

ACF Fall 2017

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Packet by Cambridge C, Louisville A, Berkeley B, and Rochester A

### Tossups

1. The “sea” type of these particles are defined as virtual pairs of these particles and their antiparticles. The existence of these particles was deduced through experiments in deep inelastic scattering. These particles superseded the role of the parton, which was proposed by Richard Feynman. A model of the weak interaction describes one of these particles absorbing or emitting a W boson to change its flavor. Some of these particles have fractional charges in multiples of one-third. These particles come in six flavors, including “charm” and “strange.” For 10 points, name these elementary particles, whose “up” and “down” varieties make up protons and neutrons.

ANSWER: quarks

2. The protagonist of a novel by this author gets into a disagreement with one of his co-workers regarding the firing of two Jews at the insistence of Carolyn Barnet. That protagonist created by this author discovers that his father has died during a conference of Nazi sympathizers hosted by his employer, and insists that “dignity” sets him apart from lesser members of his profession. He wrote a novel whose protagonist takes a road trip to visit Miss Kenton, the first time in years that he has left Darlington Hall. For 10 points, name this author who wrote about the butler Stevens in *The Remains of the Day*, the winner of the 2017 Nobel Prize in Literature.

ANSWER: Kazuo Ishiguro

3. In order to halt the advance of an invading army, this man ordered the destruction of dikes in what’s considered “the largest act of environmental warfare in history,” leading to the death of over a million civilians. This leader launched the New Life Movement with the guidance of his Christian wife, the youngest of the Soong sisters. This first head of the Whampoa Military Academy ended the warlord era with his Northern Expedition. This leader was kidnapped by Zhang Xueliang and forced to ally with Communists in the Xi’an Incident. He was forced to flee to Taiwan after he lost a civil war against his rival, Mao Zedong. For 10 points, name this leader of the Kuomintang who led China through World War II.

ANSWER: Chiang Kai-Shek [or Jiang Jieshi]

4. An osmanthus tree in this locale continually heals itself after the woodcutter Wu Gang attempts to chop it down. A woman was stranded on this locale after eating an entire pill meant to be split between her and Hou Yi. A male deity representing this home of Chang’e was born when Izanagi washed out his right eye. A rabbit in this place constantly pounds ingredients for medicine, the elixir of life, and rice cakes. Cakes filled with lotus seed or red bean paste named after this place are eaten during the Mid-Autumn Festival. For 10 points, name this celestial body personified by the Shinto kami Tsukuyomi and the Greek goddesses Selene and Artemis.

ANSWER: the moon

5. Joshua Reynolds called this artist a “cheap sorcerer” who “betrayed” his medium by making his work too life-like. This artist sculpted *Truth Unveiled by Time* after the failure of his two towers at St. Peter’s Basilica, where he also designed the Baldacchino (bal-da-KEE-no) and the Chair of St. Peter. The four title characters surround an Egyptian obelisk in a sculpture by this artist located in the Piazza Navona. In another of this sculptor’s works housed in the Cornaro Chapel, an angel points a golden spear at the title nun as she reclines on a cloud. For 10 points, name this Italian Baroque sculptor of the *Fountain of the Four Rivers* and *The Ecstasy of St. Theresa*.

ANSWER: Gian Lorenzo Bernini

6. The Lah numbers relate the “rising” and “falling” types of this operation. The series of the reciprocals of this operation applied to every natural number converges to e. This function can be approximated at large numbers by the Stirling approximation. This function appears in the denominator in the general formula for each term of a Maclaurin series. This function is shifted to the right by 1 and extended to all real and complex numbers by the gamma function. This function of n gives the number of possible permutations of n objects. For 10 points, name this mathematical operation, equal to the product of all numbers from 1 to a given integer.

ANSWER: factorial

7. Europe's largest indoor aquarium is located in this city, which is home to the art collection of oil magnate Calouste Gulbenkian. A secret recipe from the Jeronimos monastery is used to make egg tarts in this city's district of Belém. Districts of this city include Alfama, renowned for its *fado* music bars, and Baixa [Bye-SHA], which displays many examples of this city's distinctive Pombaline architecture. This city lies at the mouth of the Tagus River, which is spanned by bridges named after the date of the Carnation Revolution and the Vasco da Gama bridge. It was almost completely destroyed in a 1755 earthquake and tsunami. For 10 points, name this capital of Portugal.

