ACF Fall 2019

Packet by Georgia Tech A, UCSD A

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Tossups

1. After performing this action for the first time, Dana rescues Rufus from drowning in Octavia Butler's novel *Kindred*. Deutscher ("DOY-cher") wins the election instead of Keith because Eckels steps on a butterfly after doing this action in the story "A Sound of Thunder." A character proves that he did this action using two white flowers in his pocket that he obtained after travelling to the Palace of Green Porcelain. An object used to perform this action is stolen by the Morlocks, who feed on the Eloi. For 10 points, the title machine of an H. G. Wells novella is used to perform what action, which allows the protagonist to visit 802,701 AD?

ANSWER: <u>time travel</u> [or equivalents such as <u>travelling to the future</u> or <u>going back in time</u>] <World/Other Literature>

2. A glycoprotein crucial to creating this substance is targeted by a disease that results in the creation of anti-MAG. Luxol fast blue is used to stain this substance, which can't be produced by *Shiverer* mice because they lack its namesake "basic protein." This substance is damaged in Charcot–Marie–Tooth ("shar-KO ma-REE tooth") disease, Guillain–Barré ("ghee-YANN ba-RAY") syndrome, and multiple sclerosis. Gaps within this substance called nodes of Ranvier ("ron-vee-AY") allow for saltatory ("SALT-uh-tory") conduction of action potentials. For 10 points, oligodendrocytes and Schwann cells produce what fatty substance that forms a "sheath" to insulate the axons of neurons?

ANSWER: <u>myelin</u> sheath <Biology>

3. Maria Bjornson ("BYORN-son") created the award-winning costuming and stage design for a work by this composer. The organ descends chromatically from a held D, down to B-flat, then back up to D, in a motif from a musical by this composer that was probably pilfered from the 1971 track "Echoes." Because two bars quote an aria from *La Fanciulla* ("fahn-CHOO-la") *del West*, Puccini's estate receives royalties for a song by this composer whose singer composes "The Music of the Night." That character in a musical by this composer is in love with Christine Daaé ("DIE-ay") and wears a white half-mask. For 10 points, name this British composer of *The Phantom of the Opera*.

ANSWER: Andrew <u>Lloyd Webber</u> [prompt on <u>Webber</u> or <u>ALW</u>] <0ther Arts>

4. After returning from an exile in Sigmaringen, a leader inspired a later theory regarding this government when he compared his rival to a "sword" and himself to a "shield." Newspaper editor Robert Brasillach ("ro-BAIR bra-zee-YAHK") was executed after the end of this government, which fought rebellious mountain men known as *maquis* ("mah-KEE") with its secret police, the *Milice* ("mee-LEECE"). The British bombed a base at Mers-el-Kébir to destroy the navy of this government, whose motto was "Work, Family, and Fatherland." For 10 points, name this government led by Philippe Pétain ("peh-TAN") that collaborated with the Nazis from its namesake capital, which supplanted Paris during World War II.

ANSWER: <u>Vichy</u> ("vee-shee") France [accept *Régime de <u>Vichy</u>*; accept <u>État français</u>; prompt on <u>France</u>; prompt on <u>French State</u>; do not accept or prompt on "French Third Republic" or "Third Republic"] <European History>

5. This molecule inverts billions of times per second through quantum tunnelling in a process called "umbrella inversion." Cisplatin contains two ligands ("LIG-unds") of chloride and two ligands of this molecule. In the

peroxide process, hydrogen peroxide is reacted with two equivalents of this molecule to produce hydrazine. An enzyme that synthesizes this molecule uses a cofactor that contains molybdenum ("muh-LIB-duh-num") and iron called FeMoco ("feh-MO-ko"). Fritz Haber was awarded the Nobel Prize in Chemistry for creating an artificial nitrogen fixation process used to synthesize this molecule. For 10 points, name this compound whose formula is NH3.

ANSWER: <u>ammonia</u> [accept <u>NH3</u> until read; do not accept or prompt on "ammonium"] <Chemistry>

6. Allan Meltzer, a historian of this organization, co-founded a "Shadowy" counterpart to its most famous committee, whose longest-serving member was Anna Schwartz. Eight times a year, this organization publishes the Beige Book, and one of its branches maintains a time series database called FRED. This institution, which uniquely describes itself as "independent within the government," contains the Open Market Committee. This organization is a lender of last resort, and it has been headed by Paul Volcker, Alan Greenspan, and Ben Bernanke ("ber-NANK-ee"). For 10 points, Jerome Powell chairs what organization that functions as the United States's central bank?

