# WHAQ (Washington High Academic Questionfest) III: Miami Vice Edited by Jacob O'Rourke, David Dennis, Mike Etzkorn, Bradley McLain, Ashwin Ramaswami and Chandler West <br> Written by current and former members of the teams at Washington and Miami Valley; Aleija Rodriguez; Ganon Evans, and Max Shatan 

## Packet 12

## Tossups

1. An incident involving this tribe was exacerbated by the drunken translation work of Lucienne Auguste ["aw-goost"]. This tribe was politically united in a confederation called the Seven Council Fires. A conflict involving this tribe was started by the killing of a Mormon settler's cow, the Grattan Massacre. The Treaty of Fort Laramie was signed by (*) Red Cloud, a leader of these people. A leader's vision of soldiers falling like grasshoppers presaged a victory for these people over the 7th U.S. Cavalry at Little Bighorn. For 10 points, identify this American Indian tribe who were led by men like Crazy Horse and Sitting Bull.
ANSWER: Sioux [or Brule; or Oglala; or Hunkpapa; or Lakota; or Dakota; or Nadouessioux] <Misc. History> <David Dennis>/<ed. JO>
2. In a Paul Gauguin ["go-gan"] painting inspired by this painting, an old woman dressed in black rests against a bedpost. A man sits on a couch while looking at this painting's subject in Paul Cézanne's Modern version of it. A black servant dressed in white holds a bouquet of flowers in this painting. The central woman in this painting has a black $\left(^{*}\right)$ string tied around her neck and presses her hand against her thigh while looking at the viewer. This painting's subject is fully nude and reclines in the style of Titian's Venus of Urbino. For 10 points, name this controversial 1865 painting by Édouard Manet ["Man-ay"].
ANSWER: $\underline{\text { Olympia } \text { [or A Modern Olympia] <Visual FA> <Ganon Evans>/<ed. CW> }}$
3. One can switch the order of performing this operation when satisfying conditions given by Fubini's theorem. Green's theorem relates the line and double forms of this operation. The term "omnia" was used for this operation by Leibniz ["lyeb-nitz"] before he chose to use the now more common symbol. This operation is equivalent to the limit of a (*) Riemann sum as a region is divided into smaller and smaller rectangles. The indefinite type of this operation is also known as the antiderivative. For 10 points, name this operation used in calculus to calculate the area under a curve. ANSWER: integration [or integral] <Other Science> <David Dennis>/<ed. AR>
4. In one video game scene set in a morgue, the victims of this event can be hallucinated in body bags adjacent to the Great White Shark's teeth. In a television episode, the Phantom Stranger and the Spectre travel back in time with the protagonist to meet the victims of this event at a gala. This event was framed as a robbery of a pearl necklace after a screening of The (*) Mask of Zorro in the Monarch Theatre. Traditionally, Joe Chill perpetrates this event in Crime Alley, but in a 2014 pilot, Hugo Strange orders Matches Malone to cause this event. For 10 points, future Commissioner Jim Gordon investigates what Gotham City event, which inspired an orphaned billionaire to later fight crime? ANSWER: the death of Batman's parents [or obvious equivalents, like the killing of the Waynes, the assassination of the Waynes, or the death of the Waynes; or the death of Thomas and Martha Wayne, in either order; or the death of Bruce Wayne's parents; prompt on a partial answer] <Trash> <Ganon Evans>/<ed. SP>/<ed. JO>
5. In one story by this author, Jacobus Laningdale suggests driving down the Chinese population with plague carrying mosquitos. In another story by this author, the protagonist ignores the advice of an "old timer from Sulphur Creek" and dies trying to perform the title action. This author of "The (*) Unparalleled Invasion" wrote a novel that sees John Thornton's death at the hands of Yeehat Indians. For 10 points, name this author of "To Build a Fire," who frequently wrote about dogs, such as Buck in The Call of the Wild.
