

## 2021 ACF Fall

### Packet N by Editors

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Tossups

1. Charles Buckman Goring's study of this behavior disproved Cesare Lombroso's theory of it. An atavistic theory of this behavior claimed that left-handed people and epileptics were predisposed to it. According to a 1982 article in the *Atlantic Monthly*, this behavior becomes more prominent as disorder corrodes the community strength that prevents it. George Kelling and James Q. Wilson proposed a theory of this behavior that inspired Rudy Giuliani's (JUU-lee-ah-nee) "zero-tolerance" policy towards it. Broken windows theory posits that minor instances of this behavior encourage more severe instances of this behavior. For 10 points, name this behavior through which laws are broken.

ANSWER: **crime** [or **criminal** activity; or committing **crime**; accept specific types of crimes such as **robbery**; or **arson**; prompt on **deviance**]

<Social Science>

2. Replacing three hydrogen atoms in one of these compounds with three fluorine atoms creates a reagent often used to remove protecting groups. Like oxymercuration-demercuration, a Markovnikov addition of water across an alkene catalyzed by one of these compounds has a positively-charged intermediate. "Hard" examples of these compounds have high electronegativity and low HOMO energy. mCPBA is a "peroxy" one of these compounds. By one definition these compounds are electron pair acceptors, while by another they are proton donors. Vinegar is a weak one of these compounds. For 10 points, name these compounds with pH below 7 that neutralize bases.

ANSWER: **acids** [accept carboxylic **acids** or peroxy**acids** or Lewis **acids** or Bronsted-Lowry **acids** or weak **acids**]

<Chemistry>

3. This monarch is the subject of a work by Fernand Braudel titled "*The Mediterranean and the Mediterranean World in the Age of* [this monarch]." This monarch's fleet, under the command of his brother John of Austria, decisively defeated the Ottoman navy at the Battle of Lepanto. The Council of Blood was established by this king's representative, the Duke of Alba, during the Dutch Revolt. A military campaign ordered by this husband of Mary Tudor was defeated by a storm dubbed the the "Protestant Wind." For 10 points, name this king who unsuccessfully dispatched the Spanish Armada against England.

ANSWER: **Philip II** of Spain [accept **Philip** I of Portugal; accept **Philip** the Prudent; accept **Felipe** or **Filipe** in place of **Philip**; prompt on **Philip**]

4. It's not in Europe, but this country's Very Large Telescope is operated by the European Southern Observatory. That telescope is located in the north of this country, which is also the site of its longest river, the Loa. The south of this country is home to Torres del Paine National Park, while an island governed by this country is home to a national park and UNESCO World Heritage site known for its many *moai* statues. That park is on this country's Easter Island. The Atacama Desert is located in the north of this country whose major cities include Valparaíso. For 10 points, name this South American country with capital Santiago.

ANSWER: Republic of **Chile**

<Geography>

5. While holding another character's corpse, this character wistfully asks, "Why should a dog, a horse, a rat, have life, And thou no breath at all?" This character says, "I tax not you, you elements, with unkindness" in a scene that begins with him bellowing, "Blow, winds, and crack your cheeks!" during a violent storm. This character is captured near Dover after French forces commanded by him are beaten in battle by the bastard son of Gloucester. This character wanders the countryside with Kent and his fool before running into the disguised Edgar. For 10 points, name this title monarch who splits his land between his daughters Goneril and Regan in a tragedy by William Shakespeare.

ANSWER: King **Lear**

<British Literature>

6. One piece in this genre is titled for the fact that its opening melody contains the phrase "A D, E A" in two sets of falling fifths. A piece in this genre that is part of the *Erdödy* collection includes a slow theme and variations movement whose melody was later used for the German anthem "Deutschland über alles." Collections of these pieces by an early composer are titled *Russian*, *Tost* and *Sun*. It's not the symphony, but Joseph Haydn's many pieces in this genre like the "Lark" and "Emperor" earned him the title of "Father of" this genre. For 10 points, name this genre of music written for two violins, a viola, and a cello.

