

**Minnesota Undergraduate Tournament 2016: A Vat of Ranch Dressing or a Bullet to the Head**  
**Questions by Sam Bailey, Rob Carson, Mike Cheyne, Akhil Garg, Carsten Gehring, Andrew Hart, Ike**  
**Jose, Shan Kothari, Cody Voight, Najwa Watson, and NOT Cory Haala**  
**Packet 8: Tossups**

1. This man received from Laura Dern a jigsaw puzzle that Alfred Hitchcock originally gave to Marilyn Monroe, which this man subsequently gave to director Ramin Bahrani. This screenwriter of the 1970 film *Beyond the Valley of the Dolls*, who briefly dated Oprah Winfrey, met his future wife, Chaz, at an Alcoholics Anonymous meeting. This man, who was the first writer in his genre to win a Pulitzer Prize, lambasted the Oscar committee for passing over *Hoop Dreams*, which was directed by Steve James; James directed the 2014 film adaptation of this man's memoir, titled (\*) *Life Itself*, which detailed a battle with throat cancer that cost this longtime columnist for the *Chicago Sun-Times* his ability to speak. For 10 points, name this film critic who co-hosted TV shows called *At the Movies* alongside both Richard Roeper and Gene Siskel.

ANSWER: Roger Ebert [or Roger Joseph Ebert] <Hart>

2. A compound containing two atoms of this element forms a di-iso-butyl complex with nitriles, which is then hydro-lyzed to an aldehyde during aqueous workup. An alloy of this element and nickel are treated with a strong base to create Raney nickel. This metal is bonded to four hydrogen atoms in an agent that reduces almost any carbonyl group to an alcohol. This metal and lithium form a stronger hydride source than sodium boro-hydride. Either iron or this element's (\*) chloride is used as a catalyst in the Friedel-Crafts alkyl-ation because its three-plus ion is a good Lewis acid. For 10 points, name this element that is located below boron on the periodic table, and which has atomic number 13 and symbol Al.

ANSWER: aluminum [or aluminium; or Al until it is read] <Garg>

3. A 2014 "pulse flow" on this river that allowed 105,000 acre-feet of its water to reach the sea was mandated by the Minute 319 agreement. Water that *would* flow into this river from the Never Summer Mountains is instead diverted by the Grand Ditch. After a purchase made by Robert P. McCullough, an island in this river became a terminus of the former London Bridge, the other end of which is in Lake (\*) Havasu City. An aqueduct that carries water from this river across the Whipple, Eagle, and San Jacinto Mountains and through the Coachella Valley was designed by William Mulholland. This river and the Green River were explored in 1869 by John Wesley Powell, who names a lake behind its Glen Canyon Dam. For 10 points, name this river that widens into Lake Mead behind the Hoover Dam and flows through the Grand Canyon.

ANSWER: the Colorado River <Carson>

4. A 2002 biography of this poet by Alfred Habegger, which is titled for the line "My Wars Are Laid Away in Books", describes how this author became estranged from Susan Gilbert and wrote a series of letters addressed to "Master", which may have been intended for a minister named Charles Wadsworth. At the end of a poem titled for a place where "meek members of the Resurrection" sleep, this poet wrote that "diadems drop, and Doges surrender, soundless as dots on a disk of snow". This author of (\*) "Safe in their Alabaster Chambers" compared the "heft of cathedral tunes" to a "certain slant of light" that appears on winter afternoons. A house that "seemed a swelling of the ground" appears in a poem by this author in which a carriage "held but just ourselves and immortality". For 10 points, name this "Belle of Amherst" who wrote "Because I Could Not Stop for Death".

ANSWER: Emily Dickinson <Hart>

5. This man employed the spymaster John Thurloe, whose agents uncovered the Sealed Knot conspiracy. He appointed such men as William Butler and Charles Fleetwood during the so-called "Rule of the Major-Generals". This leader's military forces legendarily beat Arthur Aston to death with Aston's own wooden leg. He ordered a disastrous expedition to conquer Hispaniola that was commanded by (\*) William Penn, whose defeat he interpreted as God's judgment. This man's son was mockingly known as "Tumbledown Dick". His forces viciously carried out the siege of Drogheda (**DROY-uh-duh**) in Ireland. Known as "Old Ironsides", this man set up Barebone's Parliament after dismissing the Rump Parliament. For 10 points, name this Lord Protector of England who took power after the execution of Charles I.