ANSWER: United States <u>Federal Reserve</u> [or the <u>Fed</u>] (The first line refers to the "Shadow Open Market Committee.")

<Social Science>

7. This character demands that a lion-keeper open a cage so that he can fight a lion, but the lion refuses to come out. This character believes that his brain is melting after he puts on a helmet filled with curds. After this character refuses to pay his debt to an inn, the inn-keeper tosses his companion up and down in a blanket. This character believes that an evil wizard stole his books after a priest and a barber burn down his library of chivalric romances. This character, who is accompanied by his horse Rocinante and squire Sancho Panza, attacks windmills because he believes that they are giants. For 10 points, name this title "Ingenious Gentleman" of a novel by Miguel de Cervantes.

ANSWER: Don <u>Quixote</u> [or <u>Alonso Quixano</u>; or *The Ingenious Gentleman <u>Don Quixote</u> of la Mancha*; or *El ingenioso hidalgo Don <u>Quixote</u> de la Mancha*] <European Literature>

8. One member of this group used his axe to kill twenty-one generations of warriors and then filled five lakes with their blood. Another member of this group dies after the hunter Jara shoots him in the foot, believing that the foot was a deer. After Bali grants a dwarf in this group all the land he can cover in three steps, he steps across the earth, up to the heavens, and then onto Bali's head. This group, which includes Parashurama and Vamana, includes a deity who explains the three ways, or *yoga*, while acting as Arjuna's charioteer in the *Bhagavad Gita*. For 10 points, name these incarnations of the Hindu preserver god that include Rama and Krishna.

ANSWER: <u>avatar</u>s of <u>Vishnu</u> [or <u>dashavatara</u>; prompt on <u>avatars</u>] <Mythology>

9. In this country, William Heselrig was murdered and had his skin turned into a scabbard by a seven-foot-tall rebel, according to an epic poem by the questionably named "Blind Harry." This country's *schiltron* ("shill-tron") military formation contributed to its 1297 victory over the forces of Hugh Cressingham near a namesake architectural feature. This country's participation with France in the Auld Alliance failed to prevent battles at Falkirk and Stirling Bridge during invasions led by the so-called "Hammer" of this country's people, Edward I. For 10 points, what British constituent country honors the patriot William Wallace with numerous statues in its city of Edinburgh? ANSWER: Kingdom of **Scotland** [or **Alba**; do not accept or prompt on "United Kingdom" or "UK" or "Britain" or "Great Britain"]

<European History>

10. A fashion-forward player of this instrument was criticized for wearing a short orange dress to a Hollywood Bowl concert. A concerto for this instrument inspired by martial arts that requires the use of fists and forearms is "The Fire" by Tan Dun. Modern players of this instrument include Ji Liu and Yuja Wang. An ostentatious player of this instrument performed the Yellow River Concerto during the 2008 Olympics opening ceremony. That player, Lang Lang, is fond of *Rhapsody in Blue*, in which this instrument alternates with the rest of the orchestra. For 10 points, Lang has used an orange to play Chopin's "Black Key" étude on what instrument?

ANSWER: <u>piano</u>forte <Classical Music>

11. An algorithm named for "classification and regression" constructs these data structures using Gini ("JEE-nee") impurities as a metric. J. H. Morris proved that these data structures can be traversed without stacks or recursion through "threading." They're not arrays, but heaps are often backed by these data structures. A common variant of this data structure has a height proportional to log n, where n is the number of nodes. That example of these data structures is defined by parents having a maximum of two children. For 10 points, "decision" and "binary search" variants are examples of what data structures that contain branches and leaves?

ANSWER: <u>tree</u>s [accept specific trees such as decision <u>trees</u> or binary search <u>tree</u>s; do not accept or prompt on "graphs"]

<Other Science>

12. In a poem by this author, the speaker is awed by the "rich attire" of a group of "water-snakes" and claims that he "blessed them unaware." That poem by this author describes a woman whose "locks were yellow as gold" and whose "skin was as white as leprosy." In another poem, this author described the "flashing eyes" and "floating hair" of a man who fed on "honey-dew" and "drunk the milk of paradise." That poem, which this author based on an opium-induced dream, describes a "stately pleasure-dome" built "where Alph, the sacred river, ran." For 10 points, name this English Romantic poet of "Kubla Khan" and "The Rime of the Ancient Mariner."

