Chicago Open 2014: A Redoubtable Coupling of Editors
Packet by Michigander Descending the Missouri (Charlie Dees, Michael Hausinger, Maximus Schnidlerus, and Ben Zhang)
Edited by Austin Brownlow, Andrew Hart, Ike Jose, Gautam & Gaurav Kandlikar, and Jacob Reed

Tossups

1. One woman to hold this title, who previously served as Duchess of Courland, forced her court jester to marry an elderly woman inside an opulent house made of ice, in a lavish celebration that included a parade of ethnically curious people from her realm. While that woman held this title, she had a majority-German royal court, including general Burkhard Christoph von Münnich and advisor Ernst Johann von Biron. The first woman to hold this title formed a body of advisors called the Supreme Privy Council. Another woman, who kept a promise never to execute anyone while holding this title, ascended in a 1741 coup and died in what was dubbed the "Second Miracle of the House of Brandenburg," prompting the end of the Seven Years' War. The last woman to hold this title concluded the Treaty of Kuchuk Kainarji with the Ottomans and relied on the advice of favorites Grigory Orlov and Grigory Potemkin. For 10 points, name this title held by Anna, Elizabeth, Catherine I, and Catherine the Great.
ANSWER: **Empress of Russia** [or **Emperor of Russia**; or **Tsaritsa**; or **Tsar**; accept **Tsarina** or any answer indicating royal **ruler of Russia**; prompt on more general answers such as "empress" or "emperor"]

2. One figure of this name delivers a farewell speech that cites ancient Athens as a society that focuses on balance and states that the government of the United States is undesirable since its utilitarianism and democracy will cause it to descend into barbarism. In a different work, a character of this name compares himself to a conductor of a boundless score that allows him to make a mute land sing; in that play, a man of this name one of many directed to put on the mask by the master of ceremonies who introduces a black god named Eshu. A magister named after this figure narrates much of an essay by José Enrique Rodó in which the title figure's beauty is contrasted with the barbarism of a savage that this character has control over. This character attempts to control a man who wishes to be called X in a play where he owns a mulatto slave named Ariel. He is reimagined as a colonizing European in a retelling by Aime Cesaire. For 10 points, name this duke of Milan from *The Tempest*.
ANSWER: **Prospero**

3. The claim that this man "fanned the flames" by writing that "we have certainly sown the wind; they are the whirlwind" appears in Homi Bhabha's essay on "framing" another author. This man referenced two Frenchmen saying to each other that "the country is done for...unless" and claimed that shooting a European was "kill[ing] two birds with one stone." He recalled how, at first, people marveled that "they are able to talk for themselves" when they heard "polite statements of resentment" by "yellow and black voices." He wrote an essay that begins by noting that, not so long ago, the world "numbered 2 billion inhabitants:" 500 million men who "had the word," and 1.5 billion "natives" who "had the use of it." This author of *Colonialism and Neocolonialism* urged the French left to support Algerian independence at the end of an essay encouraging Europeans to read the "On Violence" section of the book that followed. For 10 points, name this author of a preface to Frantz Fanon's *The Wretched of the Earth*.
ANSWER: Jean-Paul [Charles Aymard] **Sartre**

4. Organisms in this genus code for a receptor protein-tyrosine kinase whose extracellular lectin-like domains are called *Sweet Tooth*. One species of this genus may appear green because they host the alga *Chlorella*. Davis and Bode wrote early monographs on maceration techniques used to isolate individual cells of this organism. A series of experiments with this genus showed no changes in reproductive rate and an age-specific mortality rate of zero for several cohorts, suggesting that these organisms do not undergo senescence. David Martinez conducted his immortality experiments with these organisms, which include species named *vulgaris* and *viridis*. They have organizing centers at their basal disc and the hypostome. These cnidarians are known for their ability to undergo morphallaxis, in which they regenerate tissue that is severed. For 10 points, identify this genus whose members are able to regenerate tissue like its mythical namesake.
ANSWER: *__Hydra__* [accept *__Hydra vulgaris__* or *__Hydra viridis__sima*]

