**ACF Nationals 2010**

**Packet by Maryland A and Illinois B**

1. On the brow at the hill on the right of this painting was the real-life mansion home of Samuel Breck. Art historian Martin Berger argues that this painting’s subject allowed the artist to assert his masculinity and it was the first in a series of nearly 30 paintings on the same subject the artist would complete over the next four years. Many of them had identifiable landmarks, such as those in this painting – the Girard Avenue Bridge and the Railroad Connection Bridge. The artist depicts himself moving away in the background, and in the foreground is the titular subject who was a practicing lawyer and childhood friend of the artist. Commemorating an event of October 5, 1870 specifically the Schuylkill [skoo-kill] River Navy Regatta, for 10 points, name this painting of the titular oarsman by Thomas Eakins.

Answer: ***Max Schmitt in a Single Scull*** or ***The Champion Single Sculls***

2. In one work by this author, an older couple named Anne and Bernard drag the middle aged writer Daniel and his attractive younger girlfriend into their domestic struggle. In another work, set during a dream, a train journey forces a nameless traveler to face the evils of the world as represented by the archetypal Tramp, Thug, and Master. Both of those plays, *Weekend Quartet* and *Nocturnal Wanderer*, illustrate what this author refers to as “theatricality,” a reaction against the “revolutionary realism” that dominated his homeland’s literary scene at the time. This author of such short stories as “The Temple” and “Buying a Fishing Rod for My Father,” also wrote a work based on the life of Huineng entitled *Snow in August*. Still another work follows a narrator who seems to change identities as he/she journeys from Sichuan Province to the fabled Lingshan. For 10 points, identify this author of *Soul Mountain*.

ANSWER: **Gao** Xingjian

3. The “advantage” named for this relation describes the utility of lightly loaded columns in achieving good separation with relatively low retention volumes. It can be used to find the slopes of individual reactions within Schreinemaker’s bundles. One assumption used to derive this equation is that the difference in volume between two phases can be approximated by the volume of an ideal gas, and this equation describes a Carnot cycle across a phase transition. An analogue of the more empirical Antoine equation, this equation can be used to find the heat of vaporization. Its theoretical justification is that the change in Gibbs free energy along the coexistence curve is zero. For 10 points, name this doubly eponymous equation that relates the vapor pressure of a liquid to its temperature.

ANSWER: Clausius **Clapeyron** equation

4. One episode of violence in this conflict involved a failed attack on an arsenal at Monte Chingolo. Officials during this event operated under a document known as "Directive 404/75" and its ten annexes, and launched operations targeting the "parallel government" in Tucuman Province, including the infamous “Annihilation Decree.” Its victims included journalist Jacobo Timerman and it was notably opposed by Adolfo Esquivel. Often referred to as the "National Reorganization Process," its key features included the PEN, a national prison system, which evolved under the tenure of Jorge Videla and resulted in the creation of "los desaparecidos," or the disappeared peoples. For 10 points, name this event that saw military juntas commit various human rights violations in Argentina.

ANSWER: **Dirty** War (accept **La Guerra Sucia**)

5. The character of Varrius first appears in Act IV, around the same time the Provost enters with the head of a dead pirate. Earlier in the play, an exchange about what sort of apparel fits a thief takes place between the executioner, Abhorson, and the imprisoned clown, Pompey. A subplot focuses on Frederick’s sister, who is introduced listening to the song “Take, O take those lips away,” and pines for a lover who abandoned her. The heroine is introduced during a discussion with Francisca that is interrupted by Lucio who informs her that a new Lord now governs Vienna. Based on George Whetstone’s *Promos and Cassandra*,the main plot revolves around a woman asked to sacrifice her virginity to save her brother. For 10 points, identify this Shakespeare play that that ends with the marriage of Mariana and Angelo, the return of the Duke, and Isabella securing the release of Claudio.

ANSWER: ***Measure for Measure***

6. In some descriptions, the right eye of this deity is replaced with a mass of thick, black hair or a blob of excrement representing the sins of man. This deity punishes women who sew too frequently in the winter or who are dirty. Her realm is a limbo-like place where men’s souls wait to travel to the Land of the Moon; it features ever-turning wheels of ice and is known as Adlivun. This deity can cause great famine by locking up all animals hunted for food, and this famine can only be stopped by traveling to this deity’s home and combing her hair. This goddess’s ravenous hunger as a child once caused her to eat her father’s arm while he was sleeping, causing him to try to drown her. During this attempt, he cut off her fingers, which fell into the sea to create the animals with which she is associated. For 10 points, name this Inuit goddess of whales, seals and other aquatic mammals.