ANSWER: **string quartets** [prompt on quartets]

<Classical Music>

7. A prince from this dynasty ambushed two of his brothers to become heir to the throne in the Xuanwu Gate incident. A ruler from this dynasty betrayed the kingdom of Silla after initially allying with it against Goguryeo. Yang Guifei, one of China's Four Beauties, was married to an emperor from this dynasty. This dynasty was founded by Gaozu, and Wu Zetian was an empress from this dynasty. Poetry by Li Bai and Du Fu was written during this dynasty, which fell into decline after a rebellion led by the Sogdian general An Lushan. For 10 points, name this dynasty that followed the Sui.

ANSWER: **Tang** dynasty

<World History>

8. The *jariya* subtype of a variety of this action continues to reward the actor even after death. Matan B'Seter is the second of an eight-stage hierarchy of this action developed by Moses Maimonides. First Corinthians 13 states that giving one's body over to hardship and performing this action is nothing without love. In Islam, the *nisab* is the minimum threshold over which adherents must participate in this action, which benefits a class of people called *asnaf*. For 10 points, name this activity whose compulsory form is exemplified by the Islamic *zakat*, which mandates that Muslims set aside money to help the less fortunate.

ANSWER: **charity** [or almsgiving or donation; accept descriptions like giving one's possessions to the poor; accept zakat before mentioned or sadaqah or tzedakah]

<Religion>

9. Walter Gilbert hypothesized the existence of a type of these things with "hammerhead" or "twister" structures made of RNA. The efficiency of these things is equal to the turnover number divided by  $K$  sub  $M$ . G. E. Briggs and J. B. S. Haldane analyzed these things using a steady-state assumption. These things, whose behavior is described by the Michaelis-Menten equation, are rigid in the lock-and-key model but flexible in the induced fit model. One of these things acts on its substrate hydrogen peroxide and is called catalase, while another of them acts on glucose and is called hexokinase. For 10 points, name these biological catalysts.

ANSWER: **enzymes** [accept ribozymes, prompt on catalysts or proteins, prompt on RNA before mention with "what type of substance does the RNA act as?"]

<Biology>

10. In one novel by this author, J. T. Marston rescues three of his former colleagues who are stranded in a buoy while on the *USS Susquehanna*. That novel by this author was the sequel to one in which Barbicane, the president of the Baltimore Gun Club, constructs the Columbiad, a giant cannon. In a novel by this author, Conseil jumps off of the frigate *Abraham Lincoln* after Ned Land and Pierre Aronnax are thrown overboard. That novel by this author ends after the deadly Maelstrom hits and the *Nautilus* and Captain Nemo go missing. For 10 points, name this French author of *From the Earth to the Moon* and *Twenty Thousand Leagues Under the Sea*.

ANSWER: Jules Verne [or Jules Gabriel Verne]

<European Literature>

11. A slave from this state mailed himself to freedom in Philadelphia and was named Henry "Box" Brown. A governor of this state sent its militia to suppress a planned slave revolt in 1800 led by Gabriel Prosser. A 1831 solar eclipse convinced one man in this state to start a slave revolt that resulted in the deaths of over 50 people in Southampton County. That slave revolt in this state was Nat Turner's Rebellion. For much of the Civil War, the capital of the Confederacy was located in this state. Hundreds of people were enslaved by George Washington at Mount Vernon in this state. For 10 points, name this state with capital Richmond.

ANSWER: Commonwealth of Virginia

<US History>

12. An A major waltz in this ballet begins with strings playing the offbeat melody "long C-sharp B D C-sharp." A series of princesses in this ballet perform a *pas de six* that includes a Neapolitan dance and mazurka. Riccardo Drigo revised the score of this ballet as part of its revival by Lev Ivanov and Marius Petipa. This ballet begins with a crossbow hunt undertaken by Prince Siegfried, who discovers the title location that has been cursed by Rothbart. Odile is the "black" doppelganger of Odette in, for 10 points, what Pyotr Ilyich Tchaikovsky ballet about a location filled with majestic white birds?

ANSWER: Swan Lake

<Other Fine Arts>

13. This author claimed that "Beauty is momentary in the mind" but "in the flesh it is immortal" in a poem revolving around a woman who had "attendant Byzantines." The book *On Extended Wings* by Helen Vendler takes its title from a poem by this author of "Peter Quince at the Clavier." The speaker of a poem by this author asks the "thin men of Haddam" why they imagine "golden" versions of the title creatures. That poem by this author opens, "Among twenty snowy mountains, the only moving thing was the eye" of the title animal. For 10 points, name this poet whose collection *Harmonium* contains "Sunday Morning" and "Thirteen Ways of Looking at a Blackbird."

