

Berus-Lie Academic Spring Tournament (BLAST)

Writers: Anishka Bandara, Anson Berns, Dylan Bowman, Katherine Lei, Michael Li, Steven Liu, Keaton Martin, Leela Mehta-Harwitz, Arjun Nageswaran, Mazin Omer, Hari Parameswaran, Darren Petrosino, Govind Prabhakar, Matthew Shu, Cole Snedeker, Ethan Strombeck, Chris Tong, Sophia Weng, Walter Zhang, Shawn Zhao

Editors: Andrew Wang, Anson Berns, Katherine Lei, Michael Li, Keaton Martin, Hari Parameswaran, Vishwa Shanmugam

Packet 3: 100% tripod free

Tossups

1. **This ruler's victory at one battle was exaggerated in the chronicles of Fredegar. This ruler granted clemency to his grandmother, Plectrude, after he defeated her and Chilperic II in a civil war following the death of this ruler's father, Pepin of Herstal. Edward Gibbon commented that without this ruler's most famous victory, "perhaps the ... (*) Koran would now be taught in the schools of Oxford."** This ruler's son, Pepin the Short, founded the Carolingian dynasty. One this ruler's victories came after he was called upon by Odo of Aquitaine to stop Abd al-Rahman's advances into Europe. For 10 points, name this Frankish prince who defeated the Arabs at the Battle of Tours.

ANSWER: Charles **Martel** [or **Charles the Hammer**; prompt on **Charles**] <HP, European History> {History, European History}

2. **Chirped amplification can be used to increase the output of these devices. Arthur Ashkin invented an apparatus that uses these devices, which in one application can be used to cool a target using the Doppler effect. That device, used by Steven Chu in that technique, is an optical tweezer. These devices name the type of interferometry ["in-ter-fer-AW-metry"] used in the first direct detection of gravitational waves. These devices require (*) pumping to put their gain medium in a state of population inversion. The first of these devices used a synthetic ruby, succeeding similar devices which emitted microwaves. For 10 points, name these devices which emit focused beams of coherent light.**

ANSWER: **lasers** [or **light amplification by stimulated emission of radiation**; accept **masers**] <SL, Physics> {Science, Physics}

3. **A blind author born in this country described his experience as a Ph.D. candidate at the Sorbonne in his three-part autobiography *The Days*. *Clea*, *Mountolive*, and *Justine* are part of a "quartet" of novels titled for a city in this country written by Lawrence Durrell. After watching his father playing a tambourine despite having banned music from his house, (*) Yasin begins to grow closer to him in a novel set in this country. Amina breaks her collarbone at the beginning of that novel set in this country. An author from this country wrote *Sugar Street* and *Palace Walk*. For 10 points, name this home country of Naguib Mahfouz, the author of the *Cairo Trilogy*.**

ANSWER: **Egypt** [The first author is Taha Hussein; Durrell wrote the *Alexandria Quartet*.] <SW, Long Fiction> {Literature, Long Fiction}

4. In this state, James V. Lafferty's patent on animal-shaped buildings allowed him to build the six-story tall Lucy the Elephant. This state's Sandy Hook Peninsula, which was once home to an artillery range, is now a popular tourist locale. In contrast to this state's heavily polluted Passaic ["puss-SAY-ich"] River, its (*) Pine Barrens hold some of the purest water in the country. In this state, The Palisades were referred to by the Lenape as "rocks that looked like rows of trees," a phrase which named its town of Weehawken. This state was where the Hamilton-Burr duel took place. This state is home to the seaside resort of Cape May and the gambling center of Atlantic City. For 10 points, name this state with capital at Trenton.

