2020 ACF Fall

Packet K by Editors

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Tossups

1. A character in this novel escapes from prison by seducing the guard Felton. This novel begins with the protagonist being beaten unconscious with a cooking pot and a metal tong, losing his letter of introduction in the process. In this novel, the protagonist wounds the guard Jussac and is then appointed to serve in the King's Guards for two years before being considered for the title rank. In this novel, whose sequel is titled *Twenty Years After*, a character with a fleur-de-lis ("flur-duh-LEE") brand on her shoulder, Milady de Winter, acts as a spy for Cardinal Richelieu ("reesh-lee-uh"). For 10 points, name this novel in which d'Artagnan ("dar-tan-YAWN") joins the title fighters, Athos, Porthos and Aramis, written by Alexandre Dumas ("doo-MAH").

ANSWER: The <u>Three Musketeers</u> [or Les <u>Trois Mousquetaires</u>]

<European Literature>

2. Images from the surface of one of these objects were taken by the *Philae* ("FEE-lay") lander, which was launched by the *Rosetta* probe. The Jupiter family contains Encke ("ENK-uh"), one of these objects with an extremely short orbital period of 3.3 years. These objects release a bright blue stream of ionized gas along the direction of solar wind. Diatomic sulfur was uncovered under Jupiter's surface when pieces of one of these objects collided with it in 1994. One of these objects came within 0.7 AU of Earth in July 2020, and could be seen below the Big Dipper. That one of these objects was named NEOWISE. For 10 points, name these celestial objects composed of an icy nucleus, a coma, and a dust tail.

ANSWER: **comet**s [do not accept or prompt on "meteors"] <0ther Science>

3. This phenomenon was theorized to have a J-shaped curve in a hypothesis by Floyd Allport. One study of this phenomenon involved participants being asked to stare at a small point of light 15 feet away in a dark room. That study of this phenomenon by Muzafer Sherif helped influence his social judgement theory. In another study of this phenomenon, participants were asked tocccc rate lines of different lengths. That experiment was carried out by Solomon Asch and is the defining experiment of this phenomenon. For 10 points, name this phenomenon in which subjects changed their answers to make them the same as a broader group due to social pressure.

ANSWER: **conformity**<Philosophy/Social Science>

4. A composition of this type was analyzed by the journalist Doug Adams, who worked closely with its composer to identify about 90 leitmotifs in it. In a composition of this type, recorded by the London Symphony Orchestra, a chorus sings a fragment of a Welsh poem transcribed in Sanskrit. A piece of this type opens with a two-pitch melody meant to sound like the howl of a coyote, followed by a vocal "wah, wah, wah." The rhythm of a march in this genre was clearly inspired by "Mars" from *The Planets*; that work is "The Imperial March." For 10 points, name this genre of the most famous works by Ennio Morricone and John Williams, which feature in creations like *Star Wars*. ANSWER: film **scores** [or film **soundtracks**; or descriptions like "music used in **movies**"]

ANSWER: Initi <u>score</u>s for finiti <u>soundtracks</u>, or descriptions like infusic used in <u>info</u>
Other Arts>

5. In the 1760s, thousands of ethnic Germans migrated to settle along this river, but later faced ethnic cleansing during the 1940s. This is the longest river to enter a closed basin, which is one that does not flow into any ocean. A Realist painting of barge haulers along this river was created by Ilya Repin ("REP-in"). The Oka is one of this river's longest tributaries and converges with it at Nizhny Novgorod ("NIZH-nee NOV-guh-rod"). This river's delta forms just south of Astrakhan, before it enters the Caspian Sea. The most populous city on this river, once called Stalingrad, is now named after it. For 10 points, name this Russian river, the longest in Europe.

