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

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Packet 7 Tossups

1. In a song from this work, Firmin entreats Andre to "please don't shout, / it's publicity" before receiving a threatening letter signed by "O.G." Piangi is garrotted by this musical's title character, who earlier appeared as the Red Death during a masquerade. In this musical, one character's childhood friend overhears her singing (*) "Think of Me" in an audition to substitute for Carlotta. In this musical, Raoul declares his love for a character in "All I Ask of You" after she confesses to visiting a subterranean lair where another man sang "The Music of the Night" to her. For 10 points, name this Andrew Lloyd Webber musical about Christine and the title white-masked specter.

ANSWER: The **Phantom of the Opera** <SL>

2. In electrical engineering, an operator with this name takes inputs a and b and returns "a times b over a plus b." In a low-pass filter, the load and capacitor are placed in this arrangement. Until 2019, the definition of the ampere involved placing two infinitely long conductors in this configuration one meter apart. The strengths of capacitors add (*) linearly when they are placed in this configuration. A simple capacitor consists of a pair of conducting plates arranged in this way. This term describes circuits in which current flows through several paths at once, unlike series circuits. For 10 points, give this term for objects that point in the same direction but do not touch.

ANSWER: <u>parallel</u> [accept <u>parallel</u> operator or "in <u>parallel</u>" or <u>parallel</u> circuits or <u>parallel</u> plate capacitor] <SE>

3. This poet describes having hidden "a broken drinking goblet like the Grail" and instructs the reader to "drink and be whole again beyond confusion" in his poem "Directive." In one poem, this poet describes a boy who dies after his arm is chopped off by a chainsaw; that poem's title references a monologue from *Macbeth*, (*) "Out, Out—." This poet included the lines "so Eden sank to grief, / so dawn goes down to day" in a poem that begins "nature's first green is gold," entitled "Nothing Gold Can Stay." For 10 points, name this poet who wrote that "two roads diverged in a yellow wood" in his poem "The Road Not Taken."

ANSWER: Robert Frost <JW>

4. In the *Kitāb al-'Ibar*, Ibn Khaldun describes descending in a basket from the walls of Damascus to interview this leader. This leader equipped his camels with burning wood and hay to frighten the Tuglaq [TUGH-lak] Dynasty's war elephants. This leader defeated the Golden Horde at the Battle of the Terek River. Together with his son Shah Rukh, this leader captured (*) Bayezid the Thunderbolt at the Battle of Ankara. At Isfahan, he ordered the construction of a pyramid of 40,000 skulls. This man founded an empire that was based at Samarkand. For 10 points, name this Turkic conqueror of Central Asia, whose epithet refers to his limp. ANSWER: Timur the Lame [or Tamerlane, or Taimur-e-Leng] <HK>

5. Micah 5:2 foretells the location of this event, saying it is "small among the clans of Judah." After this event, a ruler treacherously tells a group of men to "go and search carefully ... [and] report to me, so that I too may go." 40 days after this event, a pair of birds were sacrificed at the (*) Temple in Jerusalem during the "Presentation." In honor of this event, Caspar, Balthazar, and Melchior presented gifts of frankincense, myrrh, and gold. As a census rendered all the inns full, this event occurred in a stable in Bethlehem. For 10 points, name this event celebrated in Nativity plays on Christmas.

ANSWER: <u>birth of Jesus</u> [or <u>nativity of Jesus</u>; accept "Christ" in place of "Jesus"; prompt on partial answers] <AY>

6. A five-movement symphony often titled for this genre begins in E minor and ends in C major, and includes two movements labelled "Nachtmusik." This genre titles a piece that includes movements like the half-hour-long "Der Abschied" [deer AHB-sheet] and the much shorter "The Drunkard in Spring." Gustav Mahler included works in this genre as the fourth movements of his (*) second and fourth symphonies. This genre titles a symphony whose number was erased to avoid the "Curse of the Ninth." A German translation of Tang Chinese poetry inspired that piece by Mahler, which is titled for one of these things of the Earth. For 10 points, what pieces of vocal music are often grouped into "cycles?"

