

2022 Winter Closed

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Packet N

Tossups

1. **Gillooly et al. created a model showing that metabolism impacts this value, supporting the hominid slowdown hypothesis. Fitness landscapes are reduced to a single peak at the “critical” value for this quantity. Since this value changes, biologists have “relaxed” a model based on it that Zuckerkandl and Pauling proposed after analyzing hemoglobin. Error catastrophe occurs above a threshold for this value. This quantity may be estimated from the mean of the (\*) Luria–Delbrück distribution. Assuming this quantity is constant allows the calculation of divergence times in a molecular clock. Under neutral selection, the substitution rate equals this value, which in humans is 1.1 times 10-to-the-negative-8th per base per generation. For 10 points, name this frequency at which a gene’s sequence changes.**

ANSWER: **mutation rate** [or the critical **mutation rate**; accept **substitution rate** or **fixation rate** until “substitution rate” is read; prompt on mu]

<Egol, Biology>

2. **A 2019 *New York Times* article accused this company of “strip-mining” smaller competitors like the Dutch start-up Elastic. This subsidiary challenged not being awarded the 10-billion-dollar JEDI defense contract, leaving the contract in limbo. This subsidiary developed custom ASICs (“AY-sicks”) through its 2015 acquisition of the Israeli company Annapurna Labs. This subsidiary, which hosts the re:Invent conference and sells services named (\*) S3 and EC2, terminated hosting for Parler in January 2021. This subsidiary dominates both Azure and Google Cloud Platform in market share. In February 2021, it was announced that its former CEO Andy Jassy will become the CEO of its parent company. For 10 points, name this subsidiary that provides cloud platforms as part of a company founded by Jeff Bezos.**

ANSWER: **Amazon Web Services** [or **AWS**; prompt on Amazon; prompt on descriptions such as Amazon cloud hosting or Amazon web hosting]

<A. Keyal, Current Events>

3. **In a story by this author, a man walks by a girl whom he’d like to tell a tale that ends, “A sad story, don’t you think?” One of this author’s narrators runs the same route every morning for a month to pass five buildings near his home. Two famished newlyweds relive their youth by robbing a McDonald’s in this author’s story “The Second Bakery Attack.” A man returning from Algiers smokes weed and shares his love for arson in a story by this author that was adapted into a 2018 film by (\*) Lee Chang-Dong. Alfred Birnbaum and Jay Rubin translated this author’s collection *The Elephant Vanishes*, which includes “Barn Burning.” In a story by this author later used as a novel’s first chapter, the narrator cooks spaghetti to Rossini’s *The Thieving Magpie* and is called by his wife about their missing cat Noboru. For 10 points, name this Japanese author of *The Wind-Up Bird Chronicle*.**

ANSWER: Haruki **Murakami** [accept names in either order] (The story in the first sentence is “On Seeing the 100% Perfect Girl One Beautiful April Morning.”)

<R. Keyal, Short Fiction>

4. Components like Pop and Wo for this system were separated by a “seating” and were recorded by Diego de Landa. The Mam includes Lamat and Ben, which serve as “bearers” for components of this system. The earliest known evidence for this system is in the town of Chiapa de Corzo, though that inscription may belong to an earlier civilization. The Book of Chilam Balam of Chumayel discusses this system, which was split into the divine *Tzolk'in* and civil *Haab'* derived from (\*) “Venus rounds.” Ernst Forstemann translated a representation of this system where an inner gear depicting shells and combinations of dots and lines appears within another gear. The novelist William S. Burroughs helped popularize superstition over the end of this system’s 12th *b'ak'tun*, whose smallest components are called *k'ins* and represent days. For 10 points, name this system, a version of the Mesoamerican “Long Count” that caused panic over “ending” in 2012.

ANSWER: Mayan calendar [accept the Long Count calendar until “Long Count” is read; accept the Tzolk'in or Haab' until read; prompt on calendar]

<Evans, Other History>

5. A prolific composer from this city self-published eight volumes of music, including the lament “Lagrimie mie.” It’s not in Germany, but Heinrich Schütz studied for four years in this city under a composer of several *Sacrae symphoniae*. This city’s namesake school began under Adrian Willaert (“vill-art”) and frequently used antiphonal groups as part of its (\*) polychoral style. This home city of Barbara Strozzi and Giovanni Gabrieli was also home to a composer whose *seconda pratica* music includes nine books of madrigals. An all-girls orchestra at an orphanage in this city was led by a “Red Priest” whose many violin concertos include the *Four Seasons*. For 10 points, name this home city of Claudio Monteverdi, Antonio Vivaldi, and a school of composers housed in its Saint Mark’s Basilica.

