

2020 ACF Winter

Packet D by Florida A, Rutgers B, UCSD A

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Tossups

1. In a novel by this author, a professor's wife confesses to an affair with her daughter's lover and vows to never read her husband's diary. This author created a character who gratifies himself reading Burton's *Arabian Nights* and is pressured to rent a flat for Louise. That character created by this author of *The Key* goes on a trip with his father and his father's young mistress to watch puppet theater. In a novel named for falling snow, this author wrote about a disinherited doll-maker who contracts anthrax while living with a man whom she had tried to elope with earlier. One novel by this author details the unhappy marriage of Misako and Kaname while another describes the search for a suitor for Yukiko. For 10 points, name this Japanese author of *Some Prefer Nettles* and *The Makioka Sisters*.

ANSWER: Jun'ichirō **Tanizaki** [or **Tanizaki** Jun'ichirō]

<World/Other Literature>

2. Eating fish that contains high amounts of this molecule can cause scombroid food poisoning. The tuberomammillary nucleus contains most of the cells that release this molecule in the brain. Medications like famotidine and ranitidine are used to decrease stomach acid production through the inhibition of this molecule's receptors located on parietal ("puh-RYE-uh-tull") cells. Receptors of this molecule can be inhibited by diphenhydramine ("dye-fen-HY-druh-meen"). It's not serotonin, but this molecule is secreted by enterochromaffin-like ("EN-ter-oh-KRO-ma-fin-like") cells in response to gastrin. This molecule and heparin ("HEP-uh-rin") are released when immunoglobulin ("im-yoo-no-GLOB-yoo-lin") E causes the degranulation ("dee-GRAN-yoo-lay-shun") of mast cells. High levels of this signalling molecule in the blood can cause anaphylactic ("AN-uh-fuh-lac-tick") shock. For 10 points, name this molecule released in the inflammatory response, often released in allergic reactions.

ANSWER: **histamine** [accept **histaminergic** neurons]

<Biology>

3. Holland-Rantos sold tools for this practice, which Charles Knowlton promoted in *The Fruits of Philosophy*. Fania Mindell and Ethel Byrne brought this practice to Brownsville, Brooklyn. Augustus Hand ruled in favor of Japanese imports for this practice in *US v. One Package*. A "Rebel" newsletter spread this practice with the slogan "No gods, no masters." In a 1965 case about this practice, Justice William O. Douglas wrote that the Bill of Rights implied additional "penumbras." A eugenicist who founded a "League" for this practice in 1921 was prosecuted under the 1873 Comstock Act, which restricted tools for it, like pessaries, as "obscene." *Griswold v. Connecticut* protected this service, which was provided by Margaret Sanger's clinic. For 10 points, Planned Parenthood offers what service as Plan B pills?

ANSWER: **birth control** [accept **contraceptives**; accept the **pill** or combined oral **contraceptive** pill; accept other contraceptives such as **diaphragms** or **condoms**; accept **pessaries** until read; accept **family planning**; accept **levonorgestrel**; do not accept or prompt on "abortion" or "sterilization"]

<American History>

4. This architect designed the Kneses (“k’NESS-iss”) Tifereth Israel Synagogue for free as an atonement for his support of the Nazi Party. The landscape for one of this architect’s homes is modeled on Nicolas Poussin’s *The Burial of Phocion* and features a large red gatehouse known as “Da Monsta.” The top of a building designed by this architect resembles a piece of Chippendale furniture and is located at 550 Madison Avenue. This first winner of the Pritzker Prize and his partner David Whitney lived in a home he designed in New Canaan, Connecticut. This architect created the Four Seasons Restaurant and other interior designs for a collaborative project with Mies van der Rohe; that project is the Seagram Building. For 10 points, name this creator of the Glass House.

ANSWER: Philip **Johnson** [or Philip Cortelyou **Johnson**]

<Other Arts>

5. In many dialects of this language, if the sound “s” appears in a syllabic coda, it is debuccalized. This language’s coronal tap became a lateral approximant in its Brule (“broo-lee”) dialect. In the consonantal readjustment of this language’s medieval Old form, the word-initial sound “f” weakened to “h” in words meaning “grain flour” and “to do.” Since 1815, this language’s voiceless velar fricative is usually written as a “j” instead of an “x” in orthography set by its Royal Academy. This language’s words for “pillow,” “mayor,” and “chess” are among hundreds derived from Arabic. Most speakers of this language merge the sounds “s” and “th” in seseo (“say-SAY-oh”). Yeísmo (“yay-EEZ-mo”) occurs in this language’s dialects Paisa (“PY-sah”) and Rioplatense (“ree-oh-pla-TEN-say”). For 10 points, what Romance language uses a tilde (“TIL-duh”) to mark the *eñe* (“EN-yay”)?