ANSWER: **song**s [or **Lied**er; accept *The* **Song of the Earth** or *Das* **Lied von der Erde**; accept **Song of the Night** or **Lied der Nacht**] <AY>

7. One of these organizations negotiated the Grenelle Agreements. One of these organizations used its daily newspaper, *Electoral Gazette*, to publish a modified movie poster depicting Gary Cooper in *High Noon*. James Callaghan used a line from Shakespeare's *Richard III* to term a period of unrest by one of these organizations as "the Winter of Discontent." One of these organizations led the (*) Round Table Talks, which caused the resignation of Wojciech Jaruzelski [VOY-check yah-roo-ZEL-skee]. That one of these organizations agitated at the Lenin Shipyard in Gdansk under the leadership of Lech Walesa. Solidarity was—for 10 points—what kind of organization that advocates for workers' rights?

ANSWER: <u>union</u>s [accept trade <u>union</u>s; accept labor <u>union</u>s; accept National <u>Union</u> of Mineworkers] <MK>

8. Inoue Tsutomu produced a Japanese version of the collection in which this character appears called *The Most Curious Book in the Whole World*. Salman Rushdie's Saleem Sinai notes that his story is similar to this character's as he narrates the stories of his family, though he has less time left than this character to do so. This character and her sister continually (*) request one last night to spend together in order to save the life of that sister, Dunyazad. This woman tells her husband Shahryar enchanting tales, only to leave off on a cliffhanger at dawn in order to prevent her imminent execution for 1,000 nights. For 10 points, name this cunning narrator of the *Tales of the Arabian Nights*.

ANSWER: Scheherazade <HK>

9. The Fraser fir is endemic to this mountain range. Interest in the natural resources of this mountain range was rekindled by the discovery of natural gas in the Marcellus Shale formation. The Lackawanna Mine, the largest deposit of anthracite coal in the world, is located in a section of this mountain range near the (*) Schuylkill River. The tallest peaks in this mountain system include Mt. Mitchell in the Black Mountains, Clingman's Dome in the Great Smoky Mountains, and Mt. Washington in the White Mountains. For 10 points, name this mountain range, the namesake of a trail that runs from Georgia to Maine.

ANSWER: <u>Appalachian</u> Mountains [prompt on <u>Black</u> Mountains, <u>Great Smoky</u> Mountains, or <u>White</u> Mountains before mention] <BCE>

10. The heraldic badge of one ruler of this region features three white feathers over a gold crown, with a scroll bearing the motto "Ich dien." Another ruler of this region lost the Battle of Orewin Bridge. Marcher Lords governed this region's eastern border, which was delineated by a ditch called Offa's Dyke. A ruler of this region called "the Last" was killed by the forces of (*) Edward I. Owain Glyndŵr led a long-running revolt in this modern-day country, which was ruled by Llywelyn the Great. A red dragon appears on this country's flag. For 10 points, name this constituent country that forms the United Kingdom with Northern Ireland, Scotland, and England.

ANSWER: <u>Wales</u> [or <u>Cymru</u>; prompt on <u>United Kingdom of Great Britain and Northern Ireland; prompt on <u>Britain</u>; do not accept or prompt on "England"] <MK></u>

11. One rare, incurable complication of this condition called subacute sclerosing panencephalitis requires intraventricular interferon to slow its progress. The appearance of spots resembling "grains of salt" named for Koplik near the molars are indicative of this disease, as are the 4-day fever and "3 Cs" of coryza, conjunctivitis and (*) cough. A rash of flat red spots is the most obvious indication of this condition. The vaccine for this disease also defends against mumps and rubella, and in 2015, an outbreak of this disease occurred near Disneyland. For 10 points, name this highly contagious disease that was once eradicated, but has seen a resurgence in recent years.