ANSWER: **Lisbon** [or **Lisboa**]

8. In this novel, a man defends a portrait by the protagonist, assuring her its subject is "not in the least too tall" and offering to take it to be framed in London. That character later travels to Bath and marries Augusta. This novel's protagonist accidentally insults Mrs. Bates during an awkward group outing to Box Hill. In this novel, a piano is gifted anonymously to a woman who ends up married to Frank Churchill, Jane Fairfax. After facilitating the marriage of Robert Martin and Harriet Smith, this novel's title heroine finally admits her own feelings and marries George Knightley. For 10 points, name this novel by Jane Austen about Miss Woodhouse, the title matchmaker.

ANSWER: **Emma**

9. Brain Trust member Rexford Tugwell's biography of this president claimed that his "Uncompromising Integrity and Integrity Failed America in a Time of Crisis." This president used his anti-corruption credentials as Mayor of Buffalo in his first presidential run, saying "Public office is a public trust." Mugwumps crossed party lines to support this president, who was the target of a catchy Republican chant that went "Ma, Ma, where's my Pa?" referencing his illegitimate child with Maria Halpin. This president beat James Blaine to win his first term in office, after which he lost to Benjamin Harrison. For 10 points, name this only president to serve two non-consecutive terms.

ANSWER: Grover **Cleveland**

10. Michel Foucault coined the term "noso-politics" in an essay which discusses the integration of public and private administration of this profession during the 18th century. The difficulty Hmong refugees have in adjusting to the practice of this profession in the United States is the subject of Anne Fadiman's book *The Spirit Catches You and You Fall Down*. This is the profession of the author of *An Anthropologist on Mars* and *The Man Who Mistook His Wife for a Hat*, Oliver Sacks. The largest quango in the UK works in this profession and administers the NHS. For 10 points, name this profession, whose practitioners take the Hippocratic Oath to "do no harm."

ANSWER: **medicine** [or **doctors** before mention; or **medical care** or **health** or **healthcare** or **neurologist** or **physician**; do not accept or prompt on "surgery" or "surgeon"]

11. Samter's triad describes how the use of this drug can induce nasal polyposis and asthma. This compound performs suicide inhibition to irreversibly inactivate cyclo-oxygenase enzymes, which blocks the synthesis of prosta-glandins and throm-boxanes and inhibits platelet aggregation. Administering this drug to children can prove fatal by causing Reye's syndrome. Use of this drug can cause side effects such as stomach ulcers and gastrointestinal bleeding. Felix Hoffman claimed to have invented this drug while working for Bayer, and it is known as acetyl-salicylic acid. For 10 points, name this willow tree-derived anti-inflammatory drug that is commonly used to treat headaches.

ANSWER: **aspirin** [or **acetylsalicylic acid** until it is read]

12. The Gatow disaster exacerbated tensions prior to this event. Gail Halvorsen was given the nickname "Uncle Wiggly Wings" for delivering candy to children during this event. This event's immediate cause was Ludwig Erhard's replacement of the existing currency with the Deutsche Mark. Lucius Clay organized this event, which was codenamed Operation Vittles. At the height of this event, cargo planes landed at Tempelhof Airport every four minutes. This event was triggered by the closure of all land routes to its target city, an exclave located in Soviet-occupied territory. For 10 points, name this delivery effort that supplied the capital of West Germany during a Soviet blockade.

ANSWER: **Berlin airlift** [prompt on partial answer; prompt on **Berlin blockade**]

13. One sculpture by this artist includes a piece of cuttlebone, a mercury thermometer and 152 marble cubes in a birdcage. Richard Hamilton reconstructed a work by this artist of *Why Not Sneeze, Rose Sélavy?* in which a chocolate grinder is connected to nine “Malic Molds” below an insectile figure with a cloud-like halo. A painting by this artist of *The Bride Stripped Bare by Her Bachelors, Even* was described as “an explosion in a shingle factory” when exhibited at the Armory Show. For 10 points, name this Dada artist of *Nude Descending a Staircase, No. 2* and many “readymades”, who added a moustache to the *Mona Lisa* in *L.H.O.O.Q.*

