2022 ACF Winter

Packet 6 by William and Mary A, Florida A, UIUC B, Virginia Tech A

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Tossups

1. As part of the CIA-backed Human Ecology Fund, this researcher was tasked with covert brainwashing in order to gain information about Nikita Khrushchev. One of this researcher’s works details the “poor helpless individual tied into his seat by the ironclad bonds of conformity.” This author of *Freedom to Learn* described people who do not obtain their full potential and live disingenuous lives as “incongruent.” This psychologist, who pioneered student-centered learning, claimed that the organism’s one basic tendency is “to actualize” in one of 19 propositions about human behavior. This psychologist argued that therapists should exhibit unconditional positive regard toward patients. For 10 points, name this psychologist who wrote *On Becoming a Person* and pioneered client-centered therapy.

ANSWER: Carl **Rogers** [or Carl Ransom **Rogers**]

<Social Science>

2. The simplest of the Bridgman equations sets a differential of this quantity equal to [emphasize] *plus* one. An infinitesimal change proportional to this quantity’s inverse square is predicted by the Gibbs–Helmholtz equation. On the Born square, this quantity appears between Helmholtz free energy and Gibbs free energy. The second virial coefficient depends on this quantity, and is zero for a value of this quantity named for Robert Boyle. With other variables held constant, this quantity's reciprocal is the derivative of entropy with respect to internal energy. Thermodynamic beta equals one over this quantity times the Boltzmann constant. Entropy goes to zero as this quantity goes to its minimum value. For 10 points, name this quantity whose minimum is absolute zero.

ANSWER: **temperature** [or **T**; accept Boyle **temperature**]

<Physics>

3. A leader of this island’s National Council of Maubere Resistance wrote *The Crossing* in its Tetum (“TEH-toom”) language. John Martinkus reported on this island in *A Dirty Little War*. This island unveiled a statue of Christ on a globe days after Bishop Carlos Belo (“BELL-oo”) won the Nobel Peace Prize in a P.R. stunt criticized by the activist “Xanana” (“shah-NAH-nah”). On this island, Max Stahl filmed the 1991 massacre of protesters in the Santa Cruz cemetery. José Ramos-Horta (“zhoo-ZEH RAH-mooze-OR-tah”) now leads this island’s revolutionary party Fretilin. The majority-Catholic province of East Nusa Tenggara administers half of this Lesser Sunda island, where a former Portuguese colony was invaded in 1975 by the “New Order” forces of Suharto. For 10 points, 1999 violence in Dili ended Indonesia’s occupation of a country named for what island’s east?

ANSWER: **Timor** [accept East **Timor** or **Timor**-Leste or **Timor** Timur or **Timor** Lorosa’e or Democratic Republic of **Timor**-Leste or República Democrática de **Timor**-Leste; accept Portuguese **Timor** or **Timor** Português; accept West **Timor** or **Timor** Barat; accept 1999 **Timorese** Crisis] (Luís Cardoso wrote *The Crossing*. The statue is the Cristo Rei of Dili.)

<World History>

4. Trusheim’s (“TRUSS-hime’s”) model of this substance’s movement includes the formation of “turtle-back structures.” Downhill flows either called namakiers (“nam-ah-KEE-erz”) or this substance’s namesake “glaciers” exemplify its surface structures, which also include allochthonous (“ah-LOCK-thuh-nuss”) “canopies.” Buoyancy causes this substance to intrude upwards into rocks in a form of diapirism (“dai-ah-PEER-izm”) that produces a common type of petroleum trap, which are called its namesake “domes.” Satellite altimeters are often calibrated in a region named for this substance near Uyuni (“oo-YOO-nee”) due to its near-perfect flatness. Cubic crystals of this compound form the mineral halite (“HAY-lite”). For 10 points, namesake “pans” and “flats” are covered in what solid substance, which is left behind when seawater evaporates?

ANSWER: **salt** [or table **salt** or rock **salt** or **sodium chloride** or **NaCl**; accept **salt** glaciers or **salt** surface structures or **salt** domes or **salt** pans or **salt** flats; accept **Salar** de Uyuni; accept **halite** until read]

<Other Science>

5. In a story, a soldier in this conflict remembers the advice “do what you conceive to be your duty” upon waking up in a clump of laurel. In another story set during this conflict, a man sees “trees like giant garden plants” after comparing sand to “diamonds, rubies, emeralds.” A soldier in this conflict falls off a cliff face when his own son reluctantly shoots his horse in the story “A Horseman in the Sky.” The protagonist of a story set during this conflict wanders through a strange forest and hears a clanging from his ticking watch. In that story set during this conflict, the protagonist feels “a stunning blow” to the back of his neck after imagining that he has escaped execution. For 10 points, Peyton Farquhar is hanged during what conflict in “An Occurrence at Owl Creek Bridge” by Ambrose Bierce?

