

1. This country's Muslims caused the *malê* revolts. A bishop here said "When I ask why so many people are poor, they call me a communist." Faiths in this country use an X in spelling holy names such as Exu and Xango. Sacred music in this home of Helder Camara and the Umbanda faith often uses a single-stringed, bow-like instrument called the *berimbau*. Priestesses called "mothers-of-the-saints" serve the syncretic (*) Candomblé faith in this country, where descendants of slaves play sacred drumbeats alongside a type of danced kickboxing called capoeira. For 10 points, name this country whose capital holds a four-day Carnival overlooked by a statue of Christ the Redeemer, and whose majority Catholic faith was brought by Portuguese colonists.

ANSWER: Federative Republic of Brazil [or República Federativa do Brasil]

<Jackson>

2. Materials that become sediment through changes in this quantity are classified according to the Bouma sequence. This property is typically measured with Jackson Units, which uses the visibility of a flame as a standard of reference. Although it is not transparency, a circle with 2 black and 2 white regions is used to measure this property of a fluid - that apparatus is the Secchi Disk. Circulation driven by this quantity can be induced by (*) soil liquefaction. Adding plankton or runoff to a liquid increases this quantity, which causes sediment to flow underwater. For 10 points, name this measure of a murkiness of water, typically caused by particles suspended in the liquid.

ANSWER: turbidity [prompt on "currents" due to ambiguities; accept turbidity currents]

<Jose>

3. This man's father pushed a bizarre anti-Federalist Illuminati conspiracy after gaining prominence popularizing the study of geography in early America. This founder of Vassar College launched a vigorous lawsuit against Alexander Bain. He included a Pawnee chief in a portrait of the House of Representatives that he unsuccessfully tried to sell to Congress for \$1000. Chemist Leonard Gale and mechanic Alfred Vail joined this man in his most famous effort, which improved on an (*) invention by Cooke and Wheatstone that used a cumbersome set of six coiled wires. This man's project along the Baltimore and Ohio Railroad culminated in the message, "What hath God wrought!" Western Union relied on the invention of, for 10 points, what creator of the single-wire telegraph?

ANSWER: Samuel Finley Breese Morse

<Bentley>

4. This process happens to water vapor in the water-gas shift reaction. Lithium aluminum hydride and sodium borohydride are common compounds for carrying out these reactions, which mediate it via hydride transfer. In the Mond process, nickel undergoes one of them to be extracted from its ore. This type of reaction readily happens to permanganate and chromate. Electrodes are often ranked by their electric (*) potential for undergoing this process, of which hydrogenation is a subtype. This reaction often turns positively charged ions into neutral precipitate, and occurs at the cathode of an electrochemical cell. For 10 points, name this process in which a species gains electrons, often paired with oxidation.

ANSWER: reduction

<Eltinge>

5. This painting was copied for Antoine Perrenot as a model for tapestries, one of which still hangs in El Escorial. The critic Wilhelm Fraenger argued that this painting was used as an altarpiece in secret worship by a heretical sect. On the left side of this painting, a flock of birds flies through a hut in an S-shaped formation. Spiky blue and (*) pink towers are scattered throughout this painting, which displays the creation of the world when closed. The central panel depicts many nude humans engaged in debauchery, while the right panel shows the punishment of sinners in hell. For 10 points, name this triptych by Hieronymous Bosch about a place of worldly pleasures.

ANSWER: *The Garden of Earthly Delights*

<Rosenberg>

6. Plutarch wrote of Silo dangling a disobedient child of this name out a window. A consul of this name championed the Oppian Law banning opulent dress for women, and served with Lucius Valerius Flaccus. One general of this name stated “war feeds itself” while crushing a revolt in Nearer Spain, while another was a governor of Cyprus who mounted a filibuster to deny Caesar both a triumph and the consulate. After the Battle of Thapsus, that man with this name committed (*) suicide in Utica. It was more famously held by a censor and rival of Scipio Africanus, who ended his speeches with the same destructive phrase. For 10 points, give this name shared by an incorruptible Stoic enemy of Caesar and his great-grandfather, who advocated “Cartago delenda est.”

ANSWER: Marcus Porcius Cato [accept Marcus Porcius Cato Minor Uticensis or Cato the Younger before “dress” is read]

<Wasserman>

7. Howard McGhee yells the word "Blow!" as this musician begins to weaken during a recording of "Lover Man". "Au Privave" is a tune on his album, *Swedish Schnapps*, which also features a piece that employs his namesake modification of the blues as a chain of II-V ["two-five"] progressions, "Blues for Alice". From 1949 to 1965, 1678 Broadway was the site of a jazz (*) club on 52nd Street named for this musician. With Benny Harris, he wrote a tune that is a contrafact of "How High the Moon". The Ray Noble song "Cherokee" was the basis for his composition of "Ko-Ko". He is often co-credited with Dizzy Gillespie for creating the bebop style of jazz. For 10 points, name this alto saxophonist who wrote "Ornithology" and was nicknamed "Bird".

