

**2021 ACF Fall**

**Packet D by Claremont Colleges, CWRU A, NYU C**

Edited by Katherine Lei, Sarah Benner, Justin Duffy, Karan Gurazada, Mitch McCullar, Govind Prabhakar, Ethan Strombeck, and Ned Tagtmeier

Tossups

1. In 2020, this leader stopped Ant Group from making an initial public offering. This leader may impose additional controls on the real estate industry after recent setbacks faced by Evergrande. A fund established under this leader has financed projects such as a railway connecting Mombasa and Nairobi, and the creation of a hydropower dam in Pakistan. This leader has attempted to expand his country's international influence with the Belt and Road Initiative. This leader has dismissed claims that Muslim Uighurs are being persecuted in his country's Xinjiang region. For 10 points, name this current president of China.

ANSWER: **Xi** Jinping

<Current Events>

2. In one play by this author, Stevie destroys all the furniture in her house while listening to her husband discuss his affair with a creature whose corpse she drags onstage in the final scene. In a play by this author, a man who owns two parakeets listens to another man tell a story about poisoning his landlady's dog. This author of *The Goat* set a one-act play around a park bench that ends with Jerry impaling himself on a knife Peter is holding. In another play by this author, the games "Hump the Hostess" and "Get the Guests" are played by Nick and Honey before they learn that George and Martha's son is imaginary. For 10 points, name this playwright of *The Zoo Story* and *Who's Afraid of Virginia Woolf*?

ANSWER: Edward **Albee** [or Edward Franklin **Albee** III]

<US Literature>

3. The Edwards–Anderson model describes a substance named for "spin" and this material. Polymers experience long-range segmental motion above a "transition temperature" named for this material. Fulgurites are a form of this material created by lightning strikes, and fused quartz is a form of this material found around meteor craters. The "borosilicate" variety of this material is particularly heat-resistant. Historically, this material was made by "blowing" molten sand, which causes vitrification. Obsidian is a naturally occurring form of this material. This amorphous ("AY-more-fuss") solid is primarily composed of silica. For 10 points, what brittle, transparent material is commonly found in windows?

ANSWER: **glass** [prompt on silicon dioxide or silica by asking "what material is made from that compound?"]

<Chemistry>

4. A sea urchin symbolizes fertility in one of a pair of paintings by this artist titled *The Madonna of Port Lligat*. This painter depicted a floating grid of brick-like shapes in a flooded landscape in a painting originally titled for a "Chromosome of a Highly-coloured Fish's Eye." Necks of swans reflect in a lake to become elephant trunks in a painting by this artist. This painter's Nuclear Mysticism phase included a "disintegration" of an earlier painting, in which an orange object in the bottom left is covered in ants. Camembert cheese inspired a painting by this artist that includes melting clocks. For 10 points, name this Spanish artist of *The Persistence of Memory*.

ANSWER: Salvador **Dali**

<Painting/Sculpture>

5. Annette Gordon-Reed chronicled four generations of a family that originated in this location in a Pulitzer-winning biography of one of this location's residents. A group of people lived in wooden cabins in this location's Mulberry Row while they worked in a nail factory. According to her son Madison, a resident of this location returned to it from Paris after this location's owner promised to free her children when they turned 21. This location was home to a multiracial woman who birthed six children with this location's owner. For 10 points, name this Virginian plantation home to Sally Hemings and other people enslaved to Thomas Jefferson.

ANSWER: **Monticello** [accept **Mulberry Row** before mentioned; prompt on Virginia]

<US History>

6. An old witch in Járnvid gives birth to giants in the shape of these creatures. The saliva of one of these creatures forms the river Ván. An item used to bind one of these creatures contains the beard of a woman and the breath of a fish. The giantess Hyrrokkin rides one of these creatures to Baldr's funeral. Two of these animals named Sköll and Hati chase the sun and moon, respectively. Vidar will pry apart the mouth of one of these animals, but not before it swallows Odin. After being tricked and restrained by the gods, one of these creatures bit off the right hand of Týr ("teer"). For 10 points, name these animals, exemplified in Norse mythology by Fenrir.

ANSWER: **wolves** [prompt on dogs or hounds; anti-prompt on Fenrir before mention by asking "what kind of creature is he?"]