5. Beethoven wrote eight variations and a coda on this piece for two oboes and cor anglais. Another composer's Opus 2, which opens Frederick Ashton's ballet *A Month in the Country*, is a series of variations on this piece for piano and orchestra. This piece contains the line "Presto non son più forte" repeated in a descending sequence, until the female singer holds a D in a fermata, followed by the music changing to 6/8, when the two singers are in harmony for the first time. Upon hearing variations on this piece, Robert Schumann announced "Hats off, gentlemen! A genius!" in the *Neue Zeitschrift fuer Musik*. This piece, with words by Lorenzo da Ponte, takes place after one singer promises to throw Masetto a wedding. It portrays the weakening resolve of Zerlina to the request that she cheat on her fiancé at another man's castle before Donna Elvira interrupts the seduction. For 10 points, Chopin wrote variations on what duet in which Don Giovanni asks Zerlina to give him her hand?
ANSWER: "Là __ci darem__ la mano" [accept "__There we will give each other our hands__" or close equivalents before "hand"]

6. When playing soccer as a child, this character celebrated scoring a goal by pretending to splash through water with his hands in the air. This male character is told by his former teacher about how the Morningdale Scandal caused his school to be defunded. As an adolescent, he was teased for a painting of an elephant and often created deliberately childish pictures in order to hide his lack of creativity, though his creative skills developed while he stayed at The Cottages. While on a trip to Norfolk with Rodney and Chrissie to look for an office worker, this character replaced a lost cassette tape by buying *Songs after Dark* for the narrator. He and the narrator later started a relationship, but Miss Emily and Madame revealed that "deferrals" are not possible even for former residents of Hailsham. For 10 points, name this friend of Ruth and Kathy who "completes" after his fourth donation at the end of Kazuo Ishiguro's *Never Let Me Go*.
ANSWER: __Tommy__ D

7. During this man's trial, Alvin Bowman claimed that attempts to investigate a homicide carried out with the same model of pistol as the city police service weapon were sabotaged by police chief Ella Bully-Cummings. This man, the most recent person whom Adolph Mongo helped get elected, was federally convicted for giving contracts to his friend Bobby Ferguson. This man's conduct led to a $6.5 million whistleblower judgment after detective Harold Nelthrope and Gary Brown claimed that they were fired for investigating a scandal involving sexts between this man and his chief of staff, Christine Beatty. This man's wife, Carlita, allegedly attacked an exotic dancer named Tamara Greene, who was killed in an unsolved murder a year later. This man's troubles began when he allegedly threw a stripper-filled party at the Manoogian Mansion, and he succeeded Dennis Archer in an office formerly held by Coleman Young. For 10 points, name this Detroit mayor from 2002 to 2008.
ANSWER: Kwame [Malik] __Kilpatrick__

8. Pindar's first *Isthmian Ode* is used as evidence that this man had a cult at Phylace. According to a poem by Antiphilus of Byzantium, very tall elm trees that grew atop this figure's tomb withered when their branches literally saw the site of this figure's death. Some sources state that this man's name was Iolaos, though Homer calls Iolaos his father. In one story, a servant peeked through the crack of a door and saw this figure's wife, a daughter of Acastus and Astydameia, embracing a bronze sculpture of this man. After Odysseus threw his shield onto the ground and jumped on it, this man completed the action that sealed his fate. According to Ovid's *Heroides*, this hero received a letter instructing him to be the first to get off of the ship upon arriving at Troy. After heeding that advice, this figure only killed a few men before being slain by Hector, after which this figure's brother, Podarces, joined the war. For 10 points, name this husband of Laodamia, the first hero to die in the Trojan War.
    ANSWER: **Protesilaus** [accept **Iolaos** before "Iolaos"]

9. A copolymer between tetrafluoroethylene and an alkene with this functionality that is commonly used in PEM fuel cell membranes is called Nafion. The Huls and Hoechst light-water technologies both involve the addition of this functional group to long-chain alkanes, and the products of those processes have functional uses similar to LAS compounds. A fluorocarbon compound containing this functionality, which is resistant to both oxidation and reduction and does not generate any fluoride ions, can be used as a catalyst for Friedel-Crafts acylations. A compound containing a chloride derivative of this group can be used to convert alcohols into good leaving groups for substitution reactions. In a similar reaction to nitration, compounds containing this functional group can be formed through EAS reactions. For 10 points, name this functional group found in triflic acid and tosylic acid that can be produced by reacting aromatics with sulfur trioxide or sulfuric acid.
    ANSWER: **sulfonate** [accept **sulfonic** acid; do not accept or prompt on "sulfate" or "sulfite"]

