### Bulldog High School Academic Tournament 2020 (XXIX): scary vibes

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### **Packet 8 Tossups**

1. An early leader of these people won the Battle of Gqokli [COCK-lee] Hill, defeating forces led by Zwide [ZWEE-day]. After his mother died, that ruler of these people banned the sowing of crops and the consumption of a milk for a year. These people fought with *iklwa* [ih-KWAH] spears. These people created a namesake kingdom during a period known as the "crushing," or (\*) *mfecane* [mm-feh-CLAW-nay]. They encircled enemies with a formation that was divided into the "loins," "chest," and "horns." The British besieged the capital of these people, Ulundi, despite their victory at the Battle of Isandlwana [ee-sahn-DWAH-nah]. For 10 points, name this South African people most famously ruled by Shaka.

ANSWER: amaZulu [or Shaka Zulu] <ZA>

- 2. In one scene in this film, a group of prisoners is forced to play loud music while a man who calls himself "Bill Carson" is violently interrogated. The main character of this film, who is frequently referred to as "the main with no name," falsely declares that some Confederate gold is buried in the grave of Arch Stanton. In this film's climactic scene, the title characters engage in a (\*) Mexican standoff in an open area at the center of a cemetery. The characters Blondie, Angel Eyes, and Tuco represent the three title descriptions in—for 10 points—what Spaghetti Western film, directed by Sergio Leone and starring Clint Eastwood?

  ANSWER: *The Good, the Bad, and the Ugly* <BCE>
- 3. The founder of this book's title organization dies of a brain aneurysm before she can see her twin daughters, whom she abandoned during the World War II invasion of her home country. This novel's third section, "American Translation," describes Lena St. Clair's unhappy marriage. A character in this novel quits playing chess because her mother, Lindo, brags too much about her achievements; that character is Waverly Jong. At the beginning of this novel, (\*) Jing-Mei Woo takes her mother's place in the title organization. For 10 points, name this novel about a group of Chinese-American women who play mahjong together, by Amy Tan.

ANSWER: The Joy Luck Club <MGS>

4. In a purification ceremony in this religion, a subject washes his hands with bull's urine, or *gomez*. Six manifestations of this religion's central deity, including "devotion" and "righteousness," are called the "Divine Sparks." Initiates into this religion wear a white undershirt called a *shabig* and a girdle called a *kustig*. During services, adherents of this religion recite the (\*) *yasna* text. In this religion, corpses are washed and placed in circular *dakhmas*, or "towers of silence," to decompose. This religion venerates the creator deity Ahura Mazda. For 10 points, what dualistic Persian religion is named for the prophet Zarathustra? ANSWER: Zoroastrian ism [accept Zarathustrian ism before "Zarathustra"] <MK>

5. In some forms of microscopy, colloidal particles of this element are used instead of fluorophores to visualize high contrast dark spots. That application takes advantage of this metal's high electron density, and its high electronegativity allows for an unusual –1 [minus one] oxidation state, though it's more commonly found in +1 or +3 [plus one or plus three]. Like platinum, this generally (\*) unreactive metal dissolves in a mixture of nitric acid and hydrochloric acid called aqua regia. The atomic nucleus' existence was elucidated in an experiment named for Rutherford involving a foil of this element deflecting alpha particles. For 10 points, name this incredibly malleable precious metal symbolized Au.

ANSWER: **gold** [accept **Au** before "Au"] <HK>

6. A model of this construct involving a central executive that controls slave systems like the "phonological loop" and the "visuospatial sketchpad" was posited by Baddeley and Hitch. Their model of this construct contradicts the more simplistic multi-store model of Atkinson and Shiffrin. Elizabeth Loftus demonstrated the ability of words like "smash" (\*) to instill "false" versions of this capacity; she's also known for her work with the "flashbulb" version of this capacity. As in the case of Patient H.M., lesions of the hippocampus can damage this capacity by causing both antero- and retrograde amnesia. For 10 points, name this capacity which has "long-term" and "short-term" varieties.

