

COLLABORATIVE ACADEMIC SPRING TOURNAMENT 2019

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PACKET 9 TOSSUPS

1. **One of these animals steps on a snake in a sculpture located in Senate Square by Étienne-Maurice Falconet. Two funerary monuments created by Paolo Uccello (“ooh-CHELL-oh”) prominently feature these animals. A Roman statue pairing Marcus Aurelius with one of these creatures inspired (*) Donatello to depict Erasmo da Narni atop one of these animals in the sculpture *Gattamelata*. Frederic Remington depicted a bronze cowboy struggling to hang onto one of these animals in *Bronco Buster*. For 10 points, name these hoofed creatures that are depicted being ridden in equestrian statues.**

ANSWER: horses <JA>

2. **A psychologist from this school of thought contrasted a “satisfying state of affairs” with an “annoying state of affairs” and used “puzzle boxes” to formulate a “law of effect.” A practitioner of this school collaborated with on an experiment that was performed in reverse by Mary Cover Jones and attempted to evoke fear in a child whenever he saw a (*) white rat. Another psychologist from this school espoused its ideas in *Beyond Freedom and Dignity* and created a namesake box in which an animal is rewarded or punished when responding to stimuli. For 10 points, name this school of psychology developed by John Watson and B.F. Skinner focusing on observable phenomena.**

ANSWER: behaviorism [accept word forms] <NS>

3. **This ion’s function is mimicked by Memantine (“muh-MAN-teen”) binding to NMDA receptors, where it serves as a voltage-sensitive block. Its sulfate salt treats a condition in which the spiral arteries fail to remodel during pregnancy, called pre-eclampsia. This cation (“CAT-eye-on”) is found in PCR mixes because it is a cofactor of Taq. This cation is found at the center of the chlorin ring of (*) chlorophyll. A substance containing this cation named for its resemblance to milk is used as a laxative. Deficiency of this cation is treated by consuming Epsom salt. For 10 points, name this divalent (“DI-valent”) cation with formula Mg^{2+} .**

ANSWER: magnesium ion [or Mg²⁺ until mentioned] <GC>

4. **Tom Ridge, John Ashcroft, and this man were defendants in an unsuccessful lawsuit put forth by Maher Arar under the Torture Victims Protection Act. This man temporarily worked as a partner for the law firm WilmerHale, and filed charges against attorney Alex van der Zwaan. This man ordered the dismissal of Peter Strzok, and Don McGahn threatened to resign if this man was fired. Violations of the (*) Foreign Agents Registration Act were among the charges that this man filed against Rick Gates and Paul Manafort in October 2017. He is questioning Donald Trump about the dismissal of James Comey. For 10 points, name this head of the Special Counsel’s Russia investigation.**

ANSWER: Robert Mueller [or Robert Swan Mueller III] <GP>

5. A work consisting of several inventions was published in this empire as the *Book of Ingenious Devices*. This empire's ruler was made into a vassal of the Buyids. The Ghaznavids broke away from this empire. This empire was influenced by the Barmakid family and this empire came to power after winning the Battle of the Zab. The House of (*) Wisdom was an academic institution in this empire's capital city, which was sacked and destroyed by Hulagu Khan in 1258. For 10 points, name this caliphate that succeeded the Umayyads, ruled from Baghdad.

ANSWER: Abbasid Caliphate <GP>

6. A school of poetry named after one of these locations featured poems by authors Robert Blair and Thomas Parnell. A poem set at one of these locations discusses "chill penury" that represses "noble rage" and imagines "some heart once pregnant with celestial fire." People at one of these locations may be "some mute inglorious Milton" or "some (*) Cromwell guiltless of his country's blood" in a poem that begins, "The curfew tolls the knell of parting day." At one of these locations, Hamlet cries "Alas, poor Yorick" after picking up Yorick's skull. For 10 points, name this type of location, a country example titling an elegy by Thomas Gray where the dead are buried.