ANSWER: State of New Jersey <CS, Geography> {Other, Geography}

5. An oft-excerpted waltz from this ballet begins with the woodwinds accompanying an oboe playing the notes [read slowly] A C-sharp E F-sharp, [pause] E E. A woman in this ballet reveals children hiding inside her enormous dress. In this ballet, one character sees another sitting atop a grandfather clock. The protagonist of this ballet throws her (*) slipper at an enemy, saving the title character. Two characters in this ballet watch as a group of dancers perform the "Russian," "Arabian," and "Chinese" dances for them. A celesta accompanies pizzicato strings in this ballet's "Dance of the Sugar Plum Fairy." In the first act of this ballet, Drosselmeyer gifts the title character to Clara for Christmas. For 10 points, name this ballet about a toy that comes to life, by Tchaikovsky.

ANSWER: *The Nutcracker* <ML, Other Auditory Arts> {Fine Arts, Other Fine Arts}

6. A character in this novel has a dream in which Jabez Branderham accuses him of committing the "First of the Seventy-First" sin. That character in this novel sees a girl's name followed by three different surnames scratched on a window ledge. In this novel, a housekeeper frees the dog Fanny from hanging on a gate. A girl in this novel asks her father to bring back a whip, but he instead returns with a street urchin from (*) Liverpool. In the frame story of this novel, Nelly Dean recounts the history of Thrushcross Grange and the title estate to Lockwood. The cousins Hareton Earnshaw and Cathy Linton marry on New Year's Day at the end of this novel. For 10 points, name this novel about Heathcliff's love for Catherine by Emily Brontë.

ANSWER: *Wuthering Heights* <WZ, Long Fiction> {Literature, Long Fiction}

7. This book is found in the subtitle of an Alexandre Kojève ["koh-zheff"] book purporting to be an Introduction to the Reading of this book's author. Jean Hyppolite's interpretation of this book depicts it as a Bildungsroman whose protagonist progresses through to history of consciousness to achieve "Absolute Knowing." A passage in this book describing two self-conscious beings recognizing each other as self-conscious results in one becoming the (*) master and the other the slave. The English word "sublate" is often used to describe the concept of *Aufhebung* outlined in this book, which results from the interaction between a thesis and antithesis. For 10 points, name this book which outlines the dialectic, the most prominent book of Georg Hegel.

ANSWER: *The Phenomenology of Spirit* [accept *Phänomenologie des Geistes*] <AN, Philosophy> {Thought, Philosophy}

8. The case of *INS v Chadda* removed one body's ability to perform this action. Another case that centered on the application of this action dealt with a controversial portion of the "Contract with America" that the incumbent president had supported. That case was *Clinton v. City of New York*. An informal version of this action involves waiting for a (*) ten-day period when a certain body is not in session. This action, which has line item and pocket types, was undertaken a record 414 times in a single term by President Grover Cleveland, and can be overridden by a 2/3 majority in Congress. For 10 points, name this action where a president indicates his refusal to sign a bill into a law.

ANSWER: veto [accept pocket or line-item veto] <AN, American History> {History, American History}

9. While young, this figure nurses a willow tree with the intention to carve it into a throne when it is fully grown. This figure is raped by a partially blind gardener, which causes this figure to turn all the water in the world to blood out of fury. The eunuch Asu-shu-namir stole the water of life from this figure's sister to revive this figure after Namtar cursed her with sixty diseases. During an attempt to rescue her lover (*) Tammuz, this goddess was killed after being forced to remove one article of clothing for each gate of the underworld she passed through. This goddess convinced her father Anu to send the Bull of Heaven to attack Gilgamesh and Enkidu after the former rejected her advances. For 10 points, name this Mesopotamian goddess of fertility, love, and war.
ANSWER: **Ishtar** [accept **Inanna**, **Astarte**, or **Astoreth**] <SZ, Mythology> {Beliefs, Mythology}

10. In one model of these substances, interfacial double layers are assumed to be much thinner than a capillary radius. The hot-injection method is used to create quantum dots in these systems, which can emit different colors of light based on their size. Exceeding the CMC can cause micelles to form in these systems. These substances can be stabilized electrostatically or sterically in peptization, while aggregates called (*) flocs form during their destabilization. These substances, which are exemplified by aerogels, appear bluish due to the Tyndall effect. For 10 points, name these substances in which microscopic particles are dispersed in another medium, which includes emulsions like milk.
ANSWER: **colloids** [ask for a more general answer on emulsions, gels, foams, or aerosols] <KL, Chemistry> {Science, Chemistry}