ANSWER: measles [accept English measles] do not accept or prompt on "German measles"] <HK>

12. One child of this god lived in a hall with an entrance called "stumbling-block." This god used a net provided by Ran to trap Andvari. A son of this god, Vali, was turned into a wolf and ripped apart another of his sons, Narfi, whose entrails were subsequently used to bind this god. This god had an affair with a giantess who lived in Iron-wood, (*) Angrboda, producing a half-blue, half flesh-colored goddess. While in the form of a mare, this god mated with Svadilfari to disrupt the construction of the walls of Asgard; afterwards, he bore the eight-legged horse Sleipnir. Hel, Jörmungandr, and Fenrir were monstrous offspring of—for 10 points—what Norse trickster god?

ANSWER: Loki <AY>

- 13. In the *Phaedrus*, Socrates uses the image of a charioteer struggling to control two horses, white and black, as an allegory for this thing. In Book VIII of the *Republic*, Plato describes how these things come in "bronze," "silver," and "gold" varieties. A slave solving a geometry problem in the *Meno* and the Myth of Er at the end of the *Republic* are two pieces of evidence for the (*) immortality of this thing, for which Plato famously advocated a "tripartite" theory. In Plato's view, the rational, the spirited, and the appetitive are—for 10 points—the three elements of what entity, which in many traditions is all that remains of a person after the death of the body? ANSWER: the <u>soul</u> [or <u>psyche</u>] <JW>
- 14. In one novel, two characters are caged and displayed in this location, where a trial is presided over by Lord Hate-Good. After Faithful is burned at the stake in this location, Hopeful accompanies Christian on the rest of his journey to the Celestial City. A novel titled for this location begins with one character throwing Johnson's *Dictionary* out a carriage window; that character later marries (*) Rawdon Crawley. A novel titled for this place features the passive Amelia Sedley and the ambitious Becky Sharp. For 10 points, what location from *Pilgrim's Progress* titles a "novel without a hero" by William Makepeace Thackeray?

ANSWER: Vanity Fair <SL>

- 15. The OSCAR database aims to better calculate and characterize the "surface" varieties of these entities. Sverdrups are the units of flux used to measure these phenomena. As the surface variety of these entities move away from horizontal boundaries, they form Ekman (*) spirals induced by the Coriolis effect. There are five major global gyres, which are large circulating systems of these entities. The "deep" type of them are driven by thermohaline circulation. Examples of these things include one off the coast of Peru named for Alexander von Humboldt, and the Gulf Stream. For 10 points, name these continuous, directed flows of ocean water. ANSWER: ocean <u>currents</u> [accept <u>gyres</u> before "gyres"; prompt on <u>circulation</u>] <HK>
- 16. This artist depicted a nude woman with patches of skin replaced by wood grain in his *Discovery*. This painter depicted a woman in white with flowers obscuring her face in *The Great War*, and obscured a man's face with a ball of light in *The Pleasure Principle*. That man, Edward James, is also shown looking at the back of his head in a mirror in this artist's (*) *Not to be Reproduced*. Repeating a motif seen in *The Listening Room*, this artist obscured the face of a man in a bowler hat with a green apple in his self-portrait, *The Son of Man*. The claim "this is not a pipe" appears in—for 10 points—what Belgian surrealist's *The Treachery of Images*? ANSWER: René Magritte <BY>
- 17. In a film based on a novel by William Goldman, one of these people narrates a story that he describes as containing such things as "monsters, chases, escapes, true love, [and] miracles." In another novel, two characters named Joe and George have this relation to the title character; in a film adaptation of that novel, the protagonist and Joe ingest Fizzy Lifting Drinks together. Buttercup and Westley appear in a story (*) told by one of these people in *The Princess Bride*. A character with this relation to the title character accompanies him to meet Willy Wonka in *Charlie and the Chocolate Factory*. For 10 points, Darth Vader bears what familial relation to Kylo Ren, the son of *his* daughter Leia?