ANSWER: Charles "Charlie" Parker, Jr.

<Lawrence>

8. This character attempts to introduce Petrus Ramus and Duns Scotus to the entirely uninterested Aristotle. Elsewhere, he witnesses scientists who attempt to create gunpowder from ice and extract sunlight from cucumbers during a visit to the Grand Academy. He concludes his story by rejecting his family for the company of horses, while he begins his tale as a physician onboard the *Antelope*. In one episode, this character is sent on a campaign to defeat the exiled (*) Big-endians, while in another, he meets the beast-like Houyhnhnms. A bird helps him escape from the giants of Brobdingnag after he earlier helps defeat an armada sent by Blefuscu, thus defending Lilliput. For 10 points, name this man whose "Travels" title a Jonathan Swift novel.

ANSWER: Lemuel Gulliver [accept either answer]

<Bentley>

9. Karl Popper said this method logically forces us to accept every idea as true, and thereby opposed it. *Aufhebung*, or “sublation,” overcomes this process with time. Examples of it include a “struggle to the death” which creates independent self-consciousness. The idea of “culture industry” came from a use of this concept on the Enlightenment by Horkheimer and Adorno. A passage on “Lordship and Bondage” is often called the (*) “master-slave” one of these. Contrasted with rhetoric by Aristotle, this process ends when the World Spirit knows itself after many three-stage instances, according to its proponent Hegel. For 10 points, name this type of change, a clash creating a synthesis from thesis and antithesis, which names a type of Marxist “materialism”.

ANSWER: dialectics [or dialectical method; or dialectical materialism]

<Jose>

10. Zenobia Camprubi and Juan Ramon Jimenez collaborated on early Spanish translations of this man's poetry. One of this man's poems begins "I seem to have loved you in numberless forms, numberless times, in life after life, in age after age, forever." Another of his poems hopes that "where the mind is without fear and the head is held high... into that heaven of freedom, my Father, let my country awake." This poet cried for "victory, victory, victory to thee" in his poem (*) "Jana Gana Mana." The lines "thou has made me endless, such is thy pleasure" opens his collection of "song-offerings." For 10 points, name this first non-Westerner to win the Nobel Prize in Literature, a Bengali who wrote the lyrics for India's national anthem and penned *Gitanjali*.

ANSWER: Rabindranath Tagore [or Rabindranath Thakur; or Gurudev]

<Gupta>

11. One of this man's dinner parties is attended by the author of the "Poemulations" column, an ad-man for Zeeco cars named Chum Frink. In his first appearance, this character is awoken by a milk truck from his recurring dream of a "fairy child". At the end of the novel, his son Ted secretly marries Eunice Littlefield. His wife's appendicitis causes him to rekindle his marriage, which he'd abandoned during a period in which he refuses to join the Good Citizen's League, has an affair with (*) Tanis Judique, and supports the socialist Seneca Doane. Paul Riesling's imprisonment for shooting his wife Zilla inspires this husband of Myra to rebel against conformity. For 10 points, name this Zenith native, the title real estate agent of a Sinclair Lewis novel.

ANSWER: George F. Babbitt [accept either underlined answer]

<Bentley>

12. A monomeric version of this protein is created via an alanine to lysine mutation at an interface, and Thastrup developed an faster-folding version of this protein via the F64L mutation. Attaching this protein to a protein from the vesicular stomatitis virus is used to assay transport through the Golgi apparatus. This protein contains HBI covalently attached to a cyclized serine-65, tyrosine-66, and glycine-67 motif, which is buried within a (*) beta barrel. It contains excitation peaks at 475 and 395 nanometers. This protein was originally extracted from *Aequorea Victoria*, a species of jellyfish, and mutants of this protein change its emission spectrum. For 10 points, name this protein, a common reporter that glows a particular color.

ANSWER: GFP [or green fluorescent protein]

<Mukherjee>

13. A January 2012 *Economist* article about this country described the movement to assign people to "tribes" of trends like "crush-crush", "rush-rush", and the "ant tribe" of recent graduates working low wage jobs. This country is currently led by the Princelings, who dominate its Fifth Generation of leaders. Political nationalists in this country seek to avoid another "century of humiliation", a term that arose during opposition to the (*) Twenty One Demands made by Japan. The "cat theory" of one former leader's integrated capitalism into this country's socialist economy and led to the creation of Special Economic Zones like Pudong and Hainan. For 10 points, name this country currently led by Xi Jinping, home to Shanghai and Beijing.

