

COLLABORATIVE ACADEMIC SPRING TOURNAMENT 2019

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PACKET 13 TOSSUPS

1. **This world leader was given the key to the city of Detroit after donating \$250,000 to a Chaldean church there. As a response to economic sanctions against this man's country, the U.N. passed the corrupt Oil-for-Food Program. Operation Red Dawn led to the capture of this man in a "spider hole." This father of (*) Uday and Qusay and leader of his country's Ba'ath Party ordered poison gas attacks against the Kurds. He was executed for war crimes in 2006, three years after the United States led an invasion into his country. For 10 points, name this former president of Iraq.**

ANSWER: Saddam Hussein [or Saddam Hussein al-Tikriti; prompt on Saddam] <WG>

2. **In 1985, this man controversially brought charges against civil rights organizer Al Turner for improper handling of absentee ballots. This man cited the New Testament to defend the Trump administration's family separation policy, and was the subject of a letter written by Coretta Scott King opposed to his nomination as a District Judge. This man was the first senator to endorse (*) Donald Trump's candidacy for president, though Trump was reportedly angered by this man's recusal from Robert Mueller's special counsel investigation. Following this man's resignation, Matthew Whitaker was appointed to take his old post. For 10 points, name this former Alabama senator and former Attorney General.**

ANSWER: Jeff Sessions [or Jefferson Beauregard Sessions III] <GP>

3. **One character with this profession discovers the black pearl of the Borgias after breaking a bust of Napoleon. A character with this profession learns of the murder of Rusty Regan and aids General Sternwood in *The Big Sleep*. Roberto Bolano wrote a novel titled for *Savage* people with this profession. A different character with this profession has a brother named (*) Mycroft and fakes his death by pretending to fall off Reichenbach Falls. That member of this profession, whose arch-enemy is Moriarty, loves Irene Adler and appears in *The Hound of the Baskervilles*. For 10 points, identify this shared profession of Philip Marlowe and Sherlock Holmes.**

ANSWER: detectives [accept synonyms like investigator or sleuth; or *The Savage* Detectives] <NS>

4. **A beam of these particles is frequently used for radiation therapy because they have a sharp Bragg peak with zero exit dose. This particle's decay into a positron and a pion ("PYE-on") has never been observed but is predicted by grand unified theories. The number of these particles decreases by one in a process in which an up quark is converted to a down quark, called (*) beta-plus decay. These particles consist of two up and one down quark, and counting them gives a quantity symbolized Z, the atomic number. For 10 points, name these positively charged particles found in the nucleus.**

ANSWER: protons

5. A president called for a “great and solemn referendum” on this document, but was replaced for his party’s nomination by James M. Cox. William Borah and Henry Cabot Lodge, Sr. were among the Irreconcilables who opposed signing this document. It was called a “Carthaginian (“CARTH-uh-JIN-ee-un”) peace” by the economist John Maynard (*) Keynes (“CANES”). The Young and Dawes plans attempted to repair a country’s economy after the signing of this treaty. The basis for this treaty was the Fourteen Points, which later formed the League of Nations. For 10 points, name this treaty signed by Woodrow Wilson at the end of World War I.

ANSWER: Treaty of Versailles <WG>

6. This composer dedicated two sonatas, a trio, and a quintet for clarinet to Richard Mühlfeld. A set of drinking songs were incorporated in a work by this composer commissioned by the University of Breslau. This composer included variations on a passacaglia by Bach in the finale of his fourth and final symphony. This composer wrote the (*) *Tragic Overture* as a follow-up to the *Academic Festival Overture*. This composer is the most recent of the group Hans von Bülow (“BYOU-lov”) called “the Three Bs.” The *Hungarian Dances* were written by this composer, who used Luther’s translation of the Bible for his *German Requiem*. For 10 points, name this composer most famous for his “Lullaby.”

ANSWER: Johannes Brahms <WG>

7. In a story by this author, Elizabeth visits the Ripleys to discover that her husband died of asphyxiation in a coal mine. In another story by this author, Paul dies of brain fever after picking Malabar to win the Derby. The protagonist of a work by this author of "Odour of Chrysanthemums" rejects Miriam and Clara Dawes and gives his (*) mother Gertrude a lethal dose of morphine. This author discussed the relationship between Constance Reid and the gamekeeper Oliver Mellors following Clifford's paralysis. For 10 points, name this author of "The Rocking-Horse Winner," *Sons and Lovers*, and *Lady Chatterley's Lover*.