ANSWER: (Henri-Robert-)Marcel **Duchamp**

14. This holiday is preceded by Shabbat Zachor, whose Torah reading recounts the Amalekites’ defeat. Services on this day close with the prayer “Shoshanat Yaakov” (show-SHAH-naht yah-ah-COVE). Celebrants of this holiday exchange baskets of gifts known as mishloach manot (meesh-LO-akh mah-NOTE). On this day, people bake triangle-shaped cookies known as hamantaschen (HOM-in-TAH-shin), and groggers blot out the name of a man who planned to destroy all the Jews. On this day, a book is read that describes the struggle of the wife of King Ahasuerus against Haman. For 10 points, name this Jewish holiday that celebrates the victory of Mordecai and Esther.

ANSWER: **Purim**

15. The main character of this novel persuades her husband to buy a skinny yellow mule by comparing the sale to the Emancipation Proclamation. The grandmother of this novel’s protagonist forces her into a marriage to Johnnie Walker. This novel’s main character briefly finds an ideal marriage, though it is cut short when her husband is bitten by a rabid dog during a hurricane, forcing her to shoot him. Its protagonist is acquitted by an all-white jury for the murder of Tea Cake, and then returns home to a town founded by African-Americans called Eatonville. For 10 points, name this novel that follows the story of Janie Crawford, written by Zora Neale Hurston.

ANSWER: **Their Eyes Were Watching God**

16. N-butanol, ethanol, and this compound are produced from the fermentation of carbohydrates in the ABE fermentation process. A bath of dry ice in this compound is used to keep reactions at negative 78 degrees Celsius. Phenol and this compound are the products of cumene oxidation in the Hock process. The addition of hydrogen peroxide to this compound forms the trimeric explosive TATP. Oxidation of isopropyl alcohol forms this three-carbon compound, which is a common polar aprotic solvent used in the lab to clean glassware. For 10 points, name this simplest ketone which is often used as a paint thinner or a nail polish remover.

ANSWER: **acetone**

17. This composer wrote a Grand Concerto for cello nicknamed “Concerto Militaire.” Manuel Rosenthal drew from this composer’s music to orchestrate the ballet *Gaîté Parisienne*, whose overture draws from this composer’s operetta *La Vie Parisienne*. This composer wrote a coloratura soprano aria in which the singer periodically slows to a halt before picking up tempo again. Olympia sings that aria, known as the “Doll Song.” This composer’s most famous operetta satirizes an opera by Gluck, and ends with the “Galop Infernal,” popularly known as the “can-can.” For 10 points, name this German-born French composer of *The Tales of Hoffmann* and *Orpheus in the Underworld*.

ANSWER: Jacques **Offenbach**

18. This author wrote about “the quivering that enraptures us, and comforts, and helps” in describing the aftermath of the death of Linos. This author wrote another poem whose title object guides a smile “through the placid hips and thighs / to that dark center where procreation flared” and which is “still suffused with brilliance from inside, like a lamp.” That poem by this author concludes “you must change your life.” This poet asked, “Who, if I cried out, would hear me among the angelic orders?” in the first poem of a collection titled after an Italian castle. For 10 points, name this early 20th century German poet of “Archaic Torso of Apollo” and *The Duino Elegies*.

ANSWER: Rainer Maria **Rilke**

19. The Glencoe Massacre occurred in the aftermath of this event because the MacDonald clan failed to swear loyalty to its leader. The Immortal Seven sent an invitation for this event to occur. In the American colonies, New Englanders took advantage of this event to oust unpopular governor Edmund Andros. A last-ditch attempt to stop this event failed at the Battle of the Boyne, though Jacobites fought to reverse this event for decades after it. This event's immediate cause was Mary of Modena giving birth to an heir to the throne. The English Bill of Rights was written after this event. James II was overthrown in—for 10 points—what event that brought William and Mary to power in England?