ANSWER: People's Republic of China [or PRC; or Zhonghua renmin gongheguo; do not accept "Republic of China", "ROC" or "Taiwan"]

<Liao>

14. This composer wrote a string quartet whose second movement is in the flat supertonic major relative to the main key of the piece, and is marked "Allegro moderato à la Polka". One of his pieces ends with a hunting horn call before a furious reprise of the main melody, depicting female warriors slaughtering a sleeping army. A high violin E in his First String Quartet symbolizes his (*) tinnitus. Two flutes play swirling figures in E minor above string pizzicati before a melody shared by "Hatikvah" is introduced, representing the title river. That piece joins "Sarka" in a six-part tone poem cycle by this composer of the "From My Life" quartet. For 10 points, name this Czech composer who included the tone poem "The Moldau" in his cycle *Ma Vlast*.

ANSWER: Bedrich Smetana

<Lawrence>

15. One of this figure's Homeric hymns is the shortest, at three lines long. This deity's followers commemorated the jokes told by Iambe and Baubo by drinking *kykeon*, a hallucinogenic beverage. This deity put Bootes into the sky, used a fireplace and ambrosia to try and make a baby immortal, and was the oldest figure prayed to at the Thesmophoria and the (*) Eleusinian mysteries. This anointer of Demophon bore the wealth god Plutus and lent a winged chariot to Triptolemus, whom she instructed. She let mankind suffer a yearlong famine, and then taught humans to plow, while searching for a daughter who resurfaces for half the year. For 10 points, name this mother of Persephone, a goddess of farming and grain.

ANSWER: Demeter [or Ceres]

<Jackson>

16. A railroad to this island was known as "Flagler's Folly" during construction. This island was granted to Juan Pablo Salas in 1815, and David Porter's "mosquito fleet" rid it of pirates. Fort Forgotten on this island saw active use during the Civil War. This island was a frequent destination for Harry S. Truman, leading a neighborhood here to be named Truman Annex. Most of its historic buildings are along Duval Street, and its namesake city is the seat of Monroe County. This island is where "The (*) Short Happy Life of Francis Macomber" and "The Snows of Kilimanjaro" were written in what is now called the Ernest Hemingway House. This home of the so-called Conch Republic is, for 10 points, what island at the tip of a chain off the south coast of Florida?

ANSWER: Key West [or Cayo Hueso]

<Bentley>

17. This process produces a 511 kilo-electronvolt peak on gamma spectroscopy readouts. The ANTARES detector attempts to find occurrences of this process between WIMPs. An operator named for this process has eigenstates that are coherent states, and is symbolized \hat{a} ; that operator is derived while solving the quantum harmonic oscillator and is also known as the lowering operator. One instance of this process produces a pair of (*) photons totaling 1.022 mega-electron-volts moving in opposite directions. The reverse of this process occurring near a black hole is used as an explanation for Hawking radiation; that reverse of this process is called pair production. For 10 points, name this process that occurs when a particle and its anti-particle collide.

ANSWER: annihilation

<Mukherjee>

18. This work ends with one character standing and stretching after taking an electric train-ride into the countryside with her family. Characters in this work include a cleaning woman who constantly bangs doors and a trio of lodgers who attempt to leave without paying rent. In the original, its first sentence uses a word referring only to something "unclean" and "unfit for sacrifice". Its protagonist fights to preserve a gilt-framed picture of a (*) woman in furs, is injured when his father hits him in the back with an apple, and is forced to hide under a sofa while Grete cleans his room. It opens with a traveling salesman waking from a "night of uneasy dreams" For 10 points, name this Franz Kafka work in which Gregor Samsa transforms into an insect.

ANSWER: *The Metamorphosis* [or *Die Verwandlung*; or *The Transformation*]

<Ueda>

19. Arnaldo Tamayo Méndez, the first Latino with this job, now sits in the Cuban legislature. One man with this occupation apocryphally threw his drink at Brezhnev, angry about the death of another, Vladimir Komarov. Khrushchev claimed that one person "didn't see any god" while doing this job, and Valentina Tereshkova was the (*) first woman with this occupation. Alexey Leonov, a man with this job, was the first to conduct an EVA. Before heading to Baikonur, people train for this job at Star City. They were the primary employees of the Soyuz and Vostok Programs, and staffed the station Mir. For 10 points, name this profession, of which Yuri Gagarin was the first, the heroes of the Space Race.