ANSWER: <u>memory</u> [accept flashbulb <u>memories</u> or false <u>memories</u>; accept short term <u>memory</u>, long term <u>memory</u>, or working <u>memory</u>] <HK>

7. Two answers required. The relationship between these two characters is reported by a monster described as "the swiftest of all evils," Rumor. While in the other's city, one of these characters scans a mural depicting events of the Trojan War. A storm forces these characters to abandon a hunt and take shelter together in a cave. After speaking to (\*) Mercury, one of these characters tells the other: "I do not sail willingly to Italy." After one of these characters departs, the other asks her sister, Anna, to build a pyre, on which she commits suicide. The enmity between Rome and Carthage arose from—for 10 points—the "breakup" of what couple, according to an epic poem by Vergil?

ANSWER: <u>Aeneas</u> and <u>Dido</u> [accept names in either order; accept <u>Elissa</u> in place of "Dido"] <MK>

8. In one song, this woman scathingly asks an ex if he tried to break her heart, only to retort "Oh, that breaks my heart." This artist runs an Instagram account for her instrumental companion Sasha, a flute she often performs while twerking. This artist walked the 2019 AMAs red carpet in an orange Valentino dress carrying a truly (\*) tiny meme-spawning bag of the same label. In one song, this artist declares that she's "the pudding in the proof" and tells listeners to "blame it on [her] juice." A song by this woman who "just took a DNA test" references the Minnesota Vikings and asks "Why men great til they gotta be great?" For 10 points, name this singer of "Good as Hell" and "Truth Hurts."

ANSWER: Lizzo [or Melissa Viviane Jefferson] <HK>

9. At one battle during this war, forces under Count Rehnskiöld [RAIN-skyold] advanced under the cover of a snowstorm to reach enemy fortifications. The Pruth River campaign was a sub-conflict of this war. During this war, the Treaty of Altranstädt was signed, by which Augustus the Strong ceded his claim to the (\*) Polish throne. Upset at his imminent replacement by Alexander Menshikov, the Cossack hetman Ivan Mazeppa deserted to King Charles XII during this war. This war included a decisive battle at Poltava. For 10 points, during what war did Russian forces under Peter the Great defeat the Swedish Empire?

ANSWER: Great Northern War < MK>

- 10. This figure described knowing "how to order a sandwich in seven languages" in a 2019 memoir titled Shortest Way Home. When asked about the death of Eric Logan and a continued lack of diversity in the police force, this politician simply stated "I couldn't get it done." This politician's husband (\*) Chasten is a middle school teacher. This politician was lambasted for holding a fundraiser with a \$2,800 entry fee in a "wine cave"; this Rhodes Scholar was also criticized for claiming victory in the 2020 Iowa caucuses before official results had been released. For 10 points, name this Democratic primary candidate, a gay former mayor of South Bend, Indiana. ANSWER: Pete <u>Buttigieg</u> [or Peter Paul Montgomery <u>Buttigieg</u>; accept Mayor <u>Pete</u>] <JW>
- 11. This compound is the main compound secreted by the tu-be-ro-in-fun-di-bu-lar and mesocortical pathways. Decarboxylation of a chiral precursor yields this molecule in areas like the pars compacta and the ventral tegmentum. Excess of this molecule is linked to psychotic experiences, explaining why (\*) D2 antagonists like haloperidol act as antipsychotics. Addictive substances affect neurotransmission of this molecule near the nucleus accumbens, the brain's "reward center." The lack of this pain-regulating neurotransmitter is thought to explain certain symptoms of Parkinson's disease. For 10 points, name this neurotransmitter associated with pleasure. ANSWER: dopamine [accept 3.4-dihydroxyphenethylamine] <HK>
- 12. Some pianos in the early 1800s were built with a "stop" named for this style, which often used a pedal to strike the soundboard. The second section of the "symphony-within-a-symphony" last movement of Beethoven's Ninth is a scherzo in this style. A piano piece in this style opens with the sixteenth notes "B, A, G-sharp, A." This style was typically marked by the use of bass drums, cymbals, and (\*) triangle. The nickname of Haydn's "Military" symphony comes from its use of this musical style, which attempts to imitate Janissary bands. Mozart's eleventh piano sonata ends with an A-minor "Rondo" in—for 10 points—what Ottoman-inspired style?