ANSWER: Jack London [or John Griffith Chaney] <American Lit> <William Groger>/<ed. ME>
6. Parents in this country sometimes tell their children to cover their belly buttons because a god from this country eats navels. In another story from this country, a husband and wife vow to create 1500 people and to kill 1000 people, respectively. That pair had earlier met in the underworld of this country's mythology, where the husband threw (*) peaches to escape. In addition to Yomi, other locations in this country's myth system include a cave where the sun hid after Susanoo flayed a horse and killed some handmaidens. For 10 points, name this country where Izanagi, Amaterasu, and other kami are worshipped as part of the Shinto religion.
ANSWER: Japan [or Nippon-koku] <Mythology> <Brad McLain>
7. Element 118 was first made by colliding californium with this element. The most common isotope of this element is especially stable due to being doubly magic. This element's oxalate can form crystals known as weddellite and is the main component of kidney stones. High levels of ions of magnesium and this element characterize (*) hard water. The chloride of this element is a white powder commonly used as a desiccant. This element's oxide, which is used to make cement, is known as quicklime. For 10 points, name this alkali earth metal whose carbonate makes up limestone.
ANSWER: calcium [or Ca] <Chemistry> <Max Mader>/<ed. AR>
8. After harsh criticism of this man's poetry collection Hans Küchelgarten ["koo-kul-gar-ten"], he disavowed poetry and bought all remaining copies to burn them. In one story by this author, the philosopher Thomas recites prayers for three nights to a witch's corpse before being killed by the title gnome king. This author of $\left({ }^{*}\right)$ "Viy" wrote of a copyist whose prized garment is made by Petrovich and stolen on the way home from a party. The creator of Akaky Akakievich and Pavel Chichikov is, for 10 points, what author of "The Overcoat" and Dead Souls?
ANSWER: Nikolai Gogol [or Nikolai Vasilievich Gogol] <European/World Lit> <Carrie Derner>/<ed. ME>
9. This president created the Superfund in response to an environmental disaster in the Niagara Falls neighborhood Love Canal. This president signed the SALT II treaty with Leonid Brezhnev. An opponent of this man quipped "there you go again" during a presidential debate. This president ran on a ticket with Walter Mondale in the election he won. This man helped (*) Menachem Begin and Anwar Sadat negotiate a peace treaty in the Camp David Accords. For 10 points, name this man who defeated Gerald Ford in the 1976 election, a peanut farmer from Georgia.
ANSWER: Jimmy Carter [or James Earl Carter Jr.] <American History> <Chandler West>
10. This philosopher claimed that philosophy only understands the past when it is too late to change it, saying that a certain animal "spreads its wings only with the falling of dusk." This thinker described one region as "Unhistorical, Undeveloped Spirit, still involved in the conditions of mere nature" in his Lectures on the (*) Philosophy of History. This author of The Philosophy of Right developed a "speculative mode of cognition" that he later described with the terms "thesis," "antithesis," and "synthesis," which was used to analyze the master-slave relationship. For 10 points, name this German idealist philosopher who wrote The Phenomenology of Spirit.
ANSWER: Georg Wilhelm Friedrich Hegel <Philosophy> <David Dennis>/<ed BM>
11. One character in this play describes a hazelnut chariot being drawn into "lover's brains" so they will "dream of love" in a soliloquy about the "fairies midwife." Later, that character in this play remarks "Ask for me tomorrow and you shall find me a grave man" after being dealt a fatal blow by the "prince of $\left(^{*}\right)$ cats," Tybalt. Another character in this play comments that "a rose by any other word would smell as sweet" during a famous balcony scene. For 10 points, name this Shakespeare play whose title "star-crossed lovers" are from the Montague ["mont-ah-gyoo"] and Capulet families. ANSWER: Romeo and Juliet <British Lit> <Carrie Derner>/<ed. ME>
12. One Christianized form of this practice known as kourbania is still observed in parts of Greece. One form of this practice named the Ashwamedha involved letting a horse roam around for a whole year. A special ancient Greek form of this practice called the hecatomb involved $100\left({ }^{*}\right)$ cattle. A bloodless form of this practice called yajna ["yag-NYA"] is a central part of the Vedic fire ceremony. Abraham was commanded to use his son Isaac in this practice, which was replaced by a ram at the last second. For 10 points, name this practice that might involve the ritual killing of an animal.