ANSWER: **grandfather** [accept terms such as **father's/mother's father** or **grandpa**; prompt on <u>old man</u>, <u>old person</u>, <u>grandparent</u>, etc.] <JW>

- 18. In Auerbach's Tavern, this character bores into the edge of a table to serve three men wine. This character claims that another character "scorns earth's fare and drinks celestial mead" in the prologue to the work in which he appears, which takes place in heaven. This character makes a bet with God that he will (*) tempt His "servant," whom this character later promises to give everything he wants. This character appears as a black poodle and helps the protagonist of the work in which he appears to woo Gretchen. For 10 points, name this demon who makes a deal with Faust for his soul in a set of two plays by Johann Wolfgang von Goethe.

 ANSWER: Mephistopheles <MGS>
- 19. The Supreme Court ruled that Ralph Osborn, the Ohio State Auditor, was liable for seizing money from this institution. A political cartoon depicted this institution as a "many-headed monster" fighting a president. In a case that affirmed Congress' implied powers, John Marshall ruled that a state's tax on this institution was unconstitutional; that case was (*) McCulloch v. Maryland. Andrew Jackson appointed Roger Taney as Secretary of the Treasury while battling against the renewal of this institution's charter. Nicholas Biddle was the final president of—for 10 points—what central financial institution that succeeded the one proposed by Alexander Hamilton?

ANSWER: <u>Second Bank</u> of the <u>United States</u> (prompt on partial answers; do not accept or prompt on "First Bank of the United States") <VS>

20. An isothermal type of calorimetry which employs this process can be used to study the binding of small molecules to macromolecules like DNA and proteins. Magnesium and calcium ions are chelated [key-lated] by EDTA in the complexometric type of this procedure. Dichromates and potassium permanganate are used in the (*) redox type of this technique. Using polyprotic acids in this process yields multiple equivalence points. In this technique, which makes use of indicators like phenolphthalein, a buret slowly drips a solution into an analyte to yield a color change. For 10 points, name this laboratory technique used to determine the concentration of a reagent. ANSWER: titration [accept more specific answers which mention titration] <HK>

Tiebreaker

A vitreous variety of this element is used to make high-temperature crucibles and electrodes. The Russian Doll and parchment models describe a multi-walled form of this element. Chemical vapor deposition can produce one form of this element prized in industry for its high thermal conductivity. The typical "fixed" density of this element in (*) anthracite is about 80%. Andrew Geim won a Nobel Prize for discovering an electrically conductive hexagonal lattice of this element with scotch tape. One "activated" allotrope of this element is good for whitening teeth and scrubbing greenhouse gases. Diamond is an allotrope of, for 10 points, what element contained in all organic molecules?

ANSWER: carbon [or C] <HK>

Bonuses

- 1. Colligative properties are those which only vary depending on this quantity for a solution. For 10 points each:
- [10] Name this quantity, the amount of a substance in solution. Some common ways of expressing this quantity include molarity and molality.

ANSWER: concentration

[10] This factor is often included in calculations of colligative properties to account for deviations from ideal behavior. Symbolized i, this factor accounts for the extent of electrolyte dissociation in solution.

ANSWER: van't Hoff factor

[10] This law uses a van't Hoff factor when applied to electrolytic systems. This law relates the partial pressure of a component in solution to its mole fraction times the partial pressure of the pure substance.

ANSWER: Raoult's law <MP>

- 2. This "jewel box," designed by Gordon Bunshaft, displays one of 48 extant Gutenberg Bibles. For 10 points each:
- [10] Name this library of rare books and manuscripts, the home of Isamu Noguchi's *Pyramid, Sun, and Cube*. Its exterior consists of a granite frame holding up sheets of translucent marble.

ANSWER: **Beinecke** (Rare Book and Manuscript) Library

[10] The exterior of the Beinecke Library references this ratio, with marble blocks across its face, length, and depth set in the proportion 3-to-1-to-2. This irrational number is symbolized by phi.

ANSWER: golden ratio [accept one plus the square root of five over two]

[10] The New York Public Library, which houses another Gutenberg Bible, features a pair of these animals, sculpted from marble, at its entrance. That pair of these animals are named Patience and Fortitude.

