

COLLABORATIVE ACADEMIC SPRING TOURNAMENT 2019

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PACKET 10 TOSSUPS

1. **A leader of this country commissioned a report by T. B. Henderson-Brooks following poor planning by this country in one conflict. This country's first leader gave the "Tryst with Destiny" speech. Another leader of this country ruled by decree during the Emergency. That leader of this country was assassinated in revenge for Operation (*) Blue Star, an attack on a temple. This country's first leader was a member of its Congress Party, which oversaw its independence from Britain in 1947. For 10 points, name this country that was first led by Jawaharlal Nehru, and later by his daughter, Indira Gandhi.**

ANSWER: Republic of India [or Bhārat Gaṇarājya] <GP>

2. **An author with this surname described an animal entering "the dark hole of the head" in a poem beginning "I imagine this midnight moment's forest." That author with this surname included "The Thought-Fox" in the collection *The Hawk in the Rain*. A poet with this surname wrote about hearing a man on a "rickety stool" playing a "drowsy syncopated (*) tune" on "Lenox Avenue." That poet considered that the title object may "dry up like a raisin in the sun" in a poem about "a dream deferred." For 10 points, identify this surname of the Sylvia Plath's husband Ted and the Harlem Renaissance author of "The Weary Blues" and "The Negro Speaks of Rivers."**

ANSWER: Hughes [accept Ted Hughes, accept James Mercer Langston Hughes] <NS>

3. **Elements in this group are exchanged via the Finkelstein reaction. Elements in this family are often symbolized "X" in reaction mechanisms, where they are often leaving groups. Aqua regia ("awk-wuh REE-zhee-yuh") is a mixture of nitric acid and an acid of one of these elements. These elements are strong oxidizing agents, due to their (*) unfilled p orbitals. One of these elements possesses the highest Pauling electronegativity, since these elements contain seven valence electrons. For ten points, name this group of elements which includes fluorine and chlorine.**

ANSWER: halogens [accept halide; accept group 7] <AG>

4. **This man's followers pledged their loyalty in the "Pledge under the Tree." This figure visited the Sidra tree at the end of the seventh heaven. His steed is often depicted in art with a human face, and is named Buraq. Moses convinced this man to bargain down a certain number. This figure was born in the Year of the Elephant, and the second (*) Hijrah saw this man and his followers flee to Yathrib. This figure was married to Khadijah and Aisha, and while meditating in the Cave of Hira, this figure received a revelation from the angel Jibreel. For 10 points, name this prophet and founder of Islam.**

ANSWER: Muhammad [or Prophet Muhammad; or Abu'l-Qasim Muhammad ibn 'Abdullāh ibn 'Abdul-Muṭṭalib ibn Hāshim] <GP>

5. **The premier of this orchestral work was conducted by Adrian Boult (“BOLT”) and used choir students from a Girls School where its composer taught. Instruments are instructed to play *col legno*, or with the wood of the bow, in this work’s first movement, which contains a repeated *ostinato* in 5/4 time. Its seventh and final movement ends with a door slowly closing on a room with a female (*) chorus. “I Vow to Thee, My Country” and other British folk tunes are quoted in one movement from this work. Subtitles to movements in this work include “the Mystic” and “the Bringer of War.” For 10 points, name this suite by Gustav Holst with movements depicting Mars and Jupiter.**

ANSWER: *The Planets* <WG>

6. **Error correction in these devices can use sign flip or bit flip codes. These devices use unitary operations to create reversible gates. The “size” of these devices are limited by decoherence, which occurs when their fundamental units interact with the environment. These devices can factor integers in linear time using an algorithm named for Peter (*) Shor. These devices use fundamental units that can exist in a superposition of “zero” and “one” states. For 10 points, name these devices that use qubits to conduct calculations quickly**

ANSWER: quantum computers [accept qubits before mention; prompt on computers]