ANSWER: Venice [or Republic of Venice; or Venezia; or Venesia]

<Strombeck, Classical Music>

6. This author rebuked Ida Tarbell’s “reactionary views” and serialized excerpts from *Our Androcentric Culture* in the magazine *The Forerunner*. In a novel by this author, Terry is put on trial and exiled after forcing himself on his wife Alima. After retrieving a key and opening the door, a man at the end of a story by this author faints before the protagonist “creeps” over him and tells him that “in spite of you and (\*) Jane... I’ve got out at last.” This author called for the professionalization of housework to help women gain independence in the treatise *Women and Economics* and wrote the proto-feminist utopian novel *Herland*. This author’s experience with Dr. Silas Weir Mitchell inspired a story whose protagonist is prescribed a “rest cure” that only worsens her depression, leading her to peel the title stuff. For 10 points, name this author of “The Yellow Wallpaper.”

ANSWER: Charlotte Perkins Gilman [or Charlotte Anna Perkins; or Charlotte Perkins Stetson]

<Golden, Misc. Literature>

7. One historian identifies a turning point in this ruler’s reign with a symposium on love involving 12 Muslims and a Zoroastrian. After seeing parched pilgrims while on hajj, this ruler’s wife Zubayda spent two million dinars on a road from Kufa to Mecca. This ruler commissioned Jibril, scion of the Bukhtishu family of Gondishapur, to establish his capital’s first *bimaristan*. Though this ruler relied heavily on Yahya ibn Khalid to consolidate his power, he severely curtailed the power of the (\*) Barmakids late in his reign. The elephant Abul-Abbas was one of many lavish gifts this ruler gave to Charlemagne. Al-Mas’udi’s colorful tales of this ruler were adapted into *1001 Nights*. This ruler’s son al-Ma’mun emerged victorious during the Fourth Fitna and expanded Baghdad’s House of Wisdom. For 10 points, name this caliph who ruled the Abbasid Empire at its peak.

ANSWER: Harun al-Rashid [or Harun ar-Rashid] (The first line refers to al-Mas’udi.)

<Parameswaran, World History>

8. It's not sand, but the "quick" type of these materials that forms from the withdrawal of glaciers is very sensitive to shear stress. The high concentration of these materials in vertisols allow vertisols to shrink and swell. Although titanium dioxide and talc have speciality applications, calcium carbonate and one of these materials are the main fillers used in paper mills. The negative charge of these inorganic materials is a major source of cation exchange capacity. These materials consist of hydrous (\*) aluminum phyllosilicate ("fill-oh-sil-ih-cate") minerals like bentonite, montmorillonite, and kaolinite. These materials are the major component of shale. These materials, which make up 20 percent of loam, are finer grained than silts and sands. For 10 points, name these soil components that become plastic when wet, making them good materials for pottery.  
ANSWER: **clays** [or **clay** minerals; accept China **clay**; accept the specific clay minerals **bentonite**, **montmorillonite**, or **kaolinite** until they are read; prompt on silicate minerals; prompt on phyllosilicate minerals; prompt on aluminosilicate minerals]  
<Settle, Other Science>

9. A player of this instrument played dissonant vamps as Leon Thomas yodeled on his 32-minute track "The Creator Has a Master Plan." Another player of this instrument included two variations of his standard "Ghosts" on the album *Spiritual Unity*. A player of this instrument wrote "All Praise be to God to whom all praise is due" in the liner notes of an album that opens with a (\*) gong strike. A player of this instrument chanted a four-note bass motif on the first track of that album, which he recorded with his Classic Quartet. A player of this instrument was inspired by free jazz to record his album *Ascension*. Earlier, that player of this instrument wrote the tracks "Acknowledgement" and "Psalm" for his album *A Love Supreme*. For 10 points, name this instrument played by Alvin Ayler, Pharoah Sanders, and John Coltrane.  
ANSWER: **saxophone** [accept tenor **saxophone** or alto **saxophone**]  
<French, Other Arts>

10. Nisbett and Wilson showed students a video of this procedure involving a man with a Belgian accent in their study on the halo effect. Miller and Rollnick developed a "motivational" type of this procedure. Though not ethnography, the results of this procedure can be coded by softwares like NVivo and MAXQDA. The tendency of people who perform this procedure to overestimate the accuracy of their perception of other participants is called its (\*) "illusion." An effect named for people who conduct this procedure involves distortion of responses based on style or presentation and can be controlled using fixed-wording questions. To control gender bias during this process, orchestras employ a "blind" form of this process using a screen. For 10 points, name this qualitative research method that companies also use to determine which candidates to offer jobs.  
ANSWER: **interviewing** [accept **focus group** until read; accept motivational **interviewing**; accept **interviewer** illusion or **interview** effect; accept structured or unstructured **interviews**; accept **interviewer** effect; accept job **interviews**; prompt on surveys or word forms]  
<Kulkarni, Social Science>

11. In the soft lithography method MIMIC, this phenomenon moves the prepolymer into the stamp's mold, and then the prepolymer is cured to form the desired microstructures. Soil characteristics can be experimentally determined by measuring this phenomenon and then analyzing the results with the Lucas–Washburn equation. Microfluidic devices without external pumps rely on this phenomenon. This phenomenon drives the analyte in lateral flow assays. This phenomenon moves the (\*) transfer buffer through the gel containing denatured DNA fragments and into a nylon membrane in Southern blotting. The Young–Laplace equation is used to show that the vertical rise due to this phenomenon is inversely proportional to diameter. This phenomenon is caused by a combination of cohesion and adhesion. For 10 points, what phenomenon moves liquids up thin tubes?