ANSWER: **Volga** River

<Current Events/Geography/Other Academic/Pop Culture>

6. A leader of this country established the Liberation Rally as its only allowed party. A conflict in this country was initiated in Operation Musketeer. This country's last monarch was overthrown by the Free Officers Movement. The Wafd Party in this country was dissolved after a coup led by Mohammad Naguib ("na-GHEEB") that overthrew King Farouk. Along with Menachem Begin ("men-NAH-khem BAY-gin"), a leader of this country signed the Camp David Accords. That leader's predecessor from this country constructed the Aswan Dam and controversially nationalized a key waterway, leading to an international crisis. For 10 points, name this country led by Gamel Abdel Nasser, the site of the Suez Crisis.

ANSWER: <u>Egypt</u> [or Arab Republic of <u>Egypt</u>] <Other History>

- 7. In a story by this author, the Buddha watches through a clear lily pond as the sinner Kandata fails to climb out of Hell using the titular spider's thread. In another story by this author, the only pieces of evidence found by a woodcutter are a piece of rope, a comb and a lot of blood. That short story by this author describes a murder from the contradictory perspectives of a travelling priest, the criminal Tajōmaru and the ghost of the murdered samurai Takehiro. This author wrote the short story "In a Grove," which formed the basis of an Akira Kurosawa film that took its title from another of this author's short stories. For 10 points, name this Japanese author of "Rashōmon." ANSWER: Ryūnosuke **Akutagawa** [accept names in either order; accept Chōkōdō **Shujin**] <World/Other Literature>
- 8. *Myllokunmingia* ("MY-lo-koon-MING-ee-uh") and other of the earliest fossils in this phylum are found in the Chengjiang ("chung-j'yong") fauna. This phylum is sister to the ambulacrarian ("am-byoo-la-CRAIR-ee-in") clade. Acorn worms were reclassified outside of this phylum because their nervous system is epidermal rather than central. Lower members of this phylum have a mucus-producing endostyle, which is used for filter-feeding in tunicates and lancelets. This largest phylum within the deuterostomes ("DOO-tuh-roh-stomes") is also characterized by a post-anal tail and pharyngeal ("fuh-RIN-jee-ul") gill slits. Humans and other vertebrates are part of, for 10 points, what phylum whose members all have a notochord?

ANSWER: **chordata** [or **chordate**s] <Biology>

9. Following instructions, this man cut up four birds and left the parts on different mountains, only for the birds to return, miraculously reassembled. The Qur'an depicts this man as the exemplary *hanif*. An incident in which this man threw pebbles to drive off the Devil is re-enacted during the Hajj. Although Adam may have originally built it, this man, along with his son, is credited with rebuilding the Ka'aba as the first house of worship dedicated to God. The holiday of Eid al-Adha ("eed al-ODD-hah") commemorates this man's piety for being willing to sacrifice his son, Ismail. For 10 points, name this prophet of Islam, who is also considered a religious patriarch by Judaism and Christianity.

ANSWER: **Ibrahim** [or **Abraham**]

<Religion>

10. This man funded the construction of the Peace Palace in the Hague. This advocate of anti-imperialism offered to assist the Filipinos in buying independence. The Amalgamated Association led an 1892 strike targeting one of this man's mills. This man, who pioneered vertical integration, sold his namesake company in 1901 to a group led by J. P. Morgan. This employer of Henry Frick sent the Pinkertons to put down the Homestead Strike. This businessman encouraged the wealthy to donate their profits to philanthropic causes in his "Gospel of Wealth." For 10 points, name this Scottish-American tycoon who founded a massive steel company.