ANSWER: D.H. Lawrence [or David Herbert Lawrence] <NS>

8. In humans, Drp1 regulates the binary fission of this organelle. Diseases like MELAS (“MEE-lahss”) and Leber’s (“LEE-ber’s”) hereditary optic neuropathy (“noor-AWE-puh-thee”) are caused by mutations in this organelle’s genome, whose existence supports the idea that this organelle originated via endosymbiosis. This organelle contains complexes I through IV of the (*) electron transport chain, which uses a proton gradient to synthesize ATP. The inner portion of this organelle is called the matrix and is surrounded by a membrane folded into cristae (“KRIS-tee”). For 10 points, name this organelle that produces energy.

ANSWER: mitochondria [or mitochondrion]

9. In one role, this actor played the shy bank clerk Stanley Ipkiss, who gains superpowers while wearing the title object. After talking with Christof at the end of one film, one of his characters says “In case I don’t see ya, good afternoon, good evening and goodnight!” This star of *Mr. Popper’s Penguins* and *The Mask* adopts the Baudelaire orphans in his role as (*) Count Olaf in the film version of *A Series of Unfortunate Events*. In the 1990s, he starred opposite Jeff Daniels in *Dumb and Dumber* and as the pet detective Ace Ventura. For 10 points, name this comedian who starred in *Eternal Sunshine of the Spotless Mind* and *The Truman Show*.

ANSWER: Jim Carrey [or James Eugene Carrey] <WG>

10. In 1326, this river’s Falkenau Island became the site of a tolling station whose watchmen would block off this river with an iron chain. Distances along this river are measured via a namesake kilometric scale beginning in the town of Constance. Stolzenfels Castle overlooks this river’s junction with the Moselle. A tributary of this river names an industrial region that contains cities like (*) Essen and Dusseldorf. The Delta Works protect land around this river’s juncture with the North Sea from flooding, and it passes through Cologne. For 10 points, name this river of western Europe that defines the border between France and Germany.

ANSWER: Rhine River [prompt on Ruhr] <JA>

11. A character in this city is almost strangled to death by Jasiu (“JAH-syoo”) on a beach. After seeing a red-haired man in a cathedral doorway, a character feels a desire to travel to this city. In this city, one character writes a book on Frederick the Great and is fascinated by the smell of disinfectant. An Englishman warns one character of a cover-up of a (*) cholera epidemic in this city. The Grand Hotel des Bains is located in this city, which is the setting of a novella in which one character eats overripe strawberries and dies while looking at a Polish youth named Tadzio. Gustav von Aschenbach (“AH-shin-bahk”) dies in, for 10 points, what Italian city in a novella by Thomas Mann?

ANSWER: Venice, Italy <NS>

12. Early in his presidency, this man signed a law requiring workplaces provide 12 weeks of unpaid leave called the Family and Medical Leave Act. This president mandated a five-day waiting period for purchasing firearms when he passed the Brady Bill. Many factories called *maquiladoras* (“mah-KEEL-ah-DOOR-as”) were built due to a law this president passed. He banned openly (*) gay people from serving in the military with his “Don’t Ask, Don’t Tell” policy. The U.S., Mexico, and Canada signed the trade agreement NAFTA during his first term in 1994. For 10 points, name this president who was impeached for his affair with intern Monica Lewinsky.

ANSWER: Bill Clinton [or William Jefferson Clinton; or William Jefferson Blythe III] <WG>

13. A Kehinde Wiley painting named for this location shows a camouflage-clad African man in front of red French drapery. A J.M.W. Turner painting set in this location uses an enormous black cloud to suggest the title *Snow Storm*. The names “Karolus Magnus” and “Hannibal” are inscribed on rocks in the lower left of another painting set in this geographical formation. A (*) cannon appears in the background of that painting, which shows a yellow cloak billowing around the namesake French general. Jacques-Louis David painted an equestrian portrait of Napoleon crossing, for 10 points, what mountain range that runs through France and Italy?