ANSWER: **Glorious** Revolution [accept **Bloodless** Revolution; accept **English** Revolution of **1688**; prompt on the overthrow of **James II**]

20. This thinker was fond of citing ancient writers, such as when he noted that Saint Augustine may have known a man who could fart on cue. One work by this author uses the example of Pyrrhus seeing an army that has “nothing of barbarism in it” when fighting against the Romans. In that work, he opined that it was “more barbaric to eat a man alive than to eat him dead” when unfavorably comparing Europeans to Brazilian cannibals. In another work, this thinker skeptically asked, “What do I know?” A collection by this thinker invented a genre named for the French word for “attempt.” For 10 points, name this 16th century French author of a series of *Essays*.

ANSWER: Michel de **Montaigne**

Tiebreaker. One section of this book critiques how the “vain and erroneous philosophy of the Greeks” have helped the forces of darkness enter “in the night of our natural ignorance.” This book adds the phrase “seeing therefore miracles now cease” to the question of which scriptures are to be trusted, to avoid refuting the Bible. One of its sections describes how a “kingdom of darkness” is nothing else but a “confederacy of deceivers.” This book, which praises monarchy among the three types of Commonwealth, describes how without civil society, men suffer a “war of all against all.” For 10 points, name this book that describes life as “solitary, poor, nasty, brutish, and short,” by Thomas Hobbes.

ANSWER: **Leviathan** or *The Matter, Forme and Power of a Common-Wealth Ecclesiasticall and Civil*

## Bonuses

1. This project was designed to detect strains of the order of magnitude of  $10^{-21}$  meters. For 10 points each:

[10] Name this scientific project, whose development involved constructing giant Fabry-Perot interferometers in places like Hanford, Washington and Livingston, Louisiana.

ANSWER: **LIGO** [or **Laser Interferometer Gravitational-Wave Observatory**]

[10] LIGO aims to detect “waves” created by this force that were first predicted by general relativity. This force, caused by the curvature of spacetime, causes an acceleration of 9.8 meters per second squared on earth.

ANSWER: force of **gravity** [or **gravitational** force; prompt on “g”]

[10] In 2017, LIGO detected nearly 100-second signals from a kilonova that was formed by the collision of two of these objects. These objects, the densest stars to exist, form after electron-degeneracy pressure is overcome.

ANSWER: **neutron stars**

2. After the prophet Zarathustra hears this phrase from an ascetic in the forest, the two part from each other “laughing as two boys laugh.” For 10 points each:

[10] Name this three-word phrase. In the book in which it appears, this phrase is followed by “And we have killed him. How shall we comfort ourselves?”

ANSWER: **“God is dead”** [or **“Gott ist tot”**]

[10] The phrase “god is dead” was coined by this German philosopher. This thinker discussed the idea of the Übermensch in his book *Thus Spoke Zarathustra*.

ANSWER: Friedrich Wilhelm **Nietzsche**

[10] This Nietzsche book first introduced the phrase “God is dead” and the concept of eternal recurrence. Its title comes from an expression which describes the skill needed to write poetry.

ANSWER: *The **Gay Science*** [or *The **Joyful Wisdom***; or *Die **fröhliche Wissenschaft***]

3. These entities can be called down by mambos or houngans, after which they possess people by “mounting the horse.” For 10 points each:

[10] Name these figures. They include Damballa, who is embodied as a serpent, and Ogoun, the spirit of war and metals.

ANSWER: **loas**

[10] Loa are venerated in this syncretic religion that is popular in Louisiana and Haiti. Vevés are drawn by practitioners of this religion, who don’t actually stick pins in this religion’s namesake dolls.

ANSWER: Haitian **Voodoo** [or **Vodoun**]

[10] In Voodoo, the loa are considered subservient to this unapproachable supreme god. This figure’s name originally comes from the French words for “good” and “God.”

ANSWER: **Bondye**

4. After signing a document, the words “Homo, fuge” ominously appear on the arm of this play’s main character. For 10 points each:

[10] Name this play, whose title character turns invisible and boxes the ear of the Pope, during one of the many pranks he performs with the help of his servant Wagner.

ANSWER: *The Tragical History of the Life and Death of **Doctor Faustus*** [do not accept or prompt on “Faust”]

[10] *Doctor Faustus* was written by this Elizabethan playwright, who never finished his long poem *Hero and Leander*.

ANSWER: Christopher **Marlowe** [or Kit **Marlowe**]

[10] Marlowe wrote a play set in Malta about a villainous member of this religion named Barabbas. That play inspired a Shakespearean character with this religion, Shylock.