ANSWER: cosmonauts [or astronauts of the Russian/Soviet Space Program; or kosmonavty; accept equivalents]

<Wasserman>

20. A Persian sage of this city, al-Tabari, got into repeated feuds with its religious establishment. Tahir ibn Husayn laid siege to this city for a year after the Battle of Rayy in the Fourth Fitna. Ahmad Ibn Hanbal was imprisoned in this city for opposing the Mu'tazilah beliefs of its ruler. The rise of the Turkish ghulam slave class led this city to be briefly supplanted by Samarra under al-Mu'tasim. This "Round City" became a (*) capital after the Battle of the Zab. A man ruling from this city sent the elephant Abul-Abbas to Charlemagne and set up its famed House of Wisdom. It served as the capital for rulers like al-Ma'mun and Harun al-Rashid during the Islamic Golden Age. For 10 points, name this capital of the Abbasid Caliphate, still the capital of Iraq.

ANSWER: Baghdad, Iraq [or Bagdad]

<Bentley>

21. **One common way of storing these entities begins with the string \$2a\$ [dollar sign two a dollar sign]. These entities are stored in shadow files. These entities comprise the values in rainbow tables. These entities are combined with (*) salts before storing them.** Modern GPUs allow for easier brute force attacks on these entities using programs like John the Ripper. Before being stored, these entities are often passed through the SHA or MD5 algorithms. Some of these entities are vulnerable to dictionary attacks, even after a cryptographic hash has been applied. These entities can be “cracked”, and short, lowercase ones are among the least secure. For 10 points, name these strings of characters required to log into an account.

ANSWER: Plaintext Passwords [prompt on “hash” before mentioned; prompt on "crypt"]

<Bentley>

22. **Richard de Beaumont threw a banner over one commander in this battle, which was prefaced by a mass Norman mooning. A feathered emblem and the motto “Ich Dien” was adopted by one victor here, whose father, headquartered at a windmill, was assisted by John Chandos. Preceded by extended looting after the Battle of Blanchetaque, it claimed the lives of Charles II of Alençon and a blind king who rode strapped to other knights, John of (*) Bohemia.** Sixteen waves of knights were stopped by English longbowmen at this battle, which was followed by the Siege of Calais and saw wet bowstrings cripple the Genoese crossbowmen hired by France. Edward, the Black Prince “won his spurs” at, for 10 points, what 1346 victory for Edward III over Phillip VI during the Hundred Years’ War?

ANSWER: Battle of Crécy [or Battle of Cressy]

<Wasserman>

23. **T.S. Eliot criticized this author's blank verse for relying on the monotonous repetition of names. In one of this author's plays, a prisoner commits suicide by bashing his head on the bars of his cage, while in a different scene, the title character burns a Quran and almost immediately falls sick. Another of his plays involves the main character's plan to marry his daughter to Lodowick, which goes awry when the would-be thief (*) Bellamira captures the heart of the conniving Ithamore.** The power-hungry husband of Zenocrate is the protagonist of one play by this author, who created a merchant who poisons the rice supply of a convent. For 10 points, name this Elizabethan author of *Tamburlaine* who wrote about the evil Barabbas in *The Jew of Malta*.

ANSWER: Christopher Marlowe [or Kit Marlowe]

<Nutter>

24. **This figure kills 150 women by destroying a house after failing to save the winner of a urination contest. This man was forbidden to marry one woman after sucking the stone out of a swan’s slingshot wound, and he was separated from the fairy Fand by the magic cloak of a sea god, which ended the jealousy of his wife Emer. This figure tied himself to a stone to (*) fight to his death, after which a raven landed on him. This man was taught by the warrior woman Scathach and spurned the triune war goddess Morrigan. This member of the Red Branch Knights wielded the seven-tipped spear Gae Bolg and went into a killing frenzy to defeat Queen Medb’s cattle raid.** For 10 points, name this hero of the Ulster cycle.

ANSWER: Cu Chulainn [(koo-HULL-en); accept Setanta]

<Jackson>

1. Boehmer and Bassenge created the object at the center of this scandal. For 10 points each:

[10] Identify this plot hatched by the Countess de la Motte, which involved Cardinal de Rohan trying to get back into the queen's good graces by purchasing the namesake item.

ANSWER: Affair of the Diamond **Necklace** [or Diamond **Necklace** Affair]

[10] During the Affair of the Diamond Necklace, a prostitute was dressed to look like this French queen to deceive Cardinal de Rohan. This queen was executed during the Revolution.