ANSWER: **Spanish** [or **español**; accept **castellano** or **Castilian**; accept Old **Spanish**; accept **Isleño** Spanish or specific dialects of Spanish; accept the Royal **Spanish** Academy or Real Academia **Española**]

<Social Science>

6. Czechoslovak military advisers were hired by this country to assist the German confidante Hans Kundt after the disastrous battle of Campo Via. One conflict was nicknamed the “Ten Cents War” after this country imposed a ten-cent tax for every quintal mined by the British company CSFA. The “Butcher of Lyon” Klaus Barbie organized a death squad in this country that executed a guerrilla who said “Shoot, coward. You are only going to kill a man.” While leading this country’s Ñancahuazú (“nyan-ka-wa-SOO”) Guerrilla against René Barrientos, Che Guevara died here. In the 1930s, this country lost parts of its Chaco region to Paraguay. For 10 points, Chile’s conquest of the Atacama Desert landlocked what loser of the War of the Pacific, whose navy was relegated to patrolling Lake Titicaca?

ANSWER: **Bolivia** [or Plurinational State of **Bolivia**; or Estado Plurinacional de **Bolivia**]

<World History>

7. This phenomenon causes P-type reactions that reversibly convert spiropyrans from form A to form B. Forensic scientists oxidize an aromatic amine (“uh-MEEN”) named for this phenomenon to detect blood spills. Ligand (“LYE-gund”) binding is detected by exposing a metal film to this phenomenon in surface plasmon resonance. Vertical arrows on a Jablonski diagram depict transitions caused by this phenomenon over the lifetime of a “donor.” Breaking Wint-O-Green Lifesavers can cause this phenomenon, whose excess can result in “bleaching” after it causes Förster resonance energy transfer between chromophores. Quantum yield measures the absorbance of this phenomenon when it excites dyes like mCherry and GFP. For 10 points, phosphorescence emits what phenomenon that underlies photochemistry?

ANSWER: **light** [accept polarized **light** or specific types of light; accept triboluminescence or chemiluminescence; accept **luminol**; accept the addition of **photons**; accept **h-nu** or **hv**; prompt on electromagnetic radiation or **energy** or **waves**; accept **lasers**; accept **photochromism**; accept **photo**induced electron transfer or **PET**; accept **phosphorescence** until read; accept **fluorescence** resonance energy transfer or **FRET**]

<Chemistry>

8. Midrashim (“meed-rah-SHEEM”) compare this man to a “shoshbin,” or “best man,” for a figurative “bridegroom.” This man names a “song” proclaiming “their wine is the venom of serpents,” which arose as a separate poem per the documentary hypothesis. After God tries to kill this Samaritan saint at an inn, his son is circumcised by his wife from Midian, who is often viewed as Ethiopian due to a passage about his “Cushite” wife. Korah leads a rebellion against this man, who presents the Priestly Code for the Tabernacle along with numerous purity violations in his namesake “Law.” This husband of Zipporah explains how to gather manna. This brother of the prophetess Miriam receives the Ten Commandments on Mount Sinai. For 10 points, what Jewish prophet leads the Israelites out of Egypt in Exodus?

ANSWER: **Moses** [or **Moshe** Rabbenu; accept the Song of **Moses**; accept **Mosaic** Law or Torat **Moshe**] (The “bridegroom” is the Israelites and the “bride” is the Torah.)

<Religion>

9. Donna Haraway has claimed that the “vital spirit” of this thinker’s best-known concept is a “metaphor with explanatory power.” A book by this thinker is the best-known component of an encyclopedia edited by Otto Neurath (“NOY-rat”) dedicated to a reductionist “unity” thesis. This thinker used the example of experiment subjects wearing glasses with inverting lenses to underline the transition between incommensurables. This thinker contrasted the “extraordinary” type of one phenomenon with its “normal” counterpart, which he likened to puzzle-solving. This thinker claimed that theories only undergo change when anomalies create a crisis, disputing Karl Popper’s theory of falsifiability. For 10 points, name this thinker who introduced the idea of paradigm shifts in *The Structure of Scientific Revolutions*.

ANSWER: Thomas **Kuhn**

<Philosophy>

10. In a play by this author, an ogre-like cook sucks all the nourishment out of the food she serves and a young woman lives in the closet after her affair is revealed. A rapidly aging army officer created by this author pines after the opera singer Victoria and attempts to reach Fairhaven, only to end up in the hellish Foulstrand. Another play by this author is set in a boarding house that is home to the wheelchair-bound Hummel and the student Arkenholtz. This author of *A Dream Play* wrote another play in which the Count’s daughter plans to go to Italy to start a hotel. In that play, the valet Jean (“zhawn”) beheads a canary with a razor that the title character later uses to kill herself. For 10 points, name this Swedish playwright of *The Ghost Sonata* and *Miss Julie*.

ANSWER: August **Strindberg**

<European Literature>

11. This artist chose Titian’s *Mars, Venus, and Cupid* and Da Vinci’s *Mona Lisa* as part of his collaboration with Louis Vuitton that placed famous artworks on handbags. This artist created a billboard as part of the sexually explicit *Made in Heaven* series, which depicts him lying on top of his ex-wife, the pornstar Ilona Staller. A porcelain statue by this artist depicts the monkey Bubbles sitting in Michael Jackson’s lap as part of his *Banalities* series. In 2019, a sculpture by this artist of a rabbit became the most expensive work by a living artist. A sculpture of a *Puppy* made of flowers by this artist sits in front of the Guggenheim Bilbao. For 10 points, name this contemporary American artist who created five versions of his stainless steel sculpture *Balloon Dog*.