ANSWER: Oliver Cromwell <Cheyne>

6. A bronze "memorial" statue in Ashland, Pennsylvania that is based on this painting was designed by Emil Siebern and sculpted by Julius Loester. A black-framed and white-matted print entitled *Black Lion Wharf*, which depicts a Thames landscape, hangs on the back wall of this painting. A sequel to this painting, in which a man holds a cane in his right hand and rests his coat and hat upon his knees, depicts Thomas (\*) Carlyle. The central figure of this portrait rests both feet on a small tan stool, wears a white cotton cap and black mourning garb, and holds a white handkerchief in her lap with both hands. This profile portrait was painted in 1871 by an American expatriate who also painted several *Nocturnes*. For 10 points, name this painting by James Abbott McNeill Whistler, a portrait of a seated woman who is a close family relation.

ANSWER: Whistler's Mother [or *Portrait of Whistler's Mother* or Arrangement in Grey and Black No. 1 or *Portrait of the Artist's Mother*; prompt on "Arrangement in Grey and Black"] <Hart>

7. A poem from this animal's perspective asks "Can I remember if thou forget?" and addresses "Swallow, my sister, O sister swallow". A Wordsworth poem describes this animal as "a creature of a fiery heart." A poem about this animal laments that "youths and maidens" "heave their sighs" over its "pity-pleading strains" rather than share in "Nature's immortality", and dismisses Milton's description of it as "most melancholy" in "Il Penseroso". The narrator of Swinburne's "Itylus" and the subject of a conversation poem by Coleridge are both this type of (\*) bird. The speaker of a poem titled for them exclaims "Forlorn! The very word is like a bell" and says he "has been half in love with easeful death". That poem begins "My heart aches, and a drowsy numbness pains / My sense" and asks "Do I wake or sleep?" For 10 points, name this "immortal bird" who "wast not born for death" according to a John Keats ode.

ANSWER: nightingales <Kothari>

8. Variation in the size of a noted feature of these organisms is dependent on the expression of Bmp4 (B-M-P-4) and calmodulin; that feature is either pink or yellow for the first two months of life. The A and B populations of these animals were studied on Genovesa, where both populations feed on the *Opuntia* (oh-POON-cha) prickly pear. In 1947, David Lack revised a monogram on these animals to theorize that their differences are not isolating mechanisms, but instead represent (\*) adaptations to specific niches; that work was continued on Daphne Major by Peter and Rosemary Grant, who studied differences in beaks among these birds. John Gould distinguished thirteen species and four genera of these birds, which include the "ground" and "cactus" kinds. For 10 points, name these tanagers of the Galápagos that were first discussed in their namesake's *The Voyage of the Beagle*.

ANSWER: Darwin's finches [or Geo•spizinae or Geo•spizini; accept Galápagos finches before "Galápagos"; prompt on "finches"] <Hart>

9. Because of his alcoholism, a member of this family was known as “Pepe Botella”, or “Joe Bottle”. Another member of this family was killed by Zulus during the Anglo-Zulu War, which some claimed was a setup by Queen Victoria. A female member of this family married a king of Naples and Sicily, who was previously the commander specifically opposed by the Dos de Mayo uprising in Madrid. The most famous member of this family fired “a (\*) whiff of grapeshot” against royalist troops, named his brother Jerome the king of Westphalia, and appointed his brother Joseph the king of Naples and later of Spain. That ruler from this family established the Continental System and won at Austerlitz before losing at Waterloo. For 10 points, name this family of the French emperor Napoleon.

ANSWER: Bonaparte <Cheyne>

10. In a series of lectures, this thinker discussed how the term “to govern” moved from a more general meaning to describe only the actions of a centralized state. This thinker played off a Clausewitz quote in his argument that “politics is war by other means” in a work arguing that resistance to power is impossible as the resistance is itself a manifestation of power. Another of his works argues knowledge is a product of power, which is itself shaped by the (\*) framework of knowledge in a society. He described his later historical approach as “genealogical”, in contrast with an earlier approach that emphasized the discontinuities between epistemes. A book of his moves from the torture of Robert-François Damiens in the 18th century to the subtler control over bodies in the modern prison system. For 10 points, name this French author of *Discipline and Punish*.

ANSWER: Michel Foucault <Bailey>

11. This author created the sycophantic Reverend Thomas Tufthunt in an unfinished novel whose central character, known as George Brandon, marries a 15-year-old named Caroline Gann. This author of *A Shabby Genteel Story* profiled a colonel whose son, Clive, is training to be a painter in his long novel *The Newcomes*, which the *Oxford English Dictionary* credits as the first book to mention the word “capitalism”. This man, who published early works under the pseudonyms George Savage (\*) Fitz-Boodle, Charles James Yellowplush, and Michael Angelo Titmarsh, created a character who survives the Battle of Kunersdorf before marrying a wealthy noblewoman and winning a seat in Parliament. Dobbin survives the Battle of Waterloo, which kills George Osborne, in a “novel without a hero” by this author. For 10 points, name this author of *The Lucky of Barry Lyndon* and *Vanity Fair*.