ANSWER: American **Civil War** [or US **Civil War**; or **War Between the States**; or **War** of the **Rebellion**]

<American Literature>

6. *Note to moderator: Read the answerline carefully.*

A ruler of this ethnicity supposedly dreamed of a tree that emerged from his navel into the world, presaging conquests that inspired Paul Wittek’s outmoded “Ghaza thesis.” Generals of this ethnicity like Bugha al-Kabir and Wasif assassinated al-Mutawakkil and began the Anarchy at Samarra. During their early medieval western migrations, divisions of this ethnicity founded the Karluk Karakhanids, Oghuz Pecheneg state, Cuman–Kipchak confederation, and Khazar Khaganate. Persianized princes of this ethnicity founded the Sultanate of Rûm. Many beyliks emerged from an empire ruled by this ethnicity that defeated Romanos IV at Manzikert under Alp Arslan, the Seljuks. For 10 points, what ethnic group’s sultans Osman I, Orhan, and Murad I conquered Western Anatolia for the Ottomans?

ANSWER: **Turk**s [or **Türk**ler or **Turk**ic peoples; accept **Türkmen** or **Turcoman**s; accept **Ottoman** Turks, **Osman**lı Türkleri, **Seljuk** Turks, **Khazar**s, **Kipchak**s, **Cuman**s, **Pecheneg**s, **Oghuz** Turks, or **Karluk**s until each is read; accept **Polovtsian**s or **Polovtsy**; accept **Ashina**; accept **Patzinak**s; accept Wasif al-**Turki** or Bugha al-**Turki**; reject “Mongols” or “Golden Horde”; reject “Jews” or “Ashkenazim”] (The first line refers to Osman I’s dream.)

<Other History>

7. A player for this team was the only attendee of the first televised MLB Draft, in which he was selected 25th. A viral tweet about this team notes that they were defeated 8-to-3 after referencing the fictitious “Tungsten Arm O’Doyle.” This team’s players wear a cowboy hat in the dugout after hitting home runs in honor of their founder, Gene Autry. This team’s former player Tim Salmon informs a nickname for one of its current players, who led the MLB in total wins above replacement in the 2010s. Three years after leaving the NPB, another player for this team won a unanimous AL MVP for a season in which he was named an All-Star as both a designated hitter and a pitcher. For 10 points, Mike Trout and Shohei Ohtani (“sho-hay oh-TAW-nee”) play for what MLB team, nicknamed the Halos?

ANSWER: Los Angeles **Angels** [or Anaheim **Angels**; or Los Angeles **Angels** of Anaheim; prompt on L.A. or Los Angeles] (Salmon’s nickname was “King Fish”; Trout’s is “King Fish 2.0.”)

<Popular Culture>

8. This novel ends by recalling a phrase written in a “school copybook with twenty pages” in a child’s “delicate calligraphy,” per Magda Bogin’s English translation. A man in this novel has a heart attack after his son shows up naked in front of the gates of Congress. A Conservative Senate candidate in this novel adopts the slogan “those who have always won will win again.” This novel opens and closes with the words “Barrabás came to us by sea,” which are written by a character who predicts an earthquake that destroys the estate of Las Tres Marías. In this novel, the death of the green-haired Rosa the Beautiful is predicted by Clara del Valle (“VAI-ay”). For 10 points, generations of the Trueba family are chronicled in what magical realist novel by Isabel Allende (“ai-YEN-day”)?

ANSWER: *The* ***House of the Spirits*** [or *La* ***casa de los espíritus***]

<World Literature>

9. Barbarians seeking one of these objects killed the Gothic king Heidrek, who owned one cursed to cause three evil deeds. Two sons of Hreidmarr (“RIDE-marr”) were killed after a hero tested one of these objects using a piece of wool in a river. Odin placed one of these objects in the Barnstokkr (“BARN-stoker”) tree during the wedding of Sigmund. Freyr gave up a sentient one of these objects to Skírnir (“SKEER-neer”) in order to marry the giantess Gerd. The dwarves Dvalinn and Durinn created one of these objects that was cursed to kill someone every time it was used, called Tyrfing (“TEER-fing”). Heimdall uses a large one of these objects called Hofund to open up the Bifrost. For 10 points, name these weapons that include Gram, which Sigurd used to slay Fafnir.

ANSWER: **sword**s [or **sverd**s; prompt on weapons or arms or armaments until “weapons” is read; prompt on Tyrfing or Gram or Hofund until each is read by asking “what type of object is that?”]

<Mythology>

10. In this city, Cole Porter helped a performer known as “Bricktop” set up clubs after she taught him how to dance the Black Bottom and Charleston. Loïe Fuller popularized her veiled “serpentine dance” in this city, whose bargoers nicknamed a performer the “glutton” because she downed their drinks while dancing. A cheetah with a diamond collar named Chiquita terrorized a backing orchestra in this city during performances of a “savage dance.” Gene Kelly discovered Leslie Caron in this city, where a number wearing a skirt of fake bananas was performed by a mostly-nude Josephine Baker. A red windmill adorns a cabaret in this city that birthed the can-can. For 10 points, name this city home to the Folies Bergère (“foh-LEE bayr-ZHAYR”) and Moulin Rouge.

ANSWER: **Paris** (The “glutton” was La Goulue.)