ANSWER: Wallace Stevens

<US Literature>

14. This philosopher defined slavery as the continuation of war into the civilian sphere before differentiating between legitimate and illegitimate slavery. This philosopher refuted Robert Filmer by arguing that Adam's descendants would not inherit the divine right of kings. According to this philosopher, one's property consists of their own body and objects that they mix their labor with. This philosopher included "life, liberty, and property" among the God-given natural rights of humans. For 10 points, name this English philosopher whose *Two Treatises on Government* helped found liberalism and inspired the Declaration of Independence.

ANSWER: John Locke

<Philosophy>

15. On Unix systems, performing this task and then using the `uniq` ("YOO-nick") utility allows a user to find which characters are used in a file. One algorithm that performs this task begins by selecting a pivot to partition the input. Another algorithm for performing this task comes in least-significant and most-significant digit forms. For small inputs, an algorithm for this task that moves each element of the input backwards is often more efficient than divide-and-conquer algorithms for it. The "heap," "merge," and "quick" algorithms for this task usually all run in big  $O$  of  $n \log n$  time. For 10 points, name this task that involves placing the elements of a list in order.

ANSWER: sorting [accept quicksort or radix sort or least-significant digit radix sort or most-significant digit radix sort or LSD radix sort or MSD radix sort or heapsort or mergesort]

<Other Science>

16. A painting by this artist includes patches of cleared forest that spell out Hebrew letters on a hillside and is set near Holyoke ("HO-lee-oak"). In another painting by this artist, a man rests on a massive pedestal in front of a church, Greek temple, and Egyptian pyramid. This artist used the recurring image of a large rock on a ledge in a series whose final painting includes a Doric column covered in moss at twilight. This artist and William Cullen Bryant admire a waterfall in Asher Durand's painting *Kindred Spirits*. This artist included *Consummation* and *Desolation* in a series of five landscapes showing the rise and fall of a civilization. For 10 points, name this Hudson River School founder who painted the *Course of Empire* series.

ANSWER: Thomas Cole

<Painting/Sculpture>

17. This figure was tried and acquitted for murdering Halirrhottius, who had raped his daughter, Alcippe. This figure unsuccessfully tried to fight Heracles after Heracles killed his son, Cynus. As punishment for falling asleep on guard duty, this figure turned Alectryon into a rooster. Hermes rescued this figure after the Aloadae trapped him in a bronze jar. After killing this deity's sacred dragon, Cadmus served him for eight years and later married this deity's daughter, Harmonia. This god was trapped in a golden net while having an affair with Aphrodite. This god's sons Phobos and Deimos accompany him on the battlefield. For 10 points, name this Greek god of war.

ANSWER: Ares

<Mythology>

18. When his lover dies in childbirth and he has no one to console him, one character in this novel shouts, "Friends are a bunch of bastards!" before he is helped by the prostitute Nigromanta. An Italian pianola instructor in this novel kills himself after he is rejected by both Rebeca and her sister. This novel opens with a character facing a firing squad and remembering the afternoon that "his father took him to discover ice." In this novel, Melquíades prophesies that "The first of the line" will be "tied to a tree" and the last will be "eaten by the ants." This novel ends as a wind wipes out Aureliano and the town Macondo. For 10 points, the Buendías are the central family of what novel by Gabriel García Márquez?

ANSWER: One Hundred Years of Solitude [or Cien años de soledad]

<World/Other Literature>

19. Solutions to an equation named for this scientist may be approximated using Airy functions near turning points. An equation named for this scientist can be approximately solved using the Hartree-Fock method. The time derivative of the wavefunction is related to the Hamiltonian by an equation named for this scientist that also has a "time-independent" form. To illustrate flaws of the Copenhagen interpretation of quantum mechanics, this physicist formulated a thought experiment that involves a flask of poison broken if a radiation detector is triggered. For 10 points, name this Austrian physicist, whose cat is both alive and dead until you open the box.