ANSWER: **Jews** [accept **Jewish** or **Judaism**]

5. Answer the following about the Velvet Divorce, for 10 points each:

[10] This former country was split into two separate countries in the Velvet Divorce. Its leader Alexander Dubcek attempted to liberalize it in 1968, leading to a Soviet invasion.

ANSWER: **Czechoslovakia** [do not accept or prompt on Czech Republic or Slovakia]

[10] The last president of Czechoslovakia was this man, who then served as the first president of the Czech Republic.

ANSWER: Václav **Havel**

[10] The capital of the Czech Republic remained at this former capital of Czechoslovakia, whose “spring” names the aforementioned reforms spearheaded by Dubcek. In 1618, its namesake “defenestration” started the Thirty Years’ War.

ANSWER: **Prague** [or **Praha**; accept **Prague** Spring; accept Defenestration of **Prague**]

6. This quantity is unchanged in reversible processes, and it never decreases in an isolated system according to the second law of thermodynamics. For 10 points each:

[10] Name this quantity, represented by the symbol S, which measures the amount of disorder in a system.

ANSWER: **entropy**

[10] Entropy is equal to this man’s constant times the natural log of the number of microstates in a system. This scientist, who formulated statistical mechanics, had that equation engraved on his tombstone.

ANSWER: Ludwig **Boltzmann**

[10] This scientist names a theorem that relates the differential change in entropy in an irreversible process to the infinitesimal heat supplied over temperature. He also co-names an equation for the slope of coexistence curves.

ANSWER: Rudolf **Clausius**

7. Name some things about electronic techniques in classical music, for 10 points each.

[10] This composer used many electroacoustic techniques in his series of *Imaginary Landscapes*, including turntables and tape recordings. This American composer also wrote 4’33” (four minutes and thirty three seconds).

ANSWER: John Milton **Cage** Jr.

[10] Artists can use this instrument to imitate traditional instruments or create new sounds. This instrument, often controlled with a musical keyboard, frequently appears in pop and electronic dance music.

ANSWER: **synthesizer**

[10] This German composer of electronic music included several parts for synthesizer in his opera cycle *Licht*. He instructed the musicians to perform in separate vehicles in his *Helicopter String Quartet*.

ANSWER: Karlheinz **Stockhausen**

8. This country’s ruling party, Law and Justice, proposed changes to its Constitutional Tribunal in 2015, sparking a constitutional crisis. For 10 points each:

[10] Name this Central European country. Its president and many senior military officers were killed in a 2010 plane crash over Russia.

ANSWER: Republic of **Poland**

[10] Attempts to limit the powers of the Polish court system could violate the principles of Polish membership in this continental organization. The United Kingdom will leave this organization as part of “Brexit.”

ANSWER: The **European Union** [or **EU**]

[10] The EU has recently attempted to convince this Hungarian prime minister to abandon a law aimed at closing the Central European University. This man currently heads the right-wing political party Fidesz.

ANSWER: Viktor **Orbán**

9. One literary movement in this country was started at a meeting to commemorate the 300th anniversary of the death of Luis de Gongora. For 10 points each:

[10] Name this country, home to the Generation of '27, whose national heroes include El Cid.

ANSWER: **Spain** [or **España**]

[10] This lead playwright of the Spanish Golden Age wrote hundreds and hundreds of plays. In his most famous play, the villagers of Fuenteovejuna cover up the murder of a royal commander by saying "Fuenteovejuna did it."

ANSWER: Félix **Lope de Vega** y Carpio [prompt on partial answer]

[10] This other Spanish playwright wrote a play in which Adela loves her sister Angustias's suitor Pepe el Romano. That play, *The House of Bernarda Alba*, forms a "rural trilogy" with his plays *Blood Wedding* and *Yerma*.

ANSWER: Federico **García Lorca** [prompt on "Lorca"]

10. *Quilombos* were settlements founded by these people. For 10 points each:

[10] Name these people whose legal status was abolished by the 1888 Golden Law.

ANSWER: **slaves**

[10] The Golden Law ended slavery in this South American country, which had the most slaves of any other country in the Americas. Many slaves entered through its port city of Rio de Janeiro.