ANSWER: the Alps [accept Great St. Bernard Pass; accept Napoleon Leading his Army over the Alps or Snow Storm: Hannibal and his Army Crossing the Alps or Napoleon Crossing the Alps; prompt on mountains] <JA>

14. These interactions are disrupted by both urea (“yoo-REE-uh”) and guanidinium (“gwa-NID-ee-yum”) chloride, making those agents chaotropic (“KAY-oh-TROP-ik”). These interactions hold the fibrils of cellulose together and mediate the formation of carboxylic (“CAR-bock-SILL-ick”) acid dimers (“DI-mers”) in solution. Three of them are present between guanine (“GWAH-noon”) and cytosine (“SIGH-tuh-seen”) in DNA, as opposed to the (*) two between adenine (“ADD-uh-noon”) and thymine (“THIGH-meem”). Hydrogen sulfide has a much lower boiling point than water because of these interactions, which also are the reason that ice is less dense than water. For 10 points, name these weak noncovalent bonds in which the lightest element is shared between two atoms.

ANSWER: hydrogen bond [or H-bond; prompt on bond]

15. Some of this religion’s scriptures may have been lost due to a famine which resulted in the death of many monks. Some adherents of this religion starve themselves to death in a ritual known as *sallekhana*, and *Samayika* is a form of meditation practised in this religion. One symbol of this religion is a wheel called a *dharmachakra* imposed on a palm. The (*) sky-clad Digambara and white-clad Svetambara are the two major schools of this religion. This religion’s principle of *ahimsa* enjoins its practitioners to nonviolence, which leads some to wear masks to avoid swallowing bugs. For 10 points, name this Indian religion founded by Mahavira.

ANSWER: Jainism <GP>

16. This author included the lines “I prize thy love more than whole mines of gold” in one poem. This poet is asked “moved you not, restless, waiting for him?” in an “Homage” by John Berryman. This author of four “quaternalion” poems wrote how she “washed thy face, but more defects I saw” in a poem beginning “Thou ill-formed offspring of my feeble brain.” She depicted “pleasant things” lying in (*) ashes in “Verses Upon the Burning of Our House,” and declared “If ever two were one, then surely we” in her poem “To My Dear and Loving Husband.” For 10 points, name this 17th-century American author of the poetry collection *The Tenth Muse Lately Sprung Up in America*.

ANSWER: Anne **Bradstreet** <NS>

17. The square of a quantity named for this man is multiplied by three in the numerator of the formula for the critical density. The observable universe occupies a sphere named for this man beyond which interstellar objects are receding faster than the speed of light. His namesake parameter takes units of (*) kilometers per second per megaparsec, and lenticular galaxies lie at the junction of his tuning fork diagram. The Pillars of Creation image was captured using a device named for this man. For 10 points, name this American astronomer who lends his name to a space telescope.

ANSWER: Edwin **Hubble** <JA>

18. This film popularized bright red Djinn chairs. One character in this film sings the song “Daisy” as it dies. A shot of an old man lying in a bed in this film cuts to a giant fetus. The first section of this film ends with a match cut from a thrown bone to a (*) spaceship - that section depicts a primitive man using the bone as a weapon after touching a black monolith. Richard Strauss’ *Also Sprach Zarathustra* plays over of the opening of this film. The quote “I’m sorry Dave. I’m afraid I can’t do that” is said after the command “Open the pod bay doors, HAL” is denied by a supercomputer aboard a spaceship. For 10 points, name this Stanley Kubrick film about a journey to Jupiter.

ANSWER: **2001: A Space Odyssey** <WG>

19. The secret police of this country perfected a type of psychological torture whose name means “decomposition.” Nations that recognised this country were targeted by the Hallstein Doctrine, and its final leader, Egon Krenz, was prosecuted for war crimes. Duroplast was used to create the Trabant car in this country, where the teenaged Peter Fechter was shot in the “death-strip” near Checkpoint (*) Charlie. The SED party ruled this country, which was the home of the Stasi. Erich Honecker and Walter Ulbricht (“UL-breckt”) both led this former country, which reunited with its western neighbor in 1990. For 10 points, name this former Communist country that built the Berlin Wall.

ANSWER: **East Germany** [Accept **German Democratic Republic**, do NOT accept or prompt on “Germany” or “West Germany”] <GP>

20. Michel Foucault rejected a “juridico-discursive” model of this concept in which it has a “negative relation” with individual behavior. This concept is the first non-article in the title of a book that identifies the “corporate rich” and “political directorate” among members of the namesake group. In international relations, The “soft” and “hard” forms of this concept describe a state’s ability to exercise (*) co-optation or coercion. In *The Spirit of the Laws*, Montesquieu described the “separation” of this concept among a legislative, executive, and judicial branch. For 10 points, name this ability of an individual or state to influence others to its will.