ANSWER: Erwin Schrödinger [accept Schrödinger equation or Schrödinger's cat]

<Physics>

20. The Siamese king Mongkut offered to send James Buchanan some of these things though Abraham Lincoln declined the gift. In addition to a water clock, one of these things called Abul-Abbas was presented as a gift from Harun al-Rashid to Charlemagne. During the Antigonid siege of Megara, flaming pigs were used to counteract these things. *Howdahs* were often placed on these things, which were operated by men known as *mahouts*. During the Battle of the Hydaspes River, king Porus used over 100 of these things against Alexander the Great's army. For 10 points, name these large mammals Hannibal used to cross the Alps.

ANSWER: elephants [accept war elephants]

<Other History>

## Bonuses

1. Frederick Lugard served as the first British Governor-General of this modern-day country. For 10 points each:

[M] Name this modern-day country where polities like the Sokoto Caliphate and Aro Confederacy were subjugated by the British. After gaining independence, this country fought a civil war with the breakaway state of Biafra.

ANSWER: Republic of **Nigeria**

[H] Women from this ethnic group revolted against British rule in Nigeria in the Aba Women's War. The Biafran breakaway state was formed by members of this ethnic group.

ANSWER: **Igbo** people

[E] Many Igbo were converted to this Christian denomination by the efforts of missionaries during British rule. Spanish and Portuguese rule in the Americas has led to many people in the region adhering to this denomination.

ANSWER: Roman **Catholicism**

<World History>

2. An annual New Years' Concert in this city culminates in the performance of the *Radetzky March* and *Blue Danube Waltz*. For 10 points each:

[E] Name this city that was home to the original waltz craze as a center of music in the 19th century. Mozart spent much of his career in this Austrian capital city.

ANSWER: **Vienna**

[H] This former Chicago Symphony director and concert pianist will direct the 2022 Vienna New Years' Concert. This husband of Jacqueline du Pre founded the West-Eastern Divan Orchestra with Edward Said.

ANSWER: Daniel **Barenboim**

[M] This action is led in the orchestra by the conductor during the New Years' performance of the *Radetzky March*. Traditional concert rules discourage performing this action between sections of a multi-movement piece.

ANSWER: **clapping** [accept reasonable equivalents like **applause**]

<Classical Music>

3. The speaker of this poem describes a group of men who "had lost their boots, but limped on, blood-shod." For 10 points each:

[M] Name this poem whose speaker describes a man "guttering, choking, drowning" while "under a green sea," and that if the reader saw this incident, they would not tell "children ardent for some desperate glory" the title "old Lie."

ANSWER: "**Dulce et Decorum Est**"

[E] Wilfred Owen's poem "Dulce et Decorum Est" was one of many poems he wrote from his experiences during this war. Owen died a week before the armistice ending this war was signed in November 1918.

ANSWER: **World War I** [or **WWI**; or the **Great War**]

[H] This poet told readers, "If I should die, think only this of me: That there's some corner of a foreign field that is forever England" in his poem "The Soldier." This man died from an infected mosquito bite while serving in Greece in 1915.

ANSWER: Rupert **Brooke** [or Rupert Chawner **Brooke**]

<British Literature>

4. This denomination's founder believed in a second work of grace that allows one to become entirely sanctified, one of many aspects of his theology that was influenced by Jacobus Arminius. For 10 points each:

[M] Name this protestant sect founded by John Wesley. George Whitfield's preaching popularized this sect in the United States during the First Great Awakening.

ANSWER: **Methodism**

[H] Methodism's doctrine is outlined by the Articles of Religion, which Wesley adapted from this liturgical text's Thirty-Nine Articles. This text superseded the Sarum Rite that was widely used in its home country prior to the Reformation.

ANSWER: **Book of Common Prayer**

[E] When adapting the Thirty-Nine Articles, Wesley cut out the doctrine of this theologian. This author of *Institutes of the Christian Religion* espoused predestination within a namesake branch of the Protestant Reformation.

ANSWER: John **Calvin** [accept **Calvinism**]

<Religion>

5. The seasonal variation in the location of this area causes monsoons in Southeast Asia. For 10 points each:

[H] Name this area that gets its name from being the location where northeast and southeast trade winds converge.

ANSWER: **Intertropical Convergence Zone** [or **ITCZ**; accept **doldrums**]

[E] The Intertropical Convergence Zone is generally characterized by low values of this quantity. Areas having equal amounts of this quantity, which is measured by a barometer, are connected by isobars on weather maps.