ANSWER: capillary action [or capillarity or capillary motion or wicking or capillary rise; prompt on surface tension by asking “what phenomenon is partially caused by surface tension?”] (The second sentence refers to the capillary rise method.)

<Settle, Chemistry>

12. Abraham Lincoln does this action in the *Harper's Weekly* cartoon “The Coming Man's Presidential Career,” referencing a feat in which Harry Colcord rode piggyback. A 1974 performance of this action frames Colum McCann's novel *Let the Great World Spin* and is the subject of a 2008 documentary by James Marsh. Il Matto stops to eat spaghetti while doing this action in a scene from *La Strada*. The first verse of “Desolation Row” by Bob Dylan describes a “blind commissioner” with “one hand (\*) tied to” a performer of this action and “the other in his pants.” A dying performer of this action is consoled that he has “made danger [his] calling” in the prologue of *Thus Spake Zarathustra*. Performers of this action such as Philippe Petit often hold a long pole to increase their moment of inertia. For 10 points, name this act popular in circuses that involves traversing a thin suspended object.

ANSWER: tightrope walking [accept high-wire walking or tightwire walking; accept funambulism or word forms; prompt on rope-dancing or wire-dancing; prompt on walking across Niagara Falls or walking between the Twin Towers; prompt on balance or balancing] (James Marsh's documentary is *Man on Wire*.)

<Morrison, Other Academic>

13. Aristotle's influence on this practice's most vocal influence was analyzed by Lewis Hanke in a lecture titled for “an interpretation of [that figure's] life and writings.” Bernardino de Minaya reported on people illegally engaging in this practice to Pope Paul III, who officially denounced this practice in the bull *Sublimis Deus*. This practice, which was divided into *de rescate* and *de guerra* types, was replaced by the milder *repartimiento* system. Drawing on the Salamanca School, one theologian argued that (\*) Christian converts should not be subject to this practice while arguing against Juan de Sepúlveda in Valladolid (“vah-yah-doh-LEED”). Along with land grants, this practice made up the *encomienda* system. For 10 points, the Dominican Friar Bartolomé de las Casas opposed what practice involving Native Americans, encouraging the Spanish to instead switch to its chattel variety?

ANSWER: Native American slavery [accept forced labor of Native Americans; accept “indigenous peoples” or “American Indians” in place of “Native Americans”; accept encomienda system until read]

<Parameswaran, European History>

14. A poem by this author, in which a young child draws houses with crayons and is spoken to by an almanac and a “Marvel Stove,” reflects this poet’s upbringing by a grandmother after this poet’s mother was institutionalized. In a poem by this author, a child sees someone whom “Jack Frost had started to paint” and gives him a lily of the valley as he sits watched by a “stuffed loon.” This poet wrote of seeing “a dead man slung on a pole” while reading (\*) *National Geographic* in a poem set at the dentist’s office with her Aunt Consuelo. While at Vassar, this poet met and befriended Marianne Moore. This author of “Sestina” and “First Death in Nova Scotia” urged “accept the fluster of lost door keys, the hour badly spent” in a villanelle that includes the refrain “the art of losing isn’t hard to master.” For 10 points, name this poet of “One Art.”

ANSWER: Elizabeth **Bishop** (The poem set at the dentist’s office is “In the Waiting Room.”)

<Morrison, Poetry>

15. Eric Nelson argued that this thinker’s most famous arguments derive from arguments against Pelagianism in this thinker’s undergraduate thesis, *A Brief Inquiry into the Meaning of Sin & Faith*. This thinker claimed that individuals live according to a system of fundamental moral beliefs he called their “comprehensive doctrine.” Because it rules out intersubjective forms of self-understanding, this thinker’s Kantian anthropology was criticized by (\*) Michael Sandel. This thinker argued that political stability is best achieved when citizens accept a set of laws for different reasons, a situation he called “overlapping consensus.” This thinker developed a thought experiment in which people must choose how to construct society from behind a “veil of ignorance” to argue that justice is the same as fairness. For 10 points, name this liberal author of *A Theory of Justice*.