11. Mozart's 16th piano sonata begins by arpeggiating this note's major triad, and is in this note's major key. This note is in the name of a piece for "around 35" performers who randomly repeat 53 musical phrases. That piece by Terry Riley is named for being "In [this note]." The transition from this note's minor key to its major key in Beethoven's (*) fifth symphony is often used as an example of his "triumph over tragedy." This note is a tritone away from F-sharp, and its minor key has three flats. This note is represented by "do" in fixed-do solfège. For 10 points, name this note whose major scale has no black keys.
ANSWER: **C** <ML, Auditory Fine Arts> {Fine Arts, Auditory Fine Arts}

12. A philosopher from this region compiled maps of the Roman Empire into his massive *Geographica*. Rebels sparked the ire of Artaphernes, a governor of this region, after besieging his capital of Sardis. Herostratus gained infamy for burning down a temple in this region that was one of the original Seven Wonders of the World. Darius I decided to invade Greece after Athens incited the (*) Ionian revolt in this region. The city of Hissarlik in this region was excavated by Heinrich Schliemann during his search for Troy. For 10 points, name this ancient region in present-day Turkey, which is named for being a smaller version of the continent it is located in.
ANSWER: **Asia Minor** [accept **Anatolia**; accept **Ionia** before "Ionian Revolt" is mentioned; accept **Turkey** before mentioned] <HP, Ancient/Other History> {History, Ancient/Other History}

13. These animals sleep in "a shadowy place" as "We watch...and never a word is said" in a Sara Teasdale poem. A poet noted how "Passion or conquest" still attended these animals while observing an "October twilight" for the nineteenth time near the residence of Lady Gregory. That poem admires these animals as they "suddenly mount / And scatter wheeling in great broken rings" while observing (*) "Nine and fifty" of them. Another poem describes a god disguised as this type of bird as a "feathered glory" who keeps "a girl's nape caught in his bill." For 10 points, name these birds that W.B. Yeats wrote about in a poem set at Coole Park and in one describing the rape of Leda.
ANSWER: **swans** [accept "The **Wild Swans at Coole**"; prompt on birds before mention] <MS, Non-Epic Poetry> <ed. VS> {Literature, Non-Epic Poetry}

14. **Monge's theorem states that the intersection points of three pairs of these figures are collinear. The square of the length of one of these figures with respect to a circle is equal to the distance of an endpoint to the center squared minus the radius squared according to the power of a point theorem. Non-intersecting circles always have two (*) internal and two external examples of these figures in common. The mean value theorem implies the existence of one of these figures whose slope is equal to that of a secant. These lines are perpendicular to normal lines, and their slopes can be used to define the derivative. For 10 points, name these lines that touch, but do not cross, a curve.**

ANSWER: **tangent** lines [accept external **tangents** to a circle in power; prompt on lines] <SL, Math> {Science, Mathematics}

15. **The Corlett-Hague rule states that these policies should optimally apply to complements. When labor and commodities are separable, one form of these policies is unnecessary according to the Atkinson-Stiglitz theorem. Deadweight losses produced by these policies were shown to be minimized when they are inverse to the price elasticity of demand by (*) Ramsey. Negative externalities can be reduced by one form of these policies named for Pigou [**“pee-goo”**]. The Laffer Curve relates government revenue to the degree to which these policies are enacted, and progressive ones increase the burden on those with higher incomes. For 10 points, name these policies which governments levy to raise revenue, including their "sales" and "income" types.**