<Other Fine Arts (Dance)>

11. Practitioners of this religion symbolize one of their deities by keeping a statue of a cement head in a dish behind a door in their home. Parables in this religion called patakis include stories about its four “warrior deities.” One of this religion’s male gods, who is sometimes syncretized with Saint Barbara, is clothed in white and red, wears a crown, and wields a double ax. Practitioners of this religion perform drumming and dancing in *bembe* ceremonies. In 1993, a law in the city of Hialeah (“hai-uh-LEE-uh”) was challenged by a church of this religion named for its healer god Babalu Aye (“BAH-buh-loo AH-yay”). This [emphasize] *syncretic* religion’s pantheon incorporates the supreme being Olódùmarè (“oh-loh-doo-mah-ray”) from Yoruba religion. For 10 points, chicken sacrifices are controversially performed in what Afro-Caribbean religion that is popular in Cuba?

ANSWER: **Santería** [or **Regla de Ocha** or Order of **Lucumí**; prompt on Yoruba religion until read; prompt on Ìṣẹ̀ṣe]

<Religion>

12. This artist was inspired by a trip to visit a mural by José Clemente Orozco to paint a piece in which yellow faces surround a woman arched over a set of bones, titled *Bald Woman with Skeleton.* In 1973, a painting by this artist was controversially purchased for 1.3 million dollars by the National Gallery of Australia. Marcel Duchamp suggested that this artist paint one of his works on canvas rather than directly on the wall of Peggy Guggenheim’s apartment. This artist was introduced to Clement Greenberg by his wife, Lee Krasner. A painting by this artist created using liquid paint was described as a “dense bird’s nest.” This artist painted *Blue Poles,* *Lavender Mist,* and *Full Fathom Five.* For 10 points, name this abstract expressionist known for his “drip” technique.

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

<Painting & Sculpture>

13. It’s not blood clotting, but as part of this process, plasmin helps cumulus cells detach. A drug that is used on-label to induce this process, clomiphene citrate, has been replaced as first-line treatment by letrozole, an aromatase inhibitor. During this process, CD24 is upregulated by a subpopulation of granulosa cells. Mittelschmirtz is a pinching pain associated with this process, which is immediately preceded by an increase in basal body temperature. An LH spike triggers this process, in which a follicle ruptures and leaves behind a corpus luteum, which secretes progesterone to thicken the endometrial lining. This event typically happens on day 14 of the menstrual cycle. For 10 points, name this event in which an egg is released from the ovary.

ANSWER: **ovulation** [or word forms like **ovulate**; prompt on reproduction; prompt on menstruation or periods or menstrual cycle or equivalents; prompt on follicular rupture or equivalents; prompt on descriptive answers like egg release]

<Biology>

14. The firm Colnaghi and Co. commissioned watercolors of this conflict from the artist William Simpson. A set of bells taken as spoils during this conflict from the Church of the Twelve Apostles were later installed in Windsor Castle’s Round Tower. A painting by Robert Gibb memorialized when soldiers in this conflict were told “there is no retreat from here, men. You must die where you stand.” A Roger Fenton photograph taken during this conflict depicts cannonballs lying scattered on a deserted road. During a battle of this conflict, an enemy cavalry charge was repulsed by the “Thin Red Line.” In that battle of this conflict, a misinterpreted order from Lord Raglan caused a disastrous British cavalry charge. For 10 points, name this 1850s conflict that included the “Charge of the Light Brigade.”

ANSWER: **Crimean** War [or **Kırım** Savaşı; or **Vostochnaya** voyna] (The battle was the Battle of Balaclava.)

<European History>

15. A nonclassical bioisostere (“bio-iso-stere”) for this molecule is the [1.1.1]propellane (“one-one-one-propel-ane”) that was introduced into a clinical gamma-secretase candidate. Michael Levitt calculated that this molecule can act as a weak hydrogen bond acceptor. This molecule can engage in offset or T-shaped stacking interactions. The anisotropic effect explains why the NMR peak for the protons of this molecule is unusually downfield at 7.34 ppm. Two substituents on this molecule or its derivatives can be arranged *ortho*, *meta*, or *para*. August Kekulé described the structure of this molecule, which is simplified by drawing a circle within a hexagon. For 10 points, name this molecule with four degrees of unsaturation that is the simplest neutral aromatic hydrocarbon.

ANSWER: **benzene** [or **C6H6**; accept **[6]annulene** or **phenyl**; reject “benzyl” or “benzoyl”]

<Chemistry>

16. A character in this play wishes to command “the ocean to overwhelm the world,” foreshadowing his later request to be “chang’d into small water-drops, and fall into the ocean.” Another character in this play is tested on the makeup of the Solar System, but refuses to answer the question “who made the world?” In his final line, this play’s title character pleads “I’ll burn my books!” as a clock strikes twelve. After seeing the words “homo, fuge” appear on his arm, a man in this play travels to Rome and plays tricks on the Pope. This play’s protagonist requests, “make me immortal with a kiss” and asks, “was this the face that launch’d a thousand ships?” to the ghost of Helen of Troy. For 10 points, name this Christopher Marlowe play in which the title scholar sells his soul to Mephistophilis.