ANSWER: churchyard [accept graveyard; or cemetery; or the Graveyard School; or Elegy Written in a Country Churchyard] <NS>

7. During this battle, Robert Abercromby led a force that only managed to temporarily disable some of the cannons of the winning side. The defensive points of redoubts 9 and 10 were captured during this battle. After this battle, the band of the surrendering force supposedly played the song "The World Turned Upside Down." The Comte de (*) Rochambeau ("ROH-sham-bo") helped lead land forces during this battle, and the Comte de Grasse's navy prevented the losing side of this battle from receiving reinforcements. This battle ended with the surrender of the British general Lord Cornwallis. For 10 points, name this 1781 battle which ended the American Revolution.

ANSWER: Battle of Yorktown [or Siege of Yorktown] <WG>

8. One type of this process names a quantity equal to " h over $m c$ "; that wavelength is multiplied by "one minus the cosine of theta" to calculate a wavelength difference. Another type of this process leads to Stokes or anti-Stokes shifts. The intensity of one example of this general process is proportional to wavelength to the negative fourth power; that process is named for (*) Rayleigh ("REY-lee"). The Compton form of this process results in a photon losing energy. This process may be classified as elastic or inelastic, depending on whether kinetic energy is conserved. For ten points, name this process where two particles collide, resulting in a change in their trajectories.

ANSWER: scattering [prompt on collision before "collide"] <AG>

9. In one of this author's novels, Battista attempts to feed the main character snails, leading him to climb up a tree, never to return. Another book by this author partially takes place in Cimmeria, a fictional country that Professor Uzzi-Tuzii is the only remaining literature expert of. The ethereal being (*) Qwfwq ("koof-KA") appears in stories collected in this man's *Cosmicomics*. The main character of the most famous novel by this author of *The Baron in the Trees* finds himself married to Ludmilla at the end of the book, which is written in second-person. For 10 points, name this Italian author of *If on a Winter's Night a Traveler*.

ANSWER: Italo Calvino <GC>

10. **Indigenous priests in this country climb hundreds of feet up a cliff face to access the Abuna Yemata Guh church. This country's Lasta *woreda* contains a group of rock-hewn churches at Lalibela, and it is the nation with the most adherents of the Tewahedo Orthodox faith. The Ark of the Covenant was legendarily brought to an island in this country's Lake (*) Tana before being moved to the town of Axum. Though it isn't Kenya, large Sunni Muslim populations exist among this country's Oromo and Somali peoples. The Rastafari movement reveres a former Amhara leader of, for 10 points, what East African country where Haile Selassie is interred in Addis Ababa?**

ANSWER: **Ethiopia** <JA>

11. **Almost everything scientists known about Archaeopteryx comes from fossils found in a formation of this rock, the Solnhofen Lagerstätte. Coccolithophores are the primary biological source of this rock, which lacks magnesium, unlike the closely related dolomite. The dissolution of this rock results in (*) karst topography, forming stalactites and stalagmites. This rock undergoes metamorphosis to yield marble. For 10 points, name this sedimentary rock made up of aragonite and calcite, which are forms of calcium carbonate.**

ANSWER: **limestone** <GC>

12. **Act I of a work by this composer contains a *Pifa*, or pastoral symphony. A set of three orchestral suites by this composer includes movements marked "Bourree" and "Alla Hornpipe." Coronations of British monarchs play this man's composition (*) *Zadok the Priest*. George II was the dedicatee of a work by this composer whose premiere saw a building catch on fire. "I know why my redeemer liveth" begins the final part of an oratorio written by this composer of *Water Music* and *Music for the Royal Fireworks*. For 10 points, name this Baroque composer who wrote *Messiah*, which includes the "Hallelujah Chorus."**

ANSWER: George Frideric **Handel** <WG>

13. **A poem about this war depicts how "a savage servility slides by on grease" and how "a Sahara of snow" surrounds a monument. Another poem about this conflict describes headstones positioned "row after row with strict impunity." The protagonist of a novel set during this war is hit on the head with a rifle and meets characters like Wilson and the (*) Tattered Soldier. The Robert Gould Shaw Memorial is discussed in a Robert Lowell poem addressed to those who died in this war. Henry Fleming sees the death of Jim Conklin during this conflict in Stephen Crane's *The Red Badge of Courage*. For 10 points, identify this war discussed in Allen Tate's poem "Ode to the Confederate Dead."**