ANSWER: **taxes** <SL, Social Science> {Thought, Social Science}

16. **In a story by this author, a man asks a woman if she remembers “Assumption” after a tree is struck by lightning, leading those characters, Alcée and Calixta, to have an affair. A woman sees “a long procession of years to come that would belong to her absolutely” while she is next to an open window in a story by this author. Louise dies of shock after she learns that her husband isn't (*) actually dead in that story by this author. A character disappears with her baby in a bayou before her husband, Armand, discovers that he is part black in a story by this author. For 10 points, name this author of “The Storm,” “The Story of an Hour,” and “Desirée’s Baby,” who wrote about Edna Pontellier in *The Awakening*.**

ANSWER: Kate **Chopin** [accept Katherine **O'Flaherty**] <ML, Short Fiction> {Literature, Short Fiction/Other}

17. **An empire from this country massacred tens of thousands of Sikhs during the Vadda Ghallughara. That empire from this country had earlier defeated Sadashivrao [**“suh-DHA-shiv-rau”**] Bhau at the Third Battle of Panipat. After losing control of Samarkand to Muhammad Shaybani, Babur left for this country, where he planned his invasion of India. During the British Raj, the (*) Northwest Frontier province bordered this country and was renamed by another country in 2010 to Khyber Pakhtunkhwa [**“pak-TOON-kh-wa”**]. The British used India as a base for troops while trying to capture this country during the Great Game. For 10 points, name this country where the Durrani Empire was centered at Kabul.**

ANSWER: Islamic Republic of **Afghanistan** <HP, World History> {History, World History}

18. **A June 2019 federal report found that one of these events that has been ongoing since 2004 may be up to a thousand times more damaging than in estimates by Taylor Energy. The limestone mining Guallejo Island was the site of one of these events in July 2019 that affected Chile's Patagonia region. These events may produce namesake rainbow-colored (*) “sheens” on bodies of water. In response to one of these events in California's Kern County, DOGGR [**“dog-ger”**] imposed restrictions on wells owned by Chevron. For 10 points, name these disasters that contaminate water through accidental releases of petroleum.**

ANSWER: **oil spills** [accept answers involving **oil spilling** into the ocean or equivalents] <WZ, Current Events> {Other, Current Events}

19. An artist from this movement depicted a woman's feet emerging out of a column in *Marlene*, an iconic example of one of her photomontages. The "neo" version of this art movement inspired artists such as Joseph Beuys and Yves ["EVE-s"] Klein. An artist from this movement glued dust that collected on the surface of an artwork whose title is often shortened to (*) *The Large Glass*; that artist from this movement hung a shovel from the ceiling for an artwork titled "Prelude to a Broken Arm," an example of his readymades. For 10 points, name this art movement, a reaction to World War I that included the artist of *Fountain*, Marcel Duchamp.

ANSWER: **Dadaism** [accept neo-**Dadaism**] <HP, Visual Fine Arts> {Fine Arts, Visual Fine Arts}

20. One type of this procedure increases specificity by using a "hot-start." High-fidelity variants of this procedure often utilize the *P. furiosus* derived Pfu ["P-F-U"]. A "master mix" used in this procedure contains magnesium chloride and dNTPs ["D-N-T-peas"]. One form of this procedure utilizes incremental decreases in temperature and is known as its (*) touchdown variant. This procedure, which was developed by Kary Mullis, uses a thermostable enzyme derived from *Thermus aquaticus*. This procedure typically consists of denaturation, annealing, and elongation steps. For 10 points, name this procedure used to amplify strands of DNA.

ANSWER: **PCR** [or **polymerase chain reaction**, accept specific variants such as **real time PCR** or **quantitative PCR**] <ARB, Biology> {Science, Biology}

Bonuses

1. One profile of this man ends with him solemnly telling a group of reporters “There was a time when you couldn’t get me out of there” after hurting himself in a batting cage. For 10 points each:

[10] Name this former baseball player, who is the subject of the Gay Talese [“tuh-leez”] essay “The Silent Season of a Hero.”

ANSWER: Joe **DiMaggio**

[10] “The Silent Season of a Hero” opens with the quote “I would like to take the great DiMaggio fishing” from this author’s novel *The Old Man and the Sea*.