ANSWER: <u>Turkish</u> music [accept *alla turca*; accept <u>Janissary</u> music until it's mentioned; prompt on <u>military</u>] <AY>

- 13. The unified electroweak theory was confirmed by the observation of weak currents with this property in the Gargamelle bubble chamber. Since particles and antiparticles are conjugates under C-symmetry, any Majorana fermion would need to have this property. Of the bosons that govern the weak force, the Z boson has this property while the (\*) W bosons do not. Wolfgang Pauli proposed a particle named for this property to explain beta decay. Particles with this property, such as photons and unionized atoms, feel no net force in an electric field. The proton's partner in the nucleus has—for 10 points—what property of having no net electric charge? ANSWER: neutral [accept uncharged] or "their net charge is zero" before "charge"] <SE>
- 14. One section of Jonathan Swift's A Tale of A Tub is commonly anthologized as "A Digression on [this condition]." A character in a Shakespeare play feigns this condition to take revenge against the Queen of the Goths; that character is Titus Andronicus. Another character states that he exhibits this condition only "north-north-west," because he "know[s] a (\*) hawk from a handsaw." In King Lear, Edgar disguises himself as a beggar with this condition named Tom O'Bedlam; later, Lear himself develops this condition. For 10 points, Polonius observes a "method in" what condition feigned by Hamlet?

ANSWER: madness [accept reasonable synonyms like insanity or lunacy] <MGS>

- 15. One person of this type inspired a figure with "dark violet violently blotched with the lemon yellow of the dahlias" in Van Gogh's *Memory of the Garden at Etten*. A print of Black Lion Wharf hangs on the wall in a portrait of another of these people. In one painting, a flowered jug sits beside a basin where one of these people washes a (\*) child's feet. One of these people, who stood in for a model who failed to show up, wears a black dress in the painting *Arrangement in Gray and Black No. 1*. That painting depicts Anna McNeill Whistler, a woman with—for 10 points—what familial relation to James McNeill Whistler?

  ANSWER: mothers [prompt on women; accept "the artist's mother"] <AY>
- 16. Rumors said this man died after consuming "a surfeit of peaches and cider," but he was actually killed by dysentery while Louis VIII invaded his country. This man signed an accord that Pope Innocent III declared "null, and void of all validity forever." Innocent also temporarily excommunicated this man for not acknowledging the Archbishop of Canterbury, (\*) Stephen Langton. This man rebelled while his brother was returning from the Third Crusade. This man's alliance was defeated at the Battle of Bouvines, leading to his meeting with barons at Runnymede. For 10 points, name this king of England, a brother of Richard I who signed the Magna Carta.

ANSWER: King John I [or King John Lackland] <MK>

- 17. According to Ovid's *Metamorphoses*, the gum of the myrrh tree was formed from this substance. According to the *Prose Edda*, Freya produced a "red gold" version of this substance. A rock on Mount Sipylus was perpetually coated with this substance. After their transformation into poplar trees, (\*) Phaethon's sisters produced amber instead of this substance. While disguised as a giantess, Loki was the sole being who refused to produce this substance for Baldr. After Artemis and Apollo slew her children, Niobe unceasingly produced—for 10 points—what salty liquid as she mourned atop a mountain?