ANSWER: the American **Civil War** [or the **War Between the States**] <NS>

14. **This person's autobiography *WE* details his marriage to the journalist Anne Morrow. This first recipient of *Time's* Man of the Year Award fled to England after the execution of Bruno Richard Hauptmann ("HOWPT-man"). A high energy dance originating from Harlem was known as this man's (*) "hop." He was accused of being a Nazi sympathizer after becoming the spokesperson of the isolationist America First Committee. The kidnapping and murder of this man's infant son in 1932 was labelled the "Crime of the Century." For 10 points, name this aviator who, with his plane *The Spirit of St. Louis*, became the first person to fly across the Atlantic.**

ANSWER: Charles **Lindbergh** [or Lucky **Lindy**; or the **Lindy** hop] <WG>

15. **This is the primary color of a species of iguana only found on Grand Cayman Island. A large skink common as a pet is named for having a tongue of this color. A highly venomous octopus is named for having rings of this color. Most butterflies in the genus *Morpho* are this color. This word follows "Russian" in the name of a popular hypoallergenic breed of (*) cat. Shades of this color named for flowers include cornflower and periwinkle. The world's largest animal is a whale named for this color. For 10 points, name this primary color of peacocks and a common type of jay.**

ANSWER: **blue** [accept light **blue**, dark **blue**, or any specific shade of blue] <WG>

16. **One of these people wearing a black dress sits in front of a sheer white curtain in Berthe Morisot's most famous painting. In a painting subtitled *The Flying Bed*, Frida Kahlo shows herself failing to become one of these people. One of these people sits in a lime green boat rowed by a man in black in a non-Renoir depiction of *The (*) Boating Party*, which was painted by an artist inspired by Japanese woodblocks to show an overhead view of one of these people washing a toddler's feet in *The Bath*.** For 10 points, name these women who Mary Cassatt often portrayed with their children.

ANSWER: **mothers** [prompt on women or parents]

17. **An old Inuit woman who stole fish and turned into one of these animals after isolating herself was named Qisaruaitsiaq ("Kwis-ah-ru-AT-see-AK"). Another one of these animals had her tongue bitten off by Sigmund after honey was smeared around his mouth. After serving his son Nyctimus ("nick-TEE-muss") to Zeus, Lycaon ("LIE-cay-on") was (*) transformed into one of these animals.** Two of these creatures named Skoll and Hati will eat the sun and the moon at Ragnarok ('RAG-nu-rock'). Another one was bound by the rope Gleipnir ("GLEYE-puh-near") before biting off Tyr's ("teerz") hand. Fenrir is, for 10 points, what type of animal that also suckled Romulus and Remus?

ANSWER: **wolf** [or **warg**, or **varger**, or **she-wolf**] <MS>

18. **At the end of this novel, two Japanese government officials interview the protagonist in a hospital. After temporarily going blind, a Frenchman tries to eat a character in this novel. Meerkats live on a carnivorous island in this novel, whose title character practices (*) Christianity, Islam, and Hinduism.** That character moves from Pondicherry to Canada with zoo animals owned by his father. Near its end, Richard Parker disappears into the jungle after a lifeboat washes up on the shore of Mexico. For 10 points, name this Yann Martel novel about an Indian boy stranded on a boat with a tiger.

ANSWER: ***Life of Pi*** <WG>

19. **Acetic ("ah-SEE-tick") acid is produced by adding this molecule to methanol using an iridium or rhodium ("RODE-ee-um") based catalyst. A complex of nickel and this molecule is formed in the Mond process. Reacting this molecule and hydrogen forms water gas; that reaction forms water and a product with one more (*) oxygen atom than this molecule.** This molecule and one of its substituents are produced in incomplete combustion, and this gas is responsible for the deadly effects of car exhaust. For 10 points, name this molecule consisting of carbon triple bonded to oxygen.

ANSWER: **carbon monoxide** [accept **CO**] <AG>

20. **In this year, one man stopped to pray at Waltham Abbey after his rival landed at Pevensey. The Battle of Fulford, which took place in this year, resulted in the defeat of Edwin, Earl of Mercia and Morcar, Earl of Northumbria. Tostig and many soldiers from Norway were killed in this year at the Battle of Stamford Bridge. Edward the (*) Confessor died in this year.** A battle taking place in this year is depicted in the Bayeux Tapestry. In this year, Harold Godwinson was overthrown by an invader from Normandy. For 10 points, name this year when William the Conqueror took control of England after the Battle of Hastings.

