

Berus-Lie Academic Spring Tournament (BLAST)

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Packet 11: As if a fly could buzz!

Tossups

1. **This empire's first dynasty claimed descent from Bilal ibn Rabah, the first muezzin. In 2012, Ansar Dine terrorists bombed a building created by this empire's architect al-Sahili because they claimed it represented heretical religious practices. Though oral tradition maintained by griots ["GREE-ohs"] holds that this empire's founder remained pagan, Ibn (*) Battuta claimed that he converted to Islam. This empire became a leader in Muslim education after commissioning Sankore University. A ruler of this empire brought so much gold with him on a hajj that Cairo's currency was devalued for over a decade. For 10 points, name this empire ruled by Mansa Musa.**

ANSWER: Mali Empire [accept Nyeni, Niani, Manden Kurufaba] <CS, World History>

2. **After a character in this novel imagines his father telling him that "every man is the arbiter of his own virtues," he remembers that he forgot to brush his teeth. At the end of this novel, one character tries to quiet another one down by breaking his flower stalk after turning their carriage the wrong way. One character in this novel remembers watching his sister climb up a pear tree to spy on her grandmother's funeral and exposing the (*) mud on her drawers. In this novel, a character leaves a note for his roommate Shreve before drowning himself in the Charles River. A girl in this novel "smells like trees" according to her disabled brother Benjy. For 10 points, name this modernist novel about the Compson family's decline, written by William Faulkner.**

ANSWER: *The Sound and the Fury* <DP, Long Fiction>

3. **The D-flat major 18th variation of an orchestral work by this composer inverts the original theme and is marked *Andante cantabile*. This composer's first symphony, which extensively quotes the *Dies Irae* ["DEE-es EE-ray"], had a disastrous premiere conducted by Alexander Glazunov. A prelude by this composer was so popular that he said he wished he had never written it. The opening of that (*) C-sharp minor prelude by this composer earned it the nickname "The Bells of Moscow." This composer wrote a set of 24 variations on the 24th caprice of an Italian violinist. For 10 points, name this Russian piano virtuoso who composed four piano concertos and *Rhapsody on a Theme of Paganini*.**

ANSWER: Sergei Rachmaninoff [accept Sergei Vasilievich Rachmaninoff] <ML, Auditory Fine Arts>

4. **One work titled for these entities argues for the death penalty by stating life "is a gift made conditionally." A component of this entity counters the "original position" in a thought experiment in which participants make moral decisions before knowing their identity. That "veil of ignorance" was formulated by John Rawls. These entities allow for revolution when (*) natural law is violated according to the *Second Treatise of Government*. These entities enforce the "general will" in a work which asserted that "man is born free, and everywhere he is in chains." That work titled for these entities is by Jean-Jacques Rousseau. For 10 points, name these agreements in which the people cede some freedoms in exchange for protection by a sovereign.**

ANSWER: social contract <SL, Philosophy>

5. Carbocation [**“carbo-CAT-ion”**] rearrangements do not occur in a reaction in which the acetate of this element is reduced by sodium borohydride to form alcohols from alkenes. An alloy of this metal with zinc can be used to catalyze the conversion of ketones and aldehydes to alkanes via the Clemmensen reduction. It's not silver, but this element's chloride is reduced in a (*) reference electrode known as the calomel electrode.

Cinnabar is the most common ore of this element, and alloys of this metal are known as amalgams. The height of a column of this liquid at standard pressure is exactly 760 millimeters. For 10 points, name this only metal found as a liquid under standard conditions with chemical symbol Hg.

ANSWER: **mercury** [accept **Hg** before mention] <CT, Chemistry>

6. Three days into his term, this state's governor suspended Sheriff Scott Israel from duty. After the surfacing of messages with racial slurs in them, a conservative activist from this state named Kyle Kashuv had his acceptance to Harvard rescinded. While serving as a U.S. attorney for this state's southern district, Alex (*) Acosta gave a controversially lenient plea deal to Jeffrey Epstein in 2008. In an April 2018 visit, Shinzo Abe was hosted at a resort in this state referred to as the “Winter White House.” This state is represented by Rick Scott and Marco Rubio in the Senate. For 10 points, name this state governed by Ron Desantis from Tallahassee.