  ANSWER: tears <AY>
- 18. Euclid proved that there is a bijection between the Mersenne primes and the set of perfect numbers that are also this kind of number; it is conjectured, but not known, that *all* perfect numbers are this kind of number. The Taylor series of cosine contains only terms with this kind of number in the exponent. This term is also used to describe a function f for which f(x) = (\*) f(-x) [eff-of-x equals eff-of-negative-x]. Numbers described by this adjective are, by definition, congruent to 0 modulo 2, and adding two numbers of this type always yields another of these numbers. 2 is the only prime example of—for 10 points—what category of numbers that are contrasted with odd numbers?

ANSWER: even <JW>

19. The narrator of this work analyzes his own poem, ending with the line "and the rest is rust and stardust," while pursuing another character who disappeared from a hospital. Another character in this novel is hit by a car while on her way to mail some letters. A play in this work shares its name with a hotel earlier visited by the narrator; that play is *The* (\*) *Enchanted Hunters*, written by Clare Quilty. In this novel's first sentence, the words "light of my life, fire of my loins" are used to describe the protagonist's love interest, Dolores Haze. Humbert Humbert is the pedophilic narrator of—for 10 points—what controversial novel by Vladimir Nabokov? ANSWER: *Lolita* <MGS>

20. "Martin the Armenian" emigrated from modern-day Iran to this city, to which he introduced silkworms. This city was situated across a river from the village of Werowocomoco. Christopher Newport led an expedition that included the ship Susan Constant to establish this city, which was built with (\*) triangular wooden walls. Food shortages caused the "starving time" in this city. John Rolfe introduced tobacco cultivation to this city and married a local Powhatan woman. For 10 points, name this Virginia colony founded in 1607, the first permanent English settlement in the United States.

ANSWER: <u>Jamestown</u> <MK>

#### Tiebreaker

This man gave land to his sons Alexander Helios and Ptolemy Philadelphus via the "Donations of Alexandria." This man was betrayed by Quintus Dellius at a battle where swift "Liburnian" galleys outmaneuvered his ponderous quinqueremes [quinn-kwe-reams]. This man commanded the victorious left wing at the Battle of Pharsalus. In his (\*) *Philippics*, Cicero condemned this man, who delivered Julius Caesar's funeral oration. Marcus Agrippa defeated this man at the Battle of Actium, ending his war with Augustus. For 10 points, name this man who supposedly died in the arms of his lover Cleopatra.

ANSWER: Mark Antony <MK>

#### **Bonuses**

- 1. Answer some questions about feet and footwear in Norse mythology, for 10 points each:
- [10] In Norse mythology, this woman was allowed to marry any of the gods, but she had to make her choice by looking solely at their feet. She ended up marrying Njord.

ANSWER: Skadi [or Skade]

[10] In Norse mythology, the handmaiden Fulla looked after the footwear of this goddess. One of this woman's sons, Hoder, accidentally killed another of her sons with a mistletoe arrow.

ANSWER: Frigga [do not accept or prompt on "Freya" or "Freyja"]

[10] During Ragnarök, Vidar will avenge Odin by stepping on Fenrir's jaw with his shoe, which is made of all the leather that men previously cut from their own shoes. Fenrir is one of these animals, like Lycaon in Greek myth.

ANSWER: wolf [or wolves] <AY>

- 2. Dry ice's phase transition of this sort explains why you really shouldn't store it in a sealed container. For 10 points each:
- [10] Name this phase transition. Often occurring at low pressures and temperatures, this phase transition occurs when a solid goes directly into the vapour phase.

**ANSWER:** sublimation

[10] These diagrams which plot pressure against temperature can be used to determine the state of aggregation of a given substance. A substance's triple point can also be determined from this diagram.

ANSWER: phase diagrams

[10] This state of aggregation exists past a namesake point, which, for water, occurs at approximately 647 Kelvin and 22 megapascals. In this physical state, the distinction between liquid and vapor vanishes.

ANSWER: supercritical fluid [do not accept or prompt on "superfluid"] <MP>

- 3. Answer some questions about French neoclassical drama, for 10 points each:
- [10] Along with Pierre Corneille, this playwright is considered one of the paragons of French neoclassicism. A curse upon the royal house of Troezen is the subject of this author's best known play.