ANSWER: Samuel Taylor **Coleridge**

<British Literature>

- 13. The power of magistrates in this colony was contested in a dispute involving a militia in the town of Hingham. Though many of this colony's initial settlers travelled on the *Arbella*, its longest-serving governor John Endecott didn't. Another leader of this colony declared that "the eyes of all people are upon us" in his sermon "A Model of Christian Charity," which describes this colony as a "city upon a hill." John Winthrop helped found this colony, which expelled Anne Hutchinson and merged with a separate settlement founded by the passengers of the *Mayflower*. For 10 points, Plymouth was absorbed by what New England colony that names a modern-day state? ANSWER: Massachusetts Bay Colony [do not accept or prompt on "Plymouth"] <American History>
- 14. A raven squawk interrupts a song about this person who has "caught that tempo, DJ Mustard" on the album What A Time to Be Alive. Wiz Khalifa "experiments" in a chemistry lab in a song by Mike WiLL Made-It that praises this person, in which Miley Cyrus claims that she could "join a Flight Club" with this person. R. Kelly's "I Believe I Can Fly" opens a film starring this person, in which Bill Murray claims that "he doesn't play defense." In that film, this man joins the Toon Squad against aliens who have stolen basketball players' powers. "Jumpman" and "23" are songs about, for 10 points, what basketball legend who starred alongside Bugs Bunny in Space Jam? ANSWER: Michael Jordan [or Michael Jeffrey Jordan; prompt on MJ]

 <CE/Geo/Other/Pop Culture>
- 15. In a novel by this author, the protagonist watches a theater scene in which an actress does not see her lover kiss the ribbon hanging down her back and is inexplicably reminded of leaving a woman's flat. The protagonist of a novel by this author attempts to force Raymond de Chelles to sell the Saint Désert tapestries to Elmer Moffatt. This

author created a man with a limp who is called the "most striking figure in Starkfield." This author depicted New York high society in *The Custom of the Country* and a novel in which Newland Archer begins an affair with Ellen Olenska despite his engagement to May Welland. For 10 points, name this author of *The Age of Innocence* and *Ethan Frome*.

ANSWER: Edith Wharton [or Edith Newbold Jones]

<American Literature>

16. An artist from this country created a tent with an interior covered with names of the title people, called *Everyone I Have Ever Slept With*. Charles Saatchi ("SAH-chee") is a major patron of contemporary artists in this country. An artist from this country created a skull covered in diamonds titled *For the Love of God*; another of his works is a shark in a tank of formaldehyde. Many members of a group of "young" artists of this nationality, including Tracey Emin and Damien Hirst, have won a prize named for the painter of *Rain, Steam, and Speed*. For 10 points, J. M. W. Turner is a painter from what country, where artists might exhibit their work at the Tate Modern in London? ANSWER: <u>United Kingdom</u> [or <u>UK</u>; or Great <u>Britain</u>; accept <u>England</u>]
<Painting/Sculpture>

17. Journalist Wanda Jablonski was known for covering this industry and helped create one of its leading organizations by introducing Abdullah Tariki to Juan Pablo Pérez Alfonzo. In 1975, Carlos the Jackal held leaders of this industry hostage in an attack supposedly funded by Muammar Gaddafi, whose government was primarily funded through profits from this industry. Operation Ajax toppled Mohammed Mossadegh ("mo-sad-ECK") after he nationalized this industry in his country. Accusations that Kuwaiti companies in this industry were engaged in "slant drilling" helped spark the First Gulf War. For 10 points, OPEC ("OH-peck") promotes cooperation between nations that export what energy commodity?

ANSWER: <u>oil</u> industry [accept <u>petrol</u>eum or <u>gas</u>] <World History>

18. Pions with neutral charge are most likely to decay into two of these particles when subject to the electromagnetic force. Two of these particles are produced in spontaneous parametric down-conversion. The ratio of the number of these particles emitted, to the number of them absorbed by a system, is called the quantum yield. These particles lose energy upon colliding with a charged particle like an electron in Compton scattering. The energy of these particles equals Planck's constant times their frequency, and they travel at a speed of roughly 3 times 10-to-the-8 meters per second. For 10 points, name these massless quanta of light.