ANSWER: ***Doctor Faustus*** [or *The Tragical History of the Life and Death of* ***Doctor Faustus***; reject “Faust”]

<British Literature>

17. One of these performers whistles the hymn “Will There Be Any Stars In My Crown?” in the *Night-Spell I* (“one”) movement of a 12-movement suite. One of these performers shouts, “Chri-ste!” (“KREE-stay”) in a *Crucifixus* movement literally shaped like a cross, part of a zodiac-inspired piece by George Crumb. Square note heads indicate that these performers should play harmonics in a set of 153 increasingly hard pieces by Béla Bartók. Before playing *Sonatas and Interludes*, these performers use screws, bolts, and rubber chunks to “prepare” their instrument. One of these performers, David Tudor, barely interacted with his instrument at the premiere of John Cage’s *4’33”* (“four minutes thirty-three seconds”). For 10 points, name these performers who play a common keyboard instrument with 88 keys.

ANSWER: **pianist**s [or **piano** players; accept prepared **piano** players; prompt on musicians] (The first two lines refer to Crumb’s *Makrokosmos*. The third line refers to Bartók’s *Mikrokosmos*.)

<Classical Music>

18. A manifesto for a 20th-century revival of this thinker’s ideas claims that understanding a society’s “mind-nature” is the only way to fully understand its history. This thinker asks “to study and practice what one has studied, is this not a pleasure?” at the beginning of a book often split into “upper” and “lower” texts by scholars. This thinker is credited with the argument that social disorder stems from not referring to things by terms corresponding to reality. A book of sayings by this philosopher argues for the importance of “rectification of names” and an ethical virtue called *rén* (“run”), as well as emphasizing filial piety. For 10 points, students of what influential Chinese philosopher compiled his sayings in the *Analects*?

ANSWER: **Confucius** [or **Kǒng** Fūzǐ; or **Kǒng**zǐ; or Master **Kǒng**; accept **Confucian**ism; accept New **Confucian**ism]

<Philosophy>

19. This service was provided by a government organization whose Democratic employees were replaced with thousands of Republicans under John Wanamaker. Illegal contracts awarded to workers providing this service were exposed during the Grant administration in the Star Routes scandal. In 1893, Georgia congressman Tom Watson pushed for a bill that would provide this service for free to rural areas. People attempting to use this service to promote contraceptives or lewd materials were prosecuted by the Comstock Act. A translation of Herodotus’s *Histories* inspired an unofficial motto used by workers providing this service, which begins “Neither snow nor rain nor heat nor gloom of night.” For 10 points, name this service provided by the USPS.

ANSWER: **post**al service [or **mail**; accept mail **delivery** or package **delivery** or parcel **delivery** or equivalents; accept **courier** service; accept **USPS** until read; accept Rural Free **Delivery**]

<American History>

20. In a short story, Baron Kilnevich tells other characters with this trait to cast aside all shame and exposes Tarasevich for embezzling 400,000 rubles earmarked for widows and orphans. In that story, characters with this trait discuss the philosopher Platon Nikolaevich and one of them repeatedly says the nonsense word “Bobok.” Vladimir Nabokov argued that a novel partly titled for this trait exemplifies “poshlust” through its descriptions of a character who visits Manilov and Nozdryov. A charismatic conman goes to landowners to buy papers representing serfs with this title trait in a novel centered on a “get rich quick” scheme invented by Chichikov. For 10 points, name this trait that describes the title “Souls” of a novel by Nikolai Gogol.

ANSWER: being **dead** [or **mertvykh**; accept being a **ghost** or **spirit** or **phantom** or equivalents; accept ***Dead*** *Souls* or ***Myertvye*** *dushi*] (The first story is Dostoevsky’s “Bobok.”)

<European Literature>

TB. A character from this country studies engineering geology and encounters the title member of the “Theater of Morality Tales” troupe after becoming a well digger. A girl travels from Arizona to this country to search for her roots in a novel titled for the “Bastard” of this country’s largest city. This country is the setting of *The Red-Headed Woman* and a novel that includes a diagram with axes labeled Reason, Imagination, and Memory. Butterfly, Stork, and Olive are suspected of murdering the miniaturist Elegant Effendi in a novel from this country whose protagonist, Black, falls in love with Shekure. In another novel from this country, Ipek thinks that the police found Blue because of the poet Ka, who investigates the suicides of the “headscarf girls.” For 10 points, name this home country of Orhan Pamuk.

ANSWER: **Turkey** [or Republic of **Turkey**; or **Türkiye** Cumhuriyeti] (The second line refers to *The Bastard of Istanbul* by Elif Shafak. The unnamed novels are *My Name is Red* and *Snow*.)

<TB (European Literature)>

Bonuses

1. A poem about this historical figure that begins, “He is dead. Our uncrowned king is dead” is called “a very fine piece of writing” by Mr. Crofton. For 10 points each:

[10h] Name this politician whom the canvassers Mr. Henchy and Mr. Lyons discuss on the anniversary of his death in the story “Ivy Day in the Committee Room.”

ANSWER: Charles **Parnell** [or Charles Stewart **Parnell**]

[10m] Parnell’s supposed complicity in the Phoenix Park murders was satirized as HCE’s vague sexual encounter with a “cad with a pipe” in this novel about the Earwicker family, which begins, “riverrun, past Eve and Adam’s.”

ANSWER: ***Finnegans Wake***

[10e] James Joyce’s story “Ivy Day in the Committee Room” and his novel *Finnegans Wake* are both set in this city, which also titles a Joyce collection that includes the stories “The Dead” and “Araby.”