ANSWER: **pressure**

[M] The decrease in atmospheric pressure with increasing altitude leads to this phenomenon, where wind carrying moist air causes precipitation only on the windward side of a mountain.

ANSWER: **rain shadow**

<Other Science>

6. Answer the following about the travels of Hanno the Navigator. For 10 points each:

[E] Hanno was a native of this city. This North African city was established by the Phoenicians and fought the Punic Wars against the Roman Republic, during which it was led by generals like Hannibal Barca.

ANSWER: **Carthage**

[M] Hanno's expedition rounded the western coast of the African continent, during which he sighted one of these features named Kakulima. Pliny the Younger provided an account of a 79 AD event involving one of these features.

ANSWER: **volcanoes** [prompt on **mountains**]

[H] Hanno's journey was mentioned by the historian Arrian of Nicomedia in his *Anabasis of* [this other ruler]. The mention of Hanno is in the *Indica* section of that history, which also describes the voyages of this ruler's admiral Nearchus ("nee-ARK-us").

ANSWER: **Alexander the Great** [accept **Alexander III** of Macedon; prompt on **Alexander**]

<Other History>

7. In a comedy sketch promoting this album, a man struggles to order dinner on a train when given the choice between the braised Bohemian beef and the brown sugar salmon. For 10 points each:

[H] Name this album whose cover features an ID card with the last name "Baudelaire." In another promotional video for this album, the singer fails to pick up a girl with the line "aww, you look malnourished."

ANSWER: **CALL ME IF YOU GET LOST**

[M] *CALL ME IF YOU GET LOST* is an album by this rapper, who claimed that the "Urban Contemporary" category was "a politically correct way to say the N-word" after accepting a Grammy for his album *IGOR*.

ANSWER: **Tyler, the Creator** [accept Tyler (Gregory) **Okonma**]

[E] Earlier, Tyler, the Creator wrote music for a movie about this character, who is described as "cuddly as a cactus" and "charming as an eel" in a song that berates him for his act of stealing Christmas.

ANSWER: the **Grinch** [accept *How the Grinch Stole Christmas* or "You're a Mean One, Mr. **Grinch**"]

<Pop Culture>

8. When this character is told to sign a document to confess his crimes, this character shouts, "I have given you my soul, leave me my name!" For 10 points each:

[H] Name this character who, after being accused of keeping a "black allegiance," says that "God is dead" and "we will burn, we will burn together!"

ANSWER: **John Proctor** [accept either]

[E] John Proctor dies at the end of *The Crucible*, a play by this author of *Death of a Salesman*.

ANSWER: Arthur **Miller** [or Arthur Asher **Miller**]

[M] Miller's play *Death of a Salesman* revolves around this family whose patriarch Willy commits suicide so his family can get the insurance money for his death.

ANSWER: **Loman**

<US Literature>

9. Noether's ("NO-ter's") theorem states that every continuous symmetry of this quantity corresponds to a conserved quantity. For 10 points each:

[H] Name this quantity, which equals the difference between a system's kinetic and potential energy. An equation co-named for Euler can be used to find the equations of motion for a system from this quantity.

ANSWER: **Lagrangian**

[M] The total energy of a system is conserved if its Lagrangian ("luh-GRAHN-ji-an") does not depend on this quantity. Impulse is the integral of force with respect to this quantity.

ANSWER: **time**

[E] Because the Lagrangian is the difference between two forms of energy, it has this unit in the SI system. This SI derived unit of energy is symbolized by an uppercase *J*.

ANSWER: **joule**

<Physics>

10. For 10 points each, answer the following about the career of Remedios Varo.

[M] Varo was born in Spain but spent most of her life in this country with European ex-pats like Leonora Carrington. A different painter from this country depicted a spinal injury as a Broken Column in a self-portrait.

ANSWER: **Mexico**

[E] Remedios Varo painted in this dreamlike style also used by Andre Breton and Salvador Dalí.

ANSWER: **Surrealism**

[H] Varo painted several of these animals around a moss-covered castle in a painting titled for these animals' *Paradise*. A white one of these animals appears in the David Hockney double portrait *Mr. And Mrs. Clark and Percy*.