ANSWER: Jean Racine

[10] Racine and other neoclassical playwrights were known for their strict adherence to the Three Unities, principles laid out by Aristotle that applied to this dramatic genre characterized by catharsis and contrasted with comedy.

ANSWER: tragedy

[10] Neoclassicism is primarily associated with this century, in which Racine and Corneille wrote their major works. John Milton wrote *Paradise Lost* in this century.

ANSWER: 17<sup>th</sup> century [or 1600s] <JW>

- 4. In 2015, when he was asked if he knew who this man was, Donald Trump replied affirmatively and then promptly confused this man's forces with the Kurds. For 10 points each:
- [10] Name this Brigadier General of Iran killed by a contentious 2020 American drone strike. Arguably second in power only to Ayatollah Ali Khamenei, this "Shadow Commander" was one of the first to arm Kurdish forces.

ANSWER: Qasem Soleimani

[10] From 1998 to his death, Soleimani headed this elite force of Iran's Islamic Revolutionary Guard Corps. This force responsible for extraterritorial operations has provided support to groups like Hezbollah and the Houthis.

ANSWER: **Quds** Force [or sepāh-e **Qods**]

[10] Soleimani supervised Iranian efforts against ISIS in this nation adjacent to Iran, where he was ultimately killed in its capital of Baghdad.

ANSWER: <u>Iraq</u> [or Republic of <u>Iraq</u>; or al-<u>Iraq</u>] <HK>

- 5. The Thracian "Tomb of Kazanlak" resembles one of these objects. For 10 points each:
- [10] Name this object that many Bronze-Age Mediterranean tombs resemble. The common name of the Mycenaean *tholos* tomb derives from its resemblance to this object.

ANSWER: beehive tombs

[10] According to legend, a golden sarcophagus housed this man's body until one of the Ptolemies looted the coffin, replacing it with one of glass. The *diadochi* rose to power after this man's death.

# ANSWER: <u>Alexander</u> the <u>Great</u> [or <u>Alexander III of Macedon</u>]

[10] Pharaohs were often entombed in these structures. Six of these structures, three large and three small, are located near Giza.

ANSWER: **pyramid**s <MK>

- 6. The singer of this aria claims to be struck by the sweet voice of the man she imagines to be her groom. For 10 points each:
- [10] Name this aria, which is sung by the title character of an opera after she stabs her new husband Arturo. She then wanders around the Great Hall singing to an imagined Edgardo, asking him to sit by a fountain with her.

ANSWER: "Il dolce suono" [prompt on the "mad scene"]

[10] "Il dolce suono" features in *Lucia di Lammermoor*, an opera by this *bel canto* composer. Nemorino courts Adina in this man's *L'elisir d'amore* [le-lee-ZEER dah-MORE-ay], and Marie and Tonio win permission to marry in his *La Fille du régiment*.

ANSWER: Gaetano Donizetti

- [10] In *La Fille du régiment*, the aria, "Ah! mes amis" features this high note, sung nine times in a row. This note, whose namesake key has no flats or sharps, is the top of a tenor's vocal range, an octave above the "middle" one. ANSWER: C5 <HK>
- 7. This 2018 song, whose subject matter ranges from police brutality to gun violence, became the first rap song to win the Grammy for Record of the Year. For 10 points each:
- [10] Name this song whose music video follows its shirtless singer through a chaotic warehouse as he shoots a guitar player, dances with school children, and guns down a church choir, all while caricaturing Jim Crow imagery.

ANSWER: "This is America"

[10] "This is America" is performed by this actor-rapper-comedian, whose other tracks as a rapper include "Redbone" and "Bonfire." He also stars in, writes for, and executive produces the TV series *Atlanta*.

ANSWER: **Childish Gambino** [or Donald **Glover**]

[10] This 2013 Childish Gambino album takes its name from a line in "Telegraph Avenue," and also contains the single "3005." This album's cover is a GIF which appears to zoom in on Gambino's face in reference to its title.

