali author with this surname wrote novels like *Parineeta*, which depicts the orphan Lalita's upbringing. That novelist shares one of his surnames with another Indian author with this surname who wrote "The Assassination of Indira Gandhi" and a novel about Agastya Sen's sojourn in the countryside, *English, August*.
ANSWER: **Chatterjee** [Upamanyu **Chatterjee** or Sarat Chandra **Chatterjee**; accept Sarat Chandra **Chattopadhyay**]
[10] Beigh Masters uses a virtual reality program to travel back in time to understand why Hannah Eaton became a Mughal concubine in this author's *The Holder of the World*. She also wrote *Jasmine* and *The Tiger's Daughter*.
ANSWER: Bharati **Mukherjee**

19. Answer the following about English Protestants burned during the Reformation, for 10 points each.
[10] In 1538, this martyr was tried in the presence of Henry VIII himself for denying transubstantiation. Burned at Smithfield in London, his last words were "None but Christ, None but Christ!" A general of the same name wrote the Instrument of Government during the English Civil War.
ANSWER: John **Lambert** [accept John **Nicholson**]
[10] Smithfield was also the site of the 1546 burning of this woman, the only woman in English history both tortured at the Tower of London and burned at the stake. Her own account of her misfortunes was published by John Bale and John Foxe.
ANSWER: Anne **Askew** [accept Anne **Kyme**]
[10] Mary Tudor's regime burned this archbishop of Canterbury, the author of the *Book of Common Prayer*, in Oxford in 1556.
ANSWER: Thomas **Cranmer**

20. This linguistic concept was first formulated by Charles Ferguson and is notated using capital H and capital L. For ten points each:
[10] Give this term in which a high-status and low-status language are used in different social situations. Notable examples include the difference in situational use between classical and vernacular Arabic.
ANSWER: **diglossia**
[10] Related to diglossia, this term indicates word shifting that involves a great sense of hybridity between two or more ways of speaking. An oft-cited example is Nepali speakers adding the English "ing" to the Nepali word *bokne*, meaning to carry.
ANSWER: **code-mixing** (accept **code-switching** though it is not quite the same thing)
[10] Fully formed hybrid languages such as Spanglish and Sheng where code-mixing occurs in nearly every sentence are usually designated by this term. Peter Auer defined this phenomena as having fixed grammaticalization where there is little shifting of situational word use.
ANSWER: **monolects** or **fused lects** [or word forms, like monolectic]