ANSWER: **Florida** <GP, Current Events>

7. In Mormonism, this figure is equated with the prophet Noah. The Eastern Orthodox Church celebrates the Synaxis of this figure on March 26 and July 13. To satiate the thirst of Hajar and Ismail, this figure kicks his heel against the ground, bringing forth the well of Zamzam. This figure appears to (*) Zechariah, who is struck dumb for his disbelief that his wife Elizabeth would conceive. This figure meets Muhammad at the cave of Hira and commands him to “recite”, revealing to him the beginnings of what would become the Quran. For 10 points, name this angel who appears to the Virgin Mary in the Annunciation to tell her that she is pregnant.

ANSWER: **Gabriel** [accept **Jibril**] <SZ, Religion>

8. A Hamel basis can be used to construct an infinite set of solutions to an equation of these objects named after Cauchy. For complex numbers, one class of these objects which can be extended with a namesake “continuation” can be locally represented with convergent power series. That analytic class of these objects is equivalent to the class of holomorphic ones. The (*) differentiability of these objects implies their continuity. A small open circle denotes the composition of these objects. If these objects are both surjective and injective, then they are also bijective. For 10 points, name these objects that satisfy the vertical line test and are typically denoted $f(x)$ [**“f of x”**].

ANSWER: **functions** [prompt on more specific answers such as **polynomials**] <SL, Math>

9. A “great” road named for these objects leading to North Carolina helped drive southern expansion. In 1920, Italian anarchists detonated a bomb inside one of these objects on Wall Street. During Red Cloud's War, these objects were used for defense by American soldiers at a namesake “Box Fight”. During the Spanish-American War, (*) Studebaker [**“STOO-duh-BAY-ker”**] was contracted to build 500 of these vehicles for army logistics in a day and a half. Pennsylvania's Conestoga River names a covered version of this vehicle which was used by settlers heading west. For 10 points, name these four-wheeled horse-drawn vehicles, distinguished from carts, which were made obsolete by automobiles.

ANSWER: horse-drawn **wagons** [accept covered **wagons**, Conestoga **wagons**, **carriages**, **coaches**] <CS, American History>

10. A character in this novel throws a child out of a crowd of farm workers after shouting at an armed group of soldiers to “Take the extra minute and stick it up [their] *** [“bleep”].” Another character in this novel states that a priest “found the fourth state of matter” in Latin when he sees the priest levitating. An orphaned girl in this novel eats only dirt and whitewash when she is young. A man in this novel is tied to a (*) chestnut tree after going insane and only speaking in Latin. That character, the patriarch of this novel’s family, meets the gypsy Melquiades and takes his son to see ice. This novel ends with a whirlwind destroying a house, and begins with Aureliano standing in front of a firing squad. For 10 points, name this novel about the Buendía family by Gabriel García Márquez.

ANSWER: One Hundred Years of Solitude [or Cien años de soledad] <ML, Long Fiction>

11. A Henry Moore statue titled *Large Arch* stands outside this architect’s red brick Cleo Rogers Memorial Library. This architect planned to install botanical gardens in the remains of the Criterion Theater and Biltmore Hotel as part of his namesake plan to redesign Oklahoma City. This architect was panned for a Boston building whose window panes kept (*) falling off, the John Hancock Tower. Francois Mitterand [“fran-SWAH mee-ter-RAWND”] commissioned this architect to create a work that consists of 603 rhomboid and 70 triangular glass panes. For 10 points, name this architect who passed away in May 2019, having completed works such as the Louvre’s glass pyramid.

ANSWER: Ieoh Ming Pei <HP, Other Visual Arts>

12. Experimental procedures involving T-cells with chimeric antigen receptors were initially developed to treat this condition. Herceptin may be used to treat the HER2-positive form of one variant of this condition. The risk of developing that variant of this condition increases in people with mutations in BRCA1 [“braca one”] and BRCA2. A phenomenon in which cells affected by this condition obtain energy primarily through glycolysis rather than oxidative phosphorylation was first observed by Otto (*) Warburg. p53 is known as the “guardian angel of the genome” since its function is to prevent the onset of this condition. The spread of this condition from one area of the body to another is known as metastasis. For 10 points, name this condition characterized by uncontrolled cell growth.