ANSWER: **photon**s <Physics>

19. This thinker believed that we should trust consensus if it asserts that an unexplained eclipse was seen in 1600, but not if consensus says that Queen Elizabeth was seen walking about after her funeral. This author invoked "constant conjunction" when explaining human perception of causation with colliding billiard balls. To critique induction, this philosopher argued that it is not absolutely certain that the Sun will rise tomorrow. He asserted that we derive simple ideas from simple impressions, though that Copy Principle is contradicted by his "missing shade of blue." For 10 points, name this skeptical Scot who introduced the "is—ought problem" in *An Enquiry Concerning Human Understanding*.

ANSWER: David Hume

<Philosophy>

20. One figure predicted that by allowing the ordination of female followers, this religion would only last 500 years instead of 1,000. In this religion, the "five woes" describe the sadness of being a woman, and eight "heavy rules" beyond those applied to men must be followed by its nuns, or *bhikkhuni* ("BEE-koo-nee"). Eastern followers of this religion often venerate the "Goddess of Compassion," Guānyīn, who is considered to be the female equivalent of

Avalokiteshvara. The innate strife between gender inequality and this religion's fundamental concept of "no self," or *anatman* ("un-AHT-mun"), has been called its "samsaric trap." For 10 points, female members of the *sangha* ("SUNG-guh") study the Four Noble Truths in the Theravada sect of what religion?

ANSWER: $\underline{Buddhism}$ [accept Mahayana $\underline{Buddhism}$ or Theravada $\underline{Buddhism}$ or Vajrayana $\underline{Buddhism}$ or Tantric $\underline{Buddhism}$]

<Religion>

Bonuses

- 1. This phenomenon interrupts an event in which praise is given for the gods of "gold and silver, bronze and iron, wood and stone." For 10 points each:
- [10] Name this phenomenon. After many astrologers fail, one man's success in interpreting this phenomenon results in him being clothed "in purple" and given a "chain of gold" by a man who would be slain that night.

ANSWER: the <u>writing on the wall</u> at Belshazzar's feast [accept descriptive equivalents; accept "mene, <u>mene, tekel, upharsin</u>"; prompt on the appearance of a <u>hand</u> by asking "what does that hand produce?"]

[10] The writing that interrupted Belshazzar's feast portended an imminent invasion by a man of this name, known as "the Mede." A real-life ruler of this name completed the restoration of the Second Temple that began under Cyrus the Great.

ANSWER: **<u>Darius</u>** [accept **<u>Darius</u>** the Mede; or **<u>Darius</u>** the Great; or **<u>Darius</u>** I]

[10] Belshazzar's feast is recounted in the Book of Daniel, a prophet who would later survive an encounter in a den of these animals. Emphasizing his power, Revelation 5:5 ("five-five") refers to Jesus as this animal "of Judah."

ANSWER: <u>lion</u>s [accept <u>lion</u> of Judah or <u>Aryeh</u> Yehudah] <Religion>

- 2. In this city, sultan Ulugh Beg built a massive namesake observatory. For 10 points each:
- [10] Name this Central Asian city, a center of Islamic culture that served as the capital of Tamerlane's Timurid empire.

ANSWER: Samarkand

[10] Babur, a descendant of Timur, alternately captured and lost Samarkand three times before successfully invading India and founding this dynasty. Later rulers of this Muslim dynasty included Akbar the Great.

ANSWER: Mughal dynasty [or Mughal empire of Gurkani]

[10] Samarkand's beauty and irrigation were praised by this Moroccan scholar who travelled across the medieval world in the 14th century. He chronicled his adventures in his *Rihla*.

ANSWER: Muhammad Ibn Battuta

<World History>

- 3. In a 2016 poll, 70% of the scientists surveyed had reportedly failed to perform this task at least once. For 10 points each:
- [10] Name this task that involves performing prior experiments to confirm the soundness of their results. Due to little success in recent years, a "crisis" involving this task has since erupted.