ANSWER: <u>lion</u>s <AY>

- 3. Many rebels who advocated this country's independence were interned in Kilmainham Gaol. For 10 points each:
- [10] Name this country that sought "home rule" under Charles Stewart Parnell. In this country, republicans led the 1916 Easter Rising in an attempt to secure independence from the United Kingdom.

ANSWER: <u>Ireland</u> [or Republic of <u>Ireland</u>; or <u>Éire</u>; or <u>Poblacht na hÉireann</u>]

[10] After the Revolutionary Dáil declared Irish independence in 1919, the British government recruited this auxiliary force to support its constabulary. Their nickname derives from the two colors of their makeshift uniforms.

ANSWER: Black and Tans [or Royal Irish Constabulary Special Reserve]

[10] In 1920, members of the Black and Tans opened fire at a Gaelic football match at Croke Park on this day of the week. A 1972 massacre in Derry in Northern Ireland also occurred on this day of the week.

ANSWER: Bloody **Sunday** <MK>

- 4. In this book, a religious address titled "Father Mapple's Sermon" is heard by Queequeg and Ishmael at Whaleman's Chapel. For 10 points each:
- [10] Name this novel by Herman Melville that focuses on the captain of the *Pequod* and his quest for revenge against the title white whale.

ANSWER: Moby-Dick

[10] The *Pequod*'s captain is this monomaniacal figure whose leg was bitten off by Moby-Dick before the novel begins. At the end of the novel, Moby-Dick drags this character to the bottom of the ocean.

ANSWER: Captain Ahab

[10] Moby-Dick also kills this other character shortly before the novel's conclusion, fulfilling this character's earlier prophecy that he would die before Ahab. This character is speculated by the *Pequod*'s crew to be the devil in disguise.

ANSWER: Fedallah <VS>

- 5. The calm waters created by the root systems characteristic of these ecosystems create ideal conditions for "nurseries" of marine life. For 10 points each:
- [10] Name these ecosystems. The namesake trees and shrubs of these ecosystems have evolved complex aerial roots and salt filtration systems to withstand brackish water whose salinity can exceed even that of the ocean.

ANSWER: **mangrove** forests [or **mangrove** swamps]

[10] Remaining blocks of mangrove forest, like the Sundarbans in India and Bangladesh, serve as an important physical barrier against these natural disasters, which often follow cyclones.

ANSWER: floods

[10] Mangroves used to serve as flood barriers in this country's island of Java, which has lost 70% of its mangrove forests. However, this country's islands of Borneo and Sumatra have maintained greater mangrove density.

ANSWER: **Indonesia** <HK>

- 6. One of the coordinates in this system is related to Cartesian coordinates by the expression square root of $x^2 + y^2$ [x-squared plus y-squared], while the other is equal to the arc-tangent of y over x. For 10 points each:
- [10] Name this coordinate system with coordinates usually denoted r, or radius, and the angle θ [theta].

ANSWER: **polar** coordinates

[10] Consider the point (-1, 0) [negative one comma zero], or x = -1 and y = 0, in standard Cartesian coordinates. What are the values of the radius r and the polar angle θ for this point?

ANSWER: $\underline{r=1}$ and $\underline{\theta=\pi}$ [or $\underline{(1,\pi)}$ [one comma pi]; accept $\underline{180}$ degrees or $\underline{180}$ in place of " π "]

[10] In Cartesian coordinates, graphing the equation y = ax + b [y equals a x plus b] yields a line; in polar coordinates, though, graphing the equation $r = a\theta + b$ [r equals a theta plus b] produces *this* other shape.

ANSWER: Archimedean spiral <JW>

- 7. Proponents of this concept argue that the state has legitimate authority over the individual because the individual has—tacitly or otherwise—agreed to give up certain freedoms in exchange for security. For 10 points each:
- [10] Name this philosophical model of statehood, popular during the Enlightenment, whose name derives from a work of political theory by Jean-Jacques Rousseau.