ANSWER: Jeff **Koons** [or Jeffrey L. **Koons**]

<Painting/Sculpture>

12. In a battle between these two powers, Samuel Greig surprised the opposing side by sailing his fire-ships into their fleet in the dead of night. During a war between these two powers, Carol I gained respect for his command at the Siege of Plevna. The fortress of Taganrog was abandoned after these powers fought in the Pruth River Campaign. The Treaty of San Stefano was signed after one of these powers nearly invaded the other's capital. Important turning points in the wars between these two powers came with the treaties of Jassy ("YAH-see") and Kuchuk-Kainarji. Land in Crimea was transferred to one of these powers from the other, which was nicknamed the "sick man of Europe." For 10 points, name these two powers whose armies clashed under the general Alexander Suvorov and various *pashas*.

ANSWER: **Russian** Empire AND **Ottoman** Empire [prompt on Turkey in place of "Ottoman Empire"; accept the **Sublime Porte** in place of "Ottoman Empire"] (The first line is about the Battle of Chesme.)

<European History>

13. Designs that are "sensitive" to this substance may incorporate HOGs, detention vaults, and bioswales. *Juncus*, *Carex*, and *Coreopsis* improve bioretention systems for this substance, which is "harvested" in a "contributing area" by "micro-catchments." This substance is tested for coliform counts and biological oxygen demand to determine if its "grey" form can be reclaimed. It's not carbon, but Tony Allen formulated a "virtual" form of this substance in commodities like meat that Arjen Hoekstra used to account for its global "footprint." A known volume of this substance is introduced in load testing for septic systems. This substance's biogeochemical cycle includes advection, runoff, transpiration, and condensation. For 10 points, name this substance studied by hydrologists.

ANSWER: **water** [or **H2O**; accept **water** cycle or **hydrological** cycle until "hydrologists" is read; accept grey**water** or wastew**ater**; prompt on sewage; accept virtual **water** or **water** footprint; accept **hydraulic** load testing; accept storm**water** or **rain**water or **rain** gardens; accept **water**-sensitive urban design]

<Other Science>

14. This author's attempt to write a book about the murder of Reverend Willie Maxwell is the subject of Casey Cep's novel *The Furious Hours*. At the end of a novel by this author, the protagonist is slapped by her uncle and decides not to leave town. The protagonist of that novel by this author is horrified by finding a racist pamphlet titled "The Black Plague." In another novel by this author, the overweight Mr. Avery blames bad children for the first snow since Appomattox. In that novel by this author, a request to "bust up a chiffarobe" by Mayella Ewell results in an accusation of sexual assault against Tom Robinson. For 10 points, name this American author who wrote about Scout Finch in *Go Set a Watchman* and *To Kill a Mockingbird*.

ANSWER: Harper **Lee** [or Nelle Harper **Lee**]

<American Literature>

15. In 2011, a religious movement in this country tricked over 400 English teachers into traveling to Mexico, where they were beaten for not watching videos. A speech writer for this country's former president included incantations in speeches and led a cabal known as the "eight fairies." A religious movement in this country whose name translates to "New Heaven and Earth" exacerbated COVID-19 spread by encouraging practitioners to breathe in each other's spittle. The world's largest megachurch is in this country and has over 800,000 Pentecostal congregants. The first female president of this country was removed in 2017 over charges of corruption related to her top aide, the daughter of a cult leader, accepting bribes from *chaebols* ("cheh-balls"). For 10 points, name this country formerly led by Park Geun-hye ("gun-HEH").

ANSWER: **South Korea** [or the **Republic** of **Korea**; prompt on Korea]

<CE/Geo/Other/Pop Culture>

16. Eric Guiney and his son were killed in a car crash in this region after protesters threw stones at their milk float. The “five techniques” torture guidelines were used in this region against 342 people who were illegally detained in Operation Demetrius. An Anti H-Block candidate in this region won a legislative seat after participating in the “blanket” and “dirty” protests at Maze Prison. The Armalite and ballot box strategy was pursued in this region, where Bobby Sands died during a hunger strike. The Brighton Hotel was bombed by militants from this region trying to assassinate Margaret Thatcher. For 10 points, name this constituent region of the UK where Protestant and Catholic denizens clashed in the Troubles.

ANSWER: **Northern Ireland** [or **Tuaisceart Éireann**; prompt on Ulster; prompt on Ireland; prompt on the United Kingdom or UK]

<Other History>

17. After this character learns of a dream about a woman with a child trying to follow him along a winding road, he tells the dreamer not to worry about her ripped veil. In a meeting at Ferndean, this character wears a pearl necklace that was originally gifted to a woman who hears this character’s voice saying “I am coming... Wait for me” at Moor House. This character suggests to Blanche Ingram that he is not as wealthy as he appears while disguised as a gypsy. This character, the caretaker of Adèle Varens, asks the nurse Grace Poole to hide his first wife, Bertha Mason, in the attic. This character is blinded in a fire after he seeks a governess to teach at Thornfield Hall. For 10 points, name this husband of Jane Eyre.