ANSWER: John **Rawls**

<French, Philosophy>

16. The earlier of two consorts associated with this god was a deity of destruction who received sacrifices of weapons captured in war. A holiday dedicated to this god was the only occasion for wearing colorful dinner outfits called *synthesis*. A cult statue of this god was filled with oil and had its feet bound by wool. Candles were given as gifts during a holiday dedicated to this god to symbolize the return of the light. Rome’s (\*) gold reserves were originally housed in the treasury at this god’s temple at the base of the Capitoline Hill. Though not British, men chosen to emulate this god were known as the “Lord of Misrule.” Wax figurines called *sigillaria* were given as gifts during this god’s major festival, during which masters and slaves roles were reversed. A late December festival honored, for 10 points, what sickle-wielding agricultural god, the Roman counterpart of Cronus?

ANSWER: **Saturn** [accept **Saturnalia**; reject “Cronus”]

<Kulkarni, Religion>

17. Erastus Brainerd repeatedly advertised his home city as the “gateway” to this event in his local newspaper. So-called “stampedeers” who participated in this event killed over 3,000 animals en route to it, giving Dead Horse Gulch its name. Vaudeville actress Kate Rockwell made a fortune during this event performing to workers who got their nickname from carrying pouches of sourdough starter while working. In a wharf shootout during this event, Frank Reid killed the gangster (\*) “Soapy” Smith. For his ability to carry large loads across the Chilkoot Trail during this event, a Tagish man was given the nickname “Skookum” Jim. Sightings at Bonanza Creek caused Skagway and Dawson City to become boomtowns during this event. For 10 points, name this gold rush that took place near the border of Alaska and the Yukon Territory.

ANSWER: **Klondike** gold rush [accept **Yukon** gold rush until read; accept **Alaska** gold rush until read]

<Parameswaran, American History>

18. A series of cut wooden reliefs painted with this color were created during the 1930s by Ben Nicholson. The painting *Bridge*, which sold for 20 million dollars, is one of many works by Robert Rauschenberg dominated by this color. A set of multi-paneled modular paintings titled for this color were installed on a ceiling at Black Mountain College for a performance of a composer's "Theater Piece No. 1." According to a (\*) Constructivist critic, a painting titled for this color was the only good painting shown at a 1918 UNOVIS exhibition because "something could be done on it." A series by Robert Rauschenberg titled for this color inspired John Cage to compose *4'33"*. An off-center tilted square features in a "Suprematist Composition" titled for this color and painted by Kazimir Malevich. For 10 points, abstract paintings dominated by what color mimic blank canvases?

ANSWER: **white** [accept **white-on-white**]

<R. Keyal, Painting and Sculpture>

19. Plasmas with a finite value for this quantity experience tearing mode instabilities. This quantity for a plasma is proportional to the Coulomb logarithm in a formula derived by Lyman Spitzer. It's not mobility or scattering time, but this quantity is broken down into a sum of different sources of it in Matthiessen's rule. An unexpected minimum in this intensive quantity is due to scattering from magnetic impurities. A skin depth equal to the square root of "twice this quantity over frequency times permeability" describes the (\*) fall off of AC current density. The reciprocal of this quantity times the electric field equals current density by the microscopic Ohm's law. This intensive quantity measured in ohm-meters is the reciprocal of conductivity. For 10 points, what quantity describes how difficult it is for current to flow?

ANSWER: **resistivity** [reject "resistance"]

<Settle, Physics>

20. This novel's protagonist gossips with an old lady with "rabbit-like teeth" known for malapropisms like saying "eighty camp" instead of "aide-de-camp." A character in this novel kills himself using a gold and ivory-inlaid hypodermic syringe that resembles a cobra's fangs. During a conversation partly in italicized French, the protagonist of this novel admits his love for a woman with "Kirghiz eyes" and borrows a pencil from her on (\*) Walpurgis-Night. This novel's protagonist has a vision of witches dismantling a baby as he stands against a cabin in a snow storm. In this novel, a botched duel leads to the suicide of the Jesuit radical Leo Naphta, who often debates with the humanist Lodovico Settembrini. For 10 points, Hans Castorp spends seven years at a Swiss sanatorium in what novel by Thomas Mann?

ANSWER: *The Magic Mountain*

<A. Keyal, Long Fiction>

## Bonuses

1. This region's Kerma kingdom is believed to have allied with the Hyksos to conquer Upper Egypt. For 10 points each:

[E] Name this region known for producing deadly archers. This region mostly in modern-day Sudan was north of the first cataract of the Nile.

ANSWER: **Nubia**

[M] Nubia was conquered by the first pharaoh of this name. The third pharaoh of this name was initially co-ruler with his aunt Hatshepsut before taking power and defeating the Canaanites at the battle of Megiddo.