ANSWER: William Makepeace Thackeray <Hart>

12. The pioneering efforts of Lewis Fry Richardson to use a grid to accomplish this task relative to northern Germany on May 20, 1910, is discussed in chapter four of Nate Silver's book *The Signal and the Noise*, which praises developments in this task. Skepticism of linear models for this task led chaos theory pioneer Edward Norton Lorenz to develop a model for it that introduced the notion of the Lorenz attractor. The Unified Model is the standard computerized model for this task in the UK; in the U.S., the GFS is the standard numeric model for it. Lorenz coined the term (\*) “butterfly effect” to describe the large changes that small causes can have when attempting this predictive task. Modern models for this task use supercomputers to run ensembles of Monte Carlo simulations to model fluid flow in the atmosphere. For 10 points, name this predictive task undertaken by meteorologists.

ANSWER: numerical weather forecasting [accept answers mentioning forecast or predict or model and the weather; accept meteorology or word forms thereof before “meteorologists”; accept atmospheric modeling or word variants thereof before “atmosphere”; do not accept or prompt on more specific answers such as “predicting hurricanes” or “predicting rain”] <Hart>

13. A four-night dance-play from this present-day country is about a king named Nalan who changes appearance upon being bitten by a snake; that work is by Unnayi Warriar. An aesthetic treatise from this country describes 108 basic dance movements that are often depicted in a set of elaborate statues. An instrument from this country has three or four drone strings and three melody strings, and dances in this country may be accompanied by the (\*) mridangam (mree-DUN-gum). Green make-up is used to denote heroes in Kathakali (kuh-THA-kuh-LEE), a form of dramatic dance from this country, and the *Natya Shastra* is a treatise central to its dance form of bharat•natyam. Classical music from this country has rhythmic patterns called *talas* and melodic modes called *ragas*, and can be divided into Carnatic and Hindustani types. For 10 points, name this home of sitar player Ravi Shankar.

ANSWER: India <Kothari>

14. While a student, this man saved his college president, Myles Cooper, from being attacked by an angry mob. He was reportedly denied admission to Princeton because he insisted on graduating within three years, and he later ordered cannons to fire at enemy soldiers in Nassau Hall. This man was blackmailed after engaging in a scandalous affair with (\*) Maria Reynolds. This man wrote the largest portion of essays credited to "Publius" and served for four years as George Washington's chief aide during the Revolutionary War. In his most famous office, he drafted the First Report on the Public Credit and the Report on a National Bank. For 10 points, name this first secretary of the treasury, who was killed in a duel with Aaron Burr.

ANSWER: Alexander Hamilton <Cheyne>

15. Hippolytus called this saint "stump-fingered", and some suggest that he cut off his thumb to deliberately make himself unfit for the priesthood. This man's apparent abandoning of a missionary trip in Pamphylia is traditionally believed to have caused tension between Barnabas and Paul, who ended their association when Paul refused to work with this man. He may have included himself in a text when he described a naked youth running away from the (\*) Garden of Gethsemane. This man's symbol of a winged lion is used by the city of Venice. Scholars believe that this man's namesake Gospel is the oldest and of the synoptic texts; his Gospel is the most succinct, completely lacking any narrative of Jesus's birth. For 10 points, name this author of a canonical Gospel who is not Matthew, Luke, or John.

ANSWER: Mark [or John Mark; or Mark the Evangelist; prompt on John alone but accept nothing else but John Mark on the prompt] <Cheyne>

16. A zeta pinch uses a magnetic field to compress filaments of these substances. The Vlasov equation describes the change in the distribution function of these substances, in the absence of collisions. Longitudinal waves can undergo Landau damping in these substances, which are the main object of study in magneto•hydro•dynamics. These substances usually only experience statistical deviation from quasi-neutrality on a length scale smaller than the (\*) Debye length. These substances are said to be in thermal equilibrium, and thus "hot", when the energy of electrons is approximately equal to the energy of gas molecules. A common way to produce them is to run a huge electric field through a gas held at low pressure. For 10 points, name these highly ionized substances that are the so-called "fourth state of matter".