ANSWER: Mr. **Rochester** [or **Edward** Fairfax Rochester]

<British Literature>

18. One of these objects is produced by assigning a cylinder’s coordinates to complex numbers labelled zeta, then mapping those coordinates to new coordinates by the transform zeta plus one-over-zeta. Ludwig Prandtl developed lifting-line theory to model three-dimensional examples of these objects. The vortex lattice method is used to model flow around these objects, which may be simplified using the horseshoe vortex model. A stagnation point is found at the rear of these objects due to their sharp trailing edges according to the Kutta condition. The asymmetry, or camber (“CAM-ber”), of these devices allows them to serve their function at zero angle of attack. For 10 points, name these objects whose motion through air provides airplanes lift.

ANSWER: **airfoils** [or airplane **wings**]

<Physics>

19. Lively F major movements surround an arioso-like D minor movement in an unusually-named solo work by this composer that is part of a collection contrasting two national styles. A short piece by this composer that consists almost entirely of ascending broken chords begins with C E in the left hand followed by G C E in the right hand. A work by this composer quotes a folk song about turnips and cabbage in a humorous *quodlibet*. This composer of the *Italian Concerto* wrote a work that repeats the opening aria after a sequence of 30 variations and was recorded in 1956 and 1981 by Glenn Gould. This composer wrote two books of preludes and fugues in all major and minor keys. For 10 points, name this Baroque composer of the *Goldberg Variations* and the *Well-Tempered Clavier*.

ANSWER: Johann Sebastian **Bach**

<Classical Music>

20. After he uses up all the torches that were lent to him, a man has one of these objects taken from him and placed on a barren tree, which begins to yield fruit; that tree later impregnates Lady Blood. After a rabbit retrieves one of these objects, a man swaps it out with a calabash, which explodes soon after. While checking to see if the dawn has come by peering out of his blowgun, Hunahpu loses one of these objects to Camazotz; the lords of Xibalba (“shee-BALL-buh”) then use it to play the ballgame with the Hero Twins. Two of these things were possessed by a beast that works with Eurytion to guard the cattle of Geryon. One of these objects is used to kill King Atlas after he refuses hospitality to a hero who used Athena’s polished shield to collect that one from a Gorgon. For 10 points, name these body parts that Cerberus has three of.

ANSWER: **heads** [or **skulls**; accept the **head** of Medusa; prompt on **balls** by asking “what object was being used as a ball?”; prompt on **calabash** or **squash** by asking “what object did those stand in for?”]

<Mythology>

21. Kath Walker published creation stories from this country after adopting a name for its paperbark tree, which lines fibercraft coolamon vessels used in berrigan smoking ceremonies. People in this country’s north practice secondary burial and record Madayin laws on bark paintings. “Message sticks” announce ceremonies using tjurunga among this country’s Arrernte (“AH-run-duh”) people, whose kurdaitcha men perform executions by pointing bones. John Antill’s ballet *Corroboree* appropriated this country’s rituals as part of the Jindyworobak Movement. Bruce Chatwin traced beliefs about music creating this country’s landscape in *The Songlines*. Bora initiation rites from this country use bullroarers to represent the Rainbow Serpent that created billabongs in the Dreamtime. For 10 points, what country contains the sacred red rock Uluru?

ANSWER: **Australia** [or Commonwealth of **Australia**] (The first sentence refers to Oodgeroo Noonuccal; the second line is about the Yolngu people.)

<Religion>

## Bonuses

1. Ottokar II led a kingdom in this region to prominence as the most powerful elector state of the Holy Roman Empire until his death at the Battle of Marchfeld. For 10 points each:

[10] Name this region where the Utraquists broke with mainstream Catholicism under the leadership of Jan Hus (“yon HOOS”).

ANSWER: **Bohemia** [or Kingdom of **Bohemia**; or **Böhmen**; or **Čechy**]

[10] The Hussites, desperate for a leader after the death of Hus, offered this grand duke the Bohemian throne. This leader allied with Polish forces to defeat the Teutonic Order at the Battle of Grunwald.

ANSWER: **Vytautas** the Great

[10] Hussites killed seven members of the Prague city council during an event of this type in 1419. A “Second” event of this type in 1618 Prague sparked the Thirty Years’ War.

ANSWER: **defenestration** [accept First **Defenestration** of Prague or Second **Defenestration** of Prague; accept **throwing people out of windows** or equivalents]

<European History>

2. Morris Louis drew on influences from a wide range of other artists. For 10 points each:

[10] Louis greatly admired Helen Frankenthaler, who was part of an art movement with this adjective in its name. Both Frankenthaler and Louis appeared in a Clement Greenberg exhibition titled for “Post-Painterly” and this term.

ANSWER: **abstract** [or **abstraction**; accept **Abstract** Expressionism or Post-Painterly **Abstraction**]

[10] Frankenthaler and Louis led a branch of abstract expressionism named for “fields” of this property. Barnett Newman broke this property up with “zips” on otherwise monochrome works.

ANSWER: **color** [accept **color** field painting]

[10] Louis also studied under this artist, who depicted a black figure being torn apart by white ones in *Cain in the United States*. A “Polyforum” houses this painter’s monumental *March of Humanity*.