ANSWER: **Thutmose** (“TUT-moze”) [or **Thutmoses**; accept **Thutmose I** or **Thutmose III**]

[H] This Kushite king is traditionally believed to have conquered Lower Egypt, though recent scholarship suggests that may have been done by Shebitku. His namesake Stone is a religious text that was once part of the Temple of Ptah in Memphis.

ANSWER: **Shabaka** [or **Shabako**; accept **Shabaka Stone**]

<Raje, Other History>

2. This poet claimed to “raise my knife” at “books that are read in the ordinary way” and urged “let us have no more of that incessant back and forth motion of our eyes” in his unfinished conceptual work *The Book*. For 10 points each:

[M] Name this Symbolist poet whose typographical experimentation includes varying fonts and spacing throughout his poem “A Throw of the Dice Will Never Abolish Chance.”

ANSWER: Stéphane **Mallarmé**

[H] Quentin Meillassoux (“may-ah-SOO”) posited a code woven through “A Throw of the Dice” based on its mention of a “unique” one of these things. Meillassoux’s book-length “decipherment” of the poem is thus titled for one of these things “and the Siren.”

ANSWER: **numbers** [or **nombbre**; accept *The Number and the Siren*]

[E] Mallarmé scattered a few fully-capitalized words throughout his much less visually experimental poem titled for the “Afternoon” of one of these creatures, which inspired a prelude by Claude Debussy.

ANSWER: **faun** [or **faune**; accept “The Afternoon of a **Faun**” or “L’Après-midi d’un **faune**”; accept “Prelude to the Afternoon of a **Faun**” or “Prélude à l’Après-midi d’un **faune**”]

<Kulkarni, Poetry>

3. Michael Nielsen and Isaac Chuang introduced the principle that this action can always be deferred until the end of a quantum circuit. For 10 points each:

[M] Name this action that causes a wave function to reduce to a single eigenfunction of some physical quantity.

ANSWER: **measurement** [or **measuring** a system; or **observation** or **observing** a system]

[E] In this thought experiment introduced by an Austrian physicist, observing an animal that is in a superposition of being dead and alive forces the animal to become either dead or alive.

ANSWER: **Schrödinger’s cat**

[H] In this thought experiment, an apparent contradiction arises when the observer measures a superposition state prepared by the superobserver, and afterwards the observer sees an eigenstate while the superobserver sees an entangled state.

ANSWER: **Wigner’s friend**

<Parameswaran, Physics>

4. In Book II of *The Republic*, Adeimantus criticizes these people for supporting a moral code that values the semblance of justice over justice itself. For 10 points each:

[M] Name these people. Socrates argues that these people should be kept out of the ideal city because they imitate things without knowing what makes those things good or bad.

ANSWER: **poets** [accept **playwrights** or **tragedians**; prompt on **authors** or **artists** or **writers**]

[E] In *Preface to Plato*, Eric Havelock argued that Plato's attack on poets reflects a shift in Greek culture stemming from the introduction of this technology. Literate cultures possess this technology, unlike primary oral cultures.

ANSWER: **writing** [or **reading** or **text**; accept **script** or **alphabet**]

[H] According to Havelock, Plato signaled his disdain for poetry by labeling it with this term instead of *episteme* ("ep-ih-STEE-me"). Parmenides distinguished between a "way of *aletheia* ("ah-LEE-thee-ah")" and a way described by this term. An English translation is fine.

ANSWER: **doxa** [or **opinion**; prompt on **belief**]

<French, Philosophy>

5. The most feasible way of accessing this place is either to fly to Lake Kasba or to drive northeast from La Ronge. For 10 points each:

[H] Name this location that was unintentionally created in 1999 following the Nunavut Act. This hard-to-reach area is located between Kasba and Hasbala Lakes in the only taiga area of Nunavut.

ANSWER: **four corners** of Canada [accept **quadripoint**; accept answers describing the **meeting point** of **four** Canadian provinces or territories]

[E] *Three answers required.* The most famous quadripoint in the US is the Four Corners in the southwest. Name any three of the four states that make up those Four Corners.

ANSWER: **Utah** OR **Colorado** OR **Arizona** OR **New Mexico** [accept any three answers]

[M] The American Four Corners lies within this federally-designated area governed from Window Rock. This area observes Daylight Saving Time despite being partially located within Arizona, which does not observe it.

ANSWER: **Navajo** Nation [or **Navajoland**; or **Naabeehó** Bináhásdzo]

<Lo, Geography>

6. The redefinition of this SI unit relied on the incredible accuracy of the X-ray crystal density method. For 10 points each:

[H] Name this unit that is no longer related to any other SI unit after the 2019 redefinition of base units.

ANSWER: **mole**

[E] After the redefinition of the mole, the molar mass of this isotope now has an associated uncertainty. This isotope has 6 protons and 6 neutrons.