ANSWER: **Sedna**

7. Early in life, this man wrote a book entitled *The Cult of Weakness*, in which he warned against the U.S. becoming an unprepared nation. He won his first term in the U.S. Senate by beating Governor James Curley, while his time in a more famous position saw him respond to Cable 243. In his two terms in that position, he succeeded Frederick Nolting and Maxwell Taylor respectively. This author of the memoir *The Stream Has Many Eyes* also served a seven year term as special envoy to the Holy See. His son lost his Senate seat to Ted Kennedy, ending Republican dominance of that seat. This man is best remembered for his controversial time as ambassador to South Vietnam. For ten points, name this man who ran for vice president with Richard Nixon in 1960, and had a same-named grandfather who opposed Woodrow Wilson's view of the League of Nations.

ANSWER: Henry **Cabot Lodge, Jr.** (prompt Lodge or Cabot Lodge)

8. Three sculpted heads at the top and entrance columns in the form of stacked bobbins are seen in an early residential design of his and allude to the identity of his client, a textile manufacturer. Earlier, for the World Expo, he designed the Pavilion of the Transatlantic Company. The Chamber of a Hundred Columns, a network of twisting roads, and a central staircase with a mosaic dragon fountain can be found in a park that also features a notable unfinished crypt designed for his patron. Another work is characterized by organic stone possibly inspired by ocean waves or clouds and became known locally as “The Quarry” but was not commissioned by Eusebi Guell. His most famous design is marked by spindle-shaped towers and three facades, including the Passion and Nativity ones. For 10 points, name this architect of Casa Mila and La Sagrada Familia, both in his native Barcelona.

ANSWER: Antonio Placido Guillermo **Gaudi** i Cornet [the first building mentioned is the Casa Calvet and the park is the Park Guell]

9. Jim Hasseloff and colleagues discovered an 84-nt cryptic intron in this protein’s cDNA sequence, making codon alteration a necessary step in this protein’s expression in Arabidopsis. Well-characterized mutations of this protein include a serine-to-threonine mutation at position 65 described by Roger Heim, which can be combined with a phenylalanine-to-leucine mutation at position 64 to generate a super-ecliptic pH-sensitive variant of this molecule. The structure of this molecule consists of a beta barrel, and its maturation involves modification of a serine-tyrosine-glycine tripeptide that makes up its chromophore. In 2008, Martin Chalfie and Roger Tsien were awarded the Chemistry Nobel for their work with this molecule, whose major emission peak occurs at 509 nanometers. First isolated from the Aequoria victoria jellyfish, for 10 points, name this molecule often used as a biological marker that when exposed to blue light, emits its namesake colored light.

ANSWER: **green fluorescent protein** [accept **GFP**]

10. One section of this work analyzes Cecil Rhodes’ need to find new land and another cites Robert Musil in its discussion of “disciplinary governability.” An “Intermezzo” in this work describes an order that runs “counter” to the title entity, while the first section analyzes the Hans Kelsen’s vision during the formation of the U.N. One of this work’s authors had previously written a book on Spinoza entitled *The Savage Anomaly*, and its release was followed by a volume called *Multitude*. This work asserts that “a new form of sovereignty” is materializing now that “Soviet barriers to the capitalist world market” have finally been destroyed. For 10 points, name this philosophical work, an attempt to modify and update the Marxist world-view to fit the current age, written by Antonio Hardt and Michael Negri.

ANSWER: ***Empire***

11. This work’s introduction beseeches its addressee to “vaunt thy splendor” and describes a bachelor’s hour of feasting and the “playing fields of Mars.” It includes a footnote that corrects the misrepresentations made in an earlier depiction of the same event by Mickiewicz. The recurring images in this work include a willow that marks the house of a widow and her daughter, as well as “two lions” constantly at guard. The main character who is described as “attacked” by “hideous thoughts” and dreams of seeing his beloved Parasha again, loses his home after a great flood levels the city. Divided into three parts, it was inspired by the author’s admiration for an object created by Etienne Maurice Falconet and centers on a man named Yevegeny, whose curse brings the statue of a Russian ruler to life. For 10 points, identify this work subtitled “A Petersburg Tale,” a poem by Alexander Pushkin.