ANSWER: **Marie-Antoinette** [or **Marie-Antoinette**-Josèphe-Jeanne d'Autriche-Lorraine or **Maria Antonia** Josepha Joanna von Österreich-Lothringen]

[10] Another jewelry scandal saw this man's brother Francis was blamed for the still-unsolved theft of the Irish Crown Jewels in 1907. John Rowett financed one effort by this captain of the *Nimrod*, who was drunk almost continuously while trying to convince Argentina to ally with England during World War I.

ANSWER: Sir Ernest Henry **Shackleton**

<Bentley>

2. Answer these questions about ancient Greek paradoxes, for 10 points each.

[10] An Eleatic thinker of this name used two paradoxes, an arrow in flight and the race of Achilles and a tortoise, to show that motion is impossible. A later Greek of this name founded Stoicism.

ANSWER: **Zeno** [or **Zeno** of Elea; or **Zeno** of Cytium]

[10] Paradoxically, Socrates claimed to know only one thing for sure, a single fact which made him the wisest man. Name that fact.

ANSWER: "I know that **I know nothing**" [accept any answer conveying that **Socrates doesn't know anything**; accept **hèn oîda hótì oudèn oîda**]

[10] This paradox reveals the vagueness of defining collections. It arises when an n-member set, such as n grains of sand, is treated collectively, but removing one grain over and over cannot end its status as a collection.

ANSWER: paradox of the **heap** [or **sorites** paradox; or paradox of the **bald** man; or **baldness** paradox]

<Jackson>

3. One of his plays opens with Valentine Legend, in a state of destitution, declaring his intention to become a playwright. For 10 points each:

[10] Identify this English Restoration dramatist, the author of *Love for Love* and *The Way of the World*.

ANSWER: William **Congreve**

[10] A famous line from Congreve's *The Mourning Bride* asserts that this entity "has charms to soothe a savage breast". In the first line of Shakespeare's *Twelfth Night*, Duke Orsino requests that if this art form "be the food of love, play on".

ANSWER: **music**

[10] The title character cuts off the head of his lover Imoinda in *Oroonoko*, a novel by this other Restoration playwright, who also worked as a spy.

ANSWER: Aphra **Behn**

<Bentley>

4. In one of these narratives, a giant with a head of gold, arms made of silver, a belly of bronze, iron legs, and clay feet appears to Nebuchadnezzar. For 10 points each:

[10] Name these events within Biblical narrative. Other examples include eleven stars bowing to Joseph and angels going up and down Jacob's ladder.

ANSWER: **dreams** in the Bible [prompt on **vision**s; prompt on "books of the Hebrew **Bible**" or "books of the **Old Testament**"]

[10] This prophet interpreted Nebuchadnezzar's dreams. In his namesake book, he deciphered the writing on the wall at Belshazzar's feast before God helped him survive the lions' den.

ANSWER: **Daniel**

[10] Name either of the two nameless professionals imprisoned in Potiphar's jail with Joseph in the book of Genesis. These cellmates are the first people whose dreams Joseph can interpret.

ANSWER: the Pharaoh's royal **cupbearer** and/or the Pharaoh's royal **baker** [accept **butler** instead of cupbearer]

<Jackson>

5. In addition to the existence of an inverse element and the existence of an identity element, groups are structures which possess this property that magmas lack. For 10 points each:

[10] Name this property of being able to perform a set of binary operations without regard to order. It is often illustrated using parentheses, indicating that first evaluating within the parentheses not change the final answer.

ANSWER: **associativity** [accept word forms]

[10] The property that magmas and groups do share is this one, which means the output of the defined operator is within the same set as the inputs. For example, the positive numbers under subtraction do not have this property, since one minus seven yields a negative number.

ANSWER: **closure** [accept word forms]

[10] Groups that have been endowed with commutativity are named after this mathematician. He was the one who proved the impossibility of generally solving quintic equations.

ANSWER: Niels Henrik **Abel** [accept **Abelian**]

<Jose>

6. The book tour for this novel involved staging a theatrical version of it using local performers and included choral performances of the hymns it contains. For 10 points each:

[10] Identify this novel whose sequel is the still-unreleased *Maddaddam*. Its protagonists are Ren, a prostitute and former God's Gardener, and Toby, a God's Gardener who goes into hiding at the AnooYoo spa.

ANSWER: *The **Year of the Flood***

[10] *The Year of the Flood* is the sequel to *Oryx and Crake*, a novel by this Canadian author who wrote about the travails of Offred ("Of Fred") in her dystopian masterpiece *The Handmaid's Tale*.