ANSWER: Andrew Carnegie

<American History>

11. A character in this play insults another by saying that "She was a vixen when she went to school / And though she be but little, she is fierce." At the start of this play, Egeus attempts to use an ancient law to force his daughter to marry according to his wishes. Robin Starveling, Peter Quince and several others put on an accidentally-comical performance of *Pyramus and Thisbe* ("thiz-bay") by the "rude mechanicals" within this play. This play ends with a monologue which "restores amends" addressed to the audience by Puck. Demetrius marries Helena and Lysander marries Hermia to conclude, for 10 points, what play set among fairies in the forest by William Shakespeare? ANSWER: *A Midsummer Night's Dream*

<British Literature>

12. The "Nacht" movement of a piece by this composer begins with a soprano singing "Gloomy, black, gigantic butterflies have killed the sunshine." That work pioneered a namesake ensemble consisting of flute, clarinet, violin, cello, and piano accompanied by a singer. Another work by this composer was inspired by a Richard Dehmel ("REE-shot DAY-mel") poem about a woman confessing to her lover that she is pregnant with another man's child. That work, written for string sextet, is *Transfigured Night*. For 10 points, name this composer of *Pierrot Lunaire* and founder of the Second Viennese school who developed the twelve-tone technique of composition.

ANSWER: Arnold Schoenberg

<Classical Music>

13. When these systems have a driving force, their solutions have transient and steady-state terms. These physical systems are modeled by second-order differential equations with complex-exponential solutions. These systems' Q factor describes how well they maintain their initial energy, and is equal to one over two times their damping ratio. An angular system can be approximated as one of these systems by using the small angle approximation. The position of a "simple" one of these systems is modeled by a sinusoidal function that satisfies Hooke's law. For 10 points, name these systems exemplified by pendulums or springs.

ANSWER: simple <u>harmonic oscillator</u>s [accept forced <u>harmonic oscillator</u>s; accept simple or forced <u>harmonic oscillator</u>s; accept <u>simple harmonic motion</u> or <u>SHM</u>; prompt on <u>oscillator</u> or <u>oscillation</u>; prompt on <u>pendulum</u> or <u>spring</u> until read; prompt on <u>RLC</u> circuit or <u>LRC</u> circuit]

<Physics>

14. This war saw one side unsuccessfully besiege the town of Hull twice. A country joined this war after signing the Solemn League and Covenant. After the conclusion of this war, the Putney Debates were held, during which Levellers argued for radical socioeconomic reform. A ruler's dismissal of the Grand Remonstrance, which was crafted by John Pym ("pim"), helped spark this war. The Battle of Marston Moor was a major turning point in this war and was fought near York. In this war, Prince Rupert lost the Battle of Naseby to the New Model Army. For 10 points, name this war in which King Charles I was defeated by Parliamentary forces led in part by Oliver Cromwell. ANSWER: First **English Civil** War (accept **Wars of the Three Kingdoms**)

<European History>

15. This philosophical idea was critiqued for not being race-neutral by Charles Mills, who wrote about the "racial" form of it. It's not justice, but impartial spectators establish a new version of this philosophical concept in John Rawls's paradigm of the "veil of ignorance." The civil liberty that this concept grants to man is equated with attaining true moral freedom in a work that argues that the Sovereign is a corporate moral agent who expresses a "general will." This sort of agreement is meant to help humanity progress from the state of nature to civil society. For 10 points, name this agreement between a government and its citizens, which provides the title of a work by Jean-Jacques Rousseau.

ANSWER: the <u>social contract</u> [accept <u>social contract</u> theory and <u>contractarianism</u> until "grants" is read; prompt on <u>contract</u>]

<Philosophy/Social Science>

16. One type of this reaction performed on enones utilizes cerium(III) ("SEE-ree-um three") chloride and is named for Luche ("loosh"). A selective reaction of this type is catalysed by palladium on barium sulfate and named for Rosenmund. Zinc amalgam and hydrochloric acid are used in one of these reactions to convert carbonyls into alkanes. Common reagents used in these reactions include sodium borohydride and the more potent lithium aluminum hydride. Alkali metals and ammonia react with benzene in one of these reactions named for Birch. In an electrochemical cell, this reaction occurs at the cathode. For 10 points, name this type of reaction in which a molecule gains hydrogen or loses oxygen.