ANSWER: **“The Bronze Horseman”** or **“Medni Vsadnik”**

12. This battle was preceded by a sack of Divodurum two months earlier, and Lupus, the Bishop of Troyes, saved that city from destruction by appeal to the invading army. Two years after this clash, the losing force was decimated again at the Battle of Nedao. Its initial stages saw the army of king Sangiban forced to support the winning side. An account of this battle by Jordanes says that many were forced to drink their own blood at a brook. Soon after its conclusion, the losing commander met with the pope, after he'd earlier been invited to take Honoria as his bride. This battle saw forces under Valamir and others beaten back by a coalition of Flavius Aetius and the Visigothic troops of Theodoric. For 10 points, name this major victory for the Western Roman Empire against the invading Huns in 451 C.E., which took place on an eponymous plain.

ANSWER: Battle of **Chalons** or Battle of **Catalaunian Plains** (or **Fields**) or Battle of the **Campus Mauricacus**

13. Delayed load scheduling is a variant on the Sethi-Ullman algorithm frequently used in simple implementations of one of their stages.  One of these called ROSE produces a higher level output than usual, and up to three different systems are employed in the Canadian Cross version of one of these.  Some of these perform strength reduction and rematerialization, the latter of which reduce calls to memory.  Simpler ones execute in a single pass, and common optimizations in them include loop unrolling.  Their traditional first step outputs a series of identifiers such as "Keyword" or "Integer" that are called tokens; that is the lexical analysis step.  Self-hosting ones of these are called bootstrappers.  Typically not performed by interpreted languages like Perl, Java uses a just-in-time one.  For 10 points, name this operation that turns source code into a machine readable target language.

ANSWER: **Compiler**[or **Compilation;**accept **Code Generation**before "ROSE**"**]

14.This mountain contains the Cornice Traverse and a section of pale metamorphosed limestone known as the Yellow Band, which lies above a series of black schist studied by Bill Wager. It also contains an anvil-shaped portion called the Geneva Spur. This peak was sighted and surveyed by John Noel over 20 years after an expedition by Francis Younghusband and Charles Bruce. It was originally referred to as Peak XV by Andrew Waugh, and it is surrounded by the Pumori glacier, which translates as "Unmarried Daughter," a name provided by George Mallory. Its height was established by the Great Trigonometric Survey, and its alternate names include Sagarmatha and Zhumulangma. Named in honor of a British surveyor general from 1830 to 1843, for 10 points, name this mountain scaled by Tenzing Norgay and Edmund Hillary.

ANSWER: Mount **Everest**

15. One opera by this composer features the character Nisibi singing a ‘sleep aria’ entitled “Komm, sanfter Schlaf!” and also features a chorus of Persians in the aria “Ein Doppler Kranz.” In addition to *Miriways*, this composer wrote a a pair of cantatas entitled *The Ode of Thunder* and *The Times of the Day*. In addition to issuing a didactic collection of pieces under the title *The Faithful Music Master*, this composer created a series of thirty-six oratorios and serenades for an annual banquet of militia captains in Hamburg, as well as a piece featuring a G major Largo first movement in 3/2 time, now recognized as the earliest known concerto for viola. A more well-known opera by this composer features the crafty Vespetta who attempts to marry her elderly employer in *Pimpinone.* For 10 points, identify this composer best known for a set of fifteen pieces written to accompany a meal, *Tafelmusik* or *Musique de Table*.

ANSWER: Georg Phillip **Telemann**

16. In one work by this writer the speaker inquires about the Chinese origins of “a wild spontaneous fruit,” the nectarine. In “Hero” the speaker declares that Cincinnatus, like Joseph, was “vexing to some.” In a separate piece by this author, a speaker notes that, “like the dove-/ neck animated by/ sun,” “The Mind is an Enchanted Thing,” while another poem by this author begins, “What is our innocence/ what is our guilt,” and is titled ‘What are Years?” After winning its namesake award for the 1925 collection *Observations*, this poet of *Nevertheless*, became editor of the *The Dial* soon thereafter. One of this writer’s works cites Robert T. Hatt’s *Natural History* to describe the “ear ridge” of a titular “armored animal,” while another ironically opens “I, too, dislike it.” For 10 points, identify this author of “The Pangolin” and “Poetry.”