ANSWER: **Brazil**

[10] The Golden Law was passed during the reign of the second king of this name. This name was shared by the only two rulers of the Empire of Brazil.

ANSWER: **Pedro** [or **Peter**; accept **Pedro II**; accept **Pedro I**]

11. *Note to moderator: There is a clear difference in pronunciation for the last two answers - please don't accept the wrong one.*

Three atoms of this element are doubly-bonded to each other in a line in the azide functional group. For 10 points each:

[10] Name this element, which is triply-bonded to a carbon atom in the cyanide ion and forms a diatomic gas which comprises 80% of the Earth's atmosphere.

ANSWER: **nitrogen** [or **N** or **N<sub>2</sub>**]

[10] This simplest nitrogen-containing functional group features a nitrogen atom covalently bonded to one or more alkyl or aryl substituents. This functional group is formed in the Gabriel synthesis.

ANSWER: **amine** ["aim-eeen"]

[10] This other functional group contains a carbon-nitrogen double bond, and is formed by the condensation of an amine and a carbonyl. Fully-substituted examples of this functional group are termed Schiff bases.

ANSWER: **imine** ["imm-eeen"]

12. For 10 points each, answer the following about European fairy tales:

[10] Wayland the Smith falls in love with a maiden who is able to transform into one of these animals. Another fairy tale describes an ugly duckling who turns out to be a beautiful one of these great big northern birds.

ANSWER: **swans** [accept **cygnets**]

[10] This evil nobleman with a notable facial feature marries young, beautiful women only to murder and dismember them inside his castle.

ANSWER: **Bluebeard** [or **Barbe bleu**]

[10] In this story collected by the Brothers Grimm, a miller's daughter discovers that her suitor is actually part of a bandit troupe that kills and eats young women. She tells this story in between assurances to her audience that it was only a dream.

ANSWER: "The **Robber Bridegroom**" [accept "**Mr. Fox**"]

13. Some territorial changes made during this meeting gave Russia most of Poland and made Krakow an independent city. For 10 points each:

[10] Name this 1815 meeting of European leaders, lead by Austria's Klemens von Metternich, that decided the structure of post-Napoleonic Europe.

ANSWER: **Congress of Vienna**

[10] This French representative at the Congress of Vienna negotiated lenient terms for a defeated France. In his earlier job as Napoleon's chief diplomat, he demanded bribes from American statesmen in the XYZ affair.

ANSWER: Charles-Maurice de **Talleyrand**

[10] Later in his career, Talleyrand proposed the partition of this country after it gained independence in 1830. This country's revolution began after a showing of the opera *The Mute Girl of Portici* and won the Ten Days' Campaign.

ANSWER: **Belgium**

14. Traditionally, the audience claps along during a march by this composer that closes out the New Year's Concert in Vienna each year. For 10 points each:

[10] Name this Austrian composer of the *Radetzky March*.

ANSWER: Johann Baptist **Strauss Sr.** [or "Johann Baptist **Strauss I**"; or "Johann Baptist **Strauss the Elder**"; or "Johann Baptist **Strauss the Father**"; prompt on "**Strauss**" or "Johann Baptist **Strauss**"]

[10] This American composer, sometimes referred to as the "king" of marches, wrote patriotic marches including "The Washington Post" and "Stars and Stripes Forever."

ANSWER: John Philip **Sousa**

[10] In 1886, Sousa wrote this march that sold a record-setting million copies. Sousa dedicated this march to the *Boston Traveler* journalist Charles B. Towle, who may represent the title figure.

ANSWER: "The **Gladiator**" March

15. This author wrote a poem from the perspective of a mirror that ends "In me she has drowned a young girl, and in me an old woman / Rises toward her day after day, like a terrible fish." For 10 points each:

[10] Name this Confessional poet of "Mirror." She also wrote a poem whose title can variously be taken to refer to a character from *The Tempest*, the author's horse, or the city of Jerusalem, "Ariel."

ANSWER: Sylvia **Plath**

[10] In this poem by Plath, the narrator tells the title figure "There's a stake in your fat black heart / And the villagers never liked you." It describes the title character as "a man in black with a Meinkampf look."