ANSWER: <u>reduction</u> [prompt on <u>redox</u> or <u>addition</u>; anti-prompt (ask "can you be less specific?") on <u>hydrogenation</u>]

<Chemistry>

17. This novel ends by describing fish with "vermiculate patterns that were maps of the world in its becoming" on their backs. This novel's protagonists find a human infant being cooked on a spit, and one character thanks "the people" after finding a bunker full of food. A character in this novel insists that he will be safe because he is "carrying the fire." Another character in this novel uses a flare gun to shoot a man who wounded him with an arrow. This novel is set ten years after an unnamed apocalyptic event and follows two characters' travels. For 10 points, name this novel in which a father and son journey down the titular structure, written by Cormac McCarthy.

ANSWER: *The <u>Road</u>* <American Literature>

18. A painting of one of these events shows one man holding a piece of paper containing the names of everyone portrayed at the event. Another painting of these occasions by the same artist was damaged by a fire and now only depicts Jan Deijman ("yon DIE-mon"), his assistant, and a heavily foreshortened cadaver reminiscent of Mantegna's ("mon-TANE-yuh's") *Dead Christ*. A 1632 painting of one of these events shows seven men carefully observing a demonstration on Aris Kindt's inaccurately depicted tendons. For 10 points, name these events, one of which is led by Dr. Nicolaes Tulp in a painting by Rembrandt.

ANSWER: <u>anatomy lesson</u>s [prompt on answers such as <u>surgery</u>, <u>dissection</u>, or <u>autopsy</u> that indicate that a medical procedure is occuring; prompt on <u>lessons</u> alone by asking "what kind of lesson?"] <Painting/Sculpture>

19. This man refused to allow his firstborn son to succeed him out of fear that he was part Merkit. This man's quests against the Merkits led to him forming a temporary alliance with frequent rival Jamukha ("jah-MOO-ka"). This ruler attempted to centralize his empire with the creation of the *yam* ("yahm") road system and the *yassa* law code. With the help of Subutai ("soo-boo-tie"), this man emerged victorious against the Khwarezmian ("kwa-REZ-mee-in") Empire of Persia and the Jurchen Jin Dynasty. This husband of Borte ("BOR-tay") was given the name of Temujin at birth, and was succeeded by his son Ogadei ("OH-guh-die"). For 10 points, name this founder of the Mongol Empire.

ANSWER: <u>Genghis</u> Khan [or <u>Chingis</u> Khan; accept <u>Temujin</u> until read] <World History>

20. In this work, a baby who quickly becomes king is conceived when Marjatta ("MAR-yah-tah") eats a berry. That baby scolds the main character of this work and shames him into self-exile. A bloody comb in this work signifies a character's death while hunting the swan of Tuonela. A magical bard in this work uses the bones of a pike to create the first kantele. In this work, a daughter of Louhi ("LO-hee") rejects Ilmarinen even though he gives her family a magical gold-producing mill. That mill, the Sampo, is later destroyed in a battle against Lemminkäinen and Väinämöinen. Elias Lönnrot compiled, for 10 points, what national epic of Finland?

ANSWER: *Kalevala* < Mythology>

Bonuses

- 1. While helping lead the 1965 Delano grape strike, this activist was pejoratively referred to as merely a "sidekick." For 10 points each:
- [10] Name this woman who co-founded the United Farm Workers with César Chávez. Barack Obama's 2008 campaign slogan "Yes we can" was adapted from her phrase "Sí, se puede" ("see say PWEH-day").

ANSWER: Dolores <u>Huerta</u> [or Dolores Clara Fernández <u>Huerta</u>]

[10] Huerta and César Chávez both had ancestry from this country. Migrants from this country to the United States crossed the border to receive farm jobs under the Bracero program.

ANSWER: Mexico [or the United Mexican States]

[10] The United Farm Workers organized the Salad Bowl Strike, which brought it into conflict with this other union that represents mostly freight drivers and warehouse workers. This union was led at the time by Jimmy Hoffa.