ANSWER: cancer [accept specific forms of cancer such as breast cancer] <ARB, Biology>

13. One play by this author opens with a Page warning a Syrian against looking at the title woman too much. This author wrote another play in which one character’s “daily visits to Curzon Street” arouse suspicion in his wife, who confronts him after opening his bank book. In another play by this author, a character states that “Women only [call each other sister] when they have called each other a lot of other things first.” In that play by this author, two men both schedule christenings on the same day with (*) Dr. Chasuble. One of this author’s characters pretends to have a brother who takes care of Cecily, while another describes his practice of “Bunburying.” For 10 points, name this Irish playwright of *Salomé*, *Lady Windermere’s Fan*, and *The Importance of Being Earnest*.

ANSWER: Oscar Wilde [or Oscar Fingal O’Flahertie Wills Wilde] <ML, Drama>

14. The *Caleuche* is a mythical Chilean one of these objects that is said to appear and disappear of its own will. The Scherians possess a group of these objects that are said to respond to their owners’ thoughts, one of which Poseidon turns to stone as punishment for helping Odysseus reach Ithaca. The sons of Ivaldi made one of these objects that could be (*) folded up into a cloth and placed in one’s pocket. One of these objects was said to be able to prophesy because it contained wood taken from Dodona. That object was damaged by the clashing rocks on the way to Colchis and eventually rotted, collapsed, and killed a sleeping hero by falling on him. For 10 points, name these vehicles exemplified by the *Argo*.

ANSWER: boats [accept ships, accept barges, accept obvious equivalents indicating a vessel that transports things or people through water] <SZ, Mythology>

15. **This commander's death was avenged at the Battle of Chupas when his assassins were defeated by his successor, Cristóbal Vaca de Castro. After governor Pedro de los Ríos denied this man resources for an expedition, the king gave him permission to use military force in the Capitulation of Toledo. This man sent Vicente de Valverde to convert one ruler to Christianity, but that ruler responded by (*)** throwing the Bible to the ground. This man was offered a room full of gold after defeating Atahualpa, the last king of his people, at the Battle of Cajamarca. For 10 points, name this conquistador who conquered the Incan Empire.

ANSWER: Francisco Pizarro González <CS, World History>

16. **This quantity is proportional to the vector potential according to the London equations. In the Drude ["droad"] model, this quantity is proportional to mean free time and electric field. One form of this quantity is equal to the time derivative of polarization plus the vacuum permittivity times the time derivative of electric field. That quantity, developed by James Maxwell, is this quantity's (*) "displacement" form.** The square of this quantity is proportional to the potential energy in an inductor. Ideal devices for measuring this quantity have zero resistance, and it is equal to voltage over resistance according to Ohm's law. For 10 points, name this quantity, the flow of charge measured in amperes.

ANSWER: current [accept current density before "Ohm's law"] <SL, Physics>

17. **Along this country's northern border, one can find the Lemba people, whose traditional similarity to Judaism has led to some claims that they may be a lost tribe of Israel. This country's northeast is home to the world's largest "green" canyon, Blyde River Canyon, and one of the largest game reserves in the world at (*)** Kruger National Park. This country's northernmost province of Limpopo has recently seen an influx of refugees, fleeing south from Zimbabwe. This country, which nearly surrounds Eswatini and completely encircles Lesotho, has three capitals. For 10 points, name this country whose capitals include Pretoria and Cape Town.

ANSWER: Republic of South Africa [accept RSA] <CS, Geography>

18. **The Mukje Conference in this country sought to reconcile differences between two resistance movements in this country during World War II. Prince William of Wied briefly sat on this country's throne under the name Vidi I. Shefqet Verlaci ["SHEF-ket vuhr-LA-chi"] served as a puppet ruler in this country. Following this country's June Revolution, Bishop Fan Noli attempted to westernize it. In 1939, (*)** Benito Mussolini invaded this country, forcing its ruler King Zog to flee into exile. After World War II, this country built thousands of bunkers and banned religion under Enver Hoxha. For 10 points, name this Balkan country with capital at Tirana.

ANSWER: Republic of Albania <CS, European History>

19. **A rainbow can be seen through a window in the background of a painting of this type by G.P.A. Healy titled *The Peacemakers*. The subject of a painting of this type allegedly grabbed the knob of a staircase and remarked "Don't I" after an artist told him he did not know how to pose; that artist was John Singer Sargent. A green book rests on a golden table leg in a painting of this type by the artist of (*) *The Skater*.** Kehinde Wiley showed a recent holder of this position in a chair in front of green leaves. The *Lansdowne Portrait* is a painting of this type by Gilbert Stuart, whose *Athenaeum Portrait* is also a painting of this type. For 10 points, name this type of painting which depicts figures such as George Washington and Barack Obama.