7. **Inmates at the Brixton Prison appeared on a TV show titled for this man “Behind Bars.” This man reveals the winner of one game show by instructing the final contestants to each turn a door handle, only one of which is unlocked. In a James Corden comedy segment, this man presses Julie Chen’s face between two slices of bread and calls her an (*) “idiot sandwich.” After the owners of Amy’s Baking Company refused to accept his renovation advice, this chef famously walked out of an episode of *Kitchen Nightmares*. For 10 points, name this foul-mouthed celebrity chef who stars in shows like *The F Word* and *Hell’s Kitchen*.**

ANSWER: Gordon Ramsay [or Gordon James Ramsay, Jr.] <JA>

8. **One member of this group has a servant named Grimaud who communicates through body language. This group travels to a convent to rescue Madame Bonacieux. The ex-wife of one member of this group is discovered to have a *fleur-de-lis* branded on her back and is named (*) Milady de Winter. They attempt to recover diamonds to hide an affair between Queen Anne and the Duke of Buckingham. This group has the motto “One for all, all for one,” and d’Artagnan (“dar-TAHN-yan”) wants to become a member in an 1844 novel. For 10 points, Athos, Porthos, and Aramis are members of what group of French soldiers in an Alexander Dumas novel?**

ANSWER: the three musketees [or les trois mousquetaires] <WG>

9. **One figure with this ability was locked in a cellar by Minos after discovering Glaucus in a cask of honey. It’s not shape-shifting, but Menelaus travels to Pharos to capture Proteus, a sea deity with this ability. Odysseus entered the (*) underworld to meet a man with this ability who once spent seven years as a woman. Laocoon was a Trojan priest with this ability who was strangled by serpents after warning the Trojans to be cautious of “Greeks bearing gifts.” Tiresias possessed, for 10 points, what supernatural ability also held by the Oracle at Delphi?**

ANSWER: prophecy [or divination; or augury; accept any answer referencing the ability to foresee the future; prompt on shape-shifting before mention] <JA>

10. **The reliance of individual propositions in this field on background assumptions is the subject of the Duhem-Quine (“DOO-em QUINE”) problem. The question of what counts as this discipline is known as the demarcation problem. One work concerning certain events in this discipline contrasts “normal” progress in this discipline with (*) anomalies, which lead to paradigm shifts. Falsifiability was proposed as a criterion for this discipline by Karl Popper. Thomas Kuhn analyzed the structure of “revolutions” in this discipline. For 10 points, what discipline was advanced by Francis Bacon’s new “method?”**

ANSWER: science [accept scientific revolutions; accept *The Structure of Scientific Revolutions*] <GC>

11. A cult center for Minerva in this modern-day country was located at Aquae Sulis, a town on the Fosse Way. Septimius Severus spent the last three years of his life in this modern-day country before dying in Eboracum. After Nero ignored the will of Prasutagus, the Trinovantes and Iceni tribes of this modern-day country revolted under the leadership of (*) Boudicca. A series of attacks by Caledonian tribes caused Antoninus Pius to build a defensive barrier in this modern-day country, where a similar structure further south is Hadrian's Wall. For 10 points, name this modern-day country, whose current capital was built on the former Roman settlement of Londinium.

ANSWER: Great Britain [or Roman Britain; or Britannia; or the United Kingdom; or the United Kingdom of Great Britain and Northern Ireland] <JA>

12. After a woman loses a locket-shaped ring in this novel, characters debate over the origin of a lock of hair. A character in this novel seduces the fifteen-year-old Eliza Williams and marries Sophia Grey to maintain his wealth. In this novel, one character is carried home by her future suitor after she injures her (*) ankle during a rainstorm. Robert marries the gold-digger Lucy Steele in this novel, who had previously been engaged to Robert's brother Edward Ferrars. Instead of marrying John Willoughby in this novel, one woman ends up with Colonel Brandon. For 10 points, identify this first Jane Austen novel, where Elinor and Marianne Dashwood represent the two title traits.

ANSWER: Sense and Sensibility <NS>

13. To defend the perpetrators of one of these events, Josiah Gibbs found a translator in New York City's harbor by counting from 1 to 10 in Mende ("MEN-dee"). A man named Jemmy led one of these events named for Stono River. The perpetrators of one of the events were defended by John Quincy Adams, and attempted events of this type were led by (*) Gabriel Prosser and Denmark Vesey. The perpetrators of one of these events steered the ship *Amistad* to Connecticut, and an 1831 event of this type in Virginia, which killed over fifty whites, was led by Nat Turner. For 10 points, name these violent events often led by African-Americans against Southern plantation owners.