<Mythology>

7. In this collection, a doctor believes he killed his hunchbacked patient after falling down a set of stairs on top of him, though he had already died when choking on a fishbone. A cup carved from ruby is among the gifts one character in this collection receives from the King of Serendib. Morgiana tricks a blindfolded tailor from this collection into sewing Kassim's body back together after he was killed by a group of thieves when he forgot the magic words "Open Sesame." One character from this collection escapes from a cave with the help of a genie he accidentally summons from a magic lamp. For 10 points, name this collection of Arabic folk tales composed of stories told by Scheherazade to delay her execution.

ANSWER: **One Thousand And One Nights** [or **Arabian Nights**]

<World/Other Literature>

8. This psychologist developed the concept of synergy in the workplace in his book *Eupsychian* ("yoo-SIKE-ee-un") *Management*. He's not Adler, but this psychologist differentiated between children and neurotic people because children are dependent on others for safety and neurotic people only think they are. This psychologist refocused on healthy rather than mentally ill people and synthesized holistic, dynamic and cultural approaches to write *Motivation and Personality*. This psychologist placed esteem and physiological tiers in a construct that culminates in self-actualization. For 10 points, name this humanistic psychologist who created an eponymous "hierarchy of needs."

ANSWER: Abraham **Maslow**

<Social Science>

9. This country's special operations Unit 684 trained on its Silmido Island. This country's first president fled to Hawai'i after protests sparked by the discovery of a dead student at Masan Harbor. The Blue House Raid targeted a later president of this country, whose assassination resulted in his successor ordering the Gwangju Massacre. The April Revolution took place in this country, a president of which won the 2000 Nobel Peace Prize for promoting the Sunshine Policy. That policy sought to improve relations with this country's northern neighbor, which lies above the 38th parallel. For 10 points, name this Asian country with capital at Seoul.

ANSWER: **South Korea** [accept **Republic of Korea**; prompt on Korea; do not accept or prompt on "North Korea" or "Democratic People's Republic of Korea" or "DPRK"]

<World History>

10. This property is possessed by the order of every dihedral group  $D$ -sub- $n$ . Numbers with this property are *not* tripled and incremented in the procedure described in the Collatz conjecture. A graph has an Eulerian circuit if and only if all its vertices' degrees have this property. The hypothesis that all but one of the numbers with this property can be expressed as the sum of two primes is known as the strong Goldbach conjecture. All known perfect numbers have this property. Functions with this property, such as cosine, are symmetric by reflection over the y-axis. For 10 points, name this property that describes numbers divisible by two.

ANSWER: **even** [accept **divisible by two** before mention]

<Other Science>

11. A monarch of this country had his absolutist powers weakened during the Liberal Triennium until an invasion of this country by its northern neighbor restored them. After a queen of this country was deposed, its throne was offered to Leopold, Prince of Hohenzollern. Amadeo I's ("Amadeo the First's") abdication of this country's throne started the Third Carlist War. A succession question in this country triggered the Franco-Prussian War. This country was defeated in an 1898 war with the United States that resulted in the loss of many of this country's remaining colonies, such as Puerto Rico and Cuba. For 10 points, name this Iberian country whose current Bourbon king is Felipe VI.

ANSWER: **Spain** [Kingdom of **Spain**; or **España**; or Reino de **España**]

<European History>

12. The intrusive narrator of this novel remarks that random scratches on a pier-glass seem to form concentric circles in the light of a candle, a reference to the vanity of Fred's sister. A woman in this novel writes to Sir Godwin for money against her husband's wishes. In this novel, a latter-day St. Theresa gives a thousand pounds to a doctor who did not murder Raffles. In this novel, after she is assured that her husband should not be soiled by his association with disgraced banker Nicholas Bulstrode, Rosamond Vincy confesses that Will Ladislaw has only ever loved Casaubon's widow. For 10 points, identify this George Eliot novel about Dorothea Brooke and life in the title town.

ANSWER: **Middlemarch**: *A Study of Provincial Life*

<British Literature>

13. Helen Longino's "contextual empiricism" solves problems in this subject raised by feminist standpoint theory. Paul Feyerabend used a *reductio ad absurdum* to argue for a fundamentally anarchic view of this subject. Antirealists in this subject such as Van Fraassen hold that only its observables should be viewed as true. In a book about this subject's "logic," Karl Popper advocated for an approach to it based on falsification. Thomas Kuhn studied the structure of this subject's "revolutions," while Francis Bacon first formulated its namesake "method." For 10 points, name this academic subject, which, in the 17th century, was studied by "natural philosophers" such as Isaac Newton.