ANSWER: sacrifice [or word forms; or horse sacrifice; or ritual slaughter; or animal sacrifice; or yagna before it is read; or killing; accept forms that involve sacrifice/killing a horse/animals] <Religion> <Tyler Benedict>/<ed. AR>
13. This opera's composer wrote to his benefactor's wife that she would recognize "ivy and vine" in its orchestra. During this opera, Joseph Keilberth suffered a heart attack while conducting the aria "Let me die, never to awake." In this opera, Bragane's warning that night is ending is not heard by the protagonists and they are interrupted by Melot. This opera continually delays resolving an idea from the $\left(^{*}\right)$ prelude introduced alongside a "longing" leitmotif ["light-motif"], this opera's namesake "chord." A Breton nobleman and Irish princess are the title characters of, for 10 points, what Wagner opera?
ANSWER: Tristan and Isolde [or Tristan und Isolde] <Auditory FA> < David Dennis>
14. Meningo-cele, which leads to a protrusion in the bone surrounding this structure, is caused by incomplete closing of the neural tube. The lower end of this structure is known as the conus medullaris. In a reflex arc, sensory neurons synapse in this structure before connecting to a motor neuron elsewhere. This structure is connected to the cervical, thoracic, and (*) lumbar nerves. Injury to this structure, which is surrounded by the vertebral column, can lead to paralysis. For 10 points, name this structure that, along with the brain, makes up the central nervous system.
ANSWER: spinal cord [prompt on the spine] <Biology> <Aleija Rodriguez>/<ed. AR>
15. During a lull in this conflict, the First Machine Gun Regiment occupied the area outside the Tauride Palace during the July Days demonstrations. Alexander Parvus may have aided one side in this conflict, including arranging for one leader's transport in a secret train from Switzerland. That leader during this revolution, the author of the April (*) Theses, overthrew the provisional government headed by Alexander Kerensky. As a result of this revolution, a civil war pitted White and Red factions against each other and caused Nicholas II to abdicate. For 10 points, name this revolution that ended with Vladimir Lenin's Bolsheviks taking power.
ANSWER: Russian Revolution of 1917 [or Bolshevik Revolution until it is read; or October Revolution of 1917; or February Revolution of 1917; or synonyms in place of "revolution;" do NOT accept or prompt on "Russian Revolution of 1905"] <European History> <Tyler Benedict>/<ed. JO>
16. In an essay attacking this author, he's claimed to have "scored 114 offenses against literary art out of a possible 115." This author wrote a novel that details a journey by travellers that include David Gamut and Duncan Heyward, as well as Alice and Cora Munro, who are later kidnapped. This author was hated by (*) Mark Twain for his novel Deerslayer, and in another novel by this author, the Heron warrior Magua ["mah-gwah"] kills Uncas, the only son of Chingachgook ["chin-gach-gook"]. For 10 points, name this American author, whose character Natty Bumppo, also known as Hawkeye, appears in his The Last of the Mohicans.
ANSWER: James Fenimore Cooper <American Lit> <Carrie Derner>/<ed. ME>
17. The northern part of this country is home to the Hyrcanian Forest, and the Kavir and Lut ["loot"] deserts lie in this country's west. This country's Arzhan ["ar-jan"] National Park was once the destination of a plan to re-introduce lions to this country, which is home to the only remaining Asiatic (*) cheetahs. Those cheetahs currently live on a plateau near this country's Zagros mountains. This country, home to the southern end of the Caspian Sea, is located on the northern shore of the Strait of Hormuz. For 10 points, name this Islamic Republic governed from Tehran.