ANSWER: **replication** [or **replicability** or word forms; or **reproducibility** or word forms]

[10] A 2018 study published in this British journal found that only 13 out of 21 social science papers could be reproduced. Along with *Science*, this journal has one of the highest impact factors for a multidisciplinary journal.

ANSWER: *Nature* [or *Nature Human Behavior*]

[10] Another 2018 *Nature* paper called for the scientific community to "redefine" this property, proposing to lower the *p*-value required for an experimental result to have this property from the 0.05 standard.

ANSWER: statistical **significance** [or word forms; accept **significance level**]

<Other Science>

- 4. This author attributed a simple prose sermon on the seven deadly sins to a poor Parson who was "rich in holy thought and work." For 10 points each:
- [10] Name this author. In a section known as his "Retractions," this author revokes his "enditings of worldly vanities" and other works "that tend towards sin," including *The Nineteen Ladies* and his *Troilus and Criseyde*. ANSWER: Geoffrey **Chaucer**
- [10] Among Chaucer's retractions are parts of this collection, which he framed as a series of pilgrims travelling to the title cathedral to see the remains of the "hooly blisful martir" Saint Thomas Becket.

ANSWER: *The Canterbury Tales* [or *The Tales of Canterbury*]

[10] On the other hand, Chaucer specifically [emphasize] *did not* retract his translation of Boethius ("bo-EE-thee-us") or any of his works in this genre, such as "The Second Nun's Tale." Jacobus de Voragine ("YA-ko-boos day vo-RAH-jee-nay") compiled a "golden" anthology of works in this genre.

ANSWER: <u>hagiography</u> [or <u>saints' lives</u> or <u>saints' legends</u>; prompt on <u>lives</u> or <u>legends</u> or <u>biography</u> by asking "what type of person are they about?"]

<British Literature>

- 5. Before he wrote his *Nocturnal after John Dowland* ("DOH-lind"), Benjamin Britten dedicated his Opus 60 *Nocturne* to this composer. For 10 points each:
- [10] Name this composer of "Die stille Stadt" ("dee SHTILL-uh SHTAHT"), among sixteen other surviving works for piano and voice. This composer's musical talents were suppressed by a musician who nonetheless dedicated his *Adagietto* to this person.

ANSWER: Alma Mahler [or Alma Schindler; or Alma Gropius; prompt on Mahler or Mahler's wife]

[10] Alma's daughter Manon was the dedicatee of Alban Berg's ("ALL-bahn BAIRG's") violin concerto, which was first recorded by this city's Philharmonic. This city's *Skandalkonzert* ("scon-DAHL-cont-sairt") was conducted by Arnold Schoenberg, who pioneered the twelve-tone system in a "school" named for it.

ANSWER: <u>Vienna</u> [or <u>Wien</u>; accept Second <u>Viennese</u> School or <u>Vienna</u> Philharmonic Orchestra]

[10] Alma set Richard Dehmel's ("REE-shot DAY-mel's") "Die stille Stadt" many years after this Schoenberg string sextet. This piece sets a Dehmel poem about a woman who tells a lover about her pregnancy by another man.

ANSWER: *Transfigured Night* [or *Verklärte Nacht*]

<Classical Music>

6. Thanks to the detailed nature of the only surviving eyewitness account of this event and DNA evidence found in mass graves near Kerameikos, modern researchers have hypothesized typhoid to be its cause. For 10 points each: [10] Name this calamity that began by entering the port of Piraeus. Prior to losing his sons Paralus and Xanthippus to this event, one ruler began a mass eulogy by describing past funeral processions carried out by his people. ANSWER: the **Plague of Athens** [accept **epidemic** or **sickness** or synonyms in place of "plague"; prompt on plague

ANSWER: the <u>Plague of Athens</u> [accept <u>epidemic</u> or <u>sickness</u> or synonyms in place of "plague"; prompt on <u>plague</u> or synonyms by asking "where was the plague?"]

[10] That eyewitness was Thucydides, who caught said plague before writing his *History of the Peloponnesian War*, which chronicles a conflict between Athens and this other Greek, militaristic city-state.

ANSWER: **Sparta** [accept **Lacedaemon**]

[10] In spurning the contemporary *miasma* ("my-AZ-muh") theory in favor of a belief in actual contagions, Thucydides preempted this Greek doctor from Kos, whose namesake "Oath" provides ethical standards for all doctors to abide by.