ANSWER: slave revolts [Accept slave rebellions; or slave uprisings] <GP>

14. The development of a disorder affecting one part of this organ in people with diabetes is caused by osmotic stress due to sorbitol. One part of this organ can have flame hemorrhages ("HEM-er-ij-iz") in people with high blood pressure. One structure in this organ is held in place by the ciliary ("SIL-ee-er-ee") body, which adjusts its shape by accommodation. The two chambers of this organ contain (*) aqueous ("AY-kwee-us") humor and vitreous ("VI-tree-uhs") humor. These organs send their output to the occipital ("ok-SIP-ih-tul") lobe from their retina through the optic nerve. For 10 points, name this organ which also contains a lens.

ANSWER: eye [accept retina or lens before mention, all the specific clues are about the retina and lens]

15. A director from this country used his trademark "pillow shots" in a film about a couple who finds their grown children are too busy to spend time with them. In one film from this country, a boy dies of starvation at a train station and his spirit is taken away by fireflies. In another film from this country, a bandit's crimes are witnessed by four characters with (*) different memories of the event. This country is the setting of *Ghost in the Shell*, *Akira*, and monster movies called *kaiju*. For 10 points, name this country home to Akira Kurosawa, who directed *Rashomon* and *The Seven Samurai*.

ANSWER: Japan [or Nippon; the first three sentences describe *Tokyo Story*, *Grave of the Fireflies*, and *Rashomon*, respectively] <WG>

16. **The Twelve Articles were issued during a war named for these people that was crushed by the Swabian League. Charles the Bad suppressed another uprising of these people during the Hundred Years' War in France called the Jacquerie ("ZHAK-uh-ree"). Martin Luther called for these people to be put down like (*) "mad dogs" during a war named for them. A revolt of these people took place during the reign of Richard II due to the imposition of a poll tax, and was named for Wat Tyler. These people pushed for higher wages following the Black Death, and could not often leave the property of their lords. For 10 points, name this class of people that generally consisted of poor farmers.**

ANSWER: peasants [accept serfs] <GP>

17. **In one section of this work, Opis uses a steel-tipped arrow to kill Arruns and avenge the death of the Amazon Camilla. The main character of this work has a silent companion named Achates ("uh-KAY-tees") and uses a golden bough to enter the underworld. This poem, which begins with the line "I (*) sing of arms and the man," ends with the death of the Rutilian king Turnus. The main character of this poem causes the widow of Sychaeus ("sy-KAY-uss") to kill herself after he abandons Carthage to fulfill his destiny in Italy. For 10 points, identify this work about a Trojan prince who has an affair with Dido, an epic poem written by Virgil.**

ANSWER: *The Aeneid* <JA>

18. **A political leader of this country allegedly formed a group of assassins called the Tiger Squad to target critics, and has outlined a programme called Vision 2030 to diversify its economy. This country is the largest of two participating in a joint operation to capture the port of Hodeida as part of a foreign intervention codenamed Operation Decisive Storm. Donald Trump announced a (*) \$110 billion weapons sale to this country, despite condemnation following an incident in this country's consulate in Turkey ending in the death of journalist Jamal Khashoggi. For 10 points, Mohammed bin Salman leads what country ruled from Riyadh?**

ANSWER: Kingdom of Saudi Arabia <GP>

19. **One of these devices containing an air gap to create an o-ray and e-ray and is named for Glan and Foucault ("foo-KOH"). An anamorphic pair of these devices can be used alongside a laser diode to adjust the beam radius in one dimension. William Wollaston invented one of these devices that polarizes (*) light using birefringence, and one of these devices can be used in place of a diffraction grating in a monochromator. Isaac Newton described the effects of dispersion through a triangular one of these objects in his treatise *Opticks*. For 10 points, name these transparent devices that can split white light into all the colors of the spectrum.**

ANSWER: prisms [accept specific answers such as polarizing prisms or dispersive prisms or wedge prisms; prompt on polarizer] <JA>