ANSWER: **science** [accept **scientific** revolutions or **scientific** method; accept *The Logic of **Scientific Discovery***; anti-prompt on specific fields, such as **biology** or **physics**; prompt on **natural philosophy** before mention; prompt on **knowledge** or **epistemology** before "logic"]

<Philosophy>

14. It's not a viola, but a duet for two of these instruments opens Carl Nielsen's Fifth Symphony. A challenging orchestral solo for this instrument begins "long high C, B C B G E up to B A." This instrument plays a lullaby-like solo in the "Berceuse" movement of *The Firebird*. This instrument represents the grandfather in Prokofiev's *Peter and the Wolf*. This instrument introduces the staccato melodies of both *The Sorcerer's Apprentice* and "In the Hall of the Mountain King." A solo in an unusually high register for this instrument opens Stravinsky's *Rite of Spring*. For 10 points, the lowest woodwind in a standard orchestra is what large double-reed instrument?

ANSWER: **bassoon**

<Classical Music>

15. The time derivative of the electric potential over the square of this quantity is set equal to the divergence of the magnetic vector potential in the Lorentz gauge. This quantity is the magnitude of the four-velocity vector. This quantity equals one over the square root of the product of epsilon nought and mu nought. Tachyons are theoretical particles that exceed this quantity, which would violate causality according to special relativity. This quantity is approximately equal to three times ten to the eight meters per second. For 10 points, name this quantity, the rate at which a photon travels.

ANSWER: the **speed of light** in a vacuum [or **c**]

<Physics>

16. A servant in this novel dressed as Merlin claims that in order to help a woman, one character must whip himself 3,300 times on his buttocks. Harold Bloom called Edith Grossman the "Glenn Gould of translators" for her 2003 translation of this novel. A group of lodgers in this novel bounce a character up and down off of a blanket after dismounting him from his donkey Dapple. After the library owned by this novel's title character is burned down, he attacks some windmills that he believes are giants right after recruiting his neighbor Sancho Panza to be his squire. For 10 points, name this novel about a foolish knight-errant written by Miguel de Cervantes.

ANSWER: **Don Quixote** [or *The Ingenious Gentleman **Don Quixote** of La Mancha*; or *El ingenioso hidalgo **don Quijote** de la Mancha*]

<European Literature>

17. Mark Hoffman attempted to discredit this religion by publishing the "Salamander Letter" which alleged that a certain man's brother was visited in the night by the title creature. In a story from this religion, the Sword of Laban is seen by the Three Witnesses. This religion's controversial idea of the "Heavenly Mother" stems from its founder's pronouncement that God is literally the father of humanity. This religion's founder used Urim and Thummim to comprehend an object discovered in Cumorah. Temples of this religion feature gold spires topped by statues of the angel Moroni. For 10 points, name this religion founded by Joseph Smith whose adherents are often found in Utah.

ANSWER: **Mormonism** [accept Church of Jesus Christ of **Latter-day Saints** or **LDS**]

<Religion>

18. One character played by this person plays the ukulele as a member of Sweet Sue's band in one film. This person plays a character who is seduced by a cross-dressing man who pretends to own a yacht and claims to be "Shell Oil Junior." This person plays Sugar Cane alongside a Tony Curtis-played saxophonist in a Billy Wilder film. While playing Lorelei Lee in one film, this person wore a pink dress and sang a rendition of "Diamonds Are A Girl's Best Friend." In one film, this actress wears a white dress that flutters upward as she walks over a subway grate. For 10 points, name this legendary actress who starred in *Gentlemen Prefer Blondes* and *Some Like It Hot*.

ANSWER: Marilyn **Monroe** [accept Norma Jeane **Mortenson**; prompt on **Marilyn**]

<Other Fine Arts>

19. This politician's wife was photographed dancing at Studio 54 the night he lost an election. As his country's attorney general, this politician defended decriminalizing homosexuality by saying "there's no place for the state in the bedrooms of the nation." This politician followed his failed Victoria Charter with a successful bid to patriate his country's Constitution in 1982. This politician stared down rioters at a St. Jean-Baptiste Day parade and later declared "Well, just watch me," before invoking the War Measures Act against terrorists in the October Crisis. For 10 points, identify this prime minister of Canada, the father of Canada's current prime minister, Justin.