ANSWER: David Alfaro **Siqueiros** [or José de Jesús Alfaro **Siqueiros**; accept Polyforum Cultural **Siqueiros**]

<Painting/Sculpture>

3. This novel ends with a character dying from falling out of a window, leaving it unclear whether it was a murder or a suicide. For 10 points each:

[10] Name this novel about the friendship between Irene Redfield and Clare Kendry. Clare performs the title action in order to stay with her husband Jack Bellew.

ANSWER: **Passing** (by Nella Larsen)

[10] At the end of this author’s story “*Désirée’s Baby*,” it is revealed that Armand, not Désirée, has African heritage, explaining why their child does not appear white. This author also wrote “The Story of an Hour.”

ANSWER: Kate **Chopin** [or Katherine **O’Flaherty**]

[10] A novel by James Weldon Johnson titled for this type of literary work depicts an “Ex-Colored Man” who passes for white. Maya Angelou’s *I Know Why the Caged Bird Sings* is another example of this genre.

ANSWER: **autobiography** [or **Autobiography of an Ex-Colored Man**; accept **memoir**]

<American Literature>

4. This effect is also known as recoilless nuclear resonance fluorescence and is typically observed in iron-57 nuclei. For 10 points each:

[10] Name this effect in which gamma radiation is absorbed and released by a solid-state atomic nucleus.

ANSWER: **Mössbauer** effect

[10] When performing Mössbauer spectroscopy, hyperfine interactions cause a splitting known by this term. Wolfgang Paul developed an ion trap known by this name that is commonly seen in mass spectrometers.

ANSWER: **quadrupole** splitting [accept **quadrupole** trap]

[10] The Mössbauer effect was central to the Pound–Rebka experiment, which attempted to validate this theory proposed by Einstein by observing gravitational redshift.

ANSWER: **general relativity** [or **GR**; prompt on relativity; do not accept or prompt on “special relativity”]

<Physics>

5. Reinhold Niebuhr left the Fellowship of Reconciliation after beginning to support some of these events as part of the “Christian realism” that he outlined in *Christianity and Power Politics*. For 10 points each:

[10] Identify these events analyzed by the *jus ad bellum* and *jus in bello* doctrines influenced by Gratian’s *Decretum*. The “holy” events of this kind in the Book of Joshua provided pretext for examples like the Crusades.

ANSWER: **wars** [accept **battle** or military **conflicts** or equivalents; accept just **war** theory; accept holy **war**]

[10] The Syrian legal scholar Wahbah al-Zuhayli argued that wars against aggressors are just, but wars for this purpose are not. This practice is forbidden by the most famous verse of the Quran, Al-Baqara 256, in contrast to the Sword Verse. A description is acceptable.

ANSWER: **forced conversion** to Islam [or **conversion under duress** or equivalents; prompt on conversion; accept “there is no **compulsion in religion**” or similar; prompt on fighting unbelievers or pagans or similar; prompt on territorial conquest]

[10] The RSS and VHP have led forced conversions of Indian Christians and Muslims called “Ghar Wapsi” in accordance with this nationalist ideology. This religious concept inspired the BJP to demolish Ayodhya’s Babri Mosque.

ANSWER: **Hindutva** [prompt on Hindu nationalism or Hinduness]

<Religion>

6. Loading the Project M romhack into *Super Smash Bros. Brawl* through the stage editor involved an exploit named, coincidentally, for “smashing” this data structure. For 10 points each:

[10] Name this structure that can “overflow” due to infinite recursion, a memory violation that lends its name to a popular programming Q&A website.

ANSWER: call **stack** [or the program **stack**; accept **stack** smash or Smash **Stack** or **stack** overflow]

[10] In ROP exploits, stack smashing can overwrite this value on the stack, allowing for arbitrary code execution without custom code injection. When a function is called, its arguments, saved registers, and this value are pushed onto the stack; and at the end, this value pops off the stack into register EIP.

ANSWER: **return address** [or the **program counter** or **PC**; prompt on return; prompt on pointer or memory address; do not accept or prompt on “return value” or “stack pointer”] (ROP is return-oriented programming.)

[10] When using gdb to output a backtrace of the stack, the return address is displayed in this number system in which values are prefixed by “0x” (“zero-X”). In this number system, it takes two characters between 0 and F to represent one byte.

ANSWER: **hexadecimal** [or **hex** digits; or **base 16**]

<Other Science>



7. After the ominous appearance of an eclipse that was accurately predicted by Thales of Miletus, this empire was quick to offer a draw to a rival power, led by Alyattes, at the Battle of Halys River. For 10 points each:

[10] Name this empire whose capital, Ecbatana, supposedly had seven differently-colored walls. This empire's ruler Deioces ("dy-oh-kees") created an early spy ring called "the king's eyes and ears."

ANSWER: **Median** Empire [or **Median** Kingdom; or the **Medes**; or **Madai**]

[10] Under Astyages ("ass-TYE-uh-jeez"), the Median Empire fell after the rise of this "great" Persian king, who founded the Achaemenid ("uh-KEE-muh-nid") Empire in modern-day Iran.

ANSWER: **Cyrus** the Great [or **Cyrus II** of Persia; or **Cyrus the Elder**]

[10] Under both the Median and Achaemenid Empires, men that occupied this administrative position acted as governors over regional provinces. Three individuals in this position, Datames, Orontes, and Ariobarzanes ("air-ee-oh-BAR-zuh-nee-z"), staged a "Great Revolt" against Artaxerxes II in 366 BC.