ANSWER: Marianne **Moore**

17. A book by John Appleby discusses events during the reign of this monarch, whose son was married to Constance of Toulouse. This man's elder brother, the Count of Champagne, declined to fight him upon his father’s death but he did face resistance from Robert, the Earl of Gloucester. Named the Count of Mortain early in life, he was captured by William de Cahaignes at the Battle of Lincoln, and subsequently imprisoned at Bristol. Despite gaining the blessing of Pope Innocent II, he struggled to defeat a rival aided by Brien FitzCount. He agreed to the Treaty of Wallingford with that rival after the death of his son Eustace. For ten points, name this monarch who ruled England during the Anarchy, as the only member of his royal house, prior to the reign of Henry II.

ANSWER: **Stephen** I or **Stephen** of Blois

18. Along with Anitra Karsten, this thinker formulated the idea of "mental satiation" and, along with his student Bluma Zeigarnik, he developed an effect to explain why waiters at his favorite restaurant were able to remember orders for a short time. His three-stage theory of organizational change includes "unfreezing, moving to a new level, and then refreezing." Another of his theories holds that needs obtain positive or negative valences, resulting in four types of conflicts: approach-approach, avoidance-avoidance, approach-avoidance, and double approach-avoidance. His most noted experiment found that autocratic and laissez-faire leadership styles are less efficient amongst schoolchildren than democratic leadership. For 10 points, name this author of *A Dynamic Theory of Personality*, a German-born founder of social psychology who enunciated the "field theory."  
ANSWER: Kurt **Lewin**

19. This text advocates knowledge of how *vedana* proceeds from two groups of six senses, and it follows a discourse about separating the body and mind from the true conjecture of the self delivered to a group of five followers that included Kaundinya. This entry in the *Vinaya* discusses passion and delusion and it was originally delivered to a group of *agnihotra* monks that practiced religious rites worshipping the title entity. The third entry in a series of discourses which began with a discussion of the Middle Way and the Four Noble Truths, this text submits that recognition and intellectual detachment can disentangle one from the suffering caused by sense and feeling, which are personified by the titular elemental force. For 10 points, identify this portion of the *Tripitaka* that titles one of the sections of *The Waste Land* and extols its addressees to recognize that “all is burning.”

ANSWER: ***Fire Sermon*** or ***Aditta Sutta***

20. Less common ways of formulating this tensor-field quantity include one named after either Euler or Almansi which references the system’s final configuration. The Green-Lagrangian tensor of this quantity is equal to one-half the difference of the Cauchy-Green deformation tensor and the identity, a formulation equal to one-half the difference of the product of the deformation gradient times its transpose and the identity. A yield surface maps out the values of this beyond which a material suffers plastic, rather than merely elastic, deformation. Young’s modulus measures the stiffness of a material by computing the ratio of stress to this quantity. For 10 points, what is this dimensionless measure of the deformation of a body, given in uniaxial form by the change in length divided by the original length?

Answer: **strain**

21. One poem by this author notes “The ginkgo leaf, in golden hue, when shed/A muscat grape/Is an old fashioned butterfly, ill spread/In shape.” Another poem by this man states “The mountain is too weak to wait/Even if reproduced and glassed/In me in a paperweight. \* In addition to writing “The Sacred Tree” and “Mountain View,” he is responsible for a longer poem that includes such lines as “There was one misprint-not that it matters much/*Mountain not fountain*. The majestic touch.” Other sections of this man’s best known poem— which depicts the courtship of the poet’s wife, Sybil, and the death of his daughter, Hazel— are accompanied by a large commentary, which makes constant references to the land of Zembla and was written by Charles Kinbote. For 10 points, name this fictional author of the work “Pale Fire,” a character from the novel of the same name by Vladimir Nabokov.

ANSWER: John **Shade** [prompt on Nabokov before \*]

22. One frieze on this structure shows one female riding a swan, one on a dragon, and another sitting on a throne while bulls and plants surround the foot of her throne. Another frieze shows the imperial family in procession with three children, advocating for increased pregnancies in the upper classes. It now sits in a namesake museum designed by Richard Meier. On the eastern side is an image of a woman sitting atop a pile of weapons and another panel depicting the deity Tellus or Terra Mater. On the western side is a panel showing the wolf breast-feeding Romulus and Remus. Originally built on the Campo Marzio near the via Flaminia, it was commissioned by the senate to memorialize a victorious return from campaigns abroad. For 10 points, name this Roman monument built to honor the end of war brought about by Emperor Augustus.