ANSWER: plasmas <Garg>

17. A deity of these people who appeared in a village elder's dream in the form of a leveret has a name meaning "rabbit god" because "rabbit" is slang for homosexual men, whose love is that deity's domain. A water god of these people who was angry at losing a supremacy contest to a fire god headbutted and broke one of the pillars holding up the sky, forcing another of their goddesses to use a giant turtle's legs as replacement. That goddess of these people also created much of humanity by dipping a (\*) rope in clay and whirling it around. The first living being in these people's mythos, who created the heavens and earth by pushing apart two halves of a cosmic egg, was a giant named Pangu (pahn-goo). The Eight Immortals and the progenitors of mankind Fuxi (foo-"she") and Nuwa appear in the mythology of, for 10 points, which people, for whom the Jade Emperor assigned twelve animals to the zodiac?

ANSWER: Chinese people [accept China or Zhongguo; accept Han Chinese or any other Chinese ethnic group; accept Taoists or word forms] <Carson>

18. One of this author's characters writes a story about a shaman who sacrifices himself after his powers to summon rain fail that is collected into the volume "Three Lives". In another novel, this author created a character who is bullied by Franz Kromer and turns to a rector named Pistorius for guidance. The narrator becomes infatuated with his friend's mother, Frau Eva, in that novel that this author published under the pseudonym of Emil (\*) Sinclair. The central character studies the title pursuit at the Waldzell and debates with Designori while in Castalia in a novel by this author titled for a game that requires intense knowledge of arts, history, and mathematics. For 10 points, name this German-language author of *Demian* and *The Glass Bead Game*, who told of an Indian man's quest for enlightenment in *Siddhartha*.

ANSWER: Hermann Hesse [or Hermann Karl Hesse] <Hart>

19. The recitatives of the third movement of Mendelssohn's second cello sonata were inspired by a work by this composer whose second section is based on the theme "A-B flat-B-C-C-B-C". An "Echo" movement that alternates quickly between piano and forte ends a work by this composer paired with an F major solo keyboard concerto. The "Schwenke measure" sometimes appears in a C major work by this composer mainly made of arpeggiated chords. One work by this composer of the *Chromatic Fantasia and Fugue* is a set of 30 (\*) variations, all in G major or minor, based on an initial aria theme. This composer used a two-manual harpsichord in his *Italian Concerto* and *French Overture*. He named two other works after a tuning system, each constituting 24 preludes and fugues in each major and minor key. For 10 points, name this composer of the *Goldberg Variations* and *The Well-Tempered Clavier*.

ANSWER: Johann Sebastian Bach <Kothari>

20. During an attempted 1982 coup in this country, Air Force fighter pilots were ordered to drop bombs on the State House but instead dropped them on mountainous forests instead. It spent more than 10 percent of its annual GDP in subsidizing gold exports in the Goldenberg scandal. The Swynnerton Plan in this modern-day country was meant to consolidate land, which angered nationalists such as the Kapenguria Six. A corrupt president of this country tortured people at Nyayo House. Prior to this country's independence, massacres perpetrated by the (\*) King's African Rifles and native militants took place during a rebellion lasting from 1952 to 1960; that rebellion here, the Mau Mau Uprising, was led by Kikuyu-dominated rebels. For 10 points, what African country's first president was Jomo Kenyatta?

ANSWER: Republic of Kenya [or British Kenya] <Cheyne>

Tiebreaker. This molecule was the basis of the first working NMR quantum computer, which was used to solve Deutsch's algorithm. Arab•i•nose is used as the sugar component of the nucleo•side of this molecule in an anti-metabolite chemotherapy used to treat acute leukemias. A kinase named for the nucleo•side of this molecule is the only enzyme that can create all four DNA precursors from deoxy•ribo•nucleo•sides. The tri•phosphate of the nucleo•side of this molecule is an essential cofactor in the biosynthesis of phospho•lipids. (\*) Wobble pairing can occur when this base undergoes spontaneous de•amination to form uracil. This pyrimidine is the most common site of DNA methylation, and it forms three hydrogen bonds. For 10 points, name this nitrogenous base that pairs with guanine and is thus not adenine or thymine.

ANSWER: cytosine [or C] <Voight>

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**Packet 8: Bonuses**

1. This son of King Megareus of Onchestus is one of three possible fathers of Parthenopaeus. For 10 points each:

[10] Name this man who was given three golden apples by Aphrodite that allowed him to repeatedly distract his opponent in a footrace, thus allowing him to win the race and marry that opponent, a woman who was philosophically opposed to marriage.

ANSWER: Hippomenes [or Melanion]

[10] Hippomenes's opponent, then wife, was this virgin huntress who had earlier taken part in the Calydonian boar hunt. She was given the boar's head by its killer, Meleager.