ANSWER: social contract

[10] This British philosopher took a particularly hardline approach to social contract theory, arguing that the state should have absolute dominion over the individual to avoid a return to the "state of nature" in his *Leviathan*.

ANSWER: Thomas **Hobbes**

[10] Hobbes believed that in the state of nature, human life would be "nasty, brutish, and short." Give the specific term he used to characterize that state of nature, in either its four-word Latin or five-word English form.

ANSWER: bellum omnium contra omnes [or war of all against all] <JW>

- 8. Answer some questions about anti-Communist activities in Southeast Asia, for 10 points each:
- [10] In this country, the Commonwealth of Nations fought a twelve-year civil war called "the Emergency" against communist guerillas. This country's native population is called the "bumiputra."

ANSWER: Malaysia [accept Malayan Emergency]

[10] In this country, Thanom Kittikachorn's Communist Suppression Operations Command ordered the Red Drum killings. All the kings of this country's Chakri Dynasty have borne the name "Rama."

ANSWER: Kingdom of **Thailand**

[10] In this country, the "30 September Movement" coup was blamed on the Communist PKI party. In the aftermath of the coup, Suharto became the dictator of this country, whose capital is Jakarta.

ANSWER: Republic of Indonesia <JS>

- 9. This composer was relatively little known until a recording of his most famous work, featuring soprano Dawn Upshaw, was released in 1992. For 10 points each:
- [10] Name this minimalist composer who set texts like a lament to Mary and a message written on a Gestapo cell wall in his Third Symphony, which is also called *Symphony of Sorrowful Songs*. He died in 2010.

ANSWER: Henryk (Mikołaj) <u>Górecki</u> [goo-RET-skee]

[10] Górecki was from this country, which is home to dances like the mazurka. An earlier composer from this country wrote four Ballades for solo piano as well as the "Funeral March" sonata.

ANSWER: **Poland** [or **Polska**]

[10] This earlier Polish composer wrote those four ballades, as well as the "Raindrop" Prelude and the "Minute" waltz.

ANSWER: Frédéric (François) Chopin <JW>

- 10. This novel's protagonist joins Isis' cult at Corinth in gratitude for the goddess' aid. For 10 points each:
- [10] Name this novel in which Isis appears to Lucius on a beach, telling him to eat a garland of roses in order to reverse his transformation into the title animal. It is the only completely surviving Roman novel.

ANSWER: *The <u>Golden Ass</u>* [or <u>Asinus Aureus</u>; or <u>Metamorphoses</u> of <u>Apuleius</u>; prompt on <u>Metamorphoses</u> by asking "by whom?"]

[10] *The Golden Ass* serves as a sort of Roman precursor to this novelistic genre, whose works star laughable but clever rogues. This genre includes Henry Fielding's *Tom Jones*.

ANSWER: picaresque

[10] An anonymous author wrote the first modern picaresque novel, *Lazarillo de Tormes*, in this language. Lope de Vega wrote many plays in this language during its native country's "Golden Age."

ANSWER: **Spanish** [or **español**; or **Castilian**; or **castellano**] <MK>

- 11. This man lost a sandal while carrying a disguised Hera across the river Anaurus. For 10 points each:
- [10] Name this man who was hurrying to reach a festival held by his uncle Pelias. At the festival, Pelias tasked this man with retrieving an object possessed by King Aeëtes of Colchis.

ANSWER: Jason [or Iason]

[10] Specifically, Pelias tasked Jason with retrieving this shiny object, which originally belonged to a non-human child of Poseidon and Theophane. To retrieve this object, Jason assembled a crew of "Argonauts."

ANSWER: golden fleece

[10] When the Argonauts reached Colchis, Aeëtes set Jason three tasks to win the fleece, including sowing a field with the teeth of this kind of creature. Planting this creature's teeth caused armed men to emerge from the earth.