ANSWER: **Ara Pacis Augustae** or **Altar of Augustan Peace**

23. A family of solutions to this equation scale with time to the two-thirds times one over the quantity “one plus w” power where w is equal to one-third for models involving optically thick conditions. One can derive an equation of state for a fluid pressure which can then be plugged into the first derivative of this equation to obtain a namesake acceleration equation. This equation typically includes four terms proportional to powers of redshift which represent matter, radiation, curvature and the cosmological constant and those terms are set equal to the square of the Hubble parameter. For 10 points, name this important equation in cosmology which describes the homogenous and isotropic expansion of space and can be derived using a quadruply-eponymous metric that takes its name from Lemaitre, Robertson, Walker and this equation’s namesake.

ANSWER: **Friedmann** Equation

One opera published by this man begins with Sister Jeanne having night visions and ends with Jeanne’s love for Grandier was the cause of her possession, that work is titled the *Devils of Loudon*. In addition to an opera based on and titled *Paradise Lost*, this man published a work with 27 sections with titles like “Et egressus” and “ludica me, Deus” and features an a capella section of the “Stabat Mater.” A well known work by this man was expanded in 2005 by a movement titled *Ciaconna*. That 17 movement work’s first two movements are titled *Introtius* and *Kyrie* and features the traditional hymn *Święty Boże.* This man wrote a work arranged for 52 strings and originally titled it 8’ 37”. For 10 points, identify this conductor and composer of the *St. Luke's Passion,* *Polish Requiem,* and *Threnody to the Victims of Hiroshima.*

ANSWER: Krzysztof **Penderecki**

**Maryland A and Illinois B Bonuses**:

1. Lydia Child and Charles Briggs are recipients of some of this work's plaudits, for 10 points each:  
[10] Identify this verse satire whose first actual entry is a brief poem ripping into Rufus Griswold, and which mercilessly derides Margaret Fuller, whom it dubs “Miranda.”

ANSWER: ***A Fable for Critics***

[10] This fireside poet wrote *A Fable for Critics*, and authored works like “The Present Crisis” and *The Biglow Papers* before becoming editor of *The Atlantic Monthly*.  
ANSWER: **J**ames Russell **Lowell**  
[10] This author responded to James Russell Lowell’s attacks by assailing his confused metrics. His own thoughts on poetry were presented in *The Philosophy of Composition*.  
ANSWER: Edgar Allan **Poe**

2. The right hand panel of this work shows a man in red clothing constructing a mousetrap and the center portion features an open book and candle atop a sixteen-sided table. For 10 points each—

[10] Name this early 15th-century triptych which contains a center depicting an Annunciation scene in a contemporary Dutch household.

ANSWER: **Merode** Altarpiece

[10] *The Merode Altarpiece* is the most notable work of this Dutch painter who is most likely the “Master of Flemalle”

ANSWER: Robert **Campin**

[10] Campin’s *Entombment Triptych* can be found in this London museum, whose more famous offerings include Cranach’s *Adam and Eve* and Manet’s *A Bar at the Folies-Bergere*.

ANSWER: **Courtauld** Institute

3. This son of Tiglath-Pileser III defeated the king of Hamath, Yaubidi, and flayed him. For 10 points each:

[10] Name this Assyrian king whose campaign against Urartu in 714 BCE is documented by a letter he wrote to the god Ashur, as well as in bas reliefs at his Dur-Sharrukin palace.

ANSWER: **Sargon II**

[10] Sargon II may have deposed the immediate predecessor of his, the fifth king of this name, who was originally known as Ululayu. In 2 Kings, he's mentioned as the conqueror of Israel and the ruler who exiled the lost tribes.

ANSWER: **Shalmeneser** V

[10] This successor to Sargon II is famous for destroying Babylon, perhaps coming “down like a wolf on the fold,” and rebuilding Nineveh prior to being succeeded by his son Esarhaddon.