10. This poet's essay "François Villon," which was first published in the magazine *Apollon,* introduces his idea that architecture is a "dynamic equilibrium of masses." This man argued that the word is sacred and that the reader is inherently a translator in *Conversation about Dante*; Dante also inspired his poem comparing the rungs of Lamarck's evolutionary ladder to the rings of Dante's hell. His wife Nadezhda published *Hope without Hope*, which contains a description of this man's eight-month sojourn to Armenia. This Russian author wrote an "anti-memoir" about his exile called *The Noise of Time.* The line "I have studied the science of parting" begins his collection about Ovidian exile, *Tristia*. This poet earned the ire of the regime for describing the wide "Ossetian torso" and "thick fingers" of the title figure who "forges his rules and decrees like horseshoes." For 10 points, name this Acmeist author of "A Stalin Epigram."
    ANSWER: Osip [Emilyevich] **Mandelstam**

11. In November 2012, Dario Del Bufalo claimed to have found the archeological remains of this ruler's attempt to conquer the Oracle of Amun. According to one source, this man's greatest military conquest occurred after a foreign physician schemed to have this man marry a daughter of Amasis, but Amasis deceitfully sent the daughter of the previous ruler instead, so enraging him that he later burned Amasis's body. This man's successor married this man's sister, Atossa. Shortly before his death, his throne was seized by a person, possibly the Zoroastrian priest Gaumata, claiming to be this man's brother Bardiya, who was also known as Smerdis. This man allegedly told his soldiers to hold cats in front of them as he advanced on Psamtik III at the Battle of Pelusium, after which, according to Herodotus, he killed the Apis Bull. He was succeeded by a spear-bearer who later carved the Behistun inscription. For 10 points, Darius the Great succeeded what Persian ruler who conquered Egypt, the son of Cyrus the Great?
    ANSWER: **Cambyses II** [or **Kamboujie II**; prompt on "Cambyses" or "Kamboujie"]

12. Two answers required. A quote about the relationship between these two things was inspired by a line in a book by Eric Temple Bell and originated with a Polish thinker who pioneered "general semantics" in the book *Science and Sanity*. Alfred Korzybski discussed the relationship between these two things, which together title a novel that opens with a description of a painting called *Damien Hirst and Jeff Koons Dividing Up the Art Market*. In that novel titled for these two things, the artist Jed Martin, who once photographed pages of Michelin travel guides, investigates the fictional murder of a character with the same name as the book's author. Jean Baudrillard referenced Borges's "On Exactitude in Science" to define "simulacra" as one of these things unnaturally preceding the other. For 10 points, name these two objects that title a Michel Houellebecq novel, and are used more generally to illustrate the point that an abstraction of something is not the thing itself.
ANSWER: the **map** and the **territory** [accept in either order; accept la **carte** et le **territoire**; accept anything along the lines of the **map is not the territory**]

13. A boy in this story, who wouldn't talk for a week after reading *The Turn of the Screw*, reads a letter from his middle brother that was written from "Camp Goodrest for slobs." This story ends by noting that that boy has been with his older brothers in Italy, France, Belgium, Luxembourg, and part of Germany, but that he "shouldn't be sticking around these days." After the two main characters in this story drive to Lassiter's for some steamers, they go down to "Wise Guy Rock" by the water, where one of them collapses and later dies at "ten after eight." This story was released alongside "Paula" and "Birthday Boy" in 2013, when scans of a volume called *Three Stories* appeared online. This story's narrator, Vincent, tells of the fatal heart condition of his younger brother Kenneth, who writes poems on a left-handed baseball glove and is the prototype for Allie in its author's *The Catcher in the Rye*. For 10 points, name this unpublished J.D. Salinger story titled for menacing-looking water.
ANSWER: "The **Ocean Full of Bowling Balls**" [accept "**An Ocean Full of Bowling Balls**"]

14. This artist painted a self-portrait depicting himself in his studio scratching his chin with one hand, clutching a handful of paintbrushes with the other, and flashing a gap-toothed smile while his own paintings *Tombstones* and *Cabinet Makers* hang in the background. A painting by this artist shows three girls wearing red, yellow, and blue dresses and holding up the numbers "two," "three," and "four." A single bent lamp illuminates the unseen papers of a cartoonish, goggle-eyed judge hunching over the bench in front of two silhouettes in panel 14 of a series by this painter. Panel 5 of that series by this artist shows the bell of the night train, and panel 3 shows a group slinging sacks over their shoulders as six crows fly overhead. This practitioner of "dynamic cubism" painted a series of 60 panels whose first entry shows a crowd of featureless people rushing towards three gates labeled "St. Louis," "Chicago," and "New York." For 10 points, name this African-American painter of the *Migration* series.
ANSWER: Jacob **Lawrence**