ANSWER: **Hippocrates** of Kos [accept the **Hippocratic** Oath]

<European History>

- 7. In one film, this actress refers to her partner as "Jerry the Nipper," in reference to a previous role in *The Awful Truth*. For 10 points each:
- [10] Name this actress who collaborated with Cary Grant in George Cukor ("KYOO-kor") films like *Sylvia Scarlett*. David Huxley helps this actress's character Susan Vance track down a lost leopard in Connecticut in the film *Bringing Up Baby*.

ANSWER: Katharine <u>Hepburn</u> [or Katharine Houghton <u>Hepburn</u>; do not accept or prompt on "Audrey Hepburn"] [10] A love triangle between Grant, Hepburn, and James Stewart occurs in a Cukor film titled for this city's "Story." Denzel Washington's character Joe Miller overcomes homophobia while representing the AIDS-infected Andrew Beckett in a 1993 film titled for this city.

ANSWER: **Philadelphia** [accept The **Philadelphia** Story]

[10] This man won back-to-back Best Actor Oscars for his leading roles in *Philadelphia* and *Forrest Gump*.

ANSWER: Tom **Hanks** [or Thomas Jeffrey **Hanks**]

<CE/Geo/Other/Pop Culture>

- 8. Approximately 85% of the matter in the universe is thought to be this type of matter. For 10 points each:
- [10] Name this type of matter that does not interact with light, making it impossible to see. Evidence for it can be inferred by plotting galaxy rotation curves.

ANSWER: dark matter

[10] This letter, which denotes the cosmological constant, is paired with "CDM" in a model of the Big Bang that accounts for the presence of ordinary matter, cold dark matter, and dark energy in the Universe.

ANSWER: lambda [accept lambda-CDM model or lambda cold dark matter model]

[10] A theory about the composition of dark matter is named for a "little" version of this particle. This particle is the only fundamental scalar boson in the Standard Model.

ANSWER: <u>Higgs</u> boson [accept little <u>Higgs</u> models] <Physics>

- 9. In a novel whose title ends with this word, Sasha Jensen defines a room as "a place where you hide from the wolves" during her trip to Paris. For 10 points each:
- [10] Name this period of time. It titles a novel in which Saleem, Shiva, and others who were born during the first moment of Indian independence possess magic powers.

ANSWER: midnight [accept Midnight's Children; do not accept or prompt on "night"]

[10] This Indian author of *Midnight's Children* wrote *The Satanic Verses*, which led to a fatwa being issued against him.

ANSWER: Salman **Rushdie** ("RUSH-dee") [or Ahmed Salman **Rushdie**]

[10] This author wrote about Sasha Jensen in *Good Morning, Midnight*. Antoinette Cosway becomes "the madwoman in the attic" in this author's postcolonial prequel to Charlotte Brontë's *Jane Eyre* ("air").

ANSWER: Jean **Rhys** ("jeen reese") [or Ella Gwendolyn Rees **Williams**] (That novel is *Wide Sargasso Sea.*) <World/Other Literature>

- 10. In one text, this figure's success with 1,003 attempts at his primary pursuit is compared with Faust's single attempt with Margaret. For 10 points each:
- [10] Name this character who is considered "not character but essentially life" in the section "The Immediate Stages of the Erotic," which investigates a popular musical depiction of this man.

ANSWER: **Don Juan** [or **Don Giovanni**]

[10] Those studies of Don Juan appear in this thinker's *Either/Or*, which he self-published under various pseudonyms in his native Copenhagen. He also wrote *Fear and Trembling*.

ANSWER: Søren Aabye Kierkegaard

[10] In Kierkegaard's *Either/Or*, Judge B rejects A's separation of spheres of life named for the aesthetic and this concept. In *Fear and Trembling*, Johannes de Silento answers the question of whether there is a teleological suspension of this concept by referring to Abraham's seemingly illogical sacrifice of Isaac.