ANSWER: **satraps**

<Other History>

8. A work of this type describes how a statue of Priapus scares two witches away from the Garden of Maecenas with a loud fart. For 10 points each:

[10] Name this type of work that Horace wrote several books of. Historians believe that a Roman writer who is also known for witty epigrams like "the greatest reverence is due the young" was exiled for insulting a favorite of Emperor Domitian in one work of this type.

ANSWER: **satires**

[10] Juvenal declares that the Roman mob "follows Fortune" and "hates whoever she condemns" in a satire that coins this phrase, indicating that the masses can be easily placated with "two things only." The English translation is acceptable.

ANSWER: "**bread** and **circuses**" [accept in either order; or *panem et circenses*]

[10] Petronius's *Satyricon* is a prominent example of a genre of satire named for this ancient writer, which mixes prose and verse to criticize a subject. This writer, whose works are now all lost, is credited with inspiring later writers like Lucian and Seneca.

ANSWER: **Menippus** of Gadara [accept **Menippean** satire]

<World/Other Literature>

9. Bamboo bursting, an activity in which working cannons are constructed out of large pieces of bamboo, is practiced on this nation's October holiday of Jounen Kwéyòl ("ZHOO-nay KWAY-ole"). For 10 points each:

[10] Name this Caribbean island, the only country in the world named after a historical woman. This country in the Lesser Antilles between Martinique and Barbados names an iconic blue-headed, green-bodied parrot.

ANSWER: **Saint Lucia** ("LOO-sha") [or **St. Lucia**; accept **Saint Lucia** amazon]

[10] Visitors to an island named for these animals can explore the ruins of Fort Rodney and attend the Saint Lucia Jazz Festival. Martha, the last living member of a species of these animals, died in the Cincinnati Zoo in 1914, four years before the last Carolina parakeet.

ANSWER: **pigeons** [accept **Pigeon** Island or passenger **pigeons**; prompt on birds or doves]

[10] With fewer than 20 remaining in the wild, the Saint Lucian kouwès is the world's rarest species of this animal. Other examples of these animals found in Latin America include the anaconda and boa constrictor.

ANSWER: **snakes** [or **serpents**; prompt on reptiles]

<CE/Geo/Other/Pop Culture>

10. This instrument is paired with viola in a series of vignettes (“vin-YETS”) by Canadian composer Frederick Schipizky (“shih-PIS-kee”). For 10 points each:

[10] Name this instrument promoted by the virtuoso Domenico Dragonetti. Players of this lowest-pitched string instrument typically stand while playing.

ANSWER: double **bass** [or **contrabass**; or string **bass**]

[10] A concerto by this longtime conductor of the Boston Symphony Orchestra is a staple of the double bass repertoire. This Russian conductor’s namesake foundation commissioned Bartók’s *Concerto for Orchestra*.

ANSWER: Serge **Koussevitsky** (“koo-suh-VIT-ski”)

[10] This neoclassical German composer, who could play almost every orchestral instrument, wrote a double bass sonata. This composer also wrote *Symphonic Metamorphosis of Themes by Carl Maria von Weber* (“VAY-ber”).

ANSWER: Paul **Hindemith** (“HIN-duh-mit”)

<Classical Music>

11. Ann Silver’s research on treating Alzheimer’s disease led to the use of drugs like Donepezil to inhibit an enzyme that acts on this molecule. For 10 points each:

[10] Name this molecule created by the enzyme ChAT through the transfer of an acetyl (“uh-SEE-til”) group from acetyl-CoA. This neurotransmitter is broken down by a namesake “esterase” at neuromuscular junctions.

ANSWER: **acetylcholine** [or **ACh**; accept **acetylcholinesterase**]

[10] It’s not myasthenia gravis, but the acetylcholinesterase (“uh-SEE-til-KO-leen-ester-ase”) inhibitor physostigmine (“fice-oh-STIG-meen”) can be prescribed for this condition. Tonometry primarily screens for this disease by measuring high levels of pressure often caused by a blockage of aqueous humor in Schlemm’s canal.

ANSWER: **glaucoma** [prompt on ocular hypertension]

[10] When not broken down by AChE, acetylcholine can bind to its receptors, which primarily come in a muscarinic type and a type named for this addictive drug found in cigarettes.

ANSWER: **nicotine** [or **nicotinic** receptors]

<Biology>

12. This three-part poem includes a fable about the Swallows, who are convinced to hibernate instead of migrating. For 10 points each:

[10] Name this allegorical poem that introduces different religious denominations in its first part. This poem references James II as a lion who protects a “milk white” creature “immortal and unchanged.”

ANSWER: “The **Hind and the Panther**”

[10] This Restoration-era writer of “The Hind and the Panther” also satirized the Earl of Shaftesbury and Duke of Monmouth’s claim to power in the poem “Absalom and Achitophel.”

ANSWER: John **Dryden**

[10] In the mock-epic *Mac Flecknoe*, Dryden aired out a dispute with Thomas Shadwell over “their different estimates of the genius of” this writer. He wrote the poem “To Celia” and the plays *Volpone* and *The Alchemist*.