ANSWER: **Sennacherib**

4. For ten points each, answer some questions about a person who was kicked out of his congregation for disagreeing with his father’s views regarding the Eucharist during the Lord’s Supper:

[10] First identify the preacher who wrote “Treatise on Grace” and “Sinners in the Hands of an Angry God.”

ANSWER: Jonathan **Edwards**

[10] Edwards’s disagreement with his father’s practice of allowing members of the church who had only been baptized to take the Eucharist during the Lord’s Supper was first discussed in this work in which Edwards “insisted that ‘the essence of all true religion lies in holy love.’”

ANSWER: *A* ***Treatise Concerning Religious Affections***

[10] Edwards later published such works as *The Nature of True Virtue* in response to the attacks on Calvinism made by this British theologian who preached at the Octagon Chapel and wrote *Scripture Doctrine of Original Sin*.

ANSWER: John **Taylor** of Norwich

5. It begins in the embryonic yolk sac during the first weeks of development, For 10 points:

[10] Name this process which is the development of red and white blood cells.

ANSWER: **hematopoiesis**

[10] Early in hematopoiesis, a multipotent stem cell differentiates into the lymphoid and myeloid varieties of these cells, which have lost the capacity for self-renewal and are commited to a particular cell lineage.

ANSWER: **progenitor** cells

[10] This cytokine’s receptor, fms, is expressed by myeloid precursors, and this protein promotes the differentiation of progenitor cells into monocytes. In early pregnancy, unusually high levels of this cytokine are present due to its secretion by the placenta.

ANSWER: **macrophage colony stimulating factor** [accept **M-CSF**]

6. Along with Stanley Jevons and Carl Menger, this man launched the Marginalist revolution and described his equilibrium theory as “tatonnement,” or groping. For 10 points each:

[10] Name this French economist who wrote *Elements of Pure Economics*.

ANSWER: Leon **Walras**

[10] Walras held the chair of political economy at this Swiss academy of neoclassical economics. Henry Moore, Irving Fischer, and Henry Schultz promoted its work on general equilibrium theory abroad.

ANSWER: Academy of **Lausanne** or **Lausanne** School [prompt on "mathematical" or "Italian" school]

[10] Walras was replaced at the Laussane by this Italian economist who's namesake law describes the logarithmic distribution of income.

ANSWER: Vilfredo **Pareto**

7. This character ensures that his son Mark will inherit the estate of Groby, a situation that finally enables this man to proceed in his relationship with Valentine Wannop, for 10 points each:  
[10] Identify this fictional character who is tormented by his promiscuous, manipulative wife Sylvia in the novel *A Man Could Stand Up*.

ANSWER: **Christopher** **Tietjens** [accept either]

[10] Christopher Tietjens is also the main character of *Some Do Not...* and *The Last Post*, additional volumes of this Tetralogy by Ford Madox Ford.

ANSWER: ***Parade's End***

[10] Ford Madox Ford’s best known work is this novel that centers on Nancy Rufford’s lover, a putatively virtuous military man named Edward Ashburnham.

ANSWER: ***The Good Soldier***

8. After the Civil War, this general was appointed federal commissioner of railroads by Grover Cleveland. FTPE:

[10] Name this Confederate leader injured at the Battle of Seven Pines, or Fair Oaks, and replaced by Robert E. Lee as commander of the Army of Northern Virginia.

ANSWER: General **J**oseph E. **Johnston** (prompt Johnston)

[10] Johnston was removed from command on July 17, 1864, shortly before this battle that took place just outside of Atlanta

ANSWER: **Peachtree Creek**

[10] Johnston's left wing included this general who was wounded at the Battle of Williamsburg, who later invaded Maryland during the Valley Campaign. After the war, this president of the Southern Historical Society became a leader of the Lost Cause movement.

ANSWER: Jubal **Early**

9. This work deems Kant’s ideal of “legislating for oneself” absurd in the days of majority voting. For 10 points each:

[10] Identify this article which was published in 1958, and introduced the term “consequentialism.”

ANSWER: “**Modern Moral Philosophy**”

[10] This philosopher wrote “Modern Moral Philosophy,” as well as the book, *Intention*;she also co-authored a book with P.T. Geach entitled *Three Philosophers*.

ANSWER: Gertrude Elizabeth Margaret **Anscombe**

[10] Anscombe was a student of this philosopher and wrote a notable introduction to his *Tractatus logico-philosophicus*.