ANSWER: **1066** <WG>

PACKET 9 BONUSES

1. This man organized a march of agricultural workers from Delano to Sacramento. For 10 points each:

[10] Name this leader of the National Farm Workers Association. This man organized various boycotts, most notably with grape growers, which led to the signing of the California Agricultural Labor Relations Act.

ANSWER: Cesar **Chavez** [or Cesar Estrada **Chavez**]

[10] This woman co-founded the NFWA with Cesar Chavez. She stood by Robert F. Kennedy during his final speech and served as an honorary co-chair of the 2017 Women's March.

ANSWER: Dolores **Huerta** [or Dolores Clara Fernandez **Huerta**]

[10] Chavez and Huerta campaigned against the *bracero* program, where laborers were brought to work in the U.S from this neighboring country. Benito Juarez ("WAHR-eh") led this country during the War of Reform.

ANSWER: **Mexico** [or **United Mexican States**; or **Estados Unidos Mexicanos**] <AN>

2. You are in the South and craving some chicken. Answer the following about where you might go, for 10 points each:

[10] As long as it's not a Sunday, you can eat at this fast food chain headquartered in Georgia. An advertising campaign for this restaurant shows cows holding signs reading "Eat Mor Chikin."

ANSWER: **Chick-fil-A**

[10] You might be craving a common soul food dish pairing chicken with this breakfast food. There are many different ways to order hash browns at a 24/7 restaurant named [this food] House.

ANSWER: **waffles** [accept **Waffle** House]

[10] Named for its owner's Labrador, this fast food restaurant is famous for its chicken fingers, which come with crinkle-cut fries, coleslaw, and Texas toast.

ANSWER: Raising **Cane**'s Chicken Fingers <WG>

3. These objects can be described by an associated adjacency matrix. For 10 points each,

[10] Name these mathematical objects. A theory of them was developed by Leonhard Euler ("OY-ler") to solve the 7 Bridges of Konigsberg ("KEY-nigz-burg") problem.

ANSWER: **graphs**

[10] In graphs described by this adjective, all nodes have equal degrees. This adjective also describes a polygon whose sides are all of equal length and whose angles are all equal.

ANSWER: (k-) **regular** graphs [accept **regular** polygons]

[10] For regular graphs where every node has degree k , k is one of these numbers for the adjacency matrix. The product of these numbers is the determinant, and though they aren't diagonal entries, their sum is the trace.

ANSWER: **eigenvalues** ("EYE-gun-VAL-yoos") <VS>

4. Answer some questions about King Pelias, for 10 points each:

[10] Pelias was told to beware a man wearing only one of these objects. Along with his shield and sword, Aegeus left one of these objects under a rock for Theseus to collect when he grew up.

ANSWER: **sandal** [prompt on **shoe**; do NOT accept any other type of footwear]

[10] The man with one sandal turned out to be this nephew of Pelias. He lost his other sandal before leading the Argonauts on their quest for the Golden Fleece.

ANSWER: **Jason**

[10] At the funeral games of Pelias, Atalanta defeated this father of Achilles in a wrestling match. Eris famously threw the apple marked "to the fairest" at the wedding between this figure and Thetis.

ANSWER: **Peleus** <MS>

5. A branch of law named for this term deals with negligence, which is an act committed due to carelessness. For 10 points each:

[10] Give this term for a civil wrong directed against an individual, contrasted with crimes, which harm society.

ANSWER: **torts**

[10] If a person is hit by a car and sues, they become one of these people, while the driver is the defendant.

ANSWER: **plaintiffs**

[10] One type of tort is defamation, which can include this form of written statement that hurts a person's reputation. This should not be confused with slander, which is spoken.

ANSWER: **libel** <WG>

6. Chess prodigy Waverly Jong rebels against her mother's influence in this author's most famous novel. For 10 points each:

[10] Name this Chinese-American author of *The Joy Luck Club*. This woman's 2017 memoir *Where the Past Begins* recalls how her mother chased her with a butcher's knife when she was sixteen.