ANSWER: Ernest **Hemingway**

[10] In “The Loser,” Talese [“tuh-leez”] profiled Floyd Patterson, an athlete who competed in this sport. In Hemingway’s *The Sun Also Rises*, Robert Cohn was a champion of this sport at Princeton.

ANSWER: **boxing** <AMB, Short Fiction/Other Literature> {Literature, Short Fiction/Other}

2. Both Monsanto and Smithfield declined interviews for this movie. For 10 points each:

[10] Name this 2008 documentary film directed by Robert Kenner, which details the use of predatory and negative practices used in the meat industry, including the contamination of food with petroleum and the usage of indoor broilers.

ANSWER: ***Food, Inc.***

[10] Perdue Farms and Tyson Foods pretty much corner the American market for the production of this food. Tyson makes very popular frozen nuggets out of this poultry.

ANSWER: **chicken** [accept **chicken** nuggets]

[10] This largest meat processing company in the world has come under fire for encouraging deforestation of the Amazon rainforest to create more ranching land. Its CEOs, the Batista brothers, were caught bribing senior officials in Brazil’s government as part of Operation Carwash.

ANSWER: **JBS** S.A. <HP, Current Events> {Other, Current Events}

3. A copy of a sculpture depicting this figure stands in front of the Brera Academy. For 10 points each:

[10] Name this figure who, in the aforementioned statue, holds a gold orb in his right hand and stands on a tree trunk as “Mars the Peacemaker.”

ANSWER: **Napoleon** Bonaparte

[10] *Napoleon as Mars the Peacemaker* was created by Antonio Canova, who was a prominent artist in this style that returned to Greek and Roman ideals. Another artist in this movement was Jacques-Louis David.

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

[10] A statue by Canova that depicts Paolina Borghese is titled [this figure] *Victrix*.” In a Jean-Antoine Watteau painting, a fete galante [“feht-guh-lawn-t”] occurs around a statue of this figure covered with flowers.

ANSWER: **Venus** [or **Aphrodite**; the unmentioned painting is *Embarkation from Cythera*] <HP, Visual Fine Arts> {Fine Arts, Visual Fine Arts}

4. Many rebellious political declarations, known as plans, have been issued throughout Mexican history. For 10 points each:

[10] In 1821, Agustín de Iturbide [“ee-tour-bee-day”] and Vicente Guerrero issued the Plan of Iguala to declare Mexico’s independence from this European colonial power.

ANSWER: Kingdom of **Spain** [accept **Spanish** Empire]

[10] This Mexican dictator took power in the Plan of Tuxtepec and ruled for decades. Francisco Madero called for his ousting in the Plan of San Luis Potosí, which was fulfilled at the start of the Mexican Revolution.

ANSWER: José de la Cruz Porfirio **Díaz** Mori

[10] After Madero took power, this man felt he had betrayed the revolution and issued the Plan of Ayala calling for his overthrow. He later led guerillas against and was assassinated by the agents of Venustiano Carranza.

ANSWER: Emiliano **Zapata** Salazar <CS, World History> {History, World History}

5. The turgor of these cells is regulated by abscisic acid. For 10 points each:

[10] Name these cells that swell due to accumulation of potassium ions. Radially oriented cellulose microfibrils cause these cells to bend outward when they are turgid.

ANSWER: **guard cells**

[10] Guard cells surround these structures. These pores, generally found on the undersides of leaves, facilitate gas exchange in plants.

ANSWER: **stomata** [or **stomates**]

[10] Blue light and these plants were used in an experiment to investigate phototropins in guard cells. Other examples of these seeds in *Fabaceae* include the kidney, mung, and lima varieties.

ANSWER: **beans** [or broad **beans**] <KL, Biology> {Science, Biology}

6. In a game of chicken, two cars are driving towards each other on a highway, and must either swerve or risk crashing. For 10 points each:

[10] The game of chicken is similar to this other game with a different payoff matrix. In it, both participants can either stay silent or betray the other.