ANSWER: Ludwig **Wittgenstein**

10. Benzene chemistry! For 10 points each:

[10] The Friedel-Crafts reactions are examples of this class of reactions, which unlike similar reactions involving cyclohexene, do not remove pi bonds. Certain substituted functional groups are known to activate, like an amino group, or deactivate, like a nitro group, these reactions.

ANSWER: **electrophilic aromatic substitution** [accept **EAS**, prompt on substitution, do not accept nucleophilic substitution]

[10] This reaction, useful for producing methamphetamine from pseudoephedrine, is usually conducted in alkali metals and liquid ammonia. Its end product is a one-four substituted hexadiene.

ANSWER: **Birch** reduction [accept Birch reaction]

[10] This method for synthesizing a substituted benzene diradical is of interest because its main reagent, an enediyne, is found in many natural toxins. This reaction proceeds thermally or photochemically in the presence of hydrogen radical donors.

ANSWER: **Bergman** cyclization [accept **Bergman** reaction]

11. This king feuded with princes over the *Reichsverweser*, or imperial governors, and was revolted against by Jobst, the margrave of Moravia, in 1394.  For 10 points each:  
[10] Identify this son of Charles IV who was succeeded by Rupert III as king of the Romans, but was allowed to keep a different title.  
ANSWER: **Wenceslas** IV, King of Bohemia  
[10] Several princes opposed Wenceslas' succession of Charles IV, and they formed this alliance, which defeated Count Eberhard at Reutlingen but was defeated ten years later in 1377 at the Battle of Doffingen.  
ANSWER: **Swabian** League  
[10] The succession of Wenceslas by his brother Sigismund came in the midst of these wars, which featured sects known as the Utraquists and Taborites, and were named for a Czech man condemned by the Council of Constance.   
ANSWER: **Hussite** Wars

12. Identify the following related to a quantity in electromagnetism, for 10 points each.

[10] Measured in henrys and denoted L, the magnitude of this quantity gives the degree to which a change in a current can create an electromotive force to oppose said current change in accordance with Lenz’s Law.

ANSWER: **inductance**

[10] The term inductance was coined by this scientist and mathematician who also invented the operator method for solving differential equations, reformulated Maxwell’s equations into vector differential form, and predicted a layer of ionized gas in the ionosphere along with Arthur Kennelly.

ANSWER: Oliver **Heaviside**

[10] The mutual inductance between two current loops is given by this formula as a double line integral over both loops divided by the distance between the loops.

ANSWER: **Neumann** formula

13. This composer’s 1950 *Stabat Mater* is divided into twelve sections and an opera by this man ends with a dramatic command for fecundity, “O Francais, faites des infants,” for 10 points each:

[10] Name this French composer who wrote an opera in which a woman changes gender after her breasts fly away, *Les Mamelles de Tiresias.*

ANSWER: Francis **Poulenc**

[10] Poulenc wrote a set of eight of these pieces for piano with such titles as *Phantom Ball* and *Dance of the Young Ladies*; the use of this musical composition was pioneered by John Field.

ANSWER: **Nocturne**(s)

[10] Another work of Poulenc is this one-act, one-character opera for soprano in which a young suicidal lady is jilted by her lover of five years over the telephone.

ANSWER: ***La voix humaine*** (or ***The Human Voice***)

14. The Kennedy government turned down his request for aid, instead backing the rival FNLA led by Holden Roberto for its anti-Communist leanings. For 10 points each:

[10] Name this politician, who ascended to power in the wake of the Carnation revolution to become the first president of his nation but died during cancer treatment in Moscow four years later.

ANSWER: Antonio Agostinho **Neto**

[10] Neto’s ascension to power marked the end of Portugese control over this overseas territory, which was subsequently racked by Civil War, at least until Jonas Savimbi, the leader of UNITA was killed in 2002.

ANSWER: **Angola**

[10] A branch of Agostinho Neto University is located in this turbulent exclave of Angola, the recent site of an attempted attack on the bus for the Togo national soccer team.

ANSWER: **Cabinda**

15. Answer the following about cummingtonite, for 10 points each.

[10] Cummingtonite belongs to this larger class of minerals composed of tetrahedral SiO4 chains that also includes hornblendes, tremolite and actinolite.

ANSWER: **amphibole**

[10] Amphiboles are found above biotites on the discontinuous arm of this diagram which gives the progression of minerals and rocks formed by cooling magma.