ANSWER: **power** [or **powers**; prompt on “sovereignty”; prompt on “authority”] <JA>

PACKET 13 BONUSSES

1. Walt Whitman asks the grocery boys “Who killed [these foodstuffs]?” in Allen Ginsberg’s “A Supermarket in California.” For 10 points each:

[10] Name these meat products cut from the loin of a pig.

ANSWER: **pork chops**

[10] Pork chops name a type of contour plot used to map the departure and arrival dates for these missions. Mariner 2 completed the first successful mission of this type in 1962.

ANSWER: **interplanetary** space flights [or planetary **flybys**; or **planetary encounters**; accept equivalents that mention traveling between planets or to a specific planet]

[10] Pork Chop Hill was the site of two bloody battles during this Asian conflict. This conflict ended with the establishment of the Demilitarized Zone to separate two countries on a namesake peninsula.

ANSWER: **Korean War** <JA>

2. In this photograph, women wearing shawls hang their clothes below an empty walkway with chain railings. For 10 points each:

[10] Identify this black-and-white photograph depicting lower-class passengers on board the *SS Kaiser Wilhelm* travelling from New York to Germany.

ANSWER: *The Steerage*

[10] *The Steerage* was photographed by Alfred Stieglitz, who depicted one of these equine animals walking in the snow in *Winter – Fifth Avenue*. Eadweard Muybridge arranged 16 cameras to show one of these animals galloping.

ANSWER: **Horse** [accept **pony** or **stallion**]

[10] The New York-based photographer Jacob Riis (“REES”) compiled many photos of impoverished lower-class families lived this muckraking photography book.

ANSWER: ***How the Other Half Lives: Studies Among the Tenements of New York*** <NS>

3. Leonidas C. Dyer introduced a failed bill to outlaw this practice. For 10 points each:

[10] Name this practice that was employed in the South by mobs to enforce justice. The victims of this practice were often hanged and primarily African-American.

ANSWER: **lynching**

[10] In 1900s Atlanta, a member of this ethnic group named Leo Frank was lynched for the murder of Mary Phagan. Many members of this ethnic group settled in the Lower East Side after arriving in Ellis Island.

ANSWER: **Jews** [or **Jewish** people; or American **Jews**; or Ashkenazi **Jews**; or Sephardic **Jews**]

[10] The largest mass lynching in American history took place in this city and resulted in the death of at least 17 Chinese immigrants. American servicemen attacked Mexican-Americans in this city during the Zoot Suit Riots.

ANSWER: **Los Angeles** [or **L.A.**] <GP>

4. This author wrote an essay in which a computer glitch delays the narrator from putting the title fish in a minibar fridge. For 10 points each:

[10] Identify this author of "How to Travel with a Salmon." He created a character who falls in love with Hypatia on his quest to find Prester John during the Fourth Crusade in his novel *Baudolino*.

ANSWER: Umberto **Eco**

[10] In this Umberto Eco novel, Jorge of Burgos kills monks by using poisoned pages from a section of Aristotle's *Poetics*. Adso of Melk and William of Baskerville investigate monastery murders in this novel.

ANSWER: *The Name of the Rose* [accept *Il Nome della Rosa*]

[10] Diotallevi, Belbo, and Casaubon write a fake history of the Knights' Templar in an Umberto Eco novel titled for one of these devices named for Léon Foucault. A Poe short story pairs one of these objects with a "Pit."

ANSWER: a **pendulum** <NS>

5. The "right hand rule" aids in the calculation of this operation. For 10 points each:

[10] Name this operation that takes in two vectors and returns a vector orthogonal ("or-THOG-uh-nul") to both.

ANSWER: **cross** product [don't prompt on or accept bare answers of "product"]

[10] The cross product is only defined in 1, 3, 7, and this number of dimensions. A space of this many dimensions is visualized as a point, and the cross product of two parallel vectors is a vector whose entries are all this value.

ANSWER: **zero**

[10] This mathematical operation is often written as $\nabla \times F$ for a vector field F . The line integral of F along a curve equals the surface integral of this operation on F for some surface bounded by the curve, by Stokes' theorem.

ANSWER: **curl** <VS>

6. This man's mother Monica was a devout Christian. For 10 points each:

[10] Name this theologian and bishop of Hippo who wrote *City of God* and *Confessions*. This man and his son Adeodatus were baptised by Saint Ambrose of Milan, who was also a major influence on this man.