ANSWER: Iran [or Islamic Republic of Iran; or Jomhuri-ye Eslami-ye Iran] <Geography> <Aleija Rodriguez>/<ed BM>
18. New York resident Kevin Shea lives in one of these structures, dubbed the Long Island Green one of these structures. Norman Foster designed a glass one of these structures to symbolize the reunification of Germany for the Reichstag. The largest brick one of these structures in the world was designed by Filippo (*) Brunelleschi and adorns the top of the Florence Cathedral. For 10 points, name this architectural feature that can be found predominantly atop the U.S. Capital, and is loosely defined as the top half of a sphere.
ANSWER: domes [or sphere; or geodesic sphere before "Foster" is read] <Misc. FA> <Max Shatan>/<ed. CW>
19. This physicist updated a Smoluchowski thought experiment with a pawl in order to prove that the "Brownian Ratchet", violated the second law of thermodynamics. This man demonstrated to the Rogers Commission the vulnerability of an O-Ring seal used on the space shuttle (*) Challenger. This scientist, who shared the Nobel Prize for his work on QCD, published lectures on physics taken from his time teaching undergraduates at Caltech. For 10 points, name this American theoretical physicist whose namesake diagrams depict the behavior of subatomic particles using straight and squiggly lines. ANSWER: Richard Feynman <Physics> <David Dennis>/<ed. AR>
20. This dynasty's capital was sacked in the Jingkang Incident. This dynasty was the first to create a standing navy, which was destroyed at the Battle of Yamen. The baojia ["bao-jya"] system and expansion of the civil service exam during this dynasty was made by Wang Anshi; those reforms during this dynasty were opposed by his rival (*) Sima Guang. Advancements made during the reign of this dynasty included the first use of moveable type and paper money. This dynasty moved to Hangzhou during its "Southern" period. For 10 points, name this dynasty that was conquered by the Mongol Yuan Dynasty in 1279.
ANSWER: Song Dynasty [or Northern Song Dynasty; or Southern Song Dynasty] <World History> <John John Groger>/<ed. JO>

Tiebreaker. In one novel by this author, an unnamed European town looks to foster musical talent at a big concert for Brodsky, Stephen and the amnesiac pianist Ryder. This author's most recent novel centers on Axl and Beatrice's journey to visit their son in Arthurian England. In another novel by this author of The $\left(^{*}\right)$ Buried Giant, Miss Kenton leaves Lord Darlington's estate after marrying, causing the butler Stevens to reminisce over his missed opportunity. For 10 points, name this British author of The Remains of the Day, who won the 2017 Nobel Prize.
ANSWER: Kazuo Ishiguro <British Lit> <Max Shatan>/<ed. ME>

## Bonuses

1. In a poem by this author, the speaker asks "Was he free? Was he happy?" before dismissing the question by saying "Had anything been wrong, we certainly would have heard." For 10 points each: [10] Name this poet of "The Unknown Citizen." In a poem about World War II, the speaker sits in a dive on 52 nd street and claims "we must love one another or die."
ANSWER: W.H. Auden [or Wystan Hugh Auden; the second poem is "September 1st, 1939"]
[10] In this Auden poem, the speaker mourns that "For nothing now can ever come to any good" and asks airplanes to skywrite the message "He Is Dead."
ANSWER: Funeral Blues
[10] In "Musée des Beaux-Arts," ["Myoo-say day Boo-zArr"] Auden wrote about Bruegel's "Landscape with the Fall of" this mythical son of Daedalus, who also features in a William Carlos Williams poem about his melting wax wings.
ANSWER: Icarus [or Landscape with the Fall of Icarus] <British Lit> <Tyler Benedict>/<ed. ME>
2. Note to Moderator: Accept, but do not reveal, alternate answers to the first part of the bonus, as it will reveal the answer to the second part of the bonus. Thanks!