ANSWER: **Bowen’s reaction series**

[10] Above amphiboles and below olivine on the discontinuous branch of Bowen’s reaction series, one finds these inosilicate minerals, with 3 oxygens per silicon, of which augite and diopside are examples.

ANSWER: **pyroxene**s

16. In this book's eighth tale, Basat kills the one-eyed giant Goggle Eye. For 10 points each:

[10] Name this Central Asian epic, which begins with a story about Boghach Khan, who defeats a bull by punching it in the forehead before freeing his father from the clutches of Dirse Khan. Its title character is a legendary bard.

ANSWER: ***The Book of Dede Korkut*** [or ***The Book of My Grandfather Korkut***; or ***Kitab-i Dede Korkut***]

[10] The *Book of Dede Korkut* is an epic from this country, whose modern novelists include the author of *Memed, My Hawk*, Yasar Kemal and Orhan Pamuk.

ANSWER: Republic of **Turkey** [or **Türkiye** Cumhuriyeti]

[10] This novel by Turkish Nobel Prize winner Orhan Pamuk begins with the chapter “I am a corpse” and goes on to tell the story of a miniaturist’s murder at the end of the 16th Century.

ANSWER: ***My Name is Red***

17. Its capital city of Amaravati is located on the eastern spur of its most notable peak. For 10 points each:

[10] Name this celestial realm where the Maruts reside, the home of Indra.

ANSWER: **Swarga**

[10] Another place where mythological warriors might be found is this feasting house in Asgard, where the einherjar chow down nightly on the delicious flesh of the boar Saehrimnir and are attended by Valkyries.

ANSWER: **Valhalla**

[10] While this brass-walled Breton city, which was flooded by Dahut, the daughter of King Gradion, wasn’t home to any notable mythological warriors, it was indirectly destroyed by a red-clad knight who may have been the devil in disguise.

ANSWER: **Ys** [accept **Is** or **Ker-Ys** or **Ker-Is**]

18. In 1847, he published his only novella, a work about a writer named Samuel Cramer, who sacrifices both art and financial security for the love of a dancer, for 10 points each:

[10] Identify the author of the just described work, *La Fanfarlo*, which was based on his real life relationship with Jeanne Duval.

ANSWER: Charles Pierre **Baudelaire**

[10] Baudelaire’s relationship with Duval also helped inspire a number of poems in this 1857 collection that features such sections as “Wine,” “Death,” and “Spleen and Ideal.”

ANSWER: ***Les Fleurs du Mal***or ***The Flowers of Evil***

[10] In *The Flowers of Evil* Baudelaire specifically refers to Duval as the “mistress of mistresses” in this poem, which ends “Oh vows. Oh perfumes. Oh infinite kisses.”

ANSWER: **“Le Balcon”** or **“The Balcony”**

19. This nation has its highest peak at Mount Kinabalu in the Crocker Range. For 10 points each:

[10] Name this country which includes the states of Sarawak and Sabah on the island of Borneo, as well as a peninsular portion to the west of the South China Sea.

ANSWER: **Malaysia**

[10] Kuala Lumpur is the capital city of Malaysia, but this city, south of Kuala Lumpur and planned by Prime Minister Mahathir bin Mohammad, is the location of the federal government.

ANSWER: **Putrajaya**

[10] This set of islands often causes conflicts between China, Taiwan, Malaysia, and other countries, over fishing rights and minerals. Located northwest of the Philippine island of Palawan, the largest of the twelve main islands in this group is Itu Aba.

ANSWER: **Spratly** Islands

20. Answer some questions about a certain jazz artist, for 10 points each.

[10] First, the title of this composition refers to the karsilama rhythm, a strong two plus two plus two plus three beat, which relaxes into twelve eight blues. This track featured Joe Morello on drums and Eugene Wright on bass.

ANSWER: ***Blue Rondo a la Turk***

[10] This American jazz pianist recorded *Blue Rondo a la Turk* on the album *Time Out* with his namesake quartet

ANSWER: Dave **Brubeck**

[10] This alto saxophonist from the Brubeck Quartet once described his sound as “a dry martini.” He wrote *Take Five*, and later recorded with Gerry Mulligan and Jim Hall.

ANSWER: Paul **Desmond** [accept Paul **Brentenfield** even though it sounds too Irish]