20. **Gay Talese wrote a profile of this man in *Esquire Magazine* called "[this man] has a Cold." This man got an Oscar-winning role in *From Here to Eternity* due to either the convincing of his then-wife Ava Gardner or his alleged Mafia ties. The Soviet Union allowed Warsaw Pact countries to plot their own future in a "doctrine" nicknamed for this man. This singer requests (*) "fill my heart with song" in "Fly Me to the Moon." This most famous member of the Rat Pack popularized the song "New York, New York." For 10 points, "Ol' Blue Eyes" was the nickname of what crooner who sang "My Way"?**

ANSWER: Frank Sinatra [or Francis Albert Sinatra] <WG>

PACKET 10 BONUSSES

1. Samuel P. Huntington criticized this idea in an article titled “The Clash of Civilizations?”. For 10 points each:

[10] Name this concept proposed by Francis Fukuyama in a 1989 essay, which paired with “the Last Man” in a book three years later. Fukuyama’s version of the concept derives from Hegel (“HAY-gul”).

ANSWER: the **end of history** [accept *The End of History and the Last Man*, prompt on end of ideology]

[10] Fukuyama proposed that history would end as the result of the rise of this type of government in the wake of authoritarian regime failure. According to a namesake “peace theory,” these governments will never go to war against each other.

ANSWER: liberal **democracies** [or **democracy**; or **democratic**; prompt on republic]

[10] Fukuyama is from this country. In a later work about this country “at the crossroads,” he criticizes its 2003 invasion of Iraq.

ANSWER: the **United States** of America [or **America**; or the **U.S.A.**] <GC>

2. The nonfunctional GULO enzyme leads to an inability to produce this molecule in humans. For 10 points each:

[10] Name this vitamin whose deficiency results in scurvy.

ANSWER: vitamin **C** [accept **ascorbic acid**]

[10] Vitamin C donates electrons to prolyl and lysyl hydroxylase, therefore allowing the production of this protein. This structural protein possesses a triple helical structure, and makes up the majority of connective tissue.

ANSWER: **collagen**

[10] Another critical function of vitamin C is acting with glutathione to neutralize this compound. More commonly, catalase prevents this molecule from acting as a reactive oxygen species.

ANSWER: **hydrogen peroxide** or **H₂O₂** <AG>

3. Leopold Auer (“OW-are”), the original dedicatee of this piece, refused to first premier this piece since he considered it “unplayable,” editing it to make certain passages easier. For 10 points each:

[10] Identify this D-major work for a solo string instrument and orchestra with a “Canzonetta” second movement, premiered right before the composer published other works like *Manfred Symphony*.

ANSWER: **Tchaikovsky’s violin concerto** [prompt on partial answers]

[10] This other composer claimed that “the devil may play” his *Wanderer Fantasy* because he himself could not play it. However, other musicians had less trouble performing his *Death and the Maiden* string quartet and “*Unfinished*” *Symphony*.

ANSWER: Franz Peter **Schubert**

[10] Conductor Leopold Stokowski backed down from conducting the premier of this composer’s fiendish “*Short*” *Symphony*. His Western-influenced ballets include *Rodeo* and *Billy the Kid*.

ANSWER: Aaron **Copland** <NS>

4. The Nouméa Accord laid the groundwork for this territory’s recent independence referendum. For 10 points each:

[10] Name this Pacific island territory mostly populated by the Kanak people that voted against independence in a November 2018 referendum.

ANSWER: **New Caledonia** [accept **Nouvelle-Calédonie**]

[10] New Caledonia voted to remain a territory of this European country. This European country’s other possessions in the Pacific include Wallis and Futuna, and an overseas collectivity that includes Tahiti.

ANSWER: **France** [accept **French Republic**]

[10] This current president of France visited New Caledonia in May and said the vote was a “sign of confidence in the French Republic.” This leader of the En Marche! party came to power in 2017 after defeating Marine le Pen in the presidential election.