ANSWER: Atalanta

[10] Atalanta and Hippomenes were eventually turned into lions as punishment for having sex in a temple of either Zeus or this Phrygian mother goddess who was known as "Magna Mater" to the Romans. Her consort Attis castrated himself in a fit of passion.

ANSWER: Cybele [or Kubileya] <Carson>

2. Wikipedia notes that the founder of this dynasty only had two concubines. For 10 points each:

[10] Name this Chinese dynasty founded by Emperor Wen and probably best known for creating the Grand Canal.

ANSWER: Sui ("sway") dynasty

[10] The Grand Canal linked the Yellow River with this other major Chinese river, the longest river in Asia.

ANSWER: Yangtze River [prompt on Chang Jiang]

[10] The Sui dynasty's collapse was partially due to its series of disastrous campaigns against this Korean kingdom, one of the three ancient kingdoms of Korea. This kingdom utterly demolished Sui forces at the Battle of Salsu.

ANSWER: Goguryeo [or Goryeo] <Cheyne>

3. The Cori cycle allows this compound to be turned into glucose in the liver. For 10 points each:

[10] Name this three-carbon compound that, in a type of anaerobic fermentation, is produced from pyruvate via a namesake dehydrogenase, causing it to build up in the muscles during strenuous exercise.

ANSWER: lactic acid [or lactate]

[10] The Cori cycle is analogous to the Cahill cycle, which turns this amino acid with a methyl side chain into pyruvate and then glucose. This amino acid can be formed through trans-amination of pyruvate.

ANSWER: alanine [or Ala; or A]

[10] During the deamination of alanine in the Cahill cycle, the amine group is eventually incorporated into this compound, which is formed in the liver from carbon dioxide and two ammonia molecules.

ANSWER: urea <Kothari>

4. This man conducted a number of Virtual Choirs which have performed his pieces, like *Water Night*. For 10 points each:

[10] Name this composer whose choral compositions, like *Lux Aurumque* and *Cloudburst*, often create pan•diatonic tone clusters using extensive divisi parts.

ANSWER: Eric **Whitacre**

[10] Whitacre's *The Seal Lullaby* sets a text by Rudyard Kipling, whose poem "The Absent-Minded Beggar" was set by this composer for a Boer War fundraiser. He collaborated with W. S. Gilbert on comic operas like *The Mikado* and *The Pirates of Penzance*.

ANSWER: Arthur Seymour **Sullivan**

[10] This Australian composer included a bunch of Kipling-inspired poems in his choral *Jungle Book Cycle*, though he's more famous for his piano arrangement of *Country Gardens*, his band piece *Lincolnshire Posy*, and other folk tune-inspired music.

ANSWER: Percy Aldridge **Grainger** <Kothari>

5. An unseen member of this family is described as "a telephone man who--fell in love with long-distance!"

For 10 points each:

[10] Name this family whose other members include an aspiring poet who works at a shoe warehouse and his sister, a woman with a limp whose high school nickname was "Blue Roses". The matriarch of this family is obsessed with the possibility of her daughter receiving "gentlemen callers", including Jim O'Connor.

ANSWER: the **Wingfield** family [or the **Wingfields**]

[10] Tom, Laura, and Amanda Wingfield appear in this Tennessee Williams "memory play", which is titled for Laura's prized collection of decorative animal figurines.

ANSWER: *The **Glass Menagerie***

[10] The play ends with Tom Wingfield noting that "nowadays the world is lit by lightning!" and asking Laura to perform this specific action, before he says goodbye.

ANSWER: **blow out** the **candles** [or "**blow out your candles**, Laura"; accept word forms like "**blowing out** the **candles**"] <Carson>

6. Four days after this event, a counter-protest led to the Hard Hat Riot. For 10 points each:

[10] Name these May 4, 1970, shootings that took place on the campus of an Ohio university. Four students were killed when the National Guard fired on anti-Vietnam War protesters.

ANSWER: **Kent State** shootings

[10] The protest on Kent State was specifically directed against this decision announced by Richard Nixon on April 30, which controversially expanded the Vietnam War to another country.

ANSWER: invasion of the Kingdom of **Cambodia** [or **Cambodian** campaign]

[10] This classic 1974 documentary heavily critiqued the Vietnam War. Its name comes from a speech in which Lyndon Johnson said victory in Vietnam was dependent on two things within the Vietnamese people.

ANSWER: **Hearts and Minds** <Cheyne>

7. In Francine Prose's novel *Goldengrove*, the 13-year-old protagonist is named after this singer. For 10 points each:

[10] Name this German singer who provided vocals on the debut album of The Velvet Underground; the album, which has a banana on its cover, is named for this woman and the band.