ANSWER: Amy **Tan** [or Amy Ruth **Tan**]

[10] This author of the essay collection *The White Album* is best known for a collection chronicling 1960s counterculture, *Slouching Towards Bethlehem*.

ANSWER: Joan **Didion** ("DIH-dee-un")

[10] A major plot point in Didion's *Where I Was From* is her moving with her family during this conflict, during which Suyuan's former husband dies fighting in in *The Joy Luck Club*. *Schindler's Ark*, which was turned into the film *Schindler's List*, was set during this war.

ANSWER: **World War II** [or **WWII**; or the **Second World War**; prompt on **World War**]

7. Erik Demaine pioneered a "computational" form of this discipline in which an algorithm determines the minimum number of folds to create a complex polyhedron. For 10 points each:

[10] Name this tradition Japanese art of folding paper.

ANSWER: **origami**

[10] In Japanese tradition, a wish is bestowed on anyone who creates the *senbazuru*, which refers to this collection of origami animals. Kikuji is the orphaned protagonist of a Kawabata novel named for this collection. The number and name of the animal is required.

ANSWER: one **thousand** paper **cranes** [accept equivalents; accept **Thousand Cranes**; prompt on **cranes** by asking "how many?"]

[10] Another East Asian paper art is the creation and release of these items during China's Mid-Autumn Festival. These paper objects have a candle inside that provides both light and upward propulsion, similar to a hot air balloon.

ANSWER: Chinese **lanterns** [or **tiandeng**; or sky **lanterns**; or Kongming **lanterns**; accept **sky candles**; accept **fire balloons**; accept flying **lanterns**; accept floating **lanterns**] <JA>

8. Charles Goodyear discovered this process by accidentally dropping a mixture of gum elastic and sulfur onto a hot stove. For 10 points each:

[10] Name this reaction in which rubber is cured to increase its tensile strength.

ANSWER: **vulcanization** [accept word forms like **vulcanize**]

[10] Vulcanization works by generating these bonds between two different polymer chains. In biochemistry, UV light or formaldehyde can be used to bond proteins and DNA together in this fashion.

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

[10] The rate of a vulcanization reaction can be increased by the addition of one of these compounds, which include thiazoles ("THIGH-uh-zoles") and sulfenamides. This word also names a device that speeds up and collides subatomic particles.

ANSWER: **accelerator**s [accept **particle accelerator**s] <JA>

9. This country's fortress of Sigiriya was built by the king Kassapa. For 10 points each:

[10] Name this country that was home to the kingdoms of Polonnaruwa ("poh-luhn-uh-ROOV-uh") and Kandy. The Fourth Buddhist council was held in this country during the Anuradhapura ("uh-NOOR-uh-duh-POOR-uh") period.

ANSWER: **Sri Lanka** [or Democratic Socialist Republic of **Sri Lanka**]

[10] In 993 C.E., Sri Lanka was invaded by the Chola Empire, which was mainly comprised of these people. A civil war in Sri Lanka was fought against a revolutionary group in Sri Lanka named for these people's "Tigers."

ANSWER: **Tamil** people [or **Tamils** and prompt on 'Dravidians']

[10] The Kandyan kingdom, Sri Lanka's final monarchy, was annexed to this empire in 1815. This empire faced the Uva Rebellion and governed the island as the Crown Colony of Ceylon ("si-LON")

ANSWER: Great **Britain** [or United Kingdom of Great **Britain** and Northern Ireland, or **British Empire**, or the **U.K.**, or the **United Kingdom**] <GP>

10. A book about works in this medium discusses the concepts of closure to fill in gaps, "visual literacy," and "masking." For 10 points each:

[10] Identify this medium that author Scott McCloud discusses in a book titled for "Understanding" this medium. Examples of works in this medium oftentimes feature superheroes like Batman and Superman.

ANSWER: **comics** [accept **comic books**, accept **graphic novels**; or *Understanding **Comics**: The Invisible Art*]

[10] This Dominican author compared Yunion to Fantastic Four characters and compared Oscar to X-Men and other comic book heroes in his novel *The Brief Wondrous Life of Oscar Wao*.