ANSWER: U.S. presidential portrait [accept anything indicating a painting of a U.S. president; prompt on portrait; Sargent painted Theodore Roosevelt.] <WZ, Visual Fine Arts>

20. A poet who wrote in this language compared the title figure to an “upstart hydra hearing the angel once” in his poem “The Tomb of Edgar Poe.” A poem written in this language imagines a moment when delirium “suddenly [dyed] the blueness,” and is titled for a character who states “Lighter than a cork I danced on the waves” after “Yelping Redskins” take away his companions. The poem (*) “Drunken Boat” was written in this language. A poem in this language that addresses the reader as “Hypocrite - My Twin! My Brother!” appears in a collection that contains poems titled “Litanies of Satan” and “The Albatross.” For 10 points, name this language in which Charles Baudelaire wrote *Les Fleurs du Mal* [lay fler du mahl].

ANSWER: **French** [accept **Français**; the unmentioned poets are Stephane Mallarme and Arthur Rimbaud] <HP, Non-Epic poetry>

Bonuses

1. For a certain poet, not everything was doom and gloom. For 10 points each:

[10] This poet states “I have been happy - and I love the theme” in his reminiscent poem “Dreams.” You probably know him better for a poem that takes place “once upon a midnight dreary,” in which a raven says, “nevermore.”

ANSWER: Edgar Allan **Poe**

[10] In another poem, Poe describes this woman as having “hyacinth hair” and compares her beauty to “Nicéan barks of yore.” H.D. titled a long poem for this character “in Egypt.”

ANSWER: **Helen** [accept “To **Helen**” and “**Helen** in Egypt”]

[10] In this Poe poem, the speaker describes the title objects as foretelling “a world of happiness” with their harmony. This poem coined the term “tinnabulation” to describe a phenomenon that “so musically wells.”

ANSWER: “The **Bells**” <DP, Non-Epic Poetry>

2. After he refused to sing at a Congress Party rally, Kishore Kumar’s songs were banned from broadcast during this period. For 10 points each:

[10] Name this 1970s period in Indian history, during which elections were suspended and the government took unprecedented power. During this period, a series of forced sterilizations were also imposed.

ANSWER: The **Emergency**

[10] The Emergency occurred during this Prime Minister’s time in office. This daughter of Jawaharlal Nehru saw her time in office cut short after being assassinated by her bodyguards Beant and Satwant Singh.

ANSWER: **Indira Gandhi** [prompt on **Gandhi**]

[10] Indira Gandhi angered followers of Sikhism after ordering an attack on the Golden Temple in Punjab in this operation. This operation sought to root out followers of Jarnail Singh Bhindranwale.

ANSWER: Operation **Blue Star** <AN, World History>

3. Mueller calculus is used to manipulate a set of vectors named for this scientist. For 10 points each:

[10] Name this Irishman, whose namesake vectors are used to characterize the polarization of light. With a French physicist, he co-names a set of viscous fluid equations whose smoothness is the subject of a Millennium problem.

ANSWER: George Gabriel **Stokes** [The French physicist is Claude Navier.]

[10] The Stokes vector uses this many parameters to describe polarization. There are this many dimensions in spacetime.

ANSWER: **four**

[10] The Q parameter of the Stokes vector is the difference between two values for irradiance, a value often represented by this letter. A value represented by this letter times electric field plus polarization density is the electric displacement field.

ANSWER: **epsilon**-naught [The second value is vacuum permittivity.] <DB, Physics>

4. Answer some questions about one of the highest-selling female artists in the world, Natalia Goncharova. For 10 points each:

[10] Goncharova exemplified the Russian version of this art movement. A member of this movement, Umberto Boccioni [“boh-CHI-oh-ni”], was inspired by Rodin’s *Walking Man* to create *Unique Forms of Continuity in Space*.

ANSWER: **Futurism**

[10] Goncharova was a founding member of the Jack of Diamonds along with this artist. This artist quipped that his painting, *Black Square*, “evoked the experience of pure non-objectivity in the white emptiness of nothing.”

ANSWER: Kazimir **Malevich**

[10] One of Natalia Goncharova’s most expensive paintings was one that depicted women in white dresses picking these fruit. In Rene Magritte’s *Son of Man*, a green-colored fruit of this kind covers the central figure’s face.