ANSWER: Saint **Augustine** of Hippo

[10] Prior to being baptised by Ambrose, Augustine followed Manichaeism, a religion originating in this region. A ruler of an empire named for this region is the only non-Jewish person to be called the Messiah in the Bible.

ANSWER: **Persian** Empire [accept **Iran**; anti-prompt on **Achaemenid** Empire or **Sassanid** Empire]

[10] After hearing the voice of a child telling him to begin reading the Bible, Augustine first read this first and longest of the Pauline epistles that follow Acts. This epistle's sixth chapter states that "the wages of sin is death."

ANSWER: Epistle to the **Romans** [accept Letter to the **Romans**] <GP>

7. This anthropologist wrote *A General Theory of Magic* and analyzed the importance of the potlatch in Native American culture in his most famous work. For 10 points each:

[10] Identify this French anthropologist whose central idea of a "total social fact" appears in his book *The Gift*.

ANSWER: Marcel **Mauss** ("mouse")

[10] Mauss analyzed the Kula ring exchange system in *The Gift*. This other Polish anthropologist analyzed the Kula ring's impact on the Trobriand Islands in his *Argonauts of the Western Pacific*.

ANSWER: Bronisław **Malinowski**

[10] Franz Boas, similarly to Mauss, studied the practice of potlatch, specifically among the Kwakiutl ("kwah-kee-OOT-ul") people. Boas worked at this Ivy League university in New York, teaching students like Margaret Mead.

ANSWER: **Columbia** University <NS>

8. This government operated the Drancy internment camp and facilitated the Vel d'Hiv roundup. For 10 points each:

[10] Name this Nazi puppet government that ruled France during World War II. This government was named for the spa town that served as its de facto capital city.

ANSWER: **Vichy** France [or **French State**; or **Etat Francais**]

[10] This French Marshal served as the head of Vichy France. During World War I, this man achieved glory for his victory at the Battle of Verdun and served as Commander-in-Chief of the French Army.

ANSWER: Philippe **Pétain** [or Henri Philippe Benoni Omer Joseph **Pétain**]

[10] The Vichy government was opposed by the Free French government-in-exile led by this French officer. This first president of France's Fifth Republic was nearly assassinated by the OAS during the Algerian War.

ANSWER: Charles **de Gaulle** [or Charles André Joseph Marie **de Gaulle**] <GP>

9. A writer of this ethnicity produced a novel in which Antonio Marez y Luna is mentored by the title curandera. For 10 points each:

[10] Identify this ethnicity shared by the author of *Bless Me, Ultima*, Rudolfo Anaya, and the Chicana author of *The House on Mango Street*.

ANSWER: **Mexican**-American [prompt on Latino or Hispanic]

[10] This author penned *The House on Mango Street*, based on her childhood in Chicago. She also wrote the short story collection *Women Hollering Creek*.

ANSWER: Sandra **Cisneros**

[10] Mexican-American author Domingo Martinez wrote a memoir about his time in Brownsville titled for *The Boy Kings of*[this place]. This state is also the setting of *Blood Meridian* and *All the Pretty Horses*.

ANSWER: **Texas** <NS>

10. Answer some questions about bonding, for 10 points each:

[10] This quantity usually indicates the number of bonds between two atoms. Formally, it is calculated as one half times the difference in number of nonbonding and bonding electrons.

ANSWER: **bond order**

[10] These bonds possess a bond order of two. Alkenes possess carbon-carbon bonds of this type, which are contrasted with single and triple bonds.

ANSWER: **double** bonds

[10] Double bonds possess a shorter value for this quantity since the atoms experience a greater pull. For bonds, this value is typically measured in picometers.

ANSWER: bond **length** <AG>

11. This composer used E.T.A Hoffmann's stories *Die Puppe* and *Der Sandmann* as inspiration for his most famous ballet. For 10 points each:

[10] Identify this composer of the aforementioned *Coppélia* in which Franz marries the burgomeister's daughter Swanhilda. He also included the "Flower Duet" in his opera *Lakmé*.

ANSWER: Leo **Delibes**

[10] This fellow French composer's *Symphony in C* inspired George Balanchine [BAL-an-sheen] to create a ballet of the same name. Alberto Alonso also choreographed the ballet *Carmen Suite* inspired by this man's opera *Carmen*.