15. An example of these structures designed by Louis Bourgeois, who died before he could design its interior, was built with white Portland cement. The first of these buildings, constructed under the supervision of Vakilu'd Dawlih, was demolished in 1963 and located in Ashgabat, Turkmenistan. These structures, which are literally called "dawning places," have an interlocking function with regional and world "centers." An egg-shaped dome covered with oval tiles characterizes a Panama City structure of this type, and the one in India is comprised of 27 "petals." These buildings, which face a shrine in Akka and are inscribed with the Greatest Name, include the "Mother Temple of the West" in Wilmette, Illinois, and the Lotus Temple in Delhi. They must not contain pulpits, altars, or images, and must take a quasi-circular, nine-sided shape. For 10 points, name these buildings for worshipping the religion of Baha'ullah.
ANSWER: Baha'i **House**s **of Worship** [or **Baha'i Temple**s; or **Mashriqu'l-Adhkár**; accept **dawning place**s before "dawning"]

16. One form of this property has a second-order function that equals one plus the square of its first-order function, and that function's value increases as the time delay approaches zero in the Hanbury Brown-Twiss effect. This property is characteristic of the right eigenstates of the annihilation operator for an electromagnetic field. A parameter named for this property equals the product of Planck's constant and the Fermi velocity divided by the product of pi squared and the energy gap of a superconductor. Another form of this property equals the square of cross-spectral density divided by the product of the autospectral densities and measures the linear correlation between two signals as a function of frequency. The Ginzburg-Landau parameter equals the London penetration depth divided by the length over which this property holds. For 10 points, name this property with spatial and temporal varieties that quantifies the degree to which two waves can interfere with each other.
ANSWER: **coherence** [accept **coherence** length or magnitude-squared **coherence**]

17. Immediately after Nisaea was captured, this man led a force of 1,000 mercenaries and 700 slaves from Sicyon and Corinth to prevent the fall of Megara. This man later used that force to lead revolts in Stagirus, Acanthus, and Toroni, leading to a one-year truce. Early in his career, he ordered his trireme to ram into the shore during a 425 BCE battle against Demosthenes, allowing for a faster attack, but severely wounding him. In this man's last battle, he led a small force against the Athenian center, after which Clearidas led a larger force against the Athenian right, forcing the Athenians to flee to Eion. This general joined the Macedonian king Perdiccas to lead an uprising in Chalcidice and died in a 422 BCE battle that immediately preceded the Peace of Nicias. That battle was fought over a city whose 424 BCE capture by this man led to the to exile of Thucydides. For 10 points, name this Spartan general who died along with his Athenian counterpart Cleon at the Battle of Amphipolis.
ANSWER: **Brasidas**

18. A simple formula to calculate the rate of occurrence of this process can be derived by using a two-point correlation function and combining it with the rate of decay due to a dynamical orbit. Larson and Tinsley showed that after this kind of process, remnants are created with anomalous blue colors, leading researchers to suspect that starbursting occurs during this process. This process can produce the visually spectacular polar rings, as well as kinematically decoupled cores in the final product. A landmark paper by Toomre and Toomre showed that the tidal tails of the "Mice" were formed by this process. This process is currently happening in NGC 4038 and 4039, which are colloquially called "the antennae," and the rings of the Cartwheel galaxy indicate that this process occurred with a zero value for the impact parameter. For 10 points, name this process in which two large structures, such as the Andromeda and the Milky Way, collide.
ANSWER: **galaxy merger**s [or **galaxy collision**s until "collide" is read; accept **galactic interaction**; accept obvious equivalents; do not accept or prompt on "galaxy formation"]

19. The scherzo of this composer's first violin concerto begins with the soloist giving octave downbeats to accompany a quick 3/8 melody in the flute and bass clarinet. One of this composer's cello concertos begins with the soloist playing what sounds like "G-E-B-B-flat" [read slowly], although it is in E-flat major. The development of the first movement of his fifth symphony begins with a low "short-short-long" piano figure and the French horns loudly playing the first theme at the bottom of their range. This composer's first cello concerto has a brass section of just one French horn, and his C-minor first piano concerto uses an orchestra of just strings and one trumpet. His A-minor first violin concerto consists of a nocturne, scherzo, passacaglia, and burlesque. His fifth symphony begins with a leap up a minor sixth in the low strings, which play in canon with the violins. For 10 points, name this composer who wrote his fifth symphony after being denounced by Stalin.
ANSWER: Dmitri [Dmitriyevich] **Shostakovich**