ANSWER: **apples** <HP, Visual Fine Arts>

5. This state's Native Americans make up 14.8% of its population. For 10 points each:

[10] Name this state that has the highest proportion of Native Americans in the United States. Tribes native to this state include the Tlingit and Eyak.

ANSWER: **Alaska**

[10] Some of this state's Native Americans live in the Pine Ridge Reservation. This state's Native Americans have also been engaged in a legal battle over this state's Black Hills.

ANSWER: **South Dakota**

[10] This state's Menominee County has the highest proportion of Native Americans east of the Mississippi River. This state is known for its dairy production and has its capital at Madison.

ANSWER: **Wisconsin** <GP, Geography>

6. The Greek statesman Alcibiades couldn't seem to pick a side to stay with. For 10 points each:

[10] Alcibiades initially served in the government of this city, frequently feuding with Cleon and his successors. He also served this city as a general, fighting against its arch-rival Sparta during the Peloponnesian War.

ANSWER: **Athens**

[10] During this campaign, Alcibiades was recalled to stand trial on charges that he had desecrated the Hermai statues, prompting him to flee to Sparta. A lunar eclipse convinced his replacement, Nicias, not to retreat when things went sour.

ANSWER: **Sicilian** Expedition

[10] Alcibiades soon angered his Spartan hosts and fled to the protection of Tissaphernes, a Persian satrap of this region. A kingdom with this name was routed at the Battle of Thymbra.

ANSWER: **Lydia** <CS, Ancient History>

7. Two sentences explaining this sentiment are the last words of a character who is shortly thereafter replaced by a panther in a cage. For 10 points each:

[10] Give or roughly explain the reason why the title character of "A Hunger Artist" pursues his art, which he reveals right before dying.

ANSWER: He **couldn't find food he liked** [accept any answers indicated he **didn't like any food** he ate or roughly equivalent ideas]

[10] "A Hunger Artist" is a short story by this author, who also wrote about the title transformation of Gregor Samsa in "The Metamorphosis."

ANSWER: Franz **Kafka**

[10] The court painter Titorelli advises the protagonist of this Franz Kafka novel, whose last words are "like a dog." In this novel, a priest tells the protagonist of a parable titled "Before the Law."

ANSWER: **The Trial** [or **Der Prozess**; or **Der Prozess**] <KM, Short Fiction/Other Literature>

8. One form of this statement says that inefficiencies cannot consistently be profited from. For 10 points each:

[10] Name this statement posited by Eugene Fama which states that it is impossible to "beat the market" in the long run since prices adjust quickly to new information.

ANSWER: **efficient-market** hypothesis

[10] The efficient-market hypothesis relies on the expectations of the population having this property. The hypothetical agent *homo economicus* has this property.

ANSWER: **rationality**

[10] The random-walk hypothesis, closely related to the efficient-market hypothesis, states that the prices of these entities behave unpredictably. They are traded on their namesake "exchanges," such as the NASDAQ.

ANSWER: **stocks** <SL, Social Science>

9. Types of these cells found in the lungs help to remove dust from alveoli. For 10 points each:

[10] Name these cells that consume waste via phagocytosis [“FAY-go-SIGH-toe-sis”]. Their M1 type encourages inflammation while their M2 type stimulates tissue repair.

ANSWER: **macrophages** [prompt on phagocytes or white blood cells or monocytes]

[10] M1 macrophages are able to metabolize this amino acid to nitric oxide. This amino acid has a guanidinium side chain and along with lysine and histidine, is positively charged.

ANSWER: **arginine**

[10] A 2003 study found that macrophages could switch phenotypes from M2 to M1 in mice with this condition. This condition is characterized by extreme overweightness.

ANSWER: **obesity** <DB, Biology>

10. Answer the following about the operas of Claudio Monteverdi, for 10 points each:

[10] This mythology-inspired opera by Monteverdi is one of the earliest operas that is still performed. Its title character attempts to bring back his wife, Eurydice, from the underworld.

ANSWER: *L'Orfeo* (“lor-FAY-oh”) [accept *La favola d'Orfeo*]

[10] *L'Orfeo* begins with the orchestra playing this type of piece, which now usually refers to a virtuosic keyboard piece. This type of piece is paired with a *fugue* in a spooky D minor piece by Bach.

ANSWER: **toccata**

[10] Another Monteverdi opera is about the coronation of this person, the mistress of Nero. The opera opens with three deities arguing over their strength.