ANSWER: **Pierre Elliott Trudeau** [or (Joseph Philippe) **Pierre** (Yves Elliott) **Trudeau**; prompt on **Trudeau**]

<Other History>

20. One disorder of this organ is treated with fluocinolone acetonide and halobetasol. It's not the pancreas, but this organ's stratum spinosum contains Merkel and Langerhans cells. A wheal response produced by this organ indicates a positive result in the Mantoux test. Thermoregulation of the body is facilitated by the eccrine and apocrine glands in this organ. One disorder of this organ is often treated with adapalene and benzoyl peroxide. This organ's two primary layers are the epidermis and dermis, and its color is regulated by the pigment melanin. For 10 points, name this largest human organ, which is affected by psoriasis, eczema, and acne.

ANSWER: skin [anti-prompt on epidermis before read; anti-prompt on scalp before "adapalene"; prompt on face after "benzoyl peroxide"]

<Biology>

## Bonuses

1. This artist created *In This Case*, a painting of a skull with green teeth on a red background. For 10 points each:  
[H] Name this artist who developed the SAMO tag along with Al Diaz. This artist's work *Red Kings* was the first appearance of his crown symbol.

ANSWER: Jean-Michel **Basquiat** ("BAS-kee-ah")

[E] Basquiat used SAMO as a tag for this type of artwork. Spray paint is commonly used to create this type of street art, which may be seen as vandalism.

ANSWER: **graffiti**

[M] This pseudonymous artist has created many graffiti works using a stencil. This artist's *Girl with Balloon* self-destructed after being sold at a Sotheby's auction.

ANSWER: **Banksy**

<Painting/Sculpture>

2. For 10 points each, answer some questions about about films scored by Hans Zimmer:

[E] Zimmer often works with this director of films such as *Interstellar* and the *Dark Knight* trilogy. More recently, this director blew up a Boeing 747 for his science fiction film, *Tenet*.

ANSWER: Christopher **Nolan**

[M] For the sequel to this film, Zimmer covered Vangelis' song "Tears in the Rain," whose title refers to an emotional monologue at the end of this film. Harrison Ford plays detective Rick Deckard in this 1982 film.

ANSWER: **Blade Runner** [do not accept or prompt on "*Blade Runner 2049*"]

[H] Zimmer earned a Grammy award for the main theme of *Crimson Tide*, which made heavy use of one of these instruments. An early commercial version of these instruments was developed by and named for Robert Moog (rhymes with "vogue").

ANSWER: **synthesizers** [or **synths**; accept modular **synthesizers** or Moog **synthesizers**]

<Pop Culture>

3. This author coined the word *Verfremdungseffekt* or "alienation effect" which he used in many of his works. For 10 points each:

[M] Name this dramatist who popularized epic theatre with plays like *The Caucasian Chalk Circle*.

ANSWER: Bertolt **Brecht** [or Eugen Berthold Friedrich **Brecht**]

[E] Brecht coined the term "alienation effect" in an essay on the traditional acting methods of this country. Brecht adapted *The Caucasian Chalk Circle* from a Yuan dynasty play from this country written by Li Qianfu.

ANSWER: **China** [or **Zhōngguó**]

[H] Brecht also wrote this play set in China in which a group of gods called the Illustrious Ones give money to the generous Shen Teh which she uses to buy a tobacco shop.

ANSWER: *The **Good Woman of Setzuan*** [or *Der **gute Mensch von Sezuan***; or *The **Good Person of Szechwan***; or *The **Good Man of Setzuan***]

<European Literature>

4. This president declared that "the chief business of the American people is business." For 10 points each:

[M] Name this president who promoted *laissez-faire* economics despite supporting government intervention as governor of Massachusetts. This "silent" president vetoed the McNary–Haugen Farm Relief Bill while in office.

ANSWER: (John) Calvin **Coolidge** [prompt on Silent Cal]

[E] As governor of Massachusetts, Coolidge put down a 1919 police strike in this city. Earlier that year, this capital of Massachusetts was the site of the Great Molasses Flood.

ANSWER: **Boston**, Massachusetts

[H] Coolidge's vice president was a politician with this surname who won the 1925 Nobel Peace Prize for his namesake plan for German reparations. An act named for a senator with this surname allotted communal Indian land to individual members of tribes.

ANSWER: **Dawes** [accept Charles G. **Dawes**; accept Henry L. **Dawes**]

<US History>

5. Answer the following about Kepler's laws of motion, for 10 points each:

[E] Kepler's first law states that the orbit of a planet will take this shape, with the Sun at one of its foci ("foe-kai"). These conic sections have eccentricity between 0 and 1.