ANSWER: **Because the Internet** <HK>

- 8. In one essay, a person of this type from North America—or worse, Europe—steps off a plane and contemplates the beautiful island they are seeing. For 10 points each:
- [10] Name this kind of "bad person" mocked in the essay A Small Place. The essay describes a white foreigner coming to stay "for four to ten days" in Antigua, where they are this kind of person engaging in leisure travel.

ANSWER: **tourist** [accept reasonable equivalents like **vacationer**; prompt on **traveler**]

[10] A Small Place is by this Antiguan author, who took her pen name from the name of a Caribbean island. She wrote a fictionalized version of her own experience working as an au pair in the United States in her novel Lucy. ANSWER: Jamaica Kincaid [or Elaine Cynthia Potter Richardson]

[10] A mother's words of advice to one of *these* people, which include "this is how you bully men" and an admonishment not to walk "like the slut you are so bent on becoming," form a Kincaid story titled for one of them. ANSWER: "Girl" [do not accept or prompt on equivalents] <HK>

- 9. According to Cicero's *Against Verres*, Gavius of Compsa repeatedly wailed this phrase as he was being scoured in the forum of Messana. For 10 points each:
- [10] Give this three-word Latin phrase. In a speech, John F. Kennedy said that "two thousand years ago, the proudest boast was [this phrase]," whose modern-day equivalent was "Ich bin ein Berliner."

ANSWER: "civis Romanus sum"

[10] Kennedy's speech in Berlin rebuked the Soviet Premier Nikita Khrushchev, who had sparked a crisis the previous year by installing missiles on this Caribbean island.

ANSWER: Cuban Missile Crisis

[10] In 1959, Khrushchev engaged in an impromptu argument with Richard Nixon in this specific kind of place, where they debated the relative merits of capitalism and communism.

ANSWER: <u>kitchen</u> [or <u>Kitchen</u> Debate; prompt on "model <u>house</u>" or equivalents with "where in the house?"] <MK>

- 10. Policing strategies inspired by this theory include one city's controversial "stop-and-frisk" policy. For 10 points each:
- [10] Name this theory which holds that general disorder, including acts of graffiti or the presence of this theory's namesake objects, can be indirectly tied to more serious crime.

ANSWER: **broken windows** theory

[10] This city's Police Commissioner William Bratton adopted a broken-windows-inspired "zero tolerance" policy which included "stop-and-frisk." The mayor of this city at the time was Rudy Giuliani and today is Bill de Blasio.

ANSWER: **New York** City [or **NYC**]

[10] Broken windows theory was developed from a study conducted by this man involving abandoned automobiles. This man discussed his more famous work and abuse at Abu Ghraib prison in his book *The Lucifer Effect*.

ANSWER: Philip **Zimbardo** <HK>

- 11. This phrase first gained currency in music as the title of a 1725 treatise on species counterpoint. For 10 points each:
- [10] Give this phrase, which Debussy referenced in the title of the first movement of his *Children's Corner*.

ANSWER: <u>Gradus ad Parnassum</u> [prompt on <u>Steps to Parnassus</u>]

[10] A collection of teaching pieces for piano titled *Gradus ad Parnassum* was written by Muzio Clementi, who mostly lived in *this* capital city, where Handel wrote *Water Music* for King George I.

ANSWER: London

[10] This student of Beethoven wrote yet another collection of study pieces entitled *Gradus ad Parnassum*. This teacher of Franz Liszt wrote teaching collections like *The School of Velocity* and *The Art of Finger Dexterity*.

ANSWER: Carl Czerny ["CHAIR"-nee] <AY>

- 12. After publishing the more illustrious *On the Origin of Species*, Charles Darwin turned his attention to earthworms, penning *The Formation of Vegetable Mould through the Action of Worms* in 1881. For 10 points each:
- [10] Earthworms make their home primarily in this substance, which collectively forms the ubiquitous "pedosphere." This substance, from which plants can grow, is a combination of organic matter and minerals. ANSWER: **soil** [prompt on dirt]
- [10] Earthworms fill this ecological role with a name analogous to "carnivore" or "herbivore." These organisms consume decomposing organic matter and feces.