ANSWER: **carbon-12** [or  $^{12}\text{C}$ ; accept **C-12**]

[M] The isotope dilution method for this technique was critical to the redefinition of the mole. In one experimental method, samples are introduced into an inductively coupled plasma and then analyzed with this technique.

ANSWER: **mass spectrometry** [or **mass spectroscopy**; or **MS**]

<Settle, Chemistry>



7. Philomusus ventures on an allegorical “pilgrimage” to one of these places named Parnassus in the first entry of an anonymous trilogy of plays. For 10 points each:

[H] Identify these locations. The disillusioned Ingenioso in the Parnassus plays is based on Thomas Nashe who, like Christopher Marlowe, was one of the dramatists and pamphleteers known as the “wits” of these places.

ANSWER: **universities** [or **colleges** or **university**; accept **University** Wits; accept **Oxford** University or **Cambridge** University; prompt on **schools**]

[E] Many academic dramas like the Parnassus plays were written in the “neo” form of this language. Students in 16th-century England often put on bawdy comedies in this language by Plautus and Terence.

ANSWER: **Latin** [accept Neo-**Latin**]

[M] The Parnassus plays also feature the dim-witted Stupido, one of these people who decries “vain arts.” The hypocritical Zeal-of-the-land Busy in Ben Jonson’s *Bartholomew Fair* satirizes these people, who got Parliament to shut down all theatres in 1642.

ANSWER: **Puritans**

<R. Keyal, Drama>

8. While in prison, this man wrote the essay “Why I am an Atheist” after witnessing the detrimental impact of Hindu–Muslim riots on the independence cause. For 10 points each:

[H] Name this Indian freedom fighter who killed a British police officer in revenge for the death of nationalist leader Lala Lajpat Rai. He was executed by the British at the age of 23.

ANSWER: **Bhagat Singh** [prompt on **Singh**]

[M] Fellow revolutionary Udham Singh spent 30 years planning to assassinate Michael O’Dwyer for his role in this massacre carried out by British officer Reginald Dyer.

ANSWER: **Amritsar** Massacre [or **Jallianwala Bagh** Massacre]

[E] This first prime minister of India supported Bhagat Singh’s hunger strike in prison. In the 1920s, this man wrote a series of educational letters to his daughter, Indira Gandhi.

ANSWER: Jawaharlal **Nehru**

<Raje, World History>

9. The Ibadī school recognizes four kinds of these people: those of secrecy, exchange, glory, and defense. For 10 points each:

[M] Name this term. Ibadī Muslims recognize multiple, democratically-elected people known by this term, while Shia Muslims only recognize one, “infallible” person of this title who must be of Muhammad’s family line.

ANSWER: **imam** [accept **imām** *al-kitmān*, **imām** *al-shārī*, **imām** *al-zuhūr*, or **imām** *al-difā*]

[E] Ibadīs also differ from Sunni Muslims in that they view the *Tartib al-Musnad* as the authoritative source of these records of the sayings and actions of Muhammad, while most Sunnis prefer the *Sahih al-Bukhari*.

ANSWER: **hadith** [or **ahadith**; or **hadiths**]

[H] Ibadī theology mostly resembles this other school in asserting that God’s attributes are part of his essence and that God has no physical nature. However, Ibadīs and Asharis differ from this rationalist theology in their beliefs in predestination and occasionalism.

ANSWER: **Mu’tazila** [or **Mu’tazilites**; or **Mu’tazili**]

<A. Keyal, Religion>

10. Louis Vierne, who mainly composed for this instrument, died while giving a recital on it. For 10 points each:  
[M] Name this instrument played by César Franck (“say-zar fronk”) to make a living. Charles-Marie Widor (“vee-DOR”) wrote ten solo symphonies for this instrument, which also gives its name to another composer’s 1886 Symphony No. 3.

ANSWER: pipe **organ** [accept church **organ**]

[E] This composer’s Third Symphony is nicknamed “Organ” for its prominent usage of the instrument. He depicted kangaroos, an elephant, and a swan in his *Carnival of the Animals*.

ANSWER: Camille **Saint-Saëns** [or Charles-Camille **Saint-Saëns**]

[H] This French composer served as Louis Vierne’s assistant organist at Notre-Dame Cathedral. The Vichy regime originally commissioned a requiem by this composer partially modeled on the one by Gabriel Fauré (“for-AY”).

ANSWER: Maurice **Durufié**

<Golden, Classical Music>

11. The book that introduced this genre is often criticized for ignoring 20th-century speculative fiction in favor of books like Jan Potocki’s (“po-TOTS-kee’s”) *The Manuscript Found in Saragossa* and Jacques Cazotte’s *The Devil in Love*. For 10 points each:

[H] Name this genre characterized by a hesitation between belief and disbelief in the supernatural. It was outlined in a 1970 book taking a “Structural Approach to a Literary Genre” by Bulgarian critic Tzvetan Todorov.