ANSWER: Margaret Eleanor **Atwood**

[10] Offred serves as a Handmaid to this character, whose wife Serena Joy is infertile. He later takes Offred to a club called Jezebel's and secretly invites her to play Scrabble with him.

ANSWER: the **Commander** [prompt on "Fred"; accept Frederick R. **Waterford**]

<Carson>

7. This type of reaction occurs in order to form a peptide bond. For 10 points each:

[10] Name this type of reaction in which two molecules combine to form a larger molecule, usually with the loss of water. They are also called dehydration synthesis reactions.

ANSWER: **condensation** reactions

[10] The Claisen condensation occurs between two compounds with this functional group. Cyclic versions of these compounds are called lactones.

ANSWER: **esters**

[10] Condensation reactions are used to form these biological molecules, which are made from namesake C-5-H-8 subunits. Farnesol and retinol are two examples.

ANSWER: **terpenes** [or **terpenoids** or **isoprenoids**]

<Mukherjee>

8. Identify the following about some cases relating to government powers to regulate interstate commerce, for 10 points each.

[10] The court ruled that Congress did not have the power to block a company from gaining a monopoly over this good in the *E. C. Knight* case.

ANSWER: **Sugar**

[10] The Supreme Court overturned a New York State law limiting the working hours of bakers in this case, which lends its name to an era of jurisprudence ended with *West Coast Hotel v. Parrish*.

ANSWER: Joseph **Lochner**, Plaintiff in Error v. People of the State of New York [accept in either order]

[10] This justice argued against the narrow reading of the commerce clause in his dissent in *Hammer v. Dagenhart*. He claimed that one did not have the right to “falsely [shout] fire in a theatre and [cause] a panic” in his majority opinion in *Schenck v. United States*.

ANSWER: Oliver Wendell **Holmes**, Jr.

<Bentley>

9. In December 2011, Chinese citizen Liu Qiang [lee-oh chee-ahng] was accused of trying to burn down a column at this structure's gate. For 10 points each:

[10] Name this building in the Chiyoda ward of Tokyo, which causes controversy every time a Japanese politician visits it due to its enshrinement of war criminals.

ANSWER: **Yasukuni Shrine**

[10] Prime ministers Yukio Hatoyama, Naoto Kan, and Yoshihiko Noda declined to visit the shrine during the 2009 to 2012 government of this party, the longest period since 1955 that the LDP was out of power.

ANSWER: **Democratic** Party of Japan [or **DPJ**; or **Minshuto**; do NOT accept "Liberal Democrats" or "Jiyu-Minshuto"]

[10] Akihito, who has refused to visit the Yasukuni shrine, currently holds this position in Japan.

ANSWER: **Emperor** [or **Tenno**]

<Weiner>

10. Giovanni Artusi attacked this composer for deviating from the *prima pratica* style of strict counterpoint with prepared dissonances. For 10 points each:

[10] Name this Italian Baroque composer, whose operas include *The Coronation of Poppea* and *L'Orfeo*.

ANSWER: Claudio (Giovanni Antonio) **Monteverdi**

[10] Monteverdi wrote nine books of these secular polyphonic compositions, which were generally through-composed settings of poems.

ANSWER: **madrigals**

[10] Monteverdi's *Eighth Madrigal Book* contains a famous Nymph's song of this type, which employs a namesake descending tetrachord bass. These songs of mourning include Dido's "When I am laid in earth".

ANSWER: **lament** [or **lamento**]

<Lawrence>

11. Walter Bothe conducted erroneous experiments on this substance that appeared to show its promise as a neutron moderator. For 10 points each:

[10] Identify this substance which Nazi scientists attempted to use to build an atomic weapon.

ANSWER: **Heavy Water** [or **deuterium oxide** or **D2O**]

[10] Members of the resistance movement in this country sabotaged a heavy water plant at Rjukan. This Scandinavian country was ruled by Vidkun Quisling during World War II from Oslo.

ANSWER: **Norway**

[10] Ferenc Szalasi led this Nazi-supported party in Hungary during World War II. It later formed the Government of National Unity.

ANSWER: **Arrow Cross** Party [or **Nyilaskeresztes** Párt]

<Bentley>

12. Name these things about the linguistics of syllables, for 10 points each.

[10] Syllables can be further divided into these units of sound, the smallest units of sound that a language's speaker can distinguish. One of these units may have several allophones.

ANSWER: **phonemes** [prompt on language **sounds**]

[10] The syllables in the English exclamation "uh-oh" both begin with this unwritten sound, which is produced by briefly blocking the larynx.