ANSWER: International Brotherhood of **Teamsters**

<American History>

- 2. Answer the following about horses in a certain conflict, for 10 points each.
- [10] The Greeks won a long-fought war against this city by pretending to retreat and leaving a wooden horse outside of its gates. After the people of this city took the horse inside, hidden Greeks jumped out and attacked.

ANSWER: **Troy** [or **Ilium**]

[10] During the Trojan War, Odysseus and this man led a night raid to steal the horses of King Rhesus ("REE-sus"). The eighth task of Heracles involved capturing the man-eating mares of an unrelated king with this same name.

ANSWER: **Diomedes** ("dye-OM-uh-deez")

[10] Poseidon gave Balius and this other divine horse as a wedding gift to Peleus, who later gave them to his son Achilles. This talking horse was struck dumb after warning Achilles of his impending death.

ANSWER: Xanthus ("ZAN-thoos")

<Mythology>

- 3. The G minor fifth piece in an Opus 23 collection of ten of these pieces opens with a very aggressive, march-like low melody. For 10 points each:
- [10] Name these types of pieces. A piece of this type by the same Russian composer in the key of C-sharp minor opens with the descending fortissimo octaves A, G-sharp, C-sharp and has the nickname "The Bells of Moscow." ANSWER: **preludes**
- [10] Those preludes were composed by Sergei Rachmaninoff, who is also renowned for four pieces in this genre. Pieces in this genre are usually written for a virtuoso soloist accompanied by an orchestra.

ANSWER: **piano concerto** [prompt on concerto]

[10] This other Rachmaninoff piece closely resembles a piano concerto, but only has one movement. Its 18th variation inverts a famous 24th caprice composed by a virtuoso Italian violinist.

ANSWER: Rhapsody on a Theme of Paganini

<Classical Music>

- 4. The Hungry Generation, who were the targets of government persecution in the 1960s, wrote in this language. For 10 points each:
- [10] Name this language, which was originally used for the poem *Jana Gana Mana*. Another poem originally in this language describes its author as a "frail vessel thou emptiest again and again."

ANSWER: Bengali (or Bangla)

[10] This author described themself as a "frail vessel" in their poetry collection *Gitanjali*. This author took many liberties with their own English translation of *Gitanjali*, which they published under the title *Song-Offerings*.

ANSWER: Rabindranath **Tagore**

[10] Tagore was from this modern-day country. Tagore wrote the national anthems of both Bangladesh and this country, for which he used the Bengali language.

ANSWER: India

<World/Other Literature>

- 5. A whistleblower in this industry said he was "locked in my hotel room with an ice cold grey goose" and was going to "fire off a few dozen inappropriate emails before I call it a night." For 10 points each:
- [10] Name this industry that employed Mark Forkner. Rick Larsen heads a House subcommittee on this industry that investigated events that killed 189 people in Indonesia and 157 in Ethiopia.

ANSWER: <u>air</u>line industry [or air<u>plane</u> industry; or <u>aviation</u> industry]

[10] Those crashes in Indonesia and Ethiopia occurred from planes built by this American company. This rival of Airbus produces the 787 Dreamliner in Washington state inside the world's largest factory.

ANSWER: Boeing

[10] The crashes were safety failures on this specific model of plane by Boeing. This model was grounded around the world in March 2019.

ANSWER: Boeing <u>737 MAX</u> [prompt on partial answer]

<Current Events/Geography/Other Academic/Pop Culture>

- 6. The magnitude of this field is infinite everywhere except for a small, square "well" in the "particle in a box" model. For 10 points each:
- [10] Give this general term for a scalar field whose negative gradient defines a force.

ANSWER: scalar **potential** [do not accept or prompt on "potential energy"]

[10] Forces that are derived from a scalar potential are this kind of force. The work done by this kind of force is path-independent, since it only depends on the start and end points of a motion.