These people are known as $m u$ and hold rituals called $g u t$, and the first step to becoming one of these people is experiencing a sickness known as Sinbyeong. For 10 points each:
[10] Name these people believed to achieve various powers through trance or ecstatic religious experience, often seen as mediators between supernatural powers and man.
ANSWER: Shamans [or Korean shamans]
[10] Dangun is said to be the first shaman in this peninsula, where he founded the ancient kingdom of Gojoseon. Female shamans from this peninsula are known as mudang.
ANSWER: Korean peninsula
[10] A mudang's "spirit sickness" is cured through gangshinje, a gut in which she receives her god or spirit, similar to this coming-of-age ritual of various tribes of North America. Lakota Indians spend time in a sweat lodge before undergoing this ritual.
ANSWER: vision quest <Religion> <David Dennis>/<ed. AR>
3. The area surrounding this lake has seen the increased presence of Boko Haram. For 10 points each:
[10] Name this shallow African lake. Thought to have been around 139,000 square miles about 7,000 years ago, it is now only 137 square miles.
ANSWER: Lake Chad
[10] Diatoms from former lakes in Chad's Bodele ["boh-day-lay"] Depression are carried by strong Saharan winds, eventually making an important source of nutrient minerals for this rainforest in South America
ANSWER: Amazon rainforest
[10] This mountain range in northern Chad and southern Libya. This range is home to a series of shield volcano craters, including Emi Koussi, Tarso Toon, and Toussidé.
ANSWER: Tibesti Mountains <Geography> <David Dennis>/<ed BM>
4. This property can be approximated using the neutralization test or by a Geneva gauge. For 10 points each:
[10] Name this property, the reciprocal of which is equal to the sum of the reciprocals of the object and image distance. The reciprocal of this quantity gives the optical power in diopters.
ANSWER: focal length [do NOT accept or prompt on "focus"]
[10] The focal length always has a negative value for the concave type of these elements, which always produce upright, virtual images. A compound type of these things is composed of several simple kinds. ANSWER: optical lenses [or concave lense; or compound lense]
[10] This scientist developed namesake lenses, used in lighthouses, by replacing their curved surface with concentric grooves to create a large aperture. This man also names a model of near-field diffraction.
ANSWER: Augustin-Jean Fresnel ["fruh-nell", but be generous with pronunciation] <Physics> <David Dennis>/<ed. AR>
5. This man supported the nullification of a so called "Tariff of Abominations" in his home state. For 10 points each:
[10] Name this Senator, who formed a "triumvirate" with Henry Clay and Daniel Webster. This man served as Vice President under John Quincy Adams and Andrew Jackson.
ANSWER: John C. Calhoun [or John Caldwell Calhoun]
[10] John C. Calhoun hailed from this state. The Civil War began in this state at the Battle of Fort Sumter. ANSWER: South Carolina
[10] The concept of nullification was first introduced in the US in documents arguing the Alien and Sedition Acts were unconstitutional. One of those "Resolutions" was written by Madison and named for Virginia, while the other was written by Jefferson and named for this state.
ANSWER: Kentucky [or Commonwealth of Kentucky] <American History> <David Dennis>/<ed. CW>
6. Services that can be accessed through this platform's dashboard include EC2 virtual machines and the S3 storage service. For 10 points each:
[10] Name this platform, started in 2002. A subsidiary of a larger company, its largest customers include Netflix and Twitch.
ANSWER: Amazon Web Services [or AWS; prompt on Amazon]
[10] AWS focuses on offering services in this type in computing. This type of computing involves paying for server resources and managing them over the Internet.
ANSWER: cloud computing
[10] This company's offerings in cloud computing are part of its Azure platform, which includes serverless Functions, a Bot Service, and a drag-and-drop Machine Learning Studio.