ANSWER: **ellipse** [do not accept or prompt on "oval"]

[H] Kepler's second law roughly states that planets sweep out equal areas in equal time. As a consequence, a planet will move slowest at this point in its orbit, when it is farthest from the sun.

ANSWER: **aphelion** [or **apoapsis**; prompt on **apsis** or **apsides** or **Q**]

[M] Kepler's third law states that for a planet in a circular orbit, the square of the orbital period is proportional to the cube of this property of the orbit, which may be measured in astronomical units.

ANSWER: orbital **radius** [or **r**; accept **semi-major axis**; prompt on **distance**; do not accept or prompt on "semi-minor axis"]

<Other Science>

6. The ingestion of this substance marks the beginning of a period of spiritual enrichment called a dieta during which individuals may learn songs to summon plant spirits. For 10 points each:

[H] Name this psychedelic brew from the Amazon made out of caapi vine and chacruna. Types of shamans that frequently drink this brew include vegetalistas and Rosicrucians.

ANSWER: **ayahuasca**

[M] Ayahuasca shares many similarities to peyote, an entheogen that is this kind of plant. Legendarily, a city was built in Mexico where an eagle with a snake in its beak was seen perched on top of this kind of plant.

ANSWER: **cactus**

[E] This religion is combined with traditional Native American beliefs in the Native American Church, whose central ritual involves an all-night peyote-based ceremony followed by this religion's sacrament of Communion.

ANSWER: **Christianity** [accept Roman **Catholicism**]

<Religion>

7. Answer some questions about artefacts made out of gold from the classical world and beyond, for 10 points each:  
[E] Golden versions of these birds were used as standards for Roman legions. Three of them were lost during the Battle of the Teutoburg Forest.

ANSWER: **eagle** [accept **aquila**]

[M] A famous golden funeral mask was unearthed at the site of this older Greek civilization, and is named after the legendary king Agamemnon. This culture used the Linear B script and may have conquered the Minoan civilization.

ANSWER: **Mycenaean**

[H] These nomadic Eurasian people were known for the golden artefacts they buried at sites called Kurgans. These people inhabited the steppes of southern Russia and may have displaced the earlier Cimmerian culture.

ANSWER: **Scythians**

<Other History>

8. The expression  $MC$  over  $R$  is used to estimate this quantity. For 10 points each:

[H] Name this quantity that can be estimated using the mark-recapture technique or the Petersen index.

ANSWER: **population** size [or population **size**]

[M] A sudden decrease in population caused by events like earthquakes or famines is known by this term. Because of the sudden population decrease, this phenomenon induces genetic drift.

ANSWER: population **bottleneck** [or **bottleneck** effect, or **bottleneck** event, or genetic **bottleneck**]

[E] These events can cause population bottlenecks in trees because they often burn large parts of forests. Natural causes of these events include lightning and volcanic eruptions.

ANSWER: wild**fires** [or forest **fires**, accept any answer indicating **fire**]

<Biology>

9. The speaker of a poem professes that he would give one of these objects to both a "true friend who offers his frank hand to me" and a "cruel one" who "breaks the heart by which I live." For 10 points each:

[H] Name this object that the speaker of a short poem cultivates "in June as in January."

ANSWER: a **white rose** [or **rosa blanca**; prompt on rose or rosa; prompt on flower; accept "I Cultivate a **White Rose**" or "Cultivo una **rosa blanca**"]

[M] The poem "I Cultivate a White Rose" was included in this poet's collection *Versos sencillos*. Selections from that collection by this author were used for the lyrics of the song "Guantanamera."

ANSWER: José **Martí** [or José Julián Martí **Pérez**]

[E] José Martí is a national hero of this country. The José Martí Memorial, one of the largest dedicated to a writer in the world, sits in this country's Plaza de la Revolución in Havana.

ANSWER: Republic of **Cuba** [or República de **Cuba**]

<World/Other Literature>

10. This composer wrote a piece based on Pan's pursuit of Syrinx. For 10 points each:

[M] Name this composer who included "Clouds" as the first of three *Nocturnes*. He also wrote the satirical "Doctor Gradus ad Parnassum" to open a piano suite.

ANSWER: Claude **Debussy** (the suite is *Children's Corner*)

[E] Debussy dedicated *Syrinx* to Louis Fleury, a player of this instrument. This reedless woodwind instrument is larger than the related piccolo.