ANSWER: **Poppea** [or **Poppaea**; accept *L'incoronazione di Poppea*; accept *The Coronation of Poppaea*] <ML, Other Fine Arts>

11. James Wood coined the term “hysterical realism” in a criticism of a novel by this author. For 10 points each:

[10] Name this author. In one of her novels, O'Connell's Pub is a hub for Archie Jones and Samad Iqbal's relationship.

ANSWER: Zadie **Smith**

[10] In that novel, *White Teeth*, Samad Iqbal struggles to reconcile his life with values of this religion. Samad's son Millat joins a protest against Salman Rushdie, whose novel *The Satanic Verses* offended leaders of this religion so much that a *fatwa* was issued against Rushdie.

ANSWER: **Islam** [or **Muslim**]

[10] Like many of Smith's works, *White Teeth* is set in this city. Both Monica Ali's *Brick Lane* and a Gautam Malkani novel titled for a portmanteau of this city and the word “Hindustani” focus on the immigration of South Asians to this city.

ANSWER: **London** [The novel is *Londonstani*.] <AMB, Long Fiction>

12. One politician in this country denied his party received any funds from the Russian investors. For 10 points each:

[10] Name this country where the League party, led by Matteo Salvini, is in hot water over possibly taking Russian oil money and violating electoral law. The Five Star Movement is also based in this country.

ANSWER: **Italy** [accept **Italian Republic**]

[10] This other country is embroiled in the Ibiza affair after a video surfaced of Freedom Party politicians talking to the purported niece of a Russian oligarch, resulting in the fall of Sebastian Kurz's government in this country.

ANSWER: Republic of **Austria**

[10] Russian disinformation campaigns on Facebook also supported pro-Russia politicians in this country, including a member of its Law and Justice Party. A mayor of this country's primary seaport was stabbed to death in early 2019.

ANSWER: Republic of **Poland** [The stabbed mayor was Pawel Adamowicz of Gdańsk.] <GP, Current Events>

13. A king of this name won the province of Hising after winning a dice game because one of his dice split into two, leaving a sum of 7. For 10 points each:

[10] Name that king, who had the surname Haraldsson. Another king of this name with the surname Tryggvason [“trig-VAS-son”] converted Norway to Christianity and baptized Leif Ericson.

ANSWER: **Olaf**

[10] Olaf II Haraldsson’s successor was Cnut the Great, who captured all of England from Edmund Ironsides except for this kingdom. Under Alfred the Great, this province became the most prominent kingdom of the Heptarchy.

ANSWER: **Wessex**

[10] Bishop Grimkell made Olaf II Haraldsson into one of these people through canonization. Edward the Confessor was an English king worshipped as one of these people.

ANSWER: **saints** <HP, European History>

14. This philosopher wrote about Sufism in *The Revival of the Religious Sciences*. For 10 points each:

[10] Name this 11th century philosopher who criticized the Avicennian school for siding with Neoplatonism over Islam in his *The Incoherence of the Philosophers*.

ANSWER: **Al-Ghazali** [or **Algazelus**; or **Algazel**]

[10] Al-Ghazali was himself criticized by this other Islamic philosopher in the work *The Incoherence of the Incoherence*. He is sometimes referred to as “The Commentator.”

ANSWER: **Averroes** [or **Ibn Rushd**]

[10] The “Commentator” nickname came from Averroes’s extensive commentaries on the works of this Greek philosopher such as *Metaphysics* and *Posterior Analytics*. This philosopher was a student of Plato.

ANSWER: **Aristotle** <AMB, Philosophy>

15. The commercial hydration of ethylene to produce ethanol occurs in an environment with a high concentration of this ion. For 10 points each:

[10] Name this ion, which is produced when dissociated protons in solution react with water.

ANSWER: **hydronium** [accept **H₃O⁺**]

[10] This property, a measure of solution acidity, is equal to the negative logarithm of hydronium concentration. Basic solutions have a high value for this quantity.

ANSWER: **pH**

[10] Unlike acid-catalyzed hydration, hydration mediated by this element’s hydride is anti-Markovnikov [“anti-mar-KOV-ni-kov”]. This element’s hydride possesses three-center two-electron bonds, which allow it to readily dimerize.