ANSWER: **prisoner’s dilemma**

[10] Unlike in the prisoner’s dilemma, in chicken there are multiple of these points, at which neither participant may improve their outcome by changing their strategy alone.

ANSWER: **Nash equilibrium**

[10] Both chicken and prisoner’s dilemma are games with this property, which is required for Nash equilibria to be defined. Tit-for-tat and grim trigger are strategies in games with this property, where participants act independently.

ANSWER: **non-cooperative** [do not prompt on or accept “cooperative”] <SL, Social Science> {Thought, Social Science}

7. This is the base unit of mass in Gaussian units. For 10 points each:

[10] Name this unit of mass equal to one thousandth of the SI base unit of mass. It is denoted with a lowercase g.

ANSWER: **gram**

[10] Gram stains detect this molecule, which is present in much higher quantities in Gram-positive bacteria. This macromolecule comprises most of a bacterium's cell wall.

ANSWER: **peptidoglycan** [accept **murein**]

[10] The Gram-Schmidt process takes a basis of a vector space and returns another basis with this property. Each vector in a basis with this property has a length of one and an inner product of zero with every other basis vector.

ANSWER: **orthonormal** [prompt on **normalized** or **orthogonal**] <SL, Other Science> {Science, Other Science}

8. This type of dance nicknames an aria that likens love to a “rebellious bird.” For 10 points each:

[10] Name this type of dance named for the capital of Cuba that is the popular name for the most famous aria from Georges Bizet’s *Carmen*.

ANSWER: **habanera**

[10] The habanera inspired this composer’s *Havanaise* [ah-vah-NAYZ] for violin and orchestra. In this composer’s *Danse macabre*, the xylophone is used to represent the rattling bones of dancers.

ANSWER: Camille **Saint-Saëns** [“san-SAWNS”]

[10] This instrument introduces *Carmen*’s “Habanera” with ostinato dotted-eighth-sixteenth note arpeggios under the singer. Saint-Saëns’s A minor first concerto for this instrument was unusually written in one movement.

ANSWER: **cello** <WZ, Auditory Fine Arts> {Fine Arts, Auditory Fine Arts}

9. Name some things about saints in poetry, for 10 points each:

[10] This Spanish saint and mystic wrote the *Spiritual Canticle*. This poet discussed the *Dark Night of the Soul* in his poem *Ascent of Mount Carmel*.

ANSWER: St. **John of the Cross** [or San **Juan de la Cruz**; prompt on **John** or **Juan**]

[10] St. John of the Cross was mentored by this female saint from the city of Ávila. This saint also composed poetry, like “Laughter Came from Every Brick” and “God Alone is Enough.”

ANSWER: St. **Teresa** of Ávila

[10] The later saint Thérèse of Lisieux [“lee-see-OH”] wrote multiple plays about this “Maid of Orlan [“⁶³],” who is also venerated as a saint in the Catholic church because she was burned at the stake in the Hundred Years’ War.

ANSWER: St. **Joan** of Arc [or **Jeanne** d’Arc] <AMB, Non-Epic Poetry> {Literature, Non-Epic Poetry}

10. A member of this family known as “Soapy Sam” was caricatured with enormous robes in the magazine *Vanity Fair* by the appropriately pseudonymed “Ape.” For 10 points each:

[10] Name this family that included the opponent of Thomas Huxley in an 1860 “debate” over Darwin’s theory of evolution and a prominent member of the Clapham Sect.

ANSWER: **Wilberforce** [accept Samuel or William **Wilberforce**]

[10] The aforementioned Clapham Sect member, William, is best known for his efforts towards ending this practice in the British Empire. After trade of this practice was outlawed in 1807, it was officially abolished in 1833.

ANSWER: **slavery**

[10] The nickname of “Soapy” Samuel Wilberforce was coined by this prime minister of England. Under this prime minister, the British purchased the Suez Canal from Egypt.