ANSWER: **flute**

[H] A flute theme opens this other French composer's *Pavane*. This composer's *Requiem* omitted the *Dies irae* for a *Pie Jesu* section.

ANSWER: Gabriel **Fauré**

<Classical Music>

11. Larger components of this type have both higher hit rate and higher latency. For 10 points each:

[M] Name this component that enables the CPU to more quickly retrieve data it has already loaded for computations. It is often divided into L1, L2, and L3 levels.

ANSWER: CPU **cache**

[E] CPU caches are a specialized example of the static form of the "random access" type of this resource, which stores short-term program data.

ANSWER: **memory** [accept random-access **memory**]

[H] The static RAM used in CPU caches is generally based on these circuits, which store single bits. These circuits, which come in T, D, and JK types, get their name from the fact that they change states after a clock cycle.

ANSWER: **flip-flops** [or **latches**]

<Other Science>

12. For 10 points each, name these current Florida politicians:

[E] This current Republican governor of Florida beat Andrew Gillum in a close 2018 race. He is known for his vocal opposition to Critical Race Theory.

ANSWER: Ron **DeSantis**

[M] This Florida representative is currently under investigation by the Department of Justice. His former associate, convicted sex trafficker Joel Greenberg, has provided evidence for the case against him.

ANSWER: Matt **Gaetz**

[H] This other Florida representative's district covers most of Fort Lauderdale. During the 2016 presidential primaries, she resigned as DNC chair after WikiLeaks revealed that she heavily favored Hillary Clinton over Bernie Sanders.

ANSWER: Deborah "Debbie" **Wasserman Schultz** [accept either underlined portion]

<Current Events>

13. A ruler of this empire took power after Abubakari II left on a voyage across the Atlantic from which he never returned. For 10 points each:

[E] Name this west African empire ruled by Mansa Musa, who was famous for an extravagant *hajj* during which he spent and gave away massive quantities of gold.

ANSWER: **Mali** Empire

[H] Mansa Musa established this center of learning designed by the architect al-Sahili. This university may have contained the largest collection of books since the Library of Alexandria.

ANSWER: **Sankoré** University [or **Sankoré** Madrasah or **Sankore** Masjid; prompt on, but DO NOT REVEAL, University of **Timbuktu**]

[M] Sankoré University was located in this city annexed by Mansa Musa, which was also home to the Djinguereber ("JING-uh-ray-bair") Mosque. This city was later taken over by the Songhai Empire, before it was captured by a Moroccan army in 1591.

ANSWER: **Timbuktu**

<World History>

14. The deceased speaker of a poem in this collection asks his former friend a series of questions, only to learn that his friend "cheers" the speaker's "sweetheart." For 10 points each:

[H] Name this collection which includes "Is my team ploughing?" The speaker of a different poem in this collection recounts how a wise man once gave him the advice, "Give crowns and pounds and guineas; but not your heart away."

ANSWER: *A **Shropshire Lad*** (the second poem is "When I Was One-and-Twenty")

[E] The opening poem of A. E. Housman's collection *A Shropshire Lad* is "1887," which is titled for the year of the Golden Jubilee, or the 50th anniversary, of this monarch's accession to the British throne.

ANSWER: Queen **Victoria** [or Alexandrina **Victoria**]

[M] This author's poem "Recessional" was written for the Diamond Jubilee, or the 60th anniversary, of Queen Victoria. In another poem, this author tells the addressee how they can have the "Earth and everything that's in it" and "be a Man, my son!"

ANSWER: Rudyard **Kipling** [or Joseph Rudyard **Kipling**] (the other poem is "If—")

<British Literature>

15. *Description acceptable.* Acoustics engineer David Lubman found that clapping at the base of the most famous of these religious buildings produces a sound similar to that of a quetzal. For 10 points each:

[M] Name these religious buildings, which were often found at the centres of cities such as Chichén Itzá ("chee-CHEN eet-SAH"). One of these buildings in Tikal ("tee-CALL") contains a depiction of a king sitting on a jaguar throne.

ANSWER: **Mayan temples** [accept Temple of **Kukulcán**; accept **Mayan step pyramids**; prompt on Mesoamerican **temples** or Mesoamerican step **pyramids** by asking "to what culture do these buildings belong?"]

[E] The temple at the center of Chichén Itzá was dedicated to Kukulcán ("koo-kool-KAHN"), a deity who took the form of this animal. The closely-related Aztec deity Quetzalcoatl also took the form of a feathered one of these animals.