ANSWER: **Dublin** [or **Baile Átha Cliath**; accept ***Dublin****ers*]

<British Literature>

2. A book cites Borges’s (“BOR-hess’s”) story “On Exactitude in Science” as a demonstration of the “precession” of these things, in which they begin to precede reality. For 10 points each:

[10h] Name these imitations of persons or objects that eventually supersede the original. These are the first title things of a book that was required reading for the crew of *The Matrix* and even appears in the movie itself.

ANSWER: **simulacra** (“sim-yoo-LACK-rah”) [or **simulacrum**; or **simulacres**; accept ***Simulacra*** *and Simulation* or ***Simulacre*** *et Simulations*; reject “simulations”] (The book is Jean Baudrillard’s *Simulacra and Simulation*.)

[10m] Jean Baudrillard (“zhahn boh-dree-YAR”) names these things as some of the causes blurring the line between simulacra and reality. “Hot” and “cool” types of these things were identified by a Canadian theorist who pioneered the study of them.

ANSWER: **media** [or **medium**s; accept hot **media**; accept cool **media**; prompt on specific forms of media such as television, the internet, film, print, etc. by asking “that is a specific example of what class of things?”] (The theorist is Marshall McLuhan.)

[10e] Baudrillard specifically warns that media can alter our collective memory of tragedies like this event. Hannah Arendt wrote about the “banality of evil” of this event’s “architect” in her book *Eichmann in Jerusalem*.

ANSWER: **Holocaust** [or **Shoah** or Ha**Shoah**; prompt on World War II or the Second World War or WW2 or WWII]

<Philosophy>

3. Viriathus led a rebellion that Polybius called the “fiery war” in this region, where velites (“WAY-lee-tace”) units failed to counter weapons like the pilum (“PEE-loom”) and falcata in the Numantine War. For 10 points each:

[10m] Identify this region that contained the mysterious Tartessos civilization. After Sulla’s civil war, Quintus Sertorius led a revolt in this region, where “New Carthage” controlled rich silver mines before the Battle of Ilipa (“ILL-ipp-uh”).

ANSWER: **Hispania** [accept **Iberia** or **Iberia**n peninsula; accept **Spain** or **España**; accept **Portugal**; accept **Catalonia** or **Catalunya**; accept Hispania **Baetica** or Hispania **Tarraconensis** or **Hispania** Citerior or **Hispania** Ulterior; accept **Lusitania** or **Lusitanian** War; accept **Andalusia** or **Andalucía**; accept **Murcia**] (“New Carthage” is Cartagena.)

[10h] Rome conquered Hispania after Augustus’s wars with the Cantabri and the people of this modern-day Spanish principality. The Hispano-Visigothic ruler Pelagius founded a Christian kingdom based in this region circa 718 CE.

ANSWER: **Asturias** [or **Asturies** or Principado de **Asturias** or Principáu d’**Asturies** or Principao d’**Asturias**; accept Kingdom of **Asturias** or Reinu d’**Asturies** or **Asturum** Regnum; accept **Astures** or **Astyrs**]

[10e] The Castro Culture may have first built coastal hillforts in Asturias during the “late” “Atlantic” arm of this period, which the three-age system places between the Stone and Iron ages.

ANSWER: **Bronze** Age [accept Late **Bronze** Age; accept Atlantic **Bronze** Age]

<Other History>

4. For a 1974 piece, this artist pretended to be an architecture journalist to interview construction workers and had colleagues learn to shoot a rope nearly 140 feet in length with a bow and arrow. For 10 points each:

[10h] Name this artist whose high-wire walk between the Twin Towers of the World Trade Center was documented in the film *Man on Wire*.

ANSWER: Philippe **Petit** (“fee-LEEP puh-TEE”)

[10e] In a 1986 film, Petit re-enacted one of the many tightrope walks across this river by his idol, French acrobat Blondin (“blon-DAN”). Annie Taylor survived a trip in a barrel over the falls of this river on the border of Ontario and New York.

ANSWER: **Niagara** River [accept **Niagara** Falls; accept **Niagara** Gorge]

[10m] This fellow French artist wrote the preface to Petit’s book *On the High Wire*. This artist’s “Bip the Clown” act made him the world’s most famous mime in the latter half of the 20th century.

ANSWER: Marcel **Marceau** (“mar-SOH”) [or Marcel **Mangel**]

<Other Academic>

5. Eight percent of this gas’s human emissions are caused by concrete manufacturing. For 10 points each:

[10e] The heating of limestone to make lime releases what greenhouse gas that is produced and breathed out in human metabolism?

ANSWER: **carbon dioxide** [or **CO2** (“C-O-two”)]

[10h] This vibrational mode is one of the three IR-active vibrational modes for carbon dioxide, along with two bending modes. This mode maintains the collinearity of the three nuclei.

ANSWER: **asymmetric stretch**ing [or **antisymmetric stretch**ing; or **νas** (“nu-A-S”); prompt on stretching modes]

[10m] Asymmetric stretching of carbon dioxide is an IR-active mode because it leads to changes in this quantity with respect to vibration. This quantity is typically measured in debyes (“duh-BIZE”).