ANSWER: **cats**

<Painting/Sculpture>

11. For 10 points each, answer the following about mortals who unsuccessfully tried to escape the Underworld:

[E] This man tricked Persephone into briefly letting him leave the Underworld because his wife didn't properly bury him. This man, who had earlier managed to chain up Thanatos, was forced to endlessly roll a boulder up a hill.

ANSWER: **Sisyphus**

[M] This woman was almost able to leave Hades, but failed because her husband turned back to look at her before she had completely exited the Underworld.

ANSWER: **Eurydice**

[H] This king of the Lapiths was stuck to a chair alongside Theseus in the Underworld as punishment for plotting to abduct Persephone. Theseus was eventually freed by Heracles, but this man was imprisoned forever.

ANSWER: **Pirithous**

<Mythology>

12. The "differential scanning" form of this technique may be used to analyze the phase transitions of polymers. For 10 points each:

[H] Name this analytical technique, whose "isothermal titration" variety compares the changes in temperature in the sample cell and reference cell.

ANSWER: **calorimetry** [accept differential scanning **calorimetry** or isothermal titration **calorimetry]**

[E] Calorimetry can be used to measure this quantity, the amount of energy it takes to raise the temperature of one gram of a substance by one kelvin. This quantity for water is 4.184 joules per gram kelvin.

ANSWER: **specific heat** [or specific **heat capacity**; accept but DO NOT REVEAL isochoric **specific heat** or isochoric **heat capacity** or isochoric specific **heat capacity**; do not accept or prompt on and DO NOT REVEAL "isobaric specific heat" or "isobaric heat capacity" or "isobaric specific heat capacity"]

[M] Processes that occur inside a bomb calorimeter must have this property. During processes with this property involving ideal gases, temperature only depends on pressure and mole number.

ANSWER: **isochoric** [or **isovolumetric**; accept descriptive answers that indicate that **volume stays constant**]

<Chemistry>

13. One character in this novel is adopted by the Akhtar family after she has a seizure while eating butterflies. For 10 points each:

[H] Name this novel whose fourth and eight sections detail the protagonist's dreams about a woman who leads villagers from Titlipur on a pilgrimage into the Arabian sea.

ANSWER: *The **Satanic Verses***

[E] Ayatollah Khomeini issued a fatwa against this author after the publication of his novel *The Satanic Verses*.

ANSWER: Salman **Rushdie** [or Ahmed Salman **Rushdie]**

[M] Two years after the fatwa was issued, the scholar who translated *The Satanic Verses* into this language was stabbed to death in his university office. An author who wrote novels in this language like *Confessions of a Mask* killed himself after failing to spark a coup d'état in 1970.

ANSWER: **Japanese** [or **Nihongo**] (the author is Yukio Mishima)

<World/Other Literature>

14. This thinker followed up his *German Language* with his *History of the German Language*. For 10 points each:  
[H] Name this thinker who described a pair of shifts in Indo-European and Germanic consonants in his most famous theory. By that theory, unvoiced consonants like "p" and "t" morphed into English consonants like "f" and "th."

ANSWER: Jacob **Grimm**

[E] Grimm's work is foundational to the comparative method of this field. This academic study of language was written about by Noam Chomsky in works titled for this field's subcategory of syntax.

ANSWER: **linguistics** [accept **philology**]

[M] One difficulty in tracking changes in languages over time concerns demarcating between these linguistic concepts, which are defined as the smallest units of speech capable of differentiating separate words.

ANSWER: **phonemes**

<Social Science>

15. This woman met her long-lost brother Cameahwait during the event she is most associated with. For 10 points each:

[M] Name this Shoshone woman who, along with her husband Toussaint Charbonneau and son Pompey, accompanied one expedition after meeting them in the lands of the Mandan and Hidatsa tribes.

ANSWER: **Sacagawea**

[E] Sacagawea helped guide this expedition across the Continental Divide on its way to reach the Pacific Ocean. This expedition was commissioned by Thomas Jefferson to explore the Louisiana Purchase.

ANSWER: Meriwether **Lewis** and William **Clark** Expedition [accept **Corps of Discovery**]

[H] Although most accounts claim Sacagawea died at the age of 24, Charles Eastman, a physician from this tribe, claimed she lived until 95 with the Comanche. This tribe and the Arapaho signed the Second Treaty of Fort Laramie.