ANSWER: the <u>ethical</u> [or word forms like <u>ethics</u>; accept <u>moral</u>s] <Philosophy>

- 11. This artist recently drew the ire of critics with his *Bouquet of Tulips*, a giant metal sculpture made in tribute to the 2015 terrorist attacks in Paris. For 10 points each:
- [10] Name this contemporary American artist best known for his giant polished-metal sculptures of balloon animals. ANSWER: Jeff **Koons**
- [10] Koons's sculpture *Puppy*, a giant topiary dog, stands outside a museum in this city. This European city's Guggenheim museum is also home to *Maman* ("ma-MAWN"), a massive sculpture of a spider by Louise Bourgeois ("boor-jwah").

ANSWER: **Bilbao** [or **Bilbo**; accept Guggenheim **Bilbao**]

[10] The Guggenheim Bilbao was designed by this contemporary architect, who used similar sheets of curved metal for the façade of the Walt Disney Concert Hall.

ANSWER: Frank Gehry

<Other Arts>

- 12. One of these two people slaughter the goose that guards their property in honor of their guests, since they could not otherwise provide an adequate meal. For 10 points each:
- [10] Name these two people who live in a small house in Phrygia. After noticing that their only jug of wine will not run out, one of these two people realizes that their guests are actually gods.

ANSWER: **Baucis** ("BAW-siss") AND **Philemon** [accept in either order; do not accept or prompt on partial answer]

[10] In Ovid's *Metamorphoses*, Baucis and Philemon are spared from a flood since they host Zeus and this other god. When not disguised, this god is equipped with his *caduceus* ("ka-DOO-see-us") and *talaria*.

ANSWER: Hermes

[10] In return for their hospitality, Zeus transforms the house of Baucis and Philemon into one of these buildings. Herostratus destroyed one of these buildings dedicated to Artemis at Ephesus.

ANSWER: <u>temple</u> [accept a golden <u>temple</u> or the <u>Temple</u> of Artemis at Ephesus] <Mythology>

- 13. This signaling molecule is partially regulated by the enzyme phosphodiesterase ("FOSS-fo-dy-ESTER-ace"). For 10 points each:
- [10] Name this secondary messenger that activates protein kinase A.

ANSWER: <u>cAMP</u> ("C-A-M-P") [or <u>cyclic AMP</u> or <u>cyclic adenosine monophosphate</u>]

[10] This disease's toxins increase the activity of cyclic AMP, which blocks chloride and sodium ion absorption in the small intestine. It is caused by drinking water contaminated with bacteria from the genus *Vibrio*.

ANSWER: cholera

[10] In this organ, cAMP increases contractility, beats per minute, and conduction velocity. This organ pumps blood throughout the body.

ANSWER: <u>heart</u> <Biology>

- 14. Answer the following about "dirty tricks" employed by the Nixon campaign during the 1972 presidential election, for 10 points each.
- [10] The Committee to Re-elect the President funded an attempt to bug the Democratic National Committee's offices in this curved D.C. building. The ensuing scandal named for this building eventually forced Nixon to resign in 1974.

ANSWER: <u>Watergate</u> building [or <u>Watergate</u> complex or <u>Watergate</u> scandal]

[10] The Nixon administration got this Alabama governor to run for president as a Democrat in exchange for ending an IRS probe. In 1968, he ran for president on the pro-segregationist American Independent ticket.

ANSWER: George Wallace [or George Corley Wallace Jr.]

[10] During the Democratic primaries, Nixon operatives forged the so-called "Canuck Letter," which alleged that this Maine senator and former running mate of Hubert Humphrey was prejudiced against French Canadians.

ANSWER: Edmund Muskie [or Edmund Sixtus Muskie]

<American History>

15. While Malatesta Novello founded the first of these buildings to be open to the public, his trust only went so far, as he had most of its belongings chained to the walls, and punished all theft with excommunication. For 10 points each:

[10] Name these buildings that often operated via a subscription model. In an 1879 "great scare," "circulating" types of these buildings were spurned after objects found in them were described as perfect vectors for disease.

ANSWER: <u>libraries</u> [accept Malatestiana <u>Library</u>; accept chained <u>library</u> or subscription <u>library</u> or circulating <u>library</u>] (The last event referred to is the "Great Book Scare.")

[10] The idea of the library being a location where all may receive knowledge is strongly compatible with the humanistic ideals central to this 18th-century time period that saw the rise of liberalism and the scientific revolution.

ANSWER: the **Enlightenment** [or the Age of **Enlightenment**; or Age of **Reason**]

[10] Libraries shifted from repositories of rare tomes to sharers of useful information mostly thanks to this German, who introduced the printing press to Europe.