ANSWER: **dipole** moment [or electric **dipole** moment; reject “magnetic dipole moment”]

<Chemistry>

6. The Pate (“PAH-tay”) Chronicle in this language records a widespread origin myth in which local rulers claimed the Persian title “Shirazi” to legitimize their status as Islamic elites. For 10 points each:

[10e] Name this Bantu lingua franca whose many Arabic loanwords arose from Indian Ocean trade in cities like Lamu, Sofala, and Kilwa along its namesake “coast” in East Africa.

ANSWER: **Swahili** [or Ki**swahili**; accept **Swahili** coast]

[10h] Míng vases suggest that this Swahili Coast city eclipsed nearby Mambrui by the 15th century, when it sent giraffes to Bengal. This city in modern-day Kenya allied with Portugal to compete with Mombasa for Gujarati trade.

ANSWER: **Malindi** [accept **Malindi** Kingdom; accept **Malindi** giraffe]

[10m] Malindi supplied Khambhat with this product, which was exported by the Hausa city-states of Rano and Kano. The Tuareg color their clothes with this product, which was cultivated in Bengal and imitated with woad.

ANSWER: **indigo** [or **babba** or **nīla**; or ***Indigofera*** *tinctoria*; prompt on blue dyes or pigments or colorants or paint]

<World History>

7. Answer the following about the links between architecture and shoe design, for 10 points each.

[10e] Le Corbusier inspired the Bata shoe company’s functionalist redesign of a city in this country. “Fred and Ginger” was the original name of Frank Gehry’s Dancing House in this country’s capital, Prague.

ANSWER: **Czechia** [or **Czech** Republic or **Česká** republika; prompt on Czechoslovakia]

[10h] In 2012, this architect teamed up with Converse to release Chuck Taylor trainers printed with a poem about his longing for the “free and sensual curve.” This architect designed the headquarters of the French Communist Party while in exile in Paris.

ANSWER: Oscar **Niemeyer** [or Oscar Ribeiro de Almeida **Niemeyer** Soares Filho] (The two collaborated because they both celebrated their 104th birthdays in 2012.)

[10m] In 2015, this architect was one of five invited by Rem Koolhaas’s (“KOHL-hahss’s”) company United Nude to design 3D-printed women’s shoes. This Deconstructivist architect, who also created shoes for Melissa, designed the Guǎngzhōu Opera House.

ANSWER: Zahā **Ḥadīd** [or Dame Zahā Mohammad **Ḥadīd**]

<Other Arts (Architecture)>

8. This character states that “a servant is a servant” while her lover counters, “and a whore is a whore.” For 10 points each:

[10m] Name this dramatic character who loses the courage to escape to Lake Como when her father returns after her servant decapitates her pet greenfinch.

ANSWER: Miss **Julie** [or Fröken **Julie**]

[10e] *Miss Julie* is a play by this Swedish author of *The Ghost Sonata* and the novel *The Red Room*.

ANSWER: August **Strindberg** [or Johan August **Strindberg**]

[10h] Miss Julie tells Jean that she has a recurring dream in which she sits on one of these objects but “can find no rest or peace.” Bernick tries to sink the *Indian Girl* in a Henrik Ibsen play titled for these objects.

ANSWER: a **pillar** [or synonyms such as **column**; accept *The* ***Pillar****s of Society* or ***Pillar****s of the Community* or *Samfundets* ***støtte****r*]

<European Literature>

9. Like the yeast two-hybrid assay, this assay is used to generate interactome maps. For 10 points each:

[10h] Name this assay in which the binding partners of a given protein are pulled down using an antibody specific to that protein. Subsequent to this assay, mass spec is used to identify binding partners.

ANSWER: **co-IP** [or **co-immunoprecipitation**; prompt on IP or immunoprecipitation or precipitation or pulldown]

[10m] Co-IP experiments often use epitope tags, such as a popular one with six copies of this positively charged amino acid. This amino acid with an imidazole side chain coordinates the oxygen and the iron in hemoglobin.

ANSWER: **histidine** [or **His** or **H**]

[10e] IP experiments are also used to determine binding sites for proteins on this molecule. This double-helical molecule wraps around histones to form chromatin in the nucleus.

ANSWER: **DNA** [or **deoxyribonucleic acid**; prompt on nucleic acids or polynucleotides]

<Biology>

10. The 2021 Supreme Court decision *Google LLC v. Oracle America, Inc.* mainly concerned the question of whether this protection applied to APIs. For 10 points each:

[10e] Name this basic form of intellectual property protection that applies to works like books and songs.

ANSWER: **copyright**

[10m] In the case, Google argued that their work based on Java APIs fell under this doctrine, under which copyrighted works can be adapted in limited ways depending on factors including the effect on the original work’s value.

ANSWER: **fair use** doctrine

[10h] Another factor invoked in the case was whether a work has this property of having a different purpose to the original work. The importance of this property derives from a case centered on a 2 Live Crew parody of “Oh, Pretty Woman.”

ANSWER: **transformative** use [or **transform**ation or other word forms]

<Social Science>

11. Gravity Probe B used four gyroscopes to experimentally verify the geodetic (“jee-oh-DET-ick”) effect, which is a form of this process sometimes named for Willem de Sitter. For 10 points each:

[10m] Name this process whose “torque-induced” type affects the perihelion of Mercury by about 38 arcseconds per century.