20. In an interview that this man conducted with Carol Iannone in 2013, he wondered whether Salesian priests hired a man who was working on a book on illegal mining to instead pen a "hatchet job" on him. This man was defended in a 2011 Alice Dreger article that lambasted Pitzer College's Leda Martins for compiling a "dossier" on him. In 2000, Terry Turner and Leslie Sponsel at the University of Hawaii predicted a shitstorm surrounding this man in an oft-forwarded email detailing the contents of a book about his studies that also accused Jacques Lizot of sexual abuse and relayed a story about Kenneth Good marrying a ten-year-old girl. José Padilha's documentary *Secrets of the Tribe* chronicled accusations that this man, his assistant, filmmaker Timothy Asch, and geneticist James Neel inadvertently started a measles outbreak. For 10 points, Patrick Tierney's since-debunked *Darkness in El Dorado* criticized what anthropologist's fieldwork among the Yanomamo?
ANSWER: Napoleon A. **Chagnon**

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Bonuses

1. The relative compositions of substance undergoing in this condition are given by the "lever-rule" that operates on the horizontal "tie-lines" drawn in a region representing this phenomenon. For 10 points each:
[10] Name this condition that is represented by points that lie between the bubble-point temperature and dew-point temperature curves on a Pxy diagram.
ANSWER: **vapor-liquid** equilibrium [or **VL**; or **VLE**; prompt on "equilibrium" or "phase equilibrium"; accept descriptive answers that suggest "**liquid** and **gas**" or "**liquid** and **vapor**" are both present]
[10] Phase equilibrium behavior can be modeled using fugacities and activities of individual components using the gamma-phi method, or a different method that only uses one of these relations. For an ideal gas, one of these relations gives the molar volume as a product of R times T times one over P.
ANSWER: **equations of state** [or word forms; accept **EOS**; anti-prompt, i.e. "Can you be less specific" on "ideal gas law"]
[10] This man names a method of calculating activities of mixtures, in which the excess Gibbs energy is related to a power series of the mole fractions. He was a meteorologist who dabbled in thermodynamics.
ANSWER: Max **Margules**

2. This Native American character always carried a Bible and a hunting hatchet, and he drowned in a sewage field during a rainstorm. For 10 points each:
[10] Name this character whose site of death in Vietnam is visited by Tim O'Brien in the story "Field Trip."
ANSWER: **Kiowa**
[10] Kiowa is a character in this O'Brien collection, whose stories "How to Tell a True War Story" and "Sweetheart of Song Tra Bong" detail Curt Lemon's death and Fossie's girlfriend Mary Anne joining a group of Green Berets.
ANSWER: The ***Things They Carried***
[10] This other book about the Vietnam War follows the CIA agent Skip Sands. Its characters of Bill and James Houston were introduced in its author's earlier book *Angels*.
ANSWER: ***Tree of Smoke*** [by Denis Johnson]

3. Offa's Dyke demarcated the border between the Kingdom of Mercia and the Kingdom of Powys in this historical region. For 10 points each:
[10] Name this country, whose last native prince, David III, was executed by Edward I and replaced by the future Edward II.
ANSWER: **Wales** [or **Cymru**]
[10] Owen Glendower's attempt to free Wales from English control included the Battle of Bryn Glas, at which this English nobleman was captured. He was a brother-in-law of Henry "Hotspur" Percy.
ANSWER: Sir Edmund **Mortimer**
[10] This Prince of Gwynedd was the father of the first prince of Wales, David, with King John's daughter Joan. He led a war against King John that allowed him to functionally control all of Wales for about 40 years.
ANSWER: **Llewelyn the Great** [or **Lewelyn ap Iorwerth**; prompt on "Llewelyn"]

4. This instrument is tuned up a minor second in Mozart's *Sinfonia Concertante*, where it is paired with a violin. For 10 points each:
[10] Name this middle-range string instrument also featured in Mozart's "Kegelstatt" trio with piano and clarinet.
ANSWER: **viola**
[10] Mozart added a viola to the string quartet and piano trio to form string quintets and piano quartets. His first piano quartet and fourth string quintet are both in this dramatic key.
ANSWER: **G minor**
[10] Mozart also wrote two symphonies in G minor, the later of which is No. 40. Name the other.
ANSWER: Symphony No. **25**, K. **183** / **173db** [accept any underlined part, prompt on "Little" G Minor Symphony]