ANSWER: Microsoft Corporation <Other Science> <Ashwin Ramaswami>
7. Marc Bloch, the co-founder of the Annales School, wrote a book titled for this kind of "Society." For 10 points each:
[10] Name this type of society, where vassals held lands from lords in exchange for service or labor.
ANSWER: Feudalism [or feudal society; or Feudal Society]
[10] Vassals in feudal society often had this warrior profession. These mounted warriors followed a code of conduct known as chivalry.
ANSWER: Knights
[10] Conrad II, a ruler of this empire, issued the Constitution of Fiefs, which declared that knights could not be deprived of their fiefs unless they were convicted of a legal offense.
ANSWER: The Holy Roman Empire [or Heiliges Romisches Reich; or Sacrum Romanum Imperium] <Misc. History> <Kyle Meyer>/<ed. JO>
8. On first starting work for this composition, the composer complained that it was "the most unmusical of subjects." For 10 points each:
[10] Name this Henrik Ibsen play, the incidental music for which had parts extracted into two suites of the same title. The first suite of music from this play ends with "In the Hall of the Mountain King."
ANSWER: Peer Gynt
[10] This Prelude to Act IV from Peer Gynt opens Suite \#1 by alternating a 6/8 theme between flute and oboe, and is meant to depict the sun rising on Peer Gynt in the Moroccan desert.
ANSWER: "Morning Mood" [or "Morgenstemning"]
[10] This composer of the Peer Gynt Suites wrote "Wedding Day At Troldhaugen," as his wife Nina called their summer home in Bergen "Hill of the Trolls."
ANSWER: Edvard Grieg [or Edvard Hagerup Grieg] <Auditory FA> <Audrey Dae Bush>/<ed.DD>
9. Answer some questions about Harlem Renaissance authors. For 10 points each:
[10] This author claims that his soul "has grown deep like the rivers" in "The Negro Speaks of Rivers." This author of "Theme for English B" and "The Weary Blues" asked "What happens to a dream deferred?" in his poem "Harlem."
ANSWER: Langston Hughes [or James Mercer Langston Hughes]
[10] This Harlem Renaissance author conducted anthropological research on Polk County, Florida for her folklore collection Mules and Men, but is better known for a work about Janie Crawford, who tells her story to Pheoby Watson.
ANSWER: Zora Neale Hurston [the second work is Their Eyes Were Watching God]
[10] This civil rights activist wrote The Autobiography of an Ex-Colored Man and God's Trombones. This author also wrote the lyrics to "Lift Ev'ry Voice and Sing."
ANSWER: James Weldon Johnson <American Lit> <Carrie Derner>/<ed. ME>
10. This channel used to show a looped gif from the anime movie Whisper of the Heart, but now uses a custom one with its name on the central figure's headphones and a cat on the windowsill. For 10 points each:
[10] Name this music provider on YouTube that started airing "lo-fi hip hop radio - beats to relax/study to" in February 2017.
ANSWER: ChilledCow
[10] ChilledCow was shut down for a short time and had to change gifs after receiving a Content ID Copyright strike from this studio of Whisper of the Heart, Spirited Away, and My Neighbor Totoro. ANSWER: Studio Ghibli
[10] Like most YouTube music streaming channels, ChilledCow gets most of its raw material from this online audio distribution platform, also a source of a namesake mumble rap genre.
ANSWER: SoundCloud <Trash> <David Dennis>/<ed. SP>
11. This painting was located at Jefferson Medical College until the 1980s. For 10 points each:
[10] Name this painting based on a surgery its artist witnessed at Jefferson. The title doctor in this painting stands holding a scalpel, and this painting's artist can be seen leaning against a doorway in the background.
ANSWER: The Gross Clinic [or The Clinic of Dr. Gross]
[10] This American Realist painted The Gross Clinic. He also depicted a much less grotesque surgery in his later The Agnew Clinic.
ANSWER: Thomas Eakins [or Thomas Cowperthwait Eakins]
[10] Eakins was forced to resign from the Pennsylvania Academy of Fine Arts due to allowing female students to see a male model fully nude. This Eakins painting depicts six nude boys in and around the title location, as well as a dog in the water.