ANSWER: Benjamin **Disraeli** <WZ, European History> {History, European History}

11. The main character of a play is repeatedly referred to as “eater of leftovers” of white men for failing to perform this type of action. For 10 points each:

[10] Simon Pilkings stops Elesin from performing what type of action in *Death and the King’s Horseman*, which is then done by both Elesin and his son Olunde [“OH-loon-DAY”]?

ANSWER: ritual **suicide**

[10] *Death and the King’s Horseman* was written by this Nigerian author of *The Lion and the Jewel*.

ANSWER: Wole **Soyinka**

[10] In Act I, Elesin tells the Praise-Singer of a hunter, a courtesan, and a kinsman who all give this two-word reply to the approach of death.

ANSWER: **Not I** <WZ, Drama> {Literature, Drama}

12. The Wigner-Huntington transition describes the formation of this material. For 10 points each:

[10] Name this form of hydrogen. It is suspected to form in the centers of large gas giants due to the extreme pressures present.

ANSWER: **metallic** hydrogen [do not prompt on or accept “solid hydrogen” or similar]

[10] It has been speculated that metallic hydrogen is unusually one of these materials at room temperature due to strong interactions between electrons and phonons. They are “high-temperature” when they exist above 77 Kelvin.

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

[10] Metallic hydrogen is also hypothesized to react energetically with liquid oxygen, which would make it a powerful rocket fuel. Like in fuels with liquid hydrogen, that reaction produces this substance with formula H₂O.

ANSWER: **water** <SL, Chemistry> {Science, Chemistry}

13. For one project, this sculptor originally had the idea to depict Nathan Bedford Forrest and up to a thousand cavalry. For 10 points each:

[10] Name this sculptor, whose partially completed relief of Robert E. Lee at Stone Mountain was destroyed after his firing from that project.

ANSWER: Gutzon **Borglum**

[10] Borglum is best known for this depiction of four presidents in South Dakota. After his death, Borglum’s aptly named son Lincoln oversaw the completion of this monument.

ANSWER: **Mount Rushmore**

[10] Borglum’s earlier of two monuments to General Philip Sheridan can be found in this city. Another memorial in this city consists of 58,000 names inscribed on a large black-granite chevron meant to represent a “wound that is closed and healing.”

ANSWER: **Washington, D.C.** [accept either underlined part; the memorial is the Vietnam Veterans Memorial.] <WZ, Other Visual Arts> {Fine Arts, Other Fine Arts}

14. This national park lies in the Mara and Simiyu regions. For 10 points each:

[10] Name this national park in northern Tanzania. It is famous for the “great migration” of wildebeest that occurs in it every year, as well as for its many lions.

ANSWER: **Serengeti** National Park

[10] The name “Serengeti” comes from the word for “endless plains” in this ethnic group’s language. These cattle-herding warrior people were studied by Oscar Baumann in the 1890s.

ANSWER: **Maasai**

[10] The “great migration” begins in the Ngorongoro Conservation Area, famous for one of these geographic features. One of these structures in Arizona is named for Daniel Barringer and was formed by a meteor.

ANSWER: **crater** <GP, Geography> {Other, Geography}

15. In a case that involved this four-word phrase, John Paul Stevens wrote that the majority opinion was “deaf to the constitutional imperative to permit unfettered debate...” For 10 points each:

[10] Name this four-word phrase. After Joseph Frederick put up a banner with this four-word phrase on it at a Juneau high school, he was suspended by his principal Deborah Morse, leading to a 2007 Supreme Court Case.

ANSWER: “**BONG HiTS 4 JESUS**”

[10] The issue in *Morse v. Frederick* revolved around the application of this amendment in schools. This amendment grants freedom of speech and press, among other things.

ANSWER: **1st** Amendment

[10] The dissent argued that the majority in *Morse v. Frederick* attempted to undermine school free speech protections established in this 1969 case. This case revolved around students wearing black armbands to school.