ANSWER: Emmanuel **Macron** [or Emmanuel Jean-Michel Frédéric **Macron**] <GP>

5. The Galilean moons exhibit the Laplace (“luh-PLOSS”) form of this phenomenon, which involves three bodies. For 10 points each:

[10] Name this phenomenon where the ratio of orbital periods between multiple bodies is an integer.

ANSWER: orbital **resonance**

[10] The system of Io (“EYE-oh”), Ganymede (“GAN-uh-meed”), and Europa exhibit “four to two to one” resonance when orbiting this gas giant.

ANSWER: **Jupiter**

[10] Jupiter exerts these forces on Europa which heat the interior of the moon and allow it to support a subsurface ocean. On Earth, these forces cause rising and falling sea levels due to both the Moon and the Sun.

ANSWER: **tidal** forces [accept **tides**] <AG>

6. Answer the following about poetry in poetry. For 10 points each:

[10] This author wrote about the “raw material of poetry” in her poem “Poetry,” which she claims to “dislike.” She also wrote “The Steeple-Jack.”

ANSWER: Marianne **Moore** [or Marianne Craig **Moore**]

[10] This author wrote about how the protagonist “strove to resuscitate the dead art of poetry” in his poem “Hugh Selwyn Mauberley.” He translated many of Li Bai’s works and wrote *The Cantos*.

ANSWER: Ezra **Pound** [or Ezra Loomis **Pound**]

[10] Lisel Mueller, a German-American poet, wrote that she was a “Rip Van Winkle” when writing poetry, an allusion to this author of “The Legend of Sleepy Hollow.”

ANSWER: Washington **Irving** <NS>

7. Viscount Castlereagh was the British representative during this meeting, which was hosted by Klemens von Metternich. For 10 points each:

[10] Name this 1814 to 1815 meeting, in which conservative leaders across Europe agreed to restore old dynasties to power.

ANSWER: **Congress of Vienna**

[10] The Congress of Vienna was called to clean up the mess this French emperor made when he attempted to conquer Europe, after which he was exiled to Elba.

ANSWER: **Napoleon** Bonaparte [or Napoleon **Bonaparte**]

[10] Shortly after the Congress of Vienna, this coalition between Prussia, Austria, and Russia formed in order to retain the European monarchy.

ANSWER: **Holy Alliance** [or **Grand Alliance**] <WG>

8. Answer the following about funerary practices in different religions. For 10 points each:

[10] In Islamic funerals, the Salat al-Janazah prayer is read and this many handfuls of soil are placed into the ground at 90° to the Qiblah. The Muslim holiday of Eid al-Adha lasts this many days.

ANSWER: **three**

[10] In this religion, those above the age of fifteen who die are given a ring during burial that says “I came forth from God.” This religion’s central book is the Kitab-i-Aqdas, and its founder was a follower of the Bab.

ANSWER: **Baha’i**

[10] This funerary practice is a common feature of Antyesti rituals for the dead in Hinduism. Widows used to follow their husbands in this practice as part of sati, and many have their ashes poured into the Ganges River after it.

ANSWER: **cremation** [accept descriptions of burning the body] <GP>

9. The 30 September Movement was an unsuccessful coup against this leader. For 10 points each:

[10] Name this man who led his country's independence movement along with Mohammad Hatta. This man implemented the doctrine of "Guided Democracy" on his country, until he was forced to step down in 1967.

ANSWER: **Sukarno** [or Kusno **Sosrodihardjo**]

[10] Sukarno and his successor Suharto, were leaders of this Southeast Asian country, the fourth most populous in the world.

ANSWER: **Indonesia**

[10] Sukarno supported the rebel TNKU militia in this country, which was a British protectorate. This country gained independence from the United Kingdom in 1984, and has an economy primarily based on oil production.

ANSWER: **Brunei** [or **Negara Brunei Darussalam**] <GP>

10. The "quantitative" form of this technique relies on the spoken length of syllables rather than the repetition of identical feet. For 10 points each:

[10] Give this term for the pattern of stressed and unstressed syllables within a poem. Shakespeare famously used a form of this technique in which every line consisted of five iambs.

ANSWER: poetic **meter**

[10] This type of metrical foot consists of a stressed syllable followed by two unstressed syllables. This foot is typically interchangeable with the spondee in its namesake "hexameter".