ANSWER: the **fantastic** [or **fantastic** literature; accept **fantastical** or **fantastique** or *The Fantastic*; reject “fantasy”]

[M] Todorov claimed the fantastic existed in the liminal space between the marvelous and this concept. An essay by Sigmund Freud illustrates this concept with the lifelike doll Olympia from E. T. A. Hoffman’s “The Sandman.”

ANSWER: the **uncanny** [accept “The **Uncanny**” or “Das **Unheimliche**”]

[E] Freudian theory informed Todorov’s analysis of this collection. He listed conversion and avoiding punishment as the two major plot structures among this collection’s hundred stories, told by people fleeing a plague in Florence.

ANSWER: *The **Decameron*** [or **Decamerone**] (by Giovanni Boccaccio)

<R. Keyal, Misc. Literature>

12. UCLA professor Jesse Byock (“BYE-ock”) leads an archeological survey in this country’s Mosfell Valley. For 10 points each:

[E] Name this country whose *landnám* period is analyzed in Byock’s book on its “Viking Age.” In this country, “law-speakers” gave speeches at the Althing, the oldest surviving parliament in the world.

ANSWER: **Iceland**

[H] In *Viking Age Iceland*, Byock analyzes the roles ordinary farmers had in choosing these Icelandic chieftains. These chieftains met yearly with *thingmen* at the Althing, and they held great power during the Age of the Sturlungs.

ANSWER: **godí** [or **goði**; or **gothi**; accept **godar** or **gothar**]

[M] The *Eyrbyggja* (“AIR-big-yah”) *Saga* describes the feud between Vigfus and a *godí* with this first name. A chieftain and historian from the Sturlung clan with this first name compiled Swedish and Norse sagas into the *Heimskringla*.

ANSWER: **Snorri** [accept **Snorri** Godi; accept **Snorri** Sturluson]

<Parameswaran, European History>

13. As a budding ornithologist, you're trying to figure out if the bird you just saw was a scarlet tanager ("TAN-uh-ger"). For 10 points each:

[E] The first thing you do is verify the tanager's type of this thing, which you can corroborate using Cornell's database of them at the Macaulay Library. For other birds, these things can consist of trills or hoots.

ANSWER: bird **calls** [or bird **songs**; prompt on **sounds** made by birds by asking "what are they specifically called?"]

[M] You try to identify the tanager by seeing if it "sallies," a type of this behavior in which the tanager flies into the air and back to its nest. Through mimicry of poisonous monarch butterflies, viceroy butterflies deter this behavior.

ANSWER: **predation** [or **hunting**; accept clear equivalents, such as **being eaten**]

[H] After successfully identifying the tanager, you use this technique to estimate the tanager's population by tagging certain birds. You can then use the Lincoln-Petersen estimator to predict the total population.

ANSWER: **mark** and **recapture** [or **capture-mark-recapture**; or **capture-recapture**]

<Parameswaran, Biology>

14. Answer the following about the use of utility functions in consumer choice theory, for 10 points each.

[E] Consumers maximize utility subject to what constraint, the goods and services that one can buy given prices and income? Personal examples of these financial plans often account for factors like expenses and debt repayment.

ANSWER: **budget** constraint [accept **budgets**]

[M] Consumers exhibit this behavior if their expected utility function is concave, which can be quantified by the Arrow-Pratt measure. Prospect theory predicts that people exhibit this behavior when dealing with potential gains.

ANSWER: **risk aversion** [accept equivalents such as being **risk averse**]

[H] Consumer preferences have this property if they can be represented by a utility function that is homogeneous of degree one. The ratio of goods demanded by consumers with these types of preferences only depends on the ratio of prices of the goods and services.

ANSWER: **homothetic** preferences [accept **homothetic** utility function]

<Smith, Social Science>

15. These things create a pattern on kimonos when using the technique of *shibori*. For 10 points each:

[H] Name these things that are drawn or stamped onto cloth in *batik*. The Indonesian practice of *ikat* uses a dyeing technique named for these things, which are substances that prevent dye from reaching part of the cloth.

ANSWER: **resists** [or **resisting agents**; accept **resist-dyeing**]

[M] *Ikat* involves either resist-dyeing these threads, which are lengthwise on a fabric, or weft threads, which are crosswise.

ANSWER: **warp** threads [or **warp** yarns]

[E] Dutch traders brought resist-dyed prints made from this substance from Indonesia to West Africa. When used as a resist in *batik*, this melted substance is a mixture of its paraffin form and a type sourced from bees.