ANSWER: **boron** [or **B**] <CT, Chemistry>

16. This hero single-handedly repels the army of Medb [“mayve”] during the Cattle Raid of Cooley with the use of his body-distorting ability *riastrad*. For 10 points each:

[10] Name this hero of the Ulster cycle. He gains his name after killing his host’s dog and offering to take its place until a replacement could be reared.

ANSWER: **Cú Chulainn** [accept **Sétanta**]

[10] During the Cattle Raid of Cooley, Cú Chulainn kills his foster-brother Ferdiad with this spear. This barbed legendary spear had to be made ready for use on a stream and could only be thrown with one’s toes.

ANSWER: **Gáe Bulg** [accept **Gáe Bulga**]

[10] Although this warrior woman was the teacher of both Cú Chulainn and Ferdiad, she only taught the technique of the Gáe Bulg to Cú Chulainn.

ANSWER: **Scáthach** [“shka-hach”] <SZ, Mythology>

17. This composer possibly quoted a scarlet tanager in his 12th string quartet. For 10 points each:

[10] Name this Czech composer who was inspired by America to write his *American Quartet* and *New World Symphony*.

ANSWER: Antonín **Dvořák** (“duh-vor-jahk”) [accept Antonín Leopold **Dvořák**]

[10] Dvořák wrote a set of eight pieces of this kind for solo piano. The seventh of those works, in G-flat major, opens with a limping theme before moving into a more somber section in F-sharp minor.

ANSWER: **humoresque** [accept **humoreske**]

[10] Another work by Dvořák is a work for this ensemble titled *Dumky*. This ensemble, for which Dvořák wrote four works, is comprised of two strings plus a keyboard instrument.

ANSWER: **piano trio** [prompt on partial answer; accept all of **pianoforte**, **violin**, and **cello** in any order] <ML, Auditory Fine Arts>

18. In this play, a senile old woman sings that her daughter is “leopard-faced” and one of her granddaughters is “hyena-faced.” For 10 points each:

[10] Name this play in which the title matriarch imposes an eight-year period of mourning on her five daughters. Adela hangs herself after she thinks Pepe has been shot at this play’s end.

ANSWER: *The **House of Bernarda Alba*** [accept *La **Casa de Bernarda Alba***]

[10] This Spanish Generation of ‘27 playwright included *The House of Bernarda Alba* in his *Rural Trilogy*, along with *Blood Wedding* and *Yerma*.

ANSWER: Federico García **Lorca**

[10] In *The House of Bernarda Alba*, Adela prepares to run into the streets wearing a dress of this color. In a Lorca poem, this is the color of “wind,” “branches,” and “the horse on the mountain.”

ANSWER: **green** [accept **verde**, accept “**Green**, How I Want You Green” or “**Verde**, Que Te Quiero Verde”] <DP, Drama>

19. The Screaming Eagles were one of the most storied American units of World War II. Answer some questions about the journey of the 101st Airborne, for 10 points each:

[10] This June 1944 event in northern France involved the 101st being dropped near Sainte-Mère-Église [“sahn-teh **MARE** eh-gleese”], a town near Utah Beach.

ANSWER: **D-Day** landings [accept **Normandy** landings, Operation **Overlord**, Operation **Neptune**]

[10] When asked to surrender while surrounded by German forces during this late 1944 battle, the 101st’s acting commander Anthony McAuliffe famously replied “NUTS!” in defiance.

ANSWER: Battle of the **Bulge** [accept Battle of the **Ardennes**, **Ardennes** Offensive, **Ardennes** Counteroffensive before mentioned; accept Operation **Watch on the Rhine**, Unternehmen **Wacht am Rhein**]

[10] That order was issued while the 101st was defending this Belgian crossroads town. German forces besieged this town for a week before it was finally relieved by General Patton.

ANSWER: **Bastogne** <CS, American History>

20. Casting and coercion can be used to convert expressions from one of these entities to another. For 10 points each:

[10] Name these entities that classify how a variable is handled by a programming language. Whether they are assigned at compile-time or runtime determines whether a language assigns them statically or dynamically.

ANSWER: data **types**

[10] This data type, which is generally used to store text, is treated as a primitive in some languages. Other languages treat them as arrays of characters.

ANSWER: **strings**

[10] Functions or methods that act differently on different data types exhibit this phenomenon. In object-oriented languages, it can be done by overloading a method or overriding the methods of a parent class.

ANSWER: **polymorphism** [accept word forms] <SL, Computer Science>