ANSWER: **precess**ion [accept torque-induced **precess**ion; accept de Sitter **precess**ion]

[10e] Both of those forms of precession were predicted by this theory of gravitation, which Albert Einstein proposed a decade after a related “special” theory.

ANSWER: **general relativity** [or **GR**; prompt on relativity or general]

[10h] Gravity Probe B also tested Lense–Thirring (“LEN-zuh-TIH-ring”) precession, the first known form of this effect in which a rotating massive object perturbs spacetime for objects orbiting it.

ANSWER: **frame-drag**ging [prompt on dragging]

<Physics>

12. Answer the following about foreign deities in the Roman world, for 10 points each.

[10m] An Anatolian chief god became syncretized as Jupiter Dolichenus in a mystery cult popular among these people in the Roman empire. These people were the majority of the practitioners of the cult of Mithras.

ANSWER: **soldier**s [or **miles** or **milites**; accept **equites**; accept specific types of soldiers such as **infantry**men or **cavalry**men]

[10e] Plutarch proposed that this Roman god was equivalent to the Phrygian god Sabazius, as well as the Jewish God. This deity is the Roman god of wine.

ANSWER: **Bacchus** [prompt on Dionysus by asking “who is his Roman equivalent?”]

[10h] The cult of the Syrian sun god Elagabalus was based around a Roman temple at this location that housed the god’s cult stone. Romulus killed Remus at this specific location to become the first Roman king.

ANSWER: **Palatine** Hill [or Mons **Palatinus**; or Collis **Palatium**; or il **Palatino**]

<Mythology>

13. John Hajnal (“HOY-nol”) divided Europe via an imaginary line into two regions where this practice either occurred early or late in life. For 10 points each:

[10h] Name this practice whose “clandestine” type was officially deemed invalid by the decree “Tametsi” promulgated at the Council of Trent.

ANSWER: **marriage**s [or **wedding**s or **nuptial**s or equivalents]

[10e] A possible cause in the delayed age for marriage is the large increase in women who entered farming as a result of this disease, which wiped out nearly a third of Europe’s population in the 14th century.

ANSWER: **plague** [or **Black Death**; or Black **Plague**; accept bubonic **plague** or pneumonic **plague** or septicemic **plague**; accept Great **Plague** or Great **Pestilence**; accept second **plague** pandemic; prompt on Great Morality; prompt on pneumonia]

[10m] Gratian, a jurist from this city, argued that consent and sexual union were the only things required to affirm marriages. This city’s university, founded in 1088, is the oldest continuously operated university in the world.

ANSWER: **Bologna** [or **Bulåggna**; or **Bononia**; accept University of **Bologna** or Università di **Bologna**]

<European History>

14. The fourth movement of this symphony, which features the timpani and the snare drum playing a march as a funeral dirge, supposedly symbolizes soldiers muttering “our business is rejoicing.” For 10 points each:

[10m] Name this symphony whose composer called it “a Soviet artist’s creative response to justified criticism.”

ANSWER: Dmitri **Shostakovich**’s Symphony No. **5** in D minor [or **Shostakovich**’s **fifth** symphony; prompt on Symphony No. 5]

[10h] Shostakovich’s fifth symphony responded to an article accusing him of belonging to this ill-defined artistic school. He later satirized the Zhdanov Decree, which accused him and other artists of being in this school, in a cantata about the official Rayok.

ANSWER: **formalism** [or word forms like **formalist**; or **formalizm**; accept *Anti-****Formalist*** *Rayok*]

[10e] Shostakovich’s eighth piece for this ensemble quotes his fifth symphony and mourns “victims of fascism and the war.” Two violins, a viola, and a cello make up this ensemble.

ANSWER: string **quartet**

<Classical Music>

15. Charles Parham was horrified to see that worshipers were not segregated during the meetings that popularized this revival. For 10 points each:

[10h] Name this Pentecostal revival led by William J. Seymour, who organized a series of meetings in the early 20th century.

ANSWER: **Azusa** Street Revival [or **Azusa** Revival]

[10e] Participants in the Azusa Street Revival sometimes fell to the ground in a manner described as being “slain” by this figure, who forms the Trinity along with the Son and the Father.

ANSWER: Holy **Spirit** [or Holy **Ghost**; or **Spiritus** Sanctus; accept slain in the **Spirit**]

[10m] Pentecostalism’s emphasis on glossolalia and miracles characterizes it as a type of Christianity named for this adjective, which refers to the gifts of the Holy Spirit.

ANSWER: **charismatic** Christianity

<Religion>

16. Namesake “ratios” of two of these functions are the subject of a type of hypothesis test named for Samuel Wilks. For 10 points each:

[10h] Name these functions whose derivative is the score function. The derivatives of these functions’ logarithms are set to zero in a frequentist methodology.

ANSWER: **likelihood** functions [accept log-**likelihood** functions; accept maximum **likelihood** estimation; accept **likelihood** ratio tests]

[10e] The likelihood principle states that likelihood functions inherently contain all the useful information from these sets. This term refers to smaller datasets taken from a population, which can be done with or without replacement.