ANSWER: conservative force

[10] This force is not conservative, since it resists motion in all directions. Its magnitude is given by a namesake coefficient times the normal force, and it has static and kinetic variants.

ANSWER: **friction** force [accept static **friction** force or kinetic **friction** force]

<Physics>

- 7. According to the Spanish, the Mexica people killed Moctezuma II during this event. For 10 points each:
- [10] Name this 1520 event in which forces under Cuitláhuac ("kweet-LA-wock") were able to chase out Hernán Cortés's men. Many Spanish soldiers drowned during this event due to the weight of the gold they had plundered.

ANSWER: La Noche Triste ("la no-CHAY tree-STAY") [or the Sad Night; or the Night of Sorrows]

[10] La Noche Triste was one event during Hernán Cortés's invasion of this empire, once led by Moctezuma II. This Mesoamerican empire was centered in the Valley of Mexico.

ANSWER: **Aztec** Empire

[10] Cortés's invasion was aided by the Tlaxcala ("t'losh-KA-la"), who opposed the Aztecs during these conflicts. These conflicts were fought between the Aztecs and their neighbors in order to obtain prisoners to sacrifice.

ANSWER: Flower Wars

<World History>

- 8. An Ethiopian artist who lived in one of these places, Fre Seyon, is one of the only known artists of the Early Solomonic period. For 10 points each:
- [10] Name these places that served as medieval centers of learning and art, whose residents often created elaborate illuminated manuscripts.

ANSWER: monasteries

[10] Fre Seyon's works include icons of the Virgin Mary, who is traditionally depicted wearing this color. A pigment of this color named for its origin from "beyond the sea," was so expensive it may have driven Vermeer bankrupt.

ANSWER: <u>blue</u> [accept <u>ultramarine</u>; accept Marian <u>blue</u> or <u>celeste</u>]

[10] Most Renaissance ultramarine used lapis lazuli from this modern-day country. This country's Buddhas of Bamiyan were once painted in bright ultramarine; they were declared false idols and destroyed in 2001.

ANSWER: **Afghanistan**

<Painting/Sculpture>

- 9. Carothers' ("ker-OTHERS") equation can be used to determine the degree of this process. For 10 points each:
- [10] Name this process by which repeating monomer units are combined into larger macromolecules.

ANSWER: polymerization

[10] In this form of polymerization, polymers only extend by one monomer at a time. This form of polymerization often links together molecules with carbon–carbon pi bonds and is contrasted with step-growth polymerization.

ANSWER: chain-growth polymerization

[10] This process uses sulfur to cross-link individual polymer chains and strengthen rubber polymers.

ANSWER: vulcanization

<Chemistry>

- 10. A member of this family, Edmund, returns home around midnight to find his father playing Solitaire. For 10 points each:
- [10] Give the surname of this family. A retired actor in this family is repeatedly accused by his wife of sending his son to cheap doctors like Dr. Hardy.

ANSWER: **Tyrone** family

[10] Mary Tyrone struggles with her morphine addiction in this play, while her son Edmund suffers from tuberculosis, although she insists that he does not.

ANSWER: Long Day's Journey Into Night

[10] This author of *Long Day's Journey Into Night* also wrote *The Iceman Cometh* and the play cycle *Mourning Becomes Electra*.

ANSWER: Eugene <u>O'Neill</u> <American Literature>

- 11. This thinker inspired Ursula K. Le Guin's *The Ones Who Walk Away from Omelas* with his description of a "utopia" in which "a certain lost soul on the far-off edge of things should lead a life of lonely torture." For 10 points each:
- [10] Name this thinker who distinguished between "living" and "dead" options in "The Will to Believe." He attempted to determine the "cash value" of assertions to determine their practical consequences.

ANSWER: William James

[10] James, along with C. S. Peirce, founded this 19th-century American school of thought. It focused on practical reasoning and got its name from a text by James describing "A New Name for Some Old Ways of Thinking.