ANSWER: Ben **Jonson**

<British Literature>

13. During the Edo Period, the *hikeshi* (“hee-KESH-ee”) was a group of soldiers and engineers who mitigated these events by destroying nearby buildings. For 10 points each:

[10] Name these events mitigated by early water pumps called *ryūdosui*. The “Furisode” (“foo-ree-SO-deh”) instance of one of these events began when a cursed kimono escaped the furnace at a wooden temple.

ANSWER: **fires** [accept synonyms like **infernos** or **blaze**; accept great **fires**]

[10] To prevent furnace fires in Edo, the shogun passed laws banning private examples of these locations not located above *onsen*. *Yuna* and *sansuke* (“SAHN-skeh”) were female and male attendants in public examples of these locations called *sento*.

ANSWER: **baths** [or **bathhouses**; or steam**baths**; or **saunas**]

[10] Ōmura Masujirō hid in a dirty bath from disgruntled samurai who had recently abandoned this government. Tokugawa Shogunate loyalists established this first democratic government of Japan in 1869 after the Boshin War.

ANSWER: Republic of **Ezo** [or **Ezo** Kyōwakoku]

<World History>

14. One section of this book considers the misuses of freedom by nihilists, adventurers, and passionate men. For 10 points each:

[10] Name this book that was written as a follow-up to its author’s claim that it was impossible to build a system of morality based on Jean-Paul Sartre’s (“sart’s”) *Being and Nothingness*.

ANSWER: *The **Ethics of Ambiguity*** [or *Pour une **morale de l’ambiguïté***]

[10] This feminist writer and existentialist philosopher wrote *The Ethics of Ambiguity* after the publication of her best-known book, *The Second Sex*, in which she declared “one is not born but becomes a woman.”

ANSWER: Simone de **Beauvoir** (“bo-VWAR”)

[10] In *The Second Sex*, Beauvoir introduced the idea of women as being this term in reference to how man “defines woman relative to him.” In *The Coming of Age*, Beauvoir similarly claimed that society sees the elderly with reference to this term.

ANSWER: the **other** [or word forms; or l’**autre**; accept “Woman as **Other**”]

<Philosophy>

15. Answer the following about the life of Ganesha, for 10 points each.

[10] Shiva beheads Ganesha as a child because he refuses to allow Shiva into his own home while Parvati bathes. In penance to his wife, Shiva replaces Ganesha’s head with that of this animal.

ANSWER: **elephant** head

[10] During a race around the world against this god of war, Ganesha walks around Shiva and Parvati three times, claiming that they are his world. He would probably lose a real race, as this god has a peacock as a mount and Ganesha has a mouse.

ANSWER: **Kartikeya** [or **Murugan** or **Subramanya** or **Skanda** or **Kumura**]

[10] Later in life, when this man asked Ganesha to transcribe the Mahabharata, his elephant head came in handy; when his pen breaks, he simply breaks off one of his tusks to continue writing.

ANSWER: Veda **Vyasa** [or **Krishna Dvaipayana**; do not accept or prompt on “Krishna”]

<Mythology>

16. In this opera, two characters vow to remain true to each other in the aria “Au fond du temple saint” (“oh FON doo TOM-pluh SAN”). For 10 points each:

[10] Name this Georges Bizet (“ZHORZH bi-ZAY”) opera, set in ancient Sri Lanka, in which the friendship between Zurga and Nadir is destroyed by the latter’s love for Leila.

ANSWER: The Pearl Fishers [or *Les pêcheurs de perles*]

[10] This other opera by Bizet is set in Spain and includes numbers like the “Toreador Song” and a “Habanera.”

ANSWER: Carmen

[10] A “Queen of the Gypsies” features in a Bizet opera titled for *The Fair Maid of* a city in this European country. The best-known aria from a different opera set in this country takes place after the title character murders her husband Arturo.

ANSWER: Scotland [prompt on United Kingdom or UK or Great Britain; do not accept or prompt on “England”] (The opera is *Lucia di Lammermoor*.)

<Other Arts>

17. Although hydrofluorocarbons do not deplete this molecule, they greatly increase the radiative forcing that drives global warming. For 10 points each:

[10] Name this molecule regenerated in the Chapman cycle. One alkene is cleaved into two carbonyls (“car-bo-NEELS”) using this molecule, which forms a stratospheric “layer” that was protected by the Montreal Protocol.

ANSWER: ozone [or O3; or trioxygen; prompt on oxygen; accept ozonolysis; accept the ozone layer]

[10] An alternative to ozonolysis uses this compound to oxidize an alkene into a vicinal (“VISS-uh-null”) diol that is then cleaved by periodate (“pur-EYE-uh-date”). *Cis*-diols are prepared with this tetrahedral oxidizing agent, whose central atom is the densest natural metal.

ANSWER: osmium tetroxide [or OsO4; prompt on osmium or Os]

[10] While osmium tetroxide facilitates *syn*-addition to alkenes, this opposite term describes the stereochemistry of diols formed by opening an epoxide. This prefix is also applied to molecular orbitals denoted by an asterisk, which reduce bond order.