ANSWER: Junot **Diaz**

[10] This graphic novel by Alan Moore begins with Rorschach investigating the death of Edward Blake, the Comedian. The title team of this comic includes Nite Owl, Silk Spectre and Dr. Manhattan.

ANSWER: **Watchmen** <NS>

11. A cubist composition by Kazimir Malevich depicts a cow in front of one of these instruments. For 10 points each:

[10] Name this stringed instrument, which is played by a green-skinned man in a purple suit in a painting by Marc Chagall. That painting may have helped inspire a Broadway musical titled for a player of this instrument on *the Roof*.

ANSWER: **violin** [or **fiddle**; or **Fiddler on the Roof**]

[10] Many of Chagall's formative years were spent working in this country. Malevich founded the Suprematism movement in this country in the early 20th century.

ANSWER: **Russia**

[10] One of Malevich's most famous Suprematist works depicts a square of this color against a background of a slightly different shade of this color. This color also appears in the title of a Chagall painting of the crucifixion.

ANSWER: **white** [accept **White on White** or **White Crucifixion**] <JA>

12. The catechism of this denomination is collected in the Book of Confessions. For 10 points each:

[10] Name this protestant sect that grew from the teachings of John Calvin and John Knox. It derives its name from a term referring to a body of church elders.

ANSWER: **Presbyterianism**

[10] The Book of Confessions opens with this statement of faith, which includes the phrase "God from God, light from light, True God from True God."

ANSWER: **Nicene Creed** [prompt on partial answer; do NOT accept or prompt on "Apostle's Creed"]

[10] Most Presbyterian traditions celebrate only baptism and this other sacrament, which involves practitioners receiving bread and wine in a recreation of the Last Supper.

ANSWER: Holy **Communion** [or **Eucharist**] <JA>

13. This organization agreed to disarm in the Good Friday Agreement, which ended a decades-long conflict known as The Troubles. For 10 points each:

[10] Name this paramilitary organization which conducted bombings and assassinations in Northern Ireland in the late 20th century.

ANSWER: **IRA** [or **Irish Republican Army**; or the Provisional **Irish Republican Army**]

[10] The IRA attempted to assassinate this British prime minister by bombing the Brighton Hotel. This Conservative was nicknamed the “Iron Lady.”

ANSWER: Margaret **Thatcher** [or Margaret **Roberts**; or Margaret Hilda **Thatcher**, Baroness Thatcher]

[10] In a 1920 event termed “Bloody Sunday,” the IRA opened fire on British intelligence agents at one of these facilities. 96 people were crushed to death in one of these places in the Hillsborough disaster.

ANSWER: **soccer stadiums** [or **football stadiums**; accept **arenas**, **fields**, or other synonyms in place of stadiums; prompt on partial answer] <WG>

14. The most common version of this statement can be derived by setting the sum of the work done by gravity and pressure equal to the increase in kinetic energy. For ten points each:

[10] Name this restatement of the conservation of energy in a fluid. This statement, named for a Swiss mathematician, explains why an increase in fluid speed leads to a decrease in pressure or in potential energy.

ANSWER: **Bernoulli**’s (“ber-NOO-lee’s”) principle [accept **Bernoulli**’s equation]

[10] Bernoulli’s principle is written in its simplest form for incompressible fluids, throughout which this quantity is assumed to remain constant. This quantity multiplies “v squared over two” and “g times z” in the original statement to calculate kinetic and potential energy per unit *volume* [emphasize].

ANSWER: mass **density**

[10] An alternative derivation of Bernoulli’s principle can be reached by using the second of this British scientist’s namesake laws of mechanics, the first of which is often colloquially stated as “an object in motion stays in motion.”

ANSWER: Isaac **Newton** <AG>

15. This ideology is practiced by a character who participates in a duel, only to then treat his opponent’s thigh wound moments after. For 10 points each:

[10] Identify this ideology practiced by a man who cuts himself with a scalpel contaminated with typhus in a certain novel. Arkady Kirsanov also adopts this philosophical position, leading Pavel to become angry.

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

[10] That character, Bazarov, appears in a novel by this Russian author of *A Sportsman’s Sketches*.