ANSWER: **Nico** [or Christa **Paffgen**; accept *The Velvet Underground and **Nico***]

[10] In *Goldengrove*, the protagonist listens to Nico's version of this jazz standard from the Rogers and Hart musical *Babes in Arms*. Kevin Shields is the lead vocalist of an Irish shoegaze band whose name is a pun on this song's title.

ANSWER: "**My Funny Valentine**" [do not accept or prompt on "My Bloody Valentine"]

[10] The lead singer of the Velvet Underground was this glam rocker, whose solo album *Transformer* included the songs "Perfect Day" and "Walk on the Wild Side".

ANSWER: Lou **Reed** [or Lewis Allen **Reed**] <Hart>

8. Kavka's toxin puzzle uses the example of being offered money to drink a non-fatal poison to probe whether one can form these mental states at will. For 10 points each:

[10] Name this kind of mental state that titles a G.E.M. Anscombe monograph, which Donald Davidson drew upon when claiming that these states reframe actions in terms of a "primary reason".

ANSWER: **intentions** [do not accept "intentionality", but accept other word forms such as **intents**]

[10] Unlike Anscombe, Davidson claims that reasons have this relation to the actions they motivate. David Hume argues that inferences about this phenomenon must arise from habit, since they are neither matters of fact nor relations of ideas.

ANSWER: **causation** [accept word forms]

[10] Anscombe's philosophy of action was influenced by the doctrine of double effect introduced in this medieval philosopher's *Summa Theologica*, which includes five proofs of God's existence.

ANSWER: St. Thomas **Aquinas** [or Tommaso **d'Aquino**; prompt on "Thomas" or "Tommaso"] <Kothari>

9. Answer the following about the short story collection *Red Cavalry*, for 10 points each.

[10] It was written by this Soviet author from Odessa, who wrote about his hometown in the *Odessa Stories*.

ANSWER: Isaac **Babel** [or Isaac Emmanuilovich **Babel**]

[10] It was inspired by Babel joining the Soviet Red Cavalry as a correspondent on the urging of this other Soviet author, whose works include the short story "Twenty-Six Men and a Girl" and the play *The Lower Depths*.

ANSWER: Maxim **Gorky** [or Alexei Maximovich **Peshkov**]

[10] In its story "Gedali", the title shopkeeper wonders how to tell the Revolution from the counterrevolution when the Soviets have committed so many atrocities against this ethnic group, whose members included Babel himself. In Imperial Russia, most members of this religio-ethnic group were forced to live in the Pale of Settlement.

ANSWER: Russian **Jews** [accept **Jewish** or other word forms] <Hart>

10. This two-word term describes a hypothesis for how poly•ethyl•enimine changes the pH around cells to coax them to take up DNA via endocytosis. For 10 points each:

[10] Give this term that also names an aromatic diamine whose trade name is owned by Sigma-Aldrich and suggests its affinity for H-plus ions.

ANSWER: **proton sponge**[s] [or **1,8-bis(dimethylamino)naphthalene** or **N,N,N',N'-tetramethyl-1,8-naphthalenediamine**]

[10] The proton-sponge is an example of the "super" variant of these substances. According to the Arrhenius definition, these compounds produce hydroxide ions in aqueous solution.

ANSWER: **bases** [accept super**bases**]

[10] This group of elements reversibly dissolves in ammonia to produce the amide ion, a strong base. Hydroxide compounds of elements from this periodic group always form strong bases.

ANSWER: **alkali metals** [or group **1**] <Garg>

11. A servant named Julian Carlton worked at this location and killed seven people with an axe. For 10 points each:

[10] Name this residence that Carlton set on fire in August 1914. Among the dead included Mamah Borthwick, the mistress of this residence's owner.

ANSWER: **Taliesin** [or **Taliesin** East, do not accept "Taliesin West"]

[10] Taliesin was the studio and residence in Wisconsin of this American architect, who designed the Pennsylvania residence Fallingwater for Edgar J. Kaufmann.

ANSWER: Frank Lloyd **Wright** [or Frank Lincoln **Wright**]

[10] While working at Taliesin, Wright designed the Racine, Wisconsin, based headquarters for this cleaning supply manufacturer. Steelcase manufactured the furniture for this National Historic Landmark.

ANSWER: **Johnson Wax** [or **S.C. Johnson** Wax; or **S.C. Johnson** & Son] <Cheyne>



12. The Croatian-Argentine official Juan Vucetich created the first working method of classifying these things. For 10 points each:

[10] Identify these impressions left by ridges of dermal papillae that are classified by the Henry system. Their patterns, which include loops and arches, are unique and can even distinguish between identical twins.