5. This agreement caused the St. John's and Mi'kmaq tribes to provide troops for the Continental Army and was signed in the namesake Massachusetts city. For 10 points each:
[10] Name this July 19, 1776 treaty, the first foreign agreement of the newly established United States.
ANSWER: Treaty of **Watertown**
[10] The St. John's and Mi'kmaq tribes are among those that composed this five-nation confederacy that primarily resided in Maine and Nova Scotia. It was the eastern neighbor of the Iroquois Confederacy.
ANSWER: **Wabanaki** Confederacy
[10] Many Wabanaki resided in this French colony, many of whose residents became Cajuns in Louisiana after they were expelled during the French and Indian War.
ANSWER: **Acadia** [or L'**Acadie**; accept **Acadian**s]

6. Dozens of people huddle under Mary's robes while angels stand behind her in this artist's *Virgin of Mercy*. For 10 points each:
[10] Name this painter, who worked with his brother-in-law, Simone Martini, on an *Annunciation* including St. Margaret and St. Anansus.
ANSWER: Lippo **Memmi**
[10] Unless you believe Vasari, Martini was probably the pupil of this leading Sienese artist. His *Maesta* altarpiece was tragically sawn in half in 1711 and was originally painted for the Siena Cathedral.
ANSWER: **Duccio** di Buoninsegna
[10] Martini's saint-strewn *Maesta* takes up the entire north wall of the Great Council Hall of this Sienese town hall that also contains Lorenzetti's *Allegory of Good and Bad Government*.
ANSWER: **Palazzo Pubblico** [or **Public Palace**]

7. Name these programming paradigms, for 10 points each.
[10] Shor's algorithm and Grover's algorithm are procedures that are used with this paradigm of computing, which makes use of entangled states in qubits to perform operations on data.
ANSWER: **quantum** computing
[10] Gerardo Beni introduced the term for this metaheuristic in problem solving, which seeks to solve constraint problems by using collective behavior, such as ant colony optimization or self-propelled particles.
ANSWER: **swarm** intelligence
[10] This kind of programming, whose name was coined by Alexander Stepanov, involves writing templates and algorithms so that the typing can be determined later. Abstract base classes and concepts are implemented in languages that support it.
ANSWER: **generic** programming

8. A character in this novel is frustrated with the incompetence of Superintendent Seegrave. For 10 points each:
[10] Name this novel by Wilkie Collins whose first portion is narrated by Gabriel Betteredge, a butler to the Verinder household that has had the title object stolen from them.
ANSWER: The *Moonstone*
[10] This former thief and maid commits suicide by jumping into the Shivering Sand while Franklin Blake and Sergeant Cuff investigate the diamond's disappearance.
ANSWER: **Rosanna Spearman** [accept either]
[10] Betteredge is obsessed with this novel, which he treats as his personal Bible. In Rousseau's *Emile*, it is the only book that the protagonist is allowed to read before age 12.
ANSWER: *Robinson Crusoe*

9. A religious group in this country is headed by the Catholicos of the East, Basileos Mar Thoma Paulose II. For 10 points each:
[10] Name this country, home to the Malankara Orthodox Syrian Church, which is the easternmost church in communion with the Oriental Orthodox churches.
ANSWER: [Republic of] **India** [or **Bharat** Ganrajya]
[10] Members of the Indian Nasrani ethnic group claim spiritual descent from this apostle, who did his missionary work in India and is sometimes called Didymus.
ANSWER: St. **Thomas**
[10] Name any one of the three states, part of Eastern India's Seven Sisters, that were converted to Protestantism in the 19th century by American and British missionaries, and which are now the only Christian majority states in India.
ANSWER: **Nagaland**, **Meghalaya**, or **Mizoram**

10. Name the following about female heads of state in Muslim countries, for 10 points each.
[10] Roza Otunbayeva, an atheist, became Kyrgyzstan's first female president in 2010, five years after she participated in this revolution, which overthrew Askar Akayev's presidency and replaced him with Kurmanbek Bakiyev.
ANSWER: **Tulip** Revolution
[10] Bangladesh's current prime minister is Sheikh Hasina, whose Awami League party was led by this man, her father, during the country's independence movement.
ANSWER: Sheikh **Mujib**ur **Rahman** [accept either underlined part; accept **Bangabandhu**]
[10] This leader of the Pakistan People's Party, who was assassinated in a 2007 bombing, was the first Muslim woman to serve as head of state.
ANSWER: Benazir **Bhutto**