ANSWER: Ivan Sergeyevich **Turgenev** (“ter-GAIN-yev”)

[10] Trifon Ivanitch is the title “District [one of these people]” in a story from *A Sportsman’s Sketches*. A man with this profession named Yuri Zhivago is the protagonist of Boris Pasternak’s most famous novel.

ANSWER: a **doctor** <NS>

16. This island’s village of Ittoqqortoormiit (“it-toak-kor-TOR-meet”) saw a string of polar bear shootings in 2014 after diminishing sea ice brought the animals into the village in search of food. For 10 points each:

[10] Identify this autonomous region of Denmark. This largest island in the world features a polar bear against a blue background on its coat of arms.

ANSWER: **Greenland**

[10] Churchill, Manitoba is known as the “Polar Bear Capital of the World” due to an annual migration to the pack ice of this body of water. This body of water contains a southern extension called the James Bay.

ANSWER: **Hudson Bay**

[10] This other body of water contains the western part of Wrangel Island, which hosts the densest polar bear population in the world. This sea lies directly north of the Bering Strait and west of the Beaufort Sea.

ANSWER: **Chukchi** Sea <JA>

17. Twelve of these works by this composer are named for the critic Johann Peter Salomon or the city of London. For 10 points each:

[10] Name these 104 works by an Austrian composer whose works were collected in the Hoboken catalogue.

Nicknames for these works by this composer include “Surprise” and “Military.”

ANSWER: Franz Joseph **Haydn**’s **Symphonies** (prompt on Symphonies)

[10] The second movement of this London symphony contains double variations inspired by Croatian folk songs, and was repeated at its premier due to request from the audience. This symphony takes its name from the effect created by the timpani part in the first movement.

ANSWER: **Drumroll** Symphony (accept Symphony No. **103**)

[10] In addition to symphonies, Haydn was also known as the father of this musical form in which a group of two violins, a viola, and cello play together.

ANSWER: **string quartets** <AN>

18. Answer the following about indentured servitude throughout history, for 10 points each:

[10] During this 1676 event, indentured servants and blacks in the Virginia Colony rose up against William Berkeley. Jamestown was burned to the ground in this event, and its leader died of dysentery not long after.

ANSWER: **Bacon’s Rebellion**

[10] Indentured servants from India came to the eastern coast of this modern-day country to work the sugarcane plantations of Natal Colony. This country used Canada’s Indian Act as the basis of its apartheid system.

ANSWER: Republic of **South Africa** [or the Union of **South Africa**]

[10] Many indentured laborers in this country were South Sea Islanders brought via blackbirding. Many of them were deported as part of a policy that ended Asian immigration to here, known as “White [this country].”

ANSWER: **Australia** [or Commonwealth of **Australia**; or White **Australia** policy] <GP>

19. This poem is written in sprung rhythm and praises “fresh-firecoal chestnut falls” and the “rose moles” upon “trout that swim.” For 10 points each:

[10] Name this Gerard Manley Hopkins poem, which opens by declaring “Glory be to God for dappled things.”

ANSWER: “**Pied Beauty**”

[10] The concept of beauty is paired with truth in the last stanza of “Ode on a Grecian Urn,” a poem by this English Romantic poet.

ANSWER: John **Keats**

[10] A poem by Lord Byron describes a woman who “walks in beauty, like [this concept].” A villanelle by Dylan Thomas urges his dying father not to go “gentle into [this concept].”

ANSWER: the **night** [accept “she walks in beauty, like the **night**,” or “Do not go gentle into that good **night**”] <JA>

20. In prokaryotes (“proh-CARE-ee-oats”), this process is initiated via sigma factors, and promoters are sequences that trigger this process. For 10 points each:

[10] Name this process, which in prokaryotes, terminates through either due to the formation of a GC rich stem loop in a rho-independent manner or through the binding of a rho factor to a terminator.

ANSWER: **transcription**

[10] Terminators can be found at the end of operons, including an operon in E. coli responsible for the metabolism of this sugar. This sugar is found in milk, and consists of glucose and galactose.

ANSWER: **lactose** [accept **lactose** operon]

[10] Transcription produces this type of RNA, which in eukaryotes has a 5’ (“five-prime”) cap and a poly-A tail. This type of RNA codes for proteins.

ANSWER: **messenger** RNA [or **mRNA**] <GC>