ANSWER: **Tinker v. Des Moines** <HP, American History> {History, American History}

16. Examples of these statements include “what is the sound of one hand clapping?” For 10 points each:

[10] Name these statements, another example of which is “If you meet the Buddha, kill him” and is attributed to Linji. These statements are collected in books such as *The Blue Cliff Record* and *The Gateless Gate*.

ANSWER: **kōans** [“koh-ans”]

[10] Koans are paradoxical stories or anecdotes used to practice or test progress in this school of Buddhism. This school of Mahayana Buddhism emphasizes meditation and is prevalent in Japan.

ANSWER: **Zen** Buddhism

[10] This sect of Zen Buddhism uses the Takuju curriculum and the Inzan curriculum to study kōans. It is one of the three sects of Zen Buddhism along with Sōtō and Ōbaku.

ANSWER: **Rinzai** school <SZ, Religion> {Beliefs, Religion}

17. Answer some questions about fictional languages. For 10 points each:

[10] This language is the only surviving member of the Bothno-Ugaric language family. The narrator and Ludmilla ask Professor Uzzi-Tuzii [“oozy-toozy”] for a book purportedly written in this language, *Leaning from the Steep Slope*, but they find out it’s actually written in *Cimbrian* (enunciate!).

ANSWER: **Cimmerian** [from *If on a winter’s night a traveler*]

[10] Hazel and Bigwig are among the characters who speak in the Lapine language in this novel. This adventure novel opens when Fiver has an apocalyptic vision of the destruction of his warren.

ANSWER: **Watership Down** [by Richard Adams]

[10] This author was inspired by *Beowulf* to create languages such as Elvish and Dwarvish for his novels in the *Lord of the Rings* Trilogy.

ANSWER: John Ronald Reuel **Tolkien** <HP, Long Fiction> {Literature, Long Fiction}

18. This constant describes the strength of the splitting of spectral lines. For 10 points each:

[10] Name this constant, which in quantum electrodynamics determines the contribution of higher-order perturbation terms. This dimensionless constant is the coupling constant for electromagnetism.

ANSWER: **fine-structure** constant [or **Sommerfeld**’s constant; prompt on alpha]

[10] The order of a term, and thus the size of its contribution, can be visualized with this Caltech physicist’s namesake diagrams. He also devised the path integral formulation of quantum mechanics and played the bongos.

ANSWER: Richard **Feynman**

[10] On Feynman [“FINE-men”] diagrams in QED, every vertex interacts with exactly one of these particles. These gauge bosons of electromagnetism are drawn as squiggly lines on Feynman diagrams.

ANSWER: **photons** [prompt on gamma] <SL, Physics> {Science, Physics}

19. This empire secured power after defeating the Denkyira kingdom made up of the Akan people. For 10 points each:

[10] Name this empire ruled by figures such as King Osei Tutu, whose capital was located at the city of Kumasi.

ANSWER: **Ashanti** Empire

[10] A war with the British was sparked when Frederick Mitchell Hodgson wanted to sit on this specific object. This object had served as the throne for Ashanti kings, and it is featured in the black stripe of the Ashanti flag.

ANSWER: **Golden Stool**

[10] The Ashanti Empire was located in this modern country, later led after independence by Kwame Nkrumah. During British rule, this country was referred to as the Gold Coast.

ANSWER: **Ghana** <AN, World History> {History, World History}

20. In Book V of the Aeneid, Menoetes gets stranded on a rock during a competition in honor of this man. For 10 points each:

[10] Cloanthus eventually wins a boat race that is held in honor of this man. That event is the first in a series of funeral games held in honor of this man.

ANSWER: **Anchises**

[10] After the boat race comes a race of this kind, which is won by Euryalus. In a different myth, Hippomenes wins a race of this kind against Atalanta by distracting her with golden apples.

ANSWER: **footrace** [accept obvious equivalents]

[10] After a chariot race in Book 23 of this work, Achilles awards a woman “skilled in handiwork,” a tripod, and a mare to the winners of the race, among other things.

ANSWER: The **Iliad** <ML, Mythology> {Beliefs, Mythology}