11. This family allied with the Fieschi to control the Guelphic faction of Genoa. For 10 points each:
[10] Name this Genoese family that began its rule over a modern-day country in 1297 when its progenitor, Francesco, allegedly snuck in dressed as a Franciscan monk.
ANSWER: House of **Grimaldi**
[10] The House of Grimaldi, under Albert II, still rules this principality, which has an agreement to be returned to France if the Grimaldis ever run out of heirs. Grace Kelly became its princess after marrying Ranier II.
ANSWER: [Principality of] **Monaco**
[10] Albert I of Monaco established an oceanographic institute that unleashed this extremely invasive "killer algae" into the Mediterranean during the directorship of Jacques Cousteau.
ANSWER: *Caulerpa **taxifolia*** [or *C. **taxifolia***; prompt on "*Caulerpa*"]

12. Frederick Powicke wrote a six-volume study of this group, which included Anne Conway, who proposed the concept of the monad in her book *Principles of the Most Ancient and Modern Philosophy*. For 10 points each:

[10] Name these philosophers, who believed that the laws of the natural universe were in harmony with the will of God according to the "plastic nature" of mankind.

ANSWER: **Cambridge Platonist**s [prompt on "Cambridge (school)" or equivalents]

[10] The Cambridge Platonists were led by Ralph Cudworth and this man, who apparently believed that he was endowed with knowledge of God after he realized that his purple excrement resembled that of the thaumaturgist Valentine Greatrakes. He outlined the hylarchic principle in such works as *On the Immortality of the Soul*.

ANSWER: Henry **More**

[10] Henry More synthesized the thought of Plato with the thought of this French dualist, whose ideas on the soul are described in *The Passions of the Soul*.

ANSWER: Rene **Descartes**

13. Name these Francophone writers who lived in Africa, for 10 points each.

[10] This Moroccan was inspired by the death of Mohamed Bouazizi to write "By Fire," a story that inspired the Arab Spring. He also wrote *Racism Explained to My Daughter*, *The Sand Child*, and *The Sacred Night*, the last of which won the Prix Goncourt.

ANSWER: Tahar **Ben Jelloun** [prompt on partial last name]

[10] In her first novel, this author of *Scarlet Song* wrote about Ramatoulaye, a woman who is abandoned by her husband Modou for Binetou.

ANSWER: Mariama **Bâ** [her first novel is *So Long a Letter*]

[10] This member of the Negritude movement wrote the poetry collections *Poems* and *Nocturnes*. He was also the first president of Senegal.

ANSWER: Leopold **Senghor**

14. This virus's gp350/220 envelope protein interacts with CD21 to allow it to enter B cells, and BZLF1 and BRLF1 mediate its switch from latency into the lytic cycle. For 10 points each:

[10] Name this virus, which is strongly implicated in a disease that is subdivided into nodular sclerosis and lymphocyte-predominant types.

ANSWER: **Epstein-Barr** virus [accept **EB**V]

[10] Nodular sclerosis and lymphocyte-rich are subtypes of this type of cancer, which is treated by the ABVD chemotherapy cocktail. Lymphomas are divided into this type of cancer and the "non" this type.

ANSWER: **Hodgkin**'s lymphoma [accept **non-Hodgkin**'s lymphoma]

[10] Hodgkin's Lymphoma is diagnosed based on the presence of these giant cells, which house characteristically large nucleoli. These cells come in "lacunar," "pleomorphic," and "mummy" types.

ANSWER: **Reed-Sternberg** cells [or **RS**Cs]

15. This economist posited that discrimination was lessened by competition because a non-discriminating competitor employing minorities would be able to make a cheaper product. For 10 points each:
[10] Name this Nobel Prize-winning economist who put forth a rational model of addiction with Kevin Murphy.
ANSWER: Gary [Stanley] **Becker**
[10] In a namesake 1964 book, Becker proposed that more investments should be made in this type of capital, examples of which include education and employee training.
ANSWER: **human** capital [accept *__Human Capital__*]
[10] Becker founded New Home Economics along with this Polish-born Columbia professor whose namesake equation is the human capital earnings function. He is considered the father of labor economics.
ANSWER: Jacob **Mincer**