ANSWER: **fingerprints** [prompt on "**prints**"]

[10] In the Henry system, fingerprints are classified by three primary patterns: loops, arches, and these circular or spiraling patterns that have a "delta" on each side. A small one appears inside a loop in a so-called "peacock's eye".

ANSWER: **whorls**

[10] Fingerprints on porous materials like paper can be revealed by applying this chemical, which reacts with terminal amines in the print to produce a color called "Ruhemann's purple". This chemical reacts with primary amines in the Kaiser test used in solid-phase peptide synthesis.

ANSWER: **nin•hydrin** [or **tri•keto•hydrin•dene hydrate**] <Carson>

13. This group kidnapped U.S. General James Dozier. For 10 points each:

[10] "Name this leftist group best known for abducting and then killing former Christian Democratic prime minister Aldo Moro in 1978. This group was very active during the "years of lead".

ANSWER: **Red Brigades** [or **BR**; or **Brigate Rosse**]

[10] The Red Brigades were active in this European country that is frequently led by Silvio Berlusconi.

ANSWER: **Italy** [or the **Italian Republic**]

[10] This political science professor and Marxist philosopher was arrested for potential involvement in the Moro kidnapping. He was elected to the legislature while still in prison and later fled to France but eventually returned to finish a prison term.

ANSWER: Antonio **Negri** <Cheyne>

14. Prior to this battle, the winning commander repeatedly hoodwinks Jiang Gan and orders Huang Gai to be beaten for insubordination as part of a fake defection ruse. For 10 points each:

[10] Name this naval battle in which Zhuge Liang's (**zhoo-gay lee-ahng's**) supposed summoning of the southeastern wind is instrumental in securing the success of Zhou Yu's fire attack on the forces of Cao Cao (**tsow tsow**). A 2009 John Woo movie adapts the story of this battle.

ANSWER: Battle of **Chibi** [or the Battle of **Red Cliffs**]

[10] The Battle of Chibi is a major event in this great classical Chinese novel by Luo Guanzhong, which dramatizes the conflict between the states of Wei, Wu, and Shu.

ANSWER: **Romance of the Three Kingdoms** [or **San Guo Yan Yi**]

[10] In a fictional incident placed in the aftermath of the Battle of Xiaoting, a Wu general with this name is bedeviled by Zhuge Liang's Stone Sentinel Maze. A much later author born Zhou Shuren adopted this name as a pen-name to write stories like "A Madman's Diary" and "The True Story of Ah Q".

ANSWER: **Lu Xun** [or **Lu Hsun**; prompt on partial answers; do not accept "Lu Boyan" or "Lu Yi"] <Carson>

15. The materials used in this action are usually gathered at the plains of Muzdalifah. For 10 points each:

[10] Name this action performed on the tenth day of Dhu al-Hijah. This symbolic action is supposed to be on the same spot where Ibrahim performed the literal version.

ANSWER: **stoning** of the Devil [or **rami** al-Jamarat or **raim**; accept any answer conveying the idea of **throwing rocks at the Devil**]

[10] Ibrahim threw stones at the Devil while he was being tempted to not perform this action.

ANSWER: **sacrifice Ishmael** [accept equivalents mentioning the **killing of Ishmael**; do not accept or prompt on answers mentioning "Isaac" instead of "Ishmael"]

[10] Muslims perform the rami al-Jamarat while on this pilgrimage. Going on this pilgrimage, if one has the means to do so, is the fifth Pillar of Islam.

ANSWER: **Haji** [or **Hagg**] <Bailey>

16. Kenneth Waltz classified prior theories about the causes of this phenomenon into three “images of analysis” in a book titled for “man, the state, and” this phenomenon. For 10 points each:

[10] Name this phenomenon that is subject to an “inefficiency puzzle” about why states pursue it despite its cost. James Fearon has contributed to a bargaining model of this phenomenon.

ANSWER: **war** [or armed **conflict**]

[10] Waltz argues that war can be mitigated by this state, in which nations' military capabilities are distributed such that no state or coalition can dominate all others, thus creating stability among competing states.

ANSWER: **balance** of power [or word forms]

[10] Thomas Schelling applied this mathematical discipline to war and conflict studies in books like *The Strategy of Conflict*. This discipline considers situation like the Hawk-Dove scenario and evaluates the payoffs received by players depending on their strategies.