ANSWER: "**Daddy**"

[10] Plath first met and befriended this poet in 1956 in a seminar taught by Robert Lowell. This other Confessional poet compared herself to a "possessed witch" in a poem where each stanza ends with the line "I have been her kind."

ANSWER: Anne **Sexton**

16. Although this system was first discovered in the 1980s, it has only recently been proved viable for editing genomes by Jennifer Doudna and Emmanuelle Charpentier. For 10 points each:

[10] Name this system which inserts foreign spacer DNA into prokaryotic genomes. As a result of this system, prokaryotes gain acquired immunity to specific pathogens.

ANSWER: **CRISPR-Cas9** [or **Clustered Regularly Interspaced Short Palindromic Repeats**]

[10] The single-guide type of this substance is often used to help the CRISPR-Cas9 system target the correct location. This single-stranded nucleic acid, which contains uracil, comes in messenger and ribosomal forms.

ANSWER: **RNA** [or **ribonucleic acid**]

[10] The role of CRISPR in bacterial immunity is analogous to this process, which uses siRNA or microRNA to bind to mRNA and inhibit gene expression. This process was first discovered in *C. elegans* by Fire and Mello.

ANSWER: **RNA interference** [or **RNAi**]

17. This group was formed after Mary Smith Lockwood published a story about Hannah White Arnett in the *Washington Post*. For 10 points each:

[10] Name this organization, whose membership Eleanor Roosevelt relinquished after it blocked Marian Anderson from singing at its Constitution Hall.

ANSWER: Daughters of the American Revolution

[10] Eleanor Roosevelt arranged for Marian Anderson to sing instead at this Washington, D.C. venue. Martin Luther King Jr. gave his “I Have a Dream” speech on the steps of this monument overlooking the Reflecting Pool.

ANSWER: Lincoln Memorial

[10] The March on Washington was led by this man, who, during World War II, convinced Franklin D. Roosevelt to desegregate the defense industry as head of the Brotherhood of Sleeping Car Porters.

ANSWER: Asa Philip Randolph

18. In one painting by this artist, a topless woman wearing a metal corset is shown with her spine replaced by a crumbling Ionic column. For 10 points each:

[10] Name this Mexican artist of *The Broken Column* and *The Suicide of Dorothy Hale*, who married Diego Rivera.

ANSWER: (Magdalena Carmen) Frida Kahlo (y Calderon)

[10] This biographically inspired painting by Kahlo depicts a dress, a seashell with bullet holes and various nude figures floating in a bathtub. A pair of feet with wounds to the right foot can be seen in the upper part of the painting.

ANSWER: What the Water Gave Me [or Lo que el agua me dio]

[10] Kahlo also painted a series of this type of painting, all of which include a figure with very dark eyebrows, often flanked by a bird or a monkey. Parmigianino used a convex mirror to create one of these paintings.

ANSWER: self-portrait [prompt on portrait]

19. The speaker of this poem becomes “tired and sick” when sitting in a lecture he does not enjoy. For 10 points each:

[10] Name this poem whose speaker leaves a lecture hall to wander in the “mystical moist night-air” and look up “in perfect silence at the stars.”

ANSWER: “When I Heard the Learn’d Astronomer”

[10] “When I Heard the Learn’d Astronomer” and “Song of Myself” are poems in this author’s collection *Leaves of Grass*.

ANSWER: Walt Whitman

[10] This Whitman poem contains very detailed descriptions of people’s features, including those of a farmer and his five sons. Ray Bradbury used this poem’s title for a short story about a family that buys a robot grandmother.

ANSWER: “I Sing the Body Electric”

20. This book’s author engaged in a public debate with Bernard Lewis over its main idea. For 10 points each:

[10] Name this book published in 1978. It criticizes the West’s false cultural portrayal of the East, and was written by Edward Said.

ANSWER: Orientalism

[10] Said was born in land that is now part of this territory. Said was a strong advocate for the formation of a new country from this territory, which is currently comprised of the West Bank and Gaza Strip.

ANSWER: Palestine

[10] Said’s essay “The Clash of Ignorance,” written a month after the September 11th attacks, criticizes the “cartoon-like” depictions of Islam and the West in this political scientist’s book *The Clash of Civilizations*.

ANSWER: Samuel Huntington