ANSWER: **glottal stop**

[10] Syllables are divided into the nucleus, the coda, and this other part of the syllable, a group of initial consonants. When syllabifying a word, this part of the syllable is always made maximally large.

ANSWER: syllable **onset**

<Jackson>

13. The protagonist of this story picks up a nickel dropped by a hunter, who later points his gun at her to see if it scares her. For 10 points each:

[10] Identify this short story in which Phoenix Jackson journeys to Natchez to get medicine for her grandson, who swallowed lye several years before the story and may in fact be dead.

ANSWER: "A **Worn Path**"

[10] This author of "A Worn Path" also wrote "Death of a Traveling Salesman" and "Why I Live at the P.O.". She described Laurel, Fay, and Judge McKelva traveling to New Orleans in her novel *The Optimist's Daughter*.

ANSWER: Eudora Alice **Welty**

[10] Welty's novel *The Ponder Heart* won an award named for this other American author, a longtime editor of the *Atlantic Monthly* who chronicled the successes and failures of a Boston paint merchant in *The Rise of Silas Lapham*.

ANSWER: William Dean **Howells**

<Bentley>

14. The man in this painting wears a golden robe covered with a rectangular pattern. For 10 points each:

[10] Identify this painting covered in gold leaf, in which a couple embraces on a cliff covered with flowers.

ANSWER: *The **Kiss*** [or *Der **Kuss***]

[10] The Kiss was painted by this Austrian artist, who led the Vienna secession movement.

ANSWER: Gustav **Klimt**

[10] This other painting by Klimt features three very fat women and a giant brown furry monster, and was unveiled as part of a secession exhibition to honor a certain composer.

ANSWER: The **Beethoven Frieze**

<Rosenberg>

15. In most ectopic pregnancies, this cell attempts to implant in the Fallopian tube. For 10 points each:

[10] Give the term for the diploid cell that results when a sperm fertilizes an egg.

ANSWER: **zygote** [prompt on **embryo** or **fetus**]

[10] In *Xenopus*, this region of the zygote is formed from the shift of cytoplasm away from the point of sperm entry. It differentiates into the dorsal part of the embryo and separates the animal pole from the vegetal pole.

ANSWER: **gray crescent**

[10] Cleavage of the zygote results in a hollow mass of cells called the blastula, which then undergoes this process in order to form the ectoderm, endoderm, and mesoderm.

ANSWER: **gastrulation**

<Wynne>

16. Ballets he designed include *Episodes*, which sets the music of Anton Webern, and *Jewels*, which is based on the works of Fauré, Stravinsky, and Tchaikovsky. For 10 points each:

[10] Name this Georgian-American founder of the American Ballet Theatre, or ABT, whose work for Broadway includes *Slaughter on Tenth Avenue*.

ANSWER: George **Balanchine** [or Giorgi Melitonovitch **Balanchivadze**]

[10] This other Broadway choreographer directed his wife Gwen Verdon in such musicals as *Damn Yankees* and *Chicago*, for which he also served as director.

ANSWER: Robert (Louis) "Bob" **Fosse**

[10] This American choreographer's Broadway work included *Brigadoon* and *Paint Your Wagon* for Lerner & Loewe. Her Classical choreography includes *Rodeo* and *Fall River Legend*.

ANSWER: Agnes (George) **de Mille**

<Lawrence>

17. Yusuf Adil Khan surrendered this colony to Afonso de Albuquerque in 1510. For 10 points each:

[10] Identify this former colony, whose Basilica of Bom Jesus contains the remains of Saint Francis Xavier. Antonio Salazar's government refused to give it up peacefully in 1961.

ANSWER: Old **Goa**

[10] Goa was an Indian colony of this European nation. Many of its early expeditions were sponsored by Prince Henry the Navigator.

ANSWER: **Portugal** [or **Portuguese Republic** of Kingdom of **Portugal**]

[10] When Portugal refused to give up Goa, Nehru sent Krishna Menon to take it, which he did in just two days in this 1961 operation. This word, which derives from the Sanskrit for "victory," also identifies India's operations in the Kargil War.

ANSWER: Operation **Vijay**

<Bentley>

18. Answer these questions about global flood myths, for 10 points each.

[10] In Aztec cosmology, the third of these objects was extinguished when a jade-skirted water goddess released a great flood. We live under the fifth of these celestial bodies.

ANSWER: **suns** [accept third **sun** or fifth **sun**]

[10] This other people believed that a great flood was sent by Viracocha to cleanse the world, though their founding hero Manco Capac survived.