ANSWER: **game theory** <Kothari>

17. The Kronig-Penney model uses periodically repeating versions of these systems to represent electron band gaps. For 10 points each:

[10] Name this idealized system in which the namesake object cannot have an energy of zero, in contrast to classical systems. Its energy levels are given by “n squared h squared” over “eight m L squared”, where n is a positive integer.

ANSWER: **particle in a box** [or **infinite potential well** or **infinite square well**; prompt on “**potential well**”; prompt on “**square well**”]

[10] The momentum of the particle is equal to “n times h” over this quantity. This expression is the longest possible wavelength of the particle in the box.

ANSWER: **2 L** [or equivalents of **two times the length of the box/square**]

[10] The wavefunctions of a particle in a box are calculated from this equation, which is named after a German scientist who devised a famous thought experiment involving a cat that is both alive and dead.

ANSWER: **Schrödinger** equation <Garg>

18. Aristophanes noted that this man had a pronounced lisp and used that as comedic fodder in *The Wasps*. For 10 points each:

[10] Name this Athenian statesman and orator who, for various reasons, kept defecting to serve Sparta and the Persians. He was the principal proponent of the ultimately failed Sicilian Expedition, which he did not get a chance to actually lead.

ANSWER: **Alcibiades**

[10] The Sicilian Expedition was proposed during this lengthy war, which primarily pitted Athens against Sparta.

ANSWER: **Peloponnesian** War

[10] During the Peloponnesian War, Alcibiades and other Athenians decisively won this 410 BCE naval battle in which most of the Spartan fleet was sunk; the Spartans sued for peace, but the Athenians rejected the offer, only to lose the war a few years later.

ANSWER: Battle of **Cyzicus** <Cheyne>

19. One of these proceedings involving the play *Once at Antietam* and the film *The Blood in the Red White and Blue* is at the center of William Gaddis's novel *A Frolic of His Own*. For 10 points each:

[10] Name this sort of proceeding exemplified by the interminable conflict in Chancery between the parties of Jarndyce and Jarndyce in Charles Dickens's *Bleak House*.

ANSWER: civil **lawsuits** [or **law cases** or **court cases**; accept any answer suggesting **legal proceedings** or **trials**; prompt on "**suits**" or "**cases**"]

[10] In this Dickens novel, the unscrupulous law firm of Dodson & Fogg represents the devious Mrs. Bardell in her lawsuit against the central character. The introduction of the humorous Sam Weller into this serialized book, his first, made Dickens famous.

ANSWER: *The **Pickwick Papers*** [or *The **Posthumous Papers of the Pickwick Club***]

[10] Two scandalous divorce cases are at the center of *In Chancery*, the second novel of a series of three novels and two "interludes" by this author that also includes *To Let* and *The Man of Property*.

ANSWER: John **Galsworthy** [The series is the *Forsyte Saga*.] <Hart>

20. This critic claimed that artists are attached to capitalism "by an umbilical cord of gold" in a 1939 essay that contrasts real art with art-like simulacra made purely for profit. For 10 points each:

[10] "Name this American art critic who was an advocate of the abstract expressionism movement and wrote the essay "Avant-Garde and Kitsch".

ANSWER: Clement **Greenberg** [accept K. **Hardesh**]

[10] Greenberg was a champion of this abstract expressionist of *Blue Poles* and *Full Fathom Five*, whose "action painting" techniques earned him the nickname "Jack the Dripper".

ANSWER: Jackson **Pollock** [or Paul Jackson **Pollock**]

[10] Greenberg also championed this movement within abstract expressionism, which Greenberg described with the term "post-painterly abstraction". Morris Louis and Barnett Newman were painters in this movement, which filled canvases with flat, solid shapes.

ANSWER: **color field** painting [accept any answers mentioning **color fields**] <Hart>

Extra. Events in this city may have led to a retaliatory explosion near the apartment block of Sheikh Mohammad Hussein Fadlallah. For 10 points each:

[10] Name this Middle Eastern city where 241 American servicemen were killed in a 1983 barracks bombing, the deadliest one-day result for the U.S. military since the Tet Offensive.

ANSWER: **Beirut**

[10] The Beirut barracks bombing was blamed on the governments of Syria and this other country, whose Supreme Leader is Ali Khamenei, the successor to the Ayatollah Khomeini.

ANSWER: Islamic Republic of **Iran** [or **Persia**]

[10] The bombing occurred about a year after a right-wing Christian Lebanese group massacred Shiites in the Sabra neighborhood of Beirut and this refugee camp adjacent to Sabra. The massacres were given a name referring to both Sabra and this place.

ANSWER: **Shatila** refugee camp <Cheyne>