ANSWER: dragon <MK>

- 12. In one cold open, a character on this show wants to report an illegally parked Toyota but changes his mind when he realizes that the car is actually a Hyundai. For 10 points each:
- [10] Name this Canadian sitcom about the lives of a Korean family running the namesake business in Toronto.

ANSWER: Kim's Convenience

[10] In the first episode of *Kim's Convenience*, Mr. Kim thinks that his daughter Janet is stealing money, but he quickly realizes that the loss is due to him offering a discount to this group of people during Pride.

ANSWER: <u>LGBT</u>Q people [accept equivalents such as <u>gay</u> people]

[10] Mr. Kim's estranged son Jung is played by this Chinese actor. Marvel recently announced that this man will play Shang-Chi in an upcoming Marvel Film.

ANSWER: Simu <u>Liu</u> <BY>

- 13. Along with *Cantar de mio Cid*, this poem is one of the greatest surviving examples of the medieval genre of *chanson de geste*. For 10 points each:
- [10] Name this medieval epic in which the title soldier is killed at the Battle of Roncevaux Pass after being betrayed by his stepfather, Ganelon.

ANSWER: *The Song of Roland* [or *La Chanson de Roland*]

[10] *The Song of Roland* is the earliest major literary work written in this language, which was later used to write such works as *Candide* and *Notre-Dame de Paris*.

ANSWER: (Old) French

[10] Not everyone residing in France during the Middle Ages used French, however. Notably, these poets, whose ranks included William IX and Bernart de Ventadorn, wrote their courtly love poems in Occitan.

ANSWER: troubadours <JW>

- 14. An estimated 80% of sexually active individuals contract this virus at some point in their lives. For 10 points each:
- [10] Name this most common sexually transmitted infection. The various strains of this virus are responsible for warts developing on the body, and the vaccine Gardasil protects against four of those strains.

ANSWER: **HPV** [or **human papillomavirus**; do not accept or prompt on "HIV"]

[10] HPV has long been associated with cervical cancer, but it's also responsible for oral cancers, like those of *these* lymphoid structures. These structures in the rear of the throat are sometimes removed from sickly children.

ANSWER: tonsils

[10] HPV-infected cells can be "immortalized," as in the case of HeLa cells, upon activation of oncogenes belonging to this family of small GTPases. Mutations in genes of this family have been implicated in 25% of human cancers. ANSWER: **Ras** <HK>

- 15. This country united with its neighbor Lithuania under the 1569 Union of Lublin. For 10 points each:
- [10] Name this country, whose 1573 Compact of Warsaw guaranteed religious freedom to all free people within its borders.

ANSWER: Poland-Lithuania

[10] Polish-Lithuanian soldiers introduced a "winged" variant of this light cavalry unit by attaching feather-covered wooden frames to their saddles. This unit's Polish-Lithuanian variant also used heavier armor and the "kopia" lance. ANSWER: winged <a href="https://doi.org/10.1007/j.nep-10.1007

[10] In 1683, King John III Sobieski of Poland relieved a siege of this city by leading a charge of 20,000 winged hussars. The same enemy had also besieged this city in 1529.

ANSWER: Vienna < MK>

16. For 10 points each, answer some questions about "new religious movements," or NRMs, in the United States. [10] This woman founded the Church of Christ, Scientist, one of the earliest NRMs in the United States. Her text *Science and Health with Key to the Scriptures* is the movement's founding work.

ANSWER: Mary Baker **Eddy**

[10] Charles Taze Russell founded the Jehovah's Witnesses, another early NRM. According to Witness theology, exactly this many Christians will enter heaven after Armageddon.

ANSWER: 144,000

[10] This religion founded by Joseph Smith is sometimes classed as an NRM. Smith said he found this religion's scriptures written in "Reformed Egyptian" on golden plates.

ANSWER: Mormonism [or The Church of Jesus Christ of Latter-day Saints; accept LDS] <MK>

- 17. This artist referred to his non-representational technique as "Neoplasticism" and quibbled over diagonal lines with Theo van Doesburg. For 10 points each:
- [10] Name this twentieth-century painter who chose to restrict himself to the horizontal and vertical axes of the canvas, creating such works as *Composition with Red Blue and Yellow*.