ANSWER: **sample**s [accept **sampling**]

[10m] Likelihood functions relate priors and posteriors in this type of statistical inference, which is contrasted with frequentism and is based on a result concerning conditional probabilities.

ANSWER: **Bayes**ian inference [accept **Bayes**’ theorem or **Bayes**’ rule]

<Other Science>

17. The protagonist of a novel gives a lecture on this person’s mother, intercut with a simultaneous lecture on Elvis’s mother by Murray Jay Siskind. For 10 points each:

[10m] Name this historical person, the subject of study for a professor at the College-on-the-Hill who is exposed to an “Airborne Toxic Event.”

ANSWER: Adolf **Hitler** [accept **Hitler** studies]

[10e] Jack Gladney invents the field of Hitler studies in *White Noise*, a novel by this postmodern American author of *Underworld*.

ANSWER: Don **DeLillo** [or Donald Richard **DeLillo**]

[10h] The Nazi studies professor William Frederick Kohler inserts a depressing account of his life into his book on Hitler’s Germany in this American author’s novel *The Tunnel*.

ANSWER: William H. **Gass** [or William Howard **Gass**]

<American Literature>

18. This collection’s opening poem describes a “little flute of a reed thou hast carried over hills and dales” of which “[thou] hast breathed through it melodies eternally new.” For 10 points each:

[10m] Name this collection whose English-language version opens with the line “Thou hast made me endless, such is thy pleasure.”

ANSWER: ***Gitanjali*** (“ghee-TAHN-juh-lee”) [or ***Song Offerings***]

[10e] This Bengali author of *Gitanjali* wrote many songs, including the national anthems of India and Bangladesh.

ANSWER: Rabindranath **Tagore** [or Rabindranath **Thakur**; accept **Gurudev**; prompt on Biswakobi or Kobiguru]

[10h] In this Tagore novel, Nikhilesh says that he “is not running amuck crying ‘Bande Mataram,’” a reference to the national song of India. In this novel, Sandip symbolizes the anti-colonial Swadeshi movement.

ANSWER: *The* ***Home and the World*** [or ***Ghôre Baire*** or ***Ghare Baire***]

<World Literature>

19. A duke of this city likely commissioned one of three Renaissance *Ideal City* paintings, another of which is housed in and named for this city. For 10 points each:

[10m] Name this city that also partly titles a painting that depicts a maid rummaging through a chest behind its central nude woman.

ANSWER: **Urbino** [or **​​Urbìn**; accept *Venus of* ***Urbino***]

[10e] On the left of the *Ideal City* of Baltimore, a building modeled after this largest Roman amphitheater commissioned by Vespasian may symbolize the importance of providing entertainment for the masses.

ANSWER: **Colosseum** [or **Colosseo**; or **Flavian Amphitheater** or **Amphitheatrum Flavium** or **Anfiteatro Flavio**]

[10h] The *Ideal City* in Berlin is attributed to either Francesco di Giorgio Martini or this artist. This Florentine artist also painted three paintings of a 1432 battle, including one of Niccolò da Tolentino.

ANSWER: Paolo **Uccello** [or Paolo **di Dono**] (Uccello’s *Battle of San Romano* comprises the three paintings.)

<Painting & Sculpture>

20. Answer the following about John Randolph, who broke with the Democratic-Republicans over states’ rights to form the tertium quids, for 10 points each.

[10e] Randolph broke with Jefferson after the latter pursued this type of proceeding against Samuel Chase. Andrew Johnson was the only president to be successfully convicted under one of these proceedings.

ANSWER: **impeachment**s [accept impeachment trials; prompt on trials or tribunals]

[10h] Randolph was enraged by the federal government’s response towards this scandal. The Supreme Court ruled that sales made during this scandal could not be repealed due to the Contract Clause in an 1810 case.

ANSWER: **Yazoo** land fraud [or **Yazoo** scandal or **Yazoo** land scandal] (The case was *Fletcher v. Peck*.)

[10m] Randolph was a co-founder of this organization, which helped resettle African-Americans in places like Liberia on the argument that white and African-American people should not live together.

ANSWER: **American Colonization** Society [or **ACS**; or Society for the **Colonization of Free People of Color of America**]  
<American History>

TB. While hosting this tour at his Bedminster golf course, Donald Trump lamented that “nobody’s gotten to the bottom of 9/11,” despite previously blaming the attacks on this tour’s benefactor. For 10 points each:

[10m] Name this recently founded professional golf tour financed by the Saudi Arabian sovereign wealth fund. Its roster of golfers includes Bryson DeChambeau, Dustin Johnson, and Phil Mickelson.

ANSWER: **LIV** ("liv") Golf

[10e] In April 2022, DeChambeau appeared in a golf video with the sports YouTubers Dude Perfect, who came under fire in July for filming a sponsored video in this country, the host of the 2022 FIFA World Cup.

ANSWER: **Qaṭar** [or State of **Qaṭar**; or Dawlat **Qaṭar**]

[10h] The Saudi investment into LIV and Qaṭar’s World Cup hosting bid have both been cited as examples of this practice, in which corrupt regimes sponsor competitive events to improve their reputations.

ANSWER: **sportswash**ing

<TB (Pop Culture)>