ANSWER: the **Inca**

[10] In this myth system, the mysterious Holy People help humanity escape a flooded world beneath the earth to reach the current world, and two non-Mayan hero twins use bows armed with lightning to turn monsters to stone.

ANSWER: **Navajo** mythology [or **Diné**]

<Jackson>

19. This character annoys her husband by requesting four hundred francs to buy a dress, the exact amount he had been saving for a hunting rifle. For 10 points each:

[10] Identify this woman who puts her family in debt for ten years by paying 34,000 francs to replace a borrowed necklace that she lost at a ball, only to be horrified to learn from Madame Forestier that its diamonds were fake.

ANSWER: Madame Mathilde Loisel [accept either underlined portion]

[10] Mathilde Loisel appears in "The Necklace", a work of this French short story master. This author also wrote "Mademoiselle Fifi" and a scary story called *The Horla*.

ANSWER: Guy de Maupassant [or Henri René Albert Guy de Maupassant]

[10] Delayed carriage passengers pressure Elisabeth Rousset, a prostitute known by the title nickname, into sleeping with a Prussian officer to secure their release in this Maupassant story.

ANSWER: "Boule de Suif" [accept translations like "Ball of Fat", "Suet Dumpling", "Butterball"; "Ball of Lard"; etc.]

<Jackson>

20. The differential form of this law states that $\nabla \times \mathbf{B}$ equals μ_0 times \mathbf{J} . For 10 points each:

[10] Name this law, which states that, in a closed loop, the magnetic field is proportional to the current in the loop.

ANSWER: Ampere's law

[10] Ampere's law fails to account for this quantity, symbolized \mathbf{J} , which exists when time-varying electric fields generate a magnetic field. It is exemplified by molecular polarization in dielectrics.

ANSWER: Displacement current [do not prompt on current]

[10] The Maxwell-Ampere equation can be written by equating the free current density plus the time derivative of the displacement field to $\nabla \times$ this quantity. This quantity, also called the magnetic field strength, is defined by \mathbf{B} over μ_0 .

ANSWER: magnetic H-field

<Nutter>

21. This author of the *Notebook from Prison* rose to power during the August Revolution. For 10 points each:

[10] Identify this leader who quoted "all men are created equal" to begin his country's declaration of independence in 1945, and sent a famously unanswered letter to Harry Truman.

ANSWER: **Ho** Chi Min [or **Nguyen** Sinh Cung or **Nguyen** Tat Thanh or **Nguyen** Ai Quoc; accept "**Uncle Ho**" from ardent nationalists]

[10] Ho Chi Min was a leader of this country, which was unified after fighting a war with the United States.

ANSWER: North **Vietnam** [or the Democratic Republic of **Vietnam**]

[10] This last emperor of Vietnam abdicated the throne in 1945 rather than be made "Citizen Prince Nguyen Vihn Thuy" under the Viet Minh. He was sometimes given the epithet "Playboy Emperor."

ANSWER: **Bao Dai**

<Bentley>

22. One of these things is forsaken in favor of the "grandstand of philosophical detachment," allowing a former anarchist to "fall asleep observing the cannibals do[ing] their death dance." For 10 points each:

[10] Name these things, such as Jimmy's pledge to get his newspaper job back and Cora and Chuck's desire to buy a farm, many of which take the form of pledges to return to one's glory days "tomorrow".

ANSWER: **pipe dreams**

[10] Theodore "Hickey" Hickman's guilt over murdering his wife Evelyn leads him to attack the pipe dreams of the other patrons of Harry Hope's saloon in this 1939 play.

ANSWER: *The **Iceman Cometh***

[10] This American author of *The Iceman Cometh* adapted the *Oresteia* in his play cycle *Mourning Becomes Electra* and wrote about the Tyrone family in *Long Day's Journey Into Night*.

ANSWER: Eugene Gladstone **O'Neill**

<Gupta>

23. One organism in this phylum enters the defensive "pineapple posture" and has its own order, Vampyromorphida. For 10 points each:

[10] Name this phylum that, in addition to the aforementioned vampire squid, contains snails, clams, and chitons.

ANSWER: **Mollusca** [or **mollusks**]

[10] The vampire squid belongs to this class of mollusks. Most organisms in this class lack an external shell, and organisms in this class have the most highly developed brain of any invertebrate class.

ANSWER: **Cephalopoda** [or **cephalopods**]

[10] Cephalopods and bivalves, among other aquatic creatures, use this balance-sensing organ to help stay upright. In squid and octopi, this organ may double as a hearing sense organ.

ANSWER: **statocyst**

<Wynne>