ANSWER: **Sioux** [accept **Lakota**; accept **Dakota**; accept **Nakota**; accept **Santee**]

<US History>

16. The warden of the Home for Aged Persons in Marengo notes that it was a standing joke to ask Thomas Pérez when he was going to marry this character. For 10 points each:

[M] Name this character whose death is announced in the first sentence of a novel by the protagonist, who later kills an Arab by excessively shooting him with a revolver.

ANSWER: **Maman** [or **Meursault's mother**; or **Madame Meursault**; accept the **mother** from *The Stranger*]

[E] Meursault's statement that "Maman died today" opens *The Stranger*, a novel by this Algerian-born author.

ANSWER: Albert **Camus**

[H] In Camus' first novel, a character named Patrice Mersault kills a character with this first name and gives him the title *Happy Death*. A French literary theorist with this first name wrote the essay "The Death of the Author."

ANSWER: **Roland** [accept **Roland** Zagreus; accept **Roland** Gérard Barthes]

<European Literature>

17. A long-exposure photograph in this city only managed to capture a shoe-shiner and his customer because they were still enough to appear in the image. For 10 points each:

[H] Name this city. The balloonist and photographer Nadar took some of the first ever aerial photos of this city in the 19th century.

ANSWER: **Paris**, France

[M] This Parisian inventor's namesake "type" used a copper plate exposed to light and was one of the earliest forms of photography.

ANSWER: Louis **Daguerre** [accept **Daguerrotype**]

[E] Daguerre's 1838 photograph showing the shoe-shiner is an aerial view of one of these locations in Paris. The Alfred Stieglitz photo *Winter – Fifth Avenue* shows horse and carriage tracks along a snow-covered one of these locations.

ANSWER: **streets** [accept equivalents like **avenues** or **boulevards**; accept **Boulevard** du Temple; prompt on **sidewalks**]

<Other Fine Arts>

18. *Description acceptable.* An attempt to stop one of these events involved one monarch being offered a bribe by Isaac Abravanel. For 10 points each:

[M] Name these events, one of which was carried out through the 1492 Alhambra Decree by Ferdinand and Isabella of Spain. One of these events in England was only reversed by Oliver Cromwell in 1657.

ANSWER: **expulsion** of the **Jews** [accept anything relating to the **banishment** or forcible **removal** of **Jews**]

[H] The English expulsion of the Jews took place during the reign of this king. Before ascending to the throne, this king helped his father during the Second Barons' War and commanded the Ninth Crusade.

ANSWER: **Edward I** [accept Edward **Longshanks**; prompt on **Edward**]

[E] The aforementioned Isaac Abravanel served as court treasurer in this country, which would expel its own Jewish population in 1497. Nine years later, nearly 2,000 converted Jews were killed in this country's capital of Lisbon.

ANSWER: Kingdom of **Portugal**

<European History>

19. Levels of this compound, which is produced through the mevalonate pathway, affect the fluidity of cell membranes. For 10 points each:

[E] Name this precursor to many steroid hormones, plaques of which block blood flow in atherosclerosis. This compound is transported by HDL and LDL complexes, which are often called its "good" and "bad" types.

ANSWER: **cholesterol**

[M] The mevalonate pathway begins when a thiolase enzyme bonds together two molecules of this compound. In cellular respiration, pyruvate dehydrogenase produces this compound, which reacts with oxaloacetate to form citrate.

ANSWER: **acetyl-CoA**

[H] These drugs, which are used to treat atherosclerosis, reduce levels of LDL cholesterol in the body by inhibiting an enzyme in the mevalonate pathway.

ANSWER: **statins** [or **HMG-CoA reductase inhibitor**s]

<Biology>

20. For 10 points each, name some things about space flights in 2021.

[M] This company's Crew Dragon spaceship flew with non-astronauts for three days in September 2021. This company's reusable Falcon 9 spaceships have carried over 100 satellites into space for NASA.

ANSWER: **SpaceX**

[E] Earlier in the year, this businessman was edged out by Richard Branson in becoming the first billionaire to enter space. This founder of Amazon is the richest person in the world.

ANSWER: Jeff **Bezos**

[H] Bezos flew into space along with his brother Mark, a Dutch teenager, and this member of NASA's Mercury Project. At age 82, this woman became the oldest person to go to space.

ANSWER: Wally **Funk**

<Current Events>