ANSWER: **wax** [or bees**wax**; or paraffin **wax**]

<Golden, Other Arts>

16. David Davis argued that it was unconstitutional for military tribunals to try civilians when civilian courts still operated in a case issued following this conflict. For 10 points each:

[E] Name this conflict. The case *Ex parte Merryman*, whose majority opinion was written by Roger Taney (“TAW-nee”), upheld Abraham Lincoln’s suspension of *habeas corpus* during this conflict.

ANSWER: American **Civil War**

[H] This attorney general under FDR argued that the defendants in question did not have the right of *habeas corpus* because they were German spies in *Ex parte Quirin*. This attorney general was one of the only officials to oppose Japanese internment.

ANSWER: Francis **Biddle**

[M] The Supreme Court upheld the right of *habeas corpus* to Guantánamo Bay detainees in two cases involving this cabinet member. This person claimed that “there are known knowns” when asked about WMDs.

ANSWER: Donald **Rumsfeld**

<Parameswaran, American History>

17. Tracy Chevalier used an elementary school playground in Washington, D.C., as the setting of her novel based on this play, whose title *New Boy* is Osei Kokote, the son of a Ghanaian diplomat. For 10 points each:

[E] John Kani and Paul Robeson have starred in productions of what Shakespeare play about a “Moor of Venice?”

ANSWER: **Othello**

[M] This frequent Shakespeare translator drew on Othello in creating the aging narrator Bento Santiago, whose jealousy for his wife Capitu occupies much of this author’s novel *Dom Casmurro*.

ANSWER: **Machado** de Assis (“mah-SHAH-doo jee ah-SEES”) [or Joaquim Maria **Machado** de Assis]

[H] Mustafa imagines saying “I am no Othello. I am a lie” while on trial for the murder of his wife Jean Morris in this novel. This novel’s unnamed narrator is haunted by Mustafa’s presence after returning to his riverside village.

ANSWER: **Season of Migration to the North** (by Tayeb Salih)

<R. Keyal, Long Fiction>

18. Satellites traveling in this orbit are hit by ionizing radiation from the inner Van Allen belt. For 10 points each:

[M] Name this orbit whose period ranges from 90 to 120 minutes. Most artificial satellites, including the ISS, are in this orbit.

ANSWER: **low Earth** orbit [or **LEO**; prompt on **near Earth** orbit]

[E] Huge expulsions of plasma and magnetic field from this region of the Sun interact with Earth’s magnetic field to cause geomagnetic storms. This region is the outermost layer of a star.

ANSWER: **corona**

[H] A coronal mass ejection likely caused this 1859 geomagnetic storm that interfered with telegraph systems and made auroras appear across the globe. This event named for an English astronomer was similar in energy to a coronal mass ejection that missed Earth in July 2012.

ANSWER: **Carrington** event

<Parameswaran, Other Science>

19. Answer the following about hunting in various Native American belief systems, for 10 points each.

[E] People hunt these animals from large herds on the Great Plains due to humanity's victory in a footrace. Hunters who followed a white one of these animals met a woman who gave the Lakota their sacred rites.

ANSWER: **buffalo** [or **bison**]

[H] In creation stories of this tribe, Kanati gave his sons bows to hunt with after they accidentally released all the animals from a cave. This tribe, which received knowledge of corn cultivation from Selu, represented foreign powers like white settlers with exaggerated masks in the Booger Dance.

ANSWER: **Cherokee** [or **Tsalagi**; or **Anigiduwagi**; or **Aniyvwiyai**]

[M] According to the Iroquois, this phenomenon occurs because the Bear's blood is spilled during celestial hunts. In Mesopotamian mythology, this phenomenon occurs because Geshtinanna and Dumuzi trade places.

ANSWER: **changing** of the colors of the **leaves** [accept changing of the **seasons**; accept any answers indicating a specific **season**]

<Yang, Mythology>

20. It's not glass, but works in this medium were tightly-decorated with hundreds of types of flowers on a green background known as *millefleur* ("meel-flurr"). For 10 points each:

[M] Name this medium that was used to create *The Lady and the Unicorn* and *The Hunt of the Unicorn*. The phrase "and the English left fleeing" was likely added in 1814 to another work in this medium.

ANSWER: **tapestries** [or **embroidery**; prompt on **cloth** or **fabric**] (The work is the Bayeux Tapestry.)

[H] The rediscovery of *The Lady and the Unicorn* in the 1800s inspired this artist's painting depicting three unicorns surrounded by princesses. John the Baptist's floating head illuminates Herod's hall in one of this artist's other paintings.

ANSWER: Gustave **Moreau** (The first painting is *Les Licornes*. The second painting is *The Apparition*.)

[E] Along with a hunter blowing a horn, unicorns were used to allegorize this Biblical scene. Fra Angelico's version of this scene shows the angel Gabriel visiting the Virgin Mary in a portico.

ANSWER: the **Annunciation**

<Parameswaran, Painting and Sculpture>