ANSWER: Pragmatism

[10] James wrote about the "dilemma of" this concept. He described compatibilism as the "soft" form of this concept.

ANSWER: <u>determinism</u> [accept dilemma of <u>determinism</u> or soft <u>determinism</u>]

< Philosophy/Social Science >

- 12. William Bligh served this man as shipping master during the voyage of the *Resolution*. For 10 points each:
- [10] Name English captain of the *Endeavor*, the first European to circumnavigate New Zealand. This man was killed by natives in Hawaii after attempting to kidnap their king.

ANSWER: James Cook

[10] Bligh later commanded this ship, which faced a 1789 mutiny during a breadfruit expedition. Residents of the Pitcairn Islands are descended from participants of that mutiny aboard this ship.

ANSWER: HMS Bounty

[10] During the Rum Rebellion, Bligh briefly fled to Van Diemen's Land, which was named by this explorer. While Cook was the first European to circumnavigate New Zealand, this man was the first to reach it.

ANSWER: Abel Janszoon Tasman

<Other History>

- 13. Name these French fashion houses, for 10 points each.
- [10] Jackie Kennedy's famous pink suit was a line-to-line copy of this luxury brand's original *haute couture* ("OAT koo-CHOOR") collection. This fashion house was founded by Nazi collaborator Coco, who created the iconic *No. 5* perfume.

ANSWER: Chanel

[10] In 1947, this couturier ("koo-choo-ree-AY") founded his eponymous fashion house at 30 avenue Montaigne ("mahn-TAIN"), where he introduced the "New Look." This brand's B23 sneakers and saddle bags are currently trendy parts of its ready-to-wear collection.

ANSWER: Christian **Dior**

[10] This Algerian-born Frenchman took over as the head designer at Dior after its founder's death, and later started his own namesake fashion house that created "looks" like *Le Smoking*, a tuxedo for women.

ANSWER: Yves Saint Laurent [accept YSL]

<Other Arts>

- 14. The numerical computation of this operation is called quadrature. For 10 points each:
- [10] Give this operation that is often used to find the signed area between a function and an axis. Its inverse operation is the derivative.

ANSWER: <u>integral</u> [or word forms like <u>integrate</u> or <u>integration</u>; prompt on <u>anti-derivative</u>]

[10] This scientist used numerical integration to express the area between a parabola and a line as an infinite geometric series. He also closely approximated pi using the method of exhaustion.

ANSWER: **Archimedes** of Syracuse

[10] Gaussian ("GOUSE-ee-in") quadrature approximates integrals using a sum with this property. Sums and averages with this property are found by applying a namesake function symbolized by a lowercase w.

ANSWER: <u>weight</u>ed [accept <u>weight</u>ed sum, <u>weight</u>ed average, <u>weight</u>ed mean, or <u>weight</u> function] <Other Science>

- 15. This misogynistic author described his best-known female protagonist as a "man-hating half-woman." For 10 points each:
- [10] Name this playwright of *The Ghost Sonata* and *A Dream Play*. In this author's best-known play, the title protagonist departs, presumably to commit suicide, after being handed a razor by the valet Jean.

ANSWER: August Strindberg

[10] Strindberg expected to receive the Nobel Prize for Literature in 1909. Strindberg was a native of this Scandinavian country, which awards the Nobel Prizes.

ANSWER: **Sweden**

[10] Instead, this author won the Nobel Prize for Literature in 1909. By doing so, this author of *Gösta Berling's Saga* became both the first woman and the first Swede to win the Literature Nobel.

ANSWER: Selma Lagerlöf

<European Literature>

- 16. Alain Savary, a co-founder of this party, expressed openness to work with the Communists, who were the dominant left-wing party at the time. For 10 points each:
- [10] Name this leftist French political party, which was forced into a "cohabitation" government under President Mitterrand ("mee-tair-RON") with the Rally for the Republic party.