ANSWER: Johannes <u>Gutenberg</u> [or Johannes Gensfleisch zur Laden zum <u>Gutenberg</u>] <European History>

16. A man in this play says, "I saw I'd always known that was the only possible way to... free her from the misery of loving me" after he admits that he killed his wife. For 10 points each:

[10] Name this play that follows the alcoholics of Harry Hope's saloon as they wait for Theodore Hickman.

ANSWER: The Iceman Cometh

[10] In *The Iceman Cometh*, Hugo repeatedly references this place, which is "cool beneath thy willow trees." Charlie Wales is unable to win custody of his daughter Honoria in a story titled for this place.

ANSWER: **Babylon** [accept "**Babylon** Revisited"]

[10] This playwright of *The Iceman Cometh* wrote about the Tyrone family in his play *Long Day's Journey Into Night*.

ANSWER: Eugene O'Neill [or Eugene Gladstone O'Neill]

<American Literature>

17. Answer the following about mothers, for 10 points each.

[10] Greylag geese usually learn behaviors from their mothers in an early critical period for this phenomenon. In one example of this phenomenon, geese followed Konrad Lorenz because he was the first thing they saw upon hatching.

ANSWER: **imprint**ing

[10] Stephen Suomi has controversially continued Harry Harlow's research on maternal deprivation in these animals, particularly their Old World rhesus species.

ANSWER: monkeys [or macaques; accept Cercopithecidae; accept Macaca]

[10] Harlow's work partly inspired John Bowlby's theory on this behavior, in which children seek parental figures to quell their alarm and anxiety. Mary Ainsworth's "Strange Situation" experiment classified infants into "secure," "anxious-avoidant," and "anxious-ambivalent" styles of this behavior.

ANSWER: <u>attachment</u> theory [accept <u>attachment</u> styles]

<Social Science>

18. This artist painted several scenes from *The Last of the Mohicans*, including a "Landscape with Figures" in which a circle of people stand on a rock outcropping. For 10 points each:

[10] Name this painter of *The Architect's Dream* who showed a man aging as he passes through allegorical landscapes in *The Voyage of Life*.

ANSWER: Thomas Cole

[10] Thomas Cole was the founding member of this American school of painting. This Romanticism-inspired movement also included Asher Brown Durand, who painted *Kindred Spirits*.

ANSWER: Hudson River School

[10] This artist was part of the Luminist offshoot of the Hudson River School. Many of this artist's paintings were inspired by his travels, including a series of paintings of the volcano Cotopaxi ("ko-toh-PAHK-see").

ANSWER: Frederic Edwin Church

<Painting/Sculpture>

- 19. Emilia Pardo Bazán introduced this literary movement to Spain in her essay *La cuestión palpitante*. For 10 points each:
- [10] Name this offshoot of realism that sought to portray people with scientific objectivity. Authors in this movement include Alphonse Daudet ("doh-DAY"), the Goncourt ("gon-KOOR") brothers, and the author of *Thérèse Raquin* ("tay-REZZ ra-CAN").

ANSWER: **naturalism** [or **naturalisme**]

[10] Pardo Bazán's essay emphasizes this author of *Thérèse Raquin* as the foremost of the naturalists. This author's 20-volume cycle about the Rougon-Macquart ("roo-GON-mah-CAR") family includes his novels *Germinal* ("zhair-mee-NALL") and *Nana*.

ANSWER: Émile Zola

[10] When discussing predecessors of literary naturalism in Spain, Pardo Bazán identifies a group of Spanish writers who were heavily influenced by this English-language author of *Ivanhoe*.

ANSWER: Sir Walter **Scott** <European Literature>

- 20. These substances can be partially deactivated using a technique called "poisoning." For 10 points each:
- [10] Name these substances that lower activation energy and speed up a chemical reaction, despite not being consumed in the reaction.

ANSWER: catalysts

[10] This hydrogenation catalyst is commonly poisoned using lead, sulfur, or quinoline ("KWY-no-leen"). This catalyst can only reduce alkynes to alkenes.

ANSWER: Lindlar's catalyst

[10] This is the term for catalysts like Lindlar's catalyst that differ in phase from the reactants.

ANSWER: heterogeneous catalysts

<Chemistry>