ANSWER: <u>detritivore</u>s [prompt on <u>decomposers</u>]

[10] Earthworms primarily live in the "O" soil region of this kind, which is the richest in organic matter. Soil is usually divided into five of these layers, including "A," "B," "C," and "R."

ANSWER: soil horizons <JW>

- 13. This prophet negotiated with Allah to reduce the number of daily prayers from 50 to five. For 10 points each:
- [10] Name this central prophet of Islam, to whom Jibrīl revealed the Qur'an. *Aḥādīth* are records of this man's sayings and actions.

ANSWER: Muhammad

- [10] Muhammad was born in 570 A.D., which Muslims refer to as the "Year of [this animal]." This animal names the year because, during it, one of them stopped Abraha's invasion of Mecca by halting at the boundary of the city. ANSWER: "Year of the **Elephant**" [or 'Ām al-**Fīl**]
- [10] Abraha was a general of Axum, a Christian kingdom centered in this modern-day country. This country's Christians trace their heritage to the Queen of Sheba via the *Kebra Nagast*.

ANSWER: Federal Democratic Republic of Ethiopia <HK>

- 14. Literary criticism of Jane Austen often focuses on her extensive use of this literary device, the situational variety of which is sometimes considered to encompass its "cosmic" form. For 10 points each:
- [10] Name this literary device, whose verbal form is notably employed by the sentence "It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife."

ANSWER: irony

[10] That sentence is the first of this novel, in which Elizabeth Bennet rejects Fitzwilliam Darcy's first marriage proposal but accepts the second. Her sister Jane marries Darcy's friend Mr. Bingley in this novel.

ANSWER: **Pride and Prejudice** 

- [10] Another instance of verbal irony in *Pride and Prejudice* is Mr. Bennet's referring to *this* man, who elopes with the youngest Bennet sister Lydia, as a "pleasant fellow." This man takes advantage of Darcy's sister Georgianna. ANSWER: George **Wickham** <HK>
- 15. According to Susan B. Anthony, this technology did "more to emancipate women than anything else in the world." For 10 points each:
- [10] Name this technology whose "safety" version eventually replaced the penny-farthing. Schwinn was the dominant manufacturer of this technology in mid-20<sup>th</sup> century America.

ANSWER: bicycles [or bikes]

[10] Bicycles reached their greatest popularity in the United States in this decade, when "Coxey's Army" marched on Washington to protest unemployment.

ANSWER: 1890s

[10] These brothers used expertise gained from manufacturing bicycles to build the world's first successful airplane, which they tested in Kitty Hawk, North Carolina.

ANSWER: **Wright** brothers [or Wilbur and Orville **Wright**] <MK>

- 16. Margaret and Geoffrey Burbidge were two of the four authors of the 1957 "B-squared-F-H" paper arguing that most elemental synthesis via this process takes place in stars. For 10 points each:
- [10] Name this general process of combining light nuclei into heavier ones. In the Sun, its main form is the conversion of hydrogen to helium in the proton–proton chain.

ANSWER: nuclear **fusion** [do not accept or prompt on "fission"]

[10] While the Burbidges' co-author William Fowler won a Nobel Prize for his work, this fourth co-author controversially did not. He coined the term "Big Bang," despite not believing in the theory himself.

ANSWER: Fred Hovle

[10] In another paper, Hoyle explained the triple-alpha process by proposing that helium and beryllium combine to form an excited state of the 12-isotope of this element. It forms another fusion cycle with nitrogen and oxygen.