ANSWER: Socialist Party of France [accept Parti socialiste or PS]

[10] Mitterand controversially ordered the bombing of this ship in Operation Satanique ("sah-tah-NEEK"). This ship, which was part of a fleet sent by Greenpeace, was docked in Auckland at the time of its sinking.

ANSWER: Rainbow Warrior

[10] The *Rainbow Warrior* was sent to protest this type of action. The United States undertook one of these actions named Trinity as part of the Manhattan Project and frequently performed these actions at Bikini Atoll.

ANSWER: <u>nuclear test</u>ing [accept word forms like <u>nuclear test</u>s; accept <u>nuclear detonation</u>s; accept equivalents mentioning **atomic bombs** or **atomic weapons** in place of "nuclear"]

<European History>

- 17. Answer the following about Japanese "cute culture," or kawaii ("ka-WHY"), for 10 points each.
- [10] One of the most recognizable symbols of *kawaii* is Pikachu, the mascot of this video game franchise that originated as a trading card game.

ANSWER: **Pokémon** [or **Pocket Monsters**]

[10] Another major symbol of the *kawaii* aesthetic is this female character. This character, owned by Sanrio, is the second-highest-grossing media franchise of all time, behind only *Pokémon*.

ANSWER: Hello Kitty [or Kitty White]

[10] *Kawaii* was popularized in the United States by this '90s "magical girl" anime. This show's title character is part of a team of high schoolers who moonlight as superheroes, including her love interest, Tuxedo Mask.

ANSWER: Pretty Soldier **Sailor Moon** [or Pretty Guardian **Sailor Moon**]

<Current Events/Geography/Other Academic/Pop Culture>

- 18. St John ("SIN-jun") Rivers helps this character find a job teaching at a village school. For 10 points each:
- [10] Name this character who spends two years teaching at the Lowood School. This character later finds a job teaching Adèle Varens at Thornfield Hall.

ANSWER: **Jane Eyre** [accept either underlined part]

[10] *Jane Eyre* was written by Charlotte, who had this surname. Her sister Emily, who also had this surname, wrote *Wuthering Heights*.

ANSWER: **Brontë** [accept **Bell**]

[10] In this other novel by Charlotte Brontë, the protagonist Lucy Snowe travels to work at a boarding school in the title fictional Belgian town.

ANSWER: *Villette*

<British Literature>

- 19. As a result of following this lifestyle, some traditional Jains do not eat food that has been stored overnight, as it is believed to have a higher concentration of microorganisms. For 10 points each:
- [10] Name this type of diet that Jains strictly follow, even avoiding tubers such as potatoes in addition to meat.

ANSWER: vegetarianism [accept lacto-vegetarianism; prompt on descriptions like "they don't eat meat"]

[10] Jains follow their strict vegetarian diet out of a desire to prevent violence to others, the first Jain vow, which is known by this Sanskrit term.

ANSWER: ahimsa

[10] *Ahimsa* is one of the "Great Vows" taken by monks in both the major Jain traditions. Monks from one of these two schools, the "sky-clad," follow stricter guidelines than their "white-clad" counterparts. Name either school.

ANSWER: **Digambara** OR **Shvetambara** [accept either]

<Religion>

- 20. In humans, this substance is released from eccrine and apocrine glands. For 10 points each:
- [10] Name this brackish fluid produced by mammals. This liquid helps mammals achieve thermoregulation through evaporative cooling.

ANSWER: sweat [or perspiration]

[10] In women over 40, excessive "night sweats" are often caused by the hot flashes that result from this process. During this process, the ovaries stop producing the hormones estrogen and progesterone.

ANSWER: menopause

[10] A high concentration of chloride in sweat results from a defective ion channel and is often interpreted as indicative of this disease.

ANSWER: cystic fibrosis [or CF]

<Biology>