ANSWER: anti [accept anti-addition; accept antibonding orbitals]

<Chemistry>

18. The artist Ken Gonzales-Day has photographed “Erased” sites of these crimes in a series that incorporates their once-widespread souvenir postcards. For 10 points each:

[10] Identify these crimes against Mexican-Americans during “La Matanza” in the 1910s. The journalist Jovita Idár exposed these crimes, whose role in “Juan Crow” resembled anti-Black terrorism by the KKK.

ANSWER: lynchings [or lynch mobs; accept public executions or similar; prompt on hangings or mob violence or murders or extrajudicial killings; accept *Erased Lynchings* or *Lynching in the West: 1850–1935*]

[10] Ranchers lynched Mexican-Americans during the “Bandit War,” when this force fought the Seditonistas and led the Porvenir Massacre. Governor “Ma” Ferguson defunded this group, who fought the Comanche under Jack Hays.

ANSWER: Texas Rangers [or Texas Ranger Division; accept Los Diablos Tejanos or The Texan Devils; accept Texian Militia; prompt on Texas Military Forces or TXMF]

[10] This empresario created the Texas Rangers to protect his slaveholding Anglo colony, where he led the Karankawa genocide. This “Father of Texas” got the Texas Cherokees to break with the Fredonian Rebellion before he led the Siege of Béxar (“beh-HAR”).

ANSWER: Stephen F. Austin [or Stephen Fuller Austin]

<American History>

19. In *Women and Economics*, Charlotte Perkins Gilman identified the economic value of industry within these places and supported their professional standardization. For 10 points each:

[10] Name these places whose endogenous bargaining can influence their labor supply. Many women historically studied budgeting, resource management, textiles, and nutrition in a field of “economics” named for these places.

ANSWER: **homes** [or **households**; or **houses**; accept **home** economics or **home** ec or **household** economics; accept **home** science or **domestic** science or **family and consumer** science or **FCS** or **FACS**; accept **household** labor supply; accept **housework** or **domestic** services; prompt on **families**]

[10] This adjective describes models, like Gary Becker’s, that combine all household members into a single utility-maximizing decision-maker. This word also describes demand curves with an elasticity of 1, meaning that total revenue is unaffected by price changes.

ANSWER: **unitary** models [or **unitary** elasticity; accept **unit** elastic]

[10] Leiserson and Commons argued against the unitary approach to industrial relations, which views these two groups as cooperative and united. In the typical example of monopsony, these two groups are the buyer and sellers.

ANSWER: **employers** AND **employees** [accept in either order; prompt on partial answer; accept **workers** or **laborers** in place of “employees”; accept **firms** in place of “employers”; prompt on **labor** markets]

<Social Science>

20. The play that gave its name to this artistic movement follows Wild, La Feu, and Blasius in colonial America. For 10 points each:

[10] Name this movement that includes J. M. R. Lenz’s plays *The Tutor* and *The Soldiers*. Lenore is taken away by a mysterious rider claiming to be her fiancé William in a ballad from this movement.

ANSWER: ***Sturm und Drang*** [prompt on **storm and stress**; prompt on German **Romanticism**]

[10] Lenz idolized this other German writer. This author created a character who loves Lotte (“LAW-tuh”) and commits suicide with Albert’s pistols in *The Sorrows of Young Werther* (“VAIR-ter”).

ANSWER: Johann Wolfgang von **Goethe** (“GUR-tuh”)

[10] This Goethe character quits his theater apprenticeship and travels with his son Felix. Goethe’s last novel details this character’s “Journeyman Years.”

ANSWER: **Wilhelm Meister** [accept either name; accept **Wilhelm Meister’s Apprenticeship** or **Wilhelm Meister’s Journeyman Years**, or **the Renunciants** or **Wilhelm Meister’s Travels** or **Wilhelm Meisters Lehrjahre** or **Wilhelm Meisters Wanderjahre, oder Die Entsagenden**]

<European Literature>

21. The medieval ancestors of the Quapaw migrated out of this valley, whose 1788 settlement by a “Yankee” colony near the ancient Marietta Earthworks is recounted in David McCullough’s *The Pioneers*. For 10 points each:

[10] Name this frontier river valley where the Company of Virginia’s land claims sparked the French and Indian War. The Shawnee settled near the Fort Ancient culture’s Serpent Mound in this valley, site of Little Turtle’s War.

ANSWER: **Ohio** Valley [accept the **Ohio** River; accept the **Northwest** Territory (named for being Northwest of the Ohio River); accept the **Wabash** River; accept the **Northwest** Indian War or **Ohio** War]

[10] This man petitioned the French to leave the Ohio Country after the Seneca leader Guyasuta guided him and Christopher Gist on the Venango Path to Fort Le Bœuf. A Colin Calloway book outlines the “Indian World” of this man, who sent Sullivan’s expedition to destroy Iroquois towns.

ANSWER: George **Washington** [accept *The Indian World of George Washington*]

[10] Anna-Lisa Cox’s *The Bone and Sinew of the Land* recounts these people forming free towns like Carthagenia in Ohio. These people settled Kansas in the Exoduster movement and the North in the Great Migration after abolition.

ANSWER: **Black** pioneers [or **African**-Americans; or people of **African** descent; prompt on people of **color** or **POC**; accept **freedwomen** or **freedmen**; prompt on formerly **enslaved** people]

<American History>