ANSWER: **carbon** [or  $\underline{\mathbf{C}}$ ] <SE>

- 17. Although this artist is widely regarded as a paragon of nineteenth-century French classicism, the distorted figures of some of his subjects have led him to be referred to as a "painter of monsters." For 10 points each:
- [10] Name this artist who painted *Napoleon I on his Imperial Throne* and a woman with too many vertebrae looking over her shoulder in *La Grande Odalisque*.

ANSWER: Jean-Auguste-Dominique **Ingres** 

[10] As a proponent of classicism, it is not surprising that Ingres painted a number of mythological scenes, including a depiction of the Sphinx challenging this hero, who killed his father and married his mother.

ANSWER: **Oedipus** 

[10] Another of Ingres' classical works is this one, in which the title figure is crowned by an angel, surrounded by 44 other historical figures and seated in front of a temple that bears his name.

ANSWER: The Apotheosis of Homer <JW>

- 18. The toxin phalloidin produced by *Amanita muscaria* inhibits the depolymerization of this protein. For 10 points each:
- [10] Name this most abundant intracellular protein. This protein forms microfilaments that work in conjunction with myosin to facilitate muscle contraction.

ANSWER: actin

[10] *Description acceptable*. Actin polymerizes at the lamellipodium when a cell undergoes this process, which can be termed taxis or kinesis. Amoeba use pseudopodia to do *this*, while other cells use either cilia or flagella.

ANSWER: **locomotion** [accept any answers indicating that the cell **moves**]

[10] Interactions between the actin cytoskeleton and this *structure* largely composed of collagen and proteoglycans enable cell adhesion. This structure facilitates cell communication, and it helps organize and support tissues.

ANSWER: extracellular matrix [or ECM] <HK>

- 19. According to Book 4 of Herodotus' *Histories*, these people displaced the Cimmerians from the steppes north of the Black Sea. For 10 points each:
- [10] Name these nomadic people, who were known for their horsemanship and built the Kul'-Oba *kurgan*. These people were eventually supplanted by the Sarmatians.

ANSWER: Scythians

[10] These nomadic people invaded the Roman Empire in the 5th century A.D. under the "Scourge of God," Attila. They were eventually defeated at the Battle of Chalons.

ANSWER: **Hun**s [or **Hun**nic Empire]

[10] These nomadic people engaged in a series of wars with the Byzantine Empire, including under Simeon I. Basil II became known as the "[these people]-slayer" when he blinded many of them after the Battle of Kleidion.

ANSWER: **Bulgar**s [or **Bulgar**-Slayer] <MK>

- 20. This poet wrote about a group of women who "do not care" if "the / moon rattles like a fragment of angry candy" in "the Cambridge ladies who live in furnished souls." For 10 points each:
- [10] Name this American poet, whose "i carry your heart with me" and "pity this busy monster, manunkind" exhibit his characteristic disregard for typographic conventions.

ANSWER: E(dward) E(stlin) Cummings

[10] Although they flaunt many of its conventions, Cummings classified the three aforementioned poems as examples of this fourteen-line poetic form.

ANSWER: sonnet

[10] Cummings' "Cambridge ladies" are described as believing in "Christ and" this New England poet, whose own sonnets include one about his wife's death, "The Cross of Snow."

ANSWER: Henry Wadsworth Longfellow <JW>

### Tiebreaker

Answer some questions about the life of the Byzantine emperor Justinian in 532 A.D., for 10 points each:

[10] In January 532, members of the "Blue" and "Green" factions of this sport's fans revolted against Justinian in the Nika Riots. Fans of this sport took in action at hippodromes.

ANSWER: **chariot-racing** [accept obvious equivalents; prompt on <u>racing</u>]

[10] In February 532, Justinian ordered the construction of the Hagia Sophia in this capital of the Byzantine Empire. This city is now known as Istanbul.

# ANSWER: **Constantinople** [accept **Byzantium**]

[10] In September 532, Justinian signed an "Eternal Peace" with Khosrau I, a king of this empire. Another ruler of this empire captured the Roman emperor Valerian after the Battle of Edessa.

ANSWER: Sassanid Empire [or Sassanian] < MK>