ANSWER: **dactyl**

[10] Dactylic hexameter is most famously used in Classical works of this poetic genre. Works within this genre include Homer's *Iliad* and Ovid's *Metamorphoses*.

ANSWER: **epic** poetry <JA>

11. Shigeru Ban was hired as a "disaster architect" to create a cathedral in this country. For 10 points each:

[10] Identify this country which experienced the 2011 Christchurch Earthquake. In this country, Anish Kapoor's *Dismemberment* sits on a stretch of land in Gibbs Farm near Auckland.

ANSWER: **New Zealand** [accept **Aotearoa**]

[10] Shigeru Ban designed that cathedral out of this uncommon and cheap material. Frank Lloyd Wright decried many modernistic European architectural practices in a pamphlet titled after this type of house.

ANSWER: **cardboard** [accept *The Cardboard House*]

[10] Ban also designed one of these buildings in Aspen in which visitors use a glass elevator to "ski" down to the galleries. I.M. Pei's *La Pyramide Inversée* is an underground inverted pyramid located near a famous one of these buildings.

ANSWER: **art museum** [prompt on museums] <NS>

12. Terminal velocity is reached when the buoyant force combined with this force balances out the force of gravity. For ten points each:

[10] Name this force which opposes motion in fluids. It opposes thrust when analyzing the motion of airplanes.

ANSWER: **drag** force [or **air resistance**; prompt on friction]

[10] The drag force varies linearly with this quantity's "cross-sectional" type. This quantity is often symbolized with a capital A.

ANSWER: **area**

[10] An alternative way of calculating drag on spherical objects uses this law, which states that drag is proportional to "6 pi R." This law's namesake lends his name to a set of equations with Navier ("nav-YAY") which model fluid motion.

ANSWER: George **Stokes** [or Sir George Gabriel **Stokes**, 1st Baronet] <AG>

13. A variant of this dish called kkakdugi (“kak-DOO-ghee”) incorporates lots of radish. For 10 points each:

[10] Name this dish made from fermented cabbage, often stored in jars underground.

ANSWER: **kimchi**

[10] *Kimchi* is a staple food in this Asian cuisine, which names a popular form of barbecue.

ANSWER: **Korean** cuisine

[10] From the Korean for “mixed rice,” this dish is made from rice topped with vegetables, an egg, and a chili pepper paste called *gochujang*.

ANSWER: **bibimbap** (“BEE-bim-BOP”) <WG>

14. This group was targeted by the Sullivan Expedition, and they earlier fought the Beaver Wars against the French and the Huron. For 10 points each:

[10] Name this confederation of six Native American tribes in upstate New York that was founded by Hiawatha and the Great Peacemaker. They traditionally lived in longhouses.

ANSWER: **Iroquois** Confederacy [or **Haudenosaunee**]

[10] During the American Revolution, this tribe of the Iroquois Confederacy led the pro-British faction under its chief Joseph Brant. This tribe was the easternmost of the six.

ANSWER: **Mohawk** [or **Kahníakchake**; or **Kanienkehaka**]

[10] This explorer led troops against the Mohawks at the 1610 Battle of Sorel. This “Father of New France” names a lake on the border of Vermont and New York.

ANSWER: Samuel de **Champlain** [or Lake **Champlain**] <GP>

15. In a novel by this man, the Iberian peninsula becomes detached from the rest of Europe. For 10 points each:

[10] Identify this author of *The Stone Raft*. He also wrote about a man who reads Herbert Quain’s book *The God of the Labyrinth* and follows around the ghost of Fernando Pessoa in *The Year of the Death of Ricardo Reis*.

ANSWER: José de **Saramago**

[10] *The Year of the Death of Ricardo Reis* tells of a poet who returns to this city after Pessoa’s death. Saramago wrote a work titled for *The History of the Siege of* [this city], and a 1755 earthquake in this city inspired Voltaire’s *Candide*.

ANSWER: **Lisbon**, Portugal

[10] This condition titles a Saramago novel in which the doctor’s wife is one of the few characters not afflicted by the titular pandemic. This condition contrasts with that novel’s sequel, *Seeing*.