ANSWER: Piet(er Cornelius) Mondrian

[10] Red, blue, and yellow are known to artists as these kind of colors, although the three colors for which the human eye has receptors are actually red, blue, and green.

ANSWER: **primary** colors

[10] Mondrian's progression towards abstraction can be observed in his paintings of these things. An early painting with a blue background is entitled *Evening; Red [this thing]*, and he painted *Gray [this thing]* several years later.

ANSWER: tree <JW>

- 18. Answer some questions about William Wirt, the longest-serving Attorney General in U.S. history, for 10 points each:
- [10] As Attorney General, Wirt argued this case, where the Supreme Court ruled that the state of New Hampshire had contravened the Contracts Clause by passing a law that changed the namesake university's governing structure.

ANSWER: (Trustees of) <u>Dartmouth</u> College v. <u>Woodward</u> [accept either, in either order]

[10] This party nominated Wirt as its candidate for the 1832 Presidential Election. It was the earliest U.S. third party and was named for opposing a secret society.

ANSWER: Anti-Masonic Party

[10] Wirt was the chief biographer of this Virginia politician, who is best known for the quotation "give me liberty or give me death!"

ANSWER: Patrick Henry < VS>

- 19. The only person to win two Nobel Prizes in Physics, John Bardeen, won his first award in 1956 for the invention of this device. For 10 points each:
- [10] Name this three-terminal semiconductor device that is used to amplify electrical signals or perform digital logic. Modern microprocessors contain billions of these devices.

ANSWER: transistors

[10] In a bipolar junction transistor, the primary current travels from the collector to the emitter and is modulated by the voltage applied to this third terminal, which is marked with a "B" on circuit diagrams.

ANSWER: base

[10] Most transistors in computers are not bipolar junction transistors but of this other type, in which a voltage applied to the gate acts across a thin insulating layer to control the carrier density between source and drain.

ANSWER: <u>field-effect</u> transistors [or <u>FET</u>s; or <u>MOSFET</u>s; or <u>metal-oxide-semiconductor field-effect</u> <u>transistors</u>] <SE>

- 20. Answer the following about dramatic banquets in Shakespeare's plays, for 10 points each:
- [10] After his friends refuse to loan him money, the title character of this play hosts a feast and proceeds to serve his guests rocks and warm water. This tragedy concludes with Alcibiades' elegy to the title character.

ANSWER: *Timon of Athens*

[10] In this other Shakespearean tragedy, the title King of Scotland sees Banquo's ghost during dinner, but his wife dismisses it as a hallucination similar to the "air-drawn dagger" that led to Duncan's death.

ANSWER: Macbeth

[10] In *The Tempest*, Ariel disguises himself as one of these half-human, half-bird creatures before making a banquet disappear. In Greek mythology, Phineas was rescued from these creatures by the Argonauts.

ANSWER: a harpy [or harpies] <SL>

Tiebreaker

Schiller took part in this movement during his younger years, but later defected to establish Weimar Classicism. For 10 points each:

[10] Name this German aesthetic movement that emphasized extreme emotion. Its philosophical underpinnings were explored by Hamann and Herder, and its name comes from the title of a play by Friedrich Maximilian Klinger.

ANSWER: **Sturm und Drang** [accept **storm and stress**]

[10] This title character of a "Sturm and Drang" novel visits Wahlheim, where he falls in love with a village girl. This character reads her a passage from his translation of *Ossian*, then borrows two pistols and commits suicide. ANSWER: Young Werther [or *The Sorrows of Young Werther*]

[10] In its emphasis on emotion and strong subjectivity, Sturm und Drang was a precursor of this widespread movement, whose proponents in the English-speaking world included Wordsworth and Coleridge.

ANSWER: **Romanticism** [accept word forms] <JW>