ANSWER: The $\underline{\text { Swimming Hole }[\text { or Swimming] <Visual FA> <Ganon Evans>/<ed. CW> }}$
12. At the end of this story, the main character repeats the phrase "Isn't life..." but is unable to finish her question. For 10 points each:
[10] Name this short story about Laura Sheridan's plans for the title event, which are interrupted by news of her neighbor Mr. Scott's death.
ANSWER: "The Garden Party"
[10] This author of "The Garden Party" wrote about Bertha Young's ignorance of her husband's affair in "Bliss."
ANSWER: Katherine Mansfield [or Kathleen Mansfield Murray; or Katherine Beauchamp]
[10] Mansfield was born in the city of Wellington in this country, whose Maori people Mansfield typically portrayed in a positive light.
ANSWER: New Zealand [or Aotearoa] <European/World Lit> <Carrie Derner>/<ed. ME>
13. This hero wielded the Gram sword when he defeated the dragon Fafnir, and was only vulnerable to attack in a mulberry leaf shaped spot on his back. For 10 points each:
[10] Name this Norse hero, who rode through a ring of fire to save the Valkyrie Brunhilde.
ANSWER: Siegfried [or Sigurd; do NOT accept or prompt on "Sigmund"]
[10] Description acceptable. After drinking Fafnir's blood, Siegfried gained this ability. Tiresias gained this ability when Athena cleaned his ears, and Melampus gained this ability after snakes licked his ears. ANSWER: Understanding animals [or understanding birds; or any answer that indicates the ability to speak to animals; or speaking to birds; or talking to animals; or talking to birds]
[10] Siegfried's animal of this type, Grayfall, was the only one to return to him after swimming across a river. An eight legged one of these animals was born when Loki seduced the stallion Svadilfari.
ANSWER horse <Mythology> <Brad McLain>
14. This man founded a political party that was symbolized by a red cockerel, with the slogan "Forward Ever, Backward Never." For 10 points each:
[10] Name this anti-colonial leader, who founded the Convention People's Party. During his administration, this man ordered the building of the Akosombo Dam on the Volta River.
ANSWER: Kwame Nkrumah
[10] Nkrumah [ "nuh-kroo-mah"] was the first president of this nation, formerly known as the Gold Coast. In his revolutionary days, Nkrumah was imprisoned at Fort James in this nation's capital of Accra.
ANSWER: Ghana [or Republic of Ghana]
[10] Ghana became the first of this empire's African colonies to gain independence under Elizabeth II. It's not Spain, but the sun never set on this country's empire, whose colonies included Rhodesia and Nigeria.
ANSWER: United Kingdom of Great Britain and Northern Ireland [or Great Britain; or the UK; or the British Empire; do NOT accept "England"] <World History> <Tyler Benedict>/<ed. JO>
15. One theory of these substances describes a tautomeric equilibrium between their quinonoid and benzenoid forms. For 10 points each:
[10] Name these substances that change color depending on a solution's pH . Examples of these compounds include methyl orange and phenolphthalein ["phenol-thale-ee-en"].
ANSWER: pH indicators [or acid-base indicators]
[10] A common indicator named for "bromothymol" and this color indicates pH from the range of 6.0 to 7.6. Chromium two and copper ions often form solutions of this color.

ANSWER: blue [or bromothymol blue]
[10] Titrations use indicators that change color near this point, when the moles of acid and base correspond to the reaction equation. A polyprotic acid's titration curve has more than one of these points. ANSWER: equivalence points [prompt on endpoint(s)] <Chemistry> <David Dennis>/<ed. AR>
16. While isolated amongst enemies in this battle, Prince Rupert of the Rhine was forced to hide in a beanfield. For 10 points each:
[10] Name this English Civil War battle which occurred just after the end of the Siege of York. It began with a surprise attack by Thomas Fairfax.