ANSWER: **Blindness** [accept **loss of sight** or clear equivalents] <NS>

16. This city is home to the world’s largest office building by floor area. For 10 points each:

[10] Name this Virginia city across the Potomac River from Washington, DC. The most famous landmark in this city contains over 400,000 graves as well as the Tomb of the Unknown Soldier.

ANSWER: **Arlington**, Virginia

[10] This 5-sided building in Arlington serves as the headquarters for the U.S. Department of Defense. This building’s outer three rings were damaged as part of 9/11.

ANSWER: The **Pentagon**

[10] This monument in Arlington is topped by a bronze sculpture that is falsely rumored to contain a thirteenth hand. This monument depicts six soldiers and is based on a Joe Rosenthal photograph.

ANSWER: U.S. **Marine Corps** War Memorial [accept **Iwo Jima** Memorial] <JA>

17. This chemist names an equation used to calculate reversal potentials. For 10 points each:

[10] Name this German chemist who postulated a fundamental equation of electrochemistry that calculates the reduction potential of a half-cell.

ANSWER: Walther **Nernst**

[10] This quantity is multiplied by the number of moles of electrons in the denominator of one coefficient of the Nernst equation. This quantity represents the charge of one mole of electrons.

ANSWER: **Faraday** constant

[10] Nernst proposed a “heat theorem” equivalent to the third law of thermodynamics. That law states that a perfect crystal has zero entropy at this temperature, at which all molecular motion stops.

ANSWER: **absolute zero** [or **zero** degrees **kelvin**; prompt on **zero**] <JA>

18. Answer the following about heavily fortified lines in European history, for 10 points each:

[10] A U.N. peacekeeping force patrols the “Green Line,” a buffer zone that divides the Greek and Turkish halves of this Mediterranean island. The Line includes a series of concrete barriers through this island’s city of Nicosia.

ANSWER: **Cyprus**

[10] This country constructed the Mannerheim Line, a system of trenches and bunkers meant to repel a Soviet invasion of Karelia. This Scandinavian country fought the U.S.S.R. in the Winter War.

ANSWER: **Finland** [or Republic of **Finland**; or Republiken **Finland**; or **Suomi**; or **Suomen** Tasavalta]

[10] During this war, William Russell’s description of a British regiment at a battle led to them being nicknamed the “Thin Red Line.” This war also saw Russian troops repel a doomed cavalry charge by the Light Brigade.

ANSWER: **Crimean** War <JA>

19. This character is involved in a carriage accident that kills the horse Prince, leading her father to send her to petition money from some wealthy relations in Trantridge. For 10 points each:

[10] Name this heroine of an 1891 novel, who is raped by a member of the title family while working in Trantridge. The incident results in a child that she names “Sorrow.”

ANSWER: **Tess** Durbeyfield [or **Tess of the D’Urbervilles**]

[10] This English author of *Far From the Madding Crowd* created Tess as the protagonist of his novel *Tess of the D’Urbervilles*.

ANSWER: Thomas **Hardy**

[10] Hardy’s poem “The Convergence of the Twain” described how this ship was sunk by “a Shape of Ice” in 1912. This ship was misleadingly billed as “Unsinkable.”

ANSWER: *RMS* **Titanic** <JA>

20. This composer wrote nine books of madrigals and wrote an opera in which Nero divorces Ottavia to marry the title character. For 10 points each:

[10] Name this early Italian operatic composer whose operas *L’Orfeo* and *The Coronation of Poppea* led to a shift from Renaissance to Baroque.

ANSWER: Claudio **Monteverdi**

[10] Monteverdi’s operas inspired this composer to write the 17th-century opera *The Faery-Queen*. This man’s most famous opera contains the aria “When I am laid in earth.”

ANSWER: Henry **Purcell**

[10] Another 17th-century operatic composer, Jean-Baptiste Lully, premiered his opera *Cadmus et Hermione* at the court of this French king. Charpentier wrote the opera *The Pleasures of Versailles* honoring this king.

ANSWER: **Louis XIV** (“the 14th”) [prompt on **Louis**] <NS>