ANSWER: feathered **serpents** [or plumed **serpents**; accept **snakes** or **rattlesnakes**]

[H] Chichén Itzá also contains the Sacred Cenote ("say-NO-tay"), a natural water-filled sinkhole where Mayans would offer jewelry and human sacrifices to this Mayan god of rain.

ANSWER: **Chaac**

<Mythology>

16. Henri Cartier-Bresson took the last photos of this political figure and also photographed his funeral. For 10 points each:

[M] Name this political figure assassinated in 1948. Another iconic photograph of this figure shows him reading on the floor next to a spinning wheel.

ANSWER: **Mohandas Karamchand Gandhi** [or **Mahatma Gandhi**; prompt on **Gandhi**]

[H] This photographer took the aforementioned photo of Gandhi next to a spinning wheel. She was the first female American war photojournalist, and her photograph of the Fort Peck Dam appeared on the first cover of *Life*.

ANSWER: Margaret **Bourke-White**

[E] A 1934 photo shows Bourke-White positioning her camera atop one of these locations. Charles C. Ebbets showed several workers eating lunch on a steel beam above Manhattan while constructing one of these locations.

ANSWER: **skyscrapers** [accept **buildings** or other clear equivalents; accept **Chrysler Building**; accept **Rockefeller Center** or **30 Rockefeller Plaza**]

<Other Fine Arts>

17. The book *Guilty Men* castigated members of the British government who advocated this policy. For 10 points each,

[M] Name this policy of the government of Neville Chamberlain that claimed to have achieved "peace for our time" by making concessions to Adolf Hitler such as in the Munich Agreement.

ANSWER: **appeasement** [or **appeasing** Nazi Germany or **appeasing** Adolf Hitler; prompt on answers mentioning **avoiding war** with **Nazi Germany**]

[E] Chamberlain was eventually replaced by this man as prime minister in May of 1940. This prime minister led Britain for most of World War II.

ANSWER: Winston (Leonard Spencer) **Churchill**

[H] Despite his leadership during the war, Churchill was himself replaced as prime minister in 1945 by this Labour politician. This man spearheaded the creation of the National Health Service during his tenure as prime minister.

ANSWER: Clement Richard **Attlee**

<European History>

18. Because of their tunable band gaps, these colloiddally-synthesized particles are used as photovoltaics in some solar cells. For 10 points each:

[H] Name these nanosize particles, also called artificial atoms, that fluoresce with different colors depending on their size.

ANSWER: **quantum dots** [prompt on, but DO NOT REVEAL, **semiconductors**]

[E] Quantum dots are these kinds of materials, which have properties between those of insulators and conductors.

ANSWER: **semiconductors**

[M] N-type and p-type semiconductors are produced through this process of introducing impurities. This process is often done with boron, gallium, phosphorus, or arsenic.

ANSWER: **doping** [accept word forms like **dope**]

<Chemistry>

19. A book titled for these things discusses the concept of "rigid designators" which refers to the same thing in all possible worlds. For 10 points each:

[H] Name these things. Saul Kripke described how these things develop their meaning in a book titled for the action of creating these things "and Necessity."

ANSWER: **names** [accept **Naming and Necessity**]

[E] The importance of names on meaning was discussed by Hilary Putnam in a thought experiment where this substance is referred to as XYZ. Kripke noted how this substance had the same meaning as its formula H<sub>2</sub>O.

ANSWER: **water**

[M] Kripke attacked this kind of theory of proper names. This approach suggests that the meaning of words is determined by its speakers, as opposed to prescriptivism which emphasizes the strict definition of words.

ANSWER: **descriptivist** [accept word forms such as **descriptivism**; a description is not acceptable]

<Philosophy>

20. A man known by this name stalks Middle Sister in a 2018 Man Booker Prize-winning novel by Anna Burns. For 10 points each:

[H] Identify this derisive nickname also given to Macon Dead III in *Song of Solomon* because his mother breastfed him long past infancy.

ANSWER: **Milkman**

[E] *Song of Solomon* is a novel by this African American author of *Beloved*.

ANSWER: Toni **Morrison** [or Chloe **Wofford**]

[M] Toni Morrison's first novel was this one that follows the MacTeers and Pecola Breedlove, the latter of whom wishes for the title body part to make her more beautiful.

ANSWER: *The **Bluest Eye***

<US Literature>