ANSWER: Battle of Marston Moor
[10] This man was one of the victorious commanders at Marston Moor. This man eventually became Lord Protector of England after the execution of Charles I.
ANSWER: Oliver Cromwell
[10] This cavalry, led by and nicknamed after Cromwell, was in a large part responsible for victory at Marston Moor, as they kept discipline and on the battlefield.
ANSWER: Ironsides Cavalry <European History> <David Dennis>/<ed. CW>
17. One key slogan from this man's campaign was "Hugs, not Bullets." For 10 points each:
[10] Name this founder of the MORENA party and former head of government for a certain capital city. This man, who left the PRD in 2012, won the Presidency of his country in July 2018.
ANSWER: Andrés Manuel López Obrador [or AMLO; prompt on partial answer]
[10] López Obrador was elected President of this country. After a close loss in 2006, he claimed he was robbed and held a ceremony declaring himself the "Legitimate President" of this country.
ANSWER: Mexico [or United Mexican States; or Estados Unidos Mexicanos]
[10] López Obrador's 2006 loss was to this man. This successor of Vicente Fox's handling of the ongoing drug war was sharply criticized by López Obrador's shadow "Cabinet of Denunciation."
ANSWER: Felipe Calderon [or Felipe de Jesus Calderon Hinojosa] <Current Events> <David Dennis>
18. Inspectors Gregson and Lestrade ["Luh-stradd"] believe this word to be an uncompleted woman's name. For 10 points each:
[10 Name this German word for revenge, that is meant as a ploy to hide the true motives behind Enoch Drebber's death in an Arthur Conan Doyle story.
ANSWER: Rache ["rock-uh"]
[10] This Arthur Conan Doyle detective determines that "Rache" was a red herring placed to fool the police. This detective rents a flat at 221B Baker Street with the narrator John Watson.
ANSWER: Sherlock Holmes [accept either underlined name]
[10] This novel marks the first appearance of Sherlock Holmes and John Watson. In this novel, Hope picks up Drebber in a taxi cab and forces him to choose between a poisoned and harmless pill, and then uses Drebber's blood to write "Rache" on the wall.
ANSWER: A Study in Scarlet [do NOT accept or prompt on "A Study in Pink"] <British Lit> <Ganon Evans>/<ed. ME>
19. This bonus requires you to continue. For 10 points each:
[10] Name this 1961 experiment, where participants believed they were hurting the "learner" when they were unable to answer questions. It showed that people will often follow orders without question when they are given by an authority figure.
ANSWER: Milgram Obedience experiment [or the Milgram experiment; or any answer including
Milgram and electric shocks]
[10] Milgram's small world experiment measured the average path length of these things. Mark Granovetter examined "weak ties" within these things.
ANSWER: social networks [prompt on just networks]
[10] This other experiment by Milgram showed that people were more willing to return the title objects to groups that are perceived positively, and less likely to do so for groups like "Friends of the Nazi Party."
ANSWER: lost letter experiment <Social Science> <David Dennis>/<ed BM>
20. The Russian geneticist Nikolai Koltsov first proposed this model in 1927. For 10 points each:
[10] Name this model of DNA replication. According to this model, each daughter strand contains one strand from the parent piece of DNA.
ANSWER: semiconservative replication [do NOT accept or prompt on "conservative"]
[10] DNA replication was shown to be semiconservative by this scientific experiment, in which scientists grew DNA in different mediums and used density-gradient centrifugation to see where each strand went. ANSWER: Meselson-Stahl experiment
[10] The Meselson-Stahl experiment used growth medium with the 14 and 15 isotopes of this element.
This element, which is found in namesake rings in nucleobases, is converted to ammonia in its "fixation."
ANSWER: nitrogen [or nitrogen fixation; or $\underline{\mathbf{N}}$ <Biology> <Aleija Rodriguez>/<ed. AR>