16. According to this system's cosmogony, the universe originally consisted of oozy mud on the back of a trout. The god Kamui then sent a water-wagtail to create the universe from that mud. For 10 points each:
[10] Name this culture that believed that Aioina taught mankind agriculture. This culture's hirsute women may be explained by the fact that they believe themselves to be descended from a bear.
ANSWER: **Ainu** [prompt on "indigenous (inhabitants of) Japan" or equivalents; do not accept or prompt on "Shinto"]
[10] The sandals of Aioina became the first of these creatures. In Norse mythology, one of these animals named Ratatosk scampers between the branches and roots of Yggdrasil to exchange insults between a dragon and a bird.
ANSWER: **squirrel**s
[10] In Japanese folklore, sandals can turn into monstrous *bakezori*, a kind of this *yokai*. This kind of *yokai* is based on inanimate objects and includes the *boroboroton*, a cursed futon, and the *zenfusho*, a haunted teapot.
ANSWER: **Tsukumogami**

17. India went on the offensive to seize this region in Operation Meghdoot. For 10 points each:
[10] Name this uninhabitable, militarized glacier in the Saltoro range of the Karakorum Mountains, which has a sign at its snout declaring it to be the world's highest battlefield.
ANSWER: **Siachen** Glacier
[10] The Siachen Glacier is an area of conflict in this region, where a long-running dispute between India and Pakistan erupted into the 1999 Kargil War.
ANSWER: **Kashmir** [accept "Jammu and **Kashmir**"]
[10] Operation Meghdoot was fought because the Line of Control established in this 1972 agreement was not extended to the Siachen Glacier, likely because the negotiators thought the glacier was too worthless to fight over.
ANSWER: **Simla** Agreement [or **Shimla** Agreement]

18. This term is defined as the heat transfer coefficient times characteristic length over thermal conductivity. For 10 points each:
[10] Name this number that characterizes a solid's heat conduction along with the Fourier number. This number is a measure of the relative importance of the resistance to heat transfer inside a body compared to at the body's surface.
ANSWER: **Biot** number
[10] When the Biot number is less than 0.1, thermal systems can be accurately described by a model named for this quantity's "lumped" form. Graphene has two different values of this quantity's "quantum" form, which Serge Luryi defined as fundamental charge squared times density of states in the case of a 2-D electron gas.
ANSWER: **capacitance** [or **lumped capacitance** model; or **quantum capacitance**]
[10] When the lumped capacitance model is used, Fourier's law of heat conduction simplifies to this empirical law. It states that the rate of heat loss is proportional to the temperature difference between a body and its surroundings.
ANSWER: **Newton**'s law of **cooling** [prompt on "Newton's law" or "law of cooling"]

19. This woman's face is likely, and morbidly, the "most kissed of all time" because it inspired the ubiquitous CPR mannequin Rescue Anne. For 10 points each:
[10] Give the French-language name for this anonymous young woman whose body was plucked from the water in Paris, and whose death mask became a fashionable turn-of-the-century European parlor decoration.
ANSWER: L'**Inconnue** de la Seine [accept La **Belle Italienne**]
[10] In a collaboration with Louis Aragon for Aragon's novel *Aurelien*, this photographer took eight black-and-white stills of L'Inconnue. He also depicted a woman with violin holes in *Le Violon d'Ingres*.
ANSWER: Man **Ray** [or Emmanuel **Radnitzky**]
[10] This female model posed for Man Ray's *Le Violon d'Ingres*. You can give either the real name of the mononym of this "Queen of Montparnasse."
ANSWER: **Kiki** [or Alice Ernestine **Prin**]

20. In this play, a former judge serves as the butler of a woman he had sentenced to prostitution. For 10 points each:
[10] Name this drama in which a billionaire woman, the gangsters Toby and Roby, the blind eunuchs Koby and Loby, her butler Boby, and her seventh husband Moby go to the town of Güllen.
ANSWER: The *Visit* [or Der *Besuch der alten Dame*]
[10] This author wrote about Claire and the town of Güllen in his tragicomedy *The Visit*. He also wrote about a mental asylum operated by Mathilde von Zahnd in his play *The Physicists*.
ANSWER: Friedrich **Dürrenmatt**
[10] Dürrenmatt wrote this "Requiem for the Detective Novel" in which The Kommandant relates the tale of the brilliant investigator Matthäi, who falls into an alcohol-fueled state of despair after he fails to find the true murderer of a little girl.
ANSWER: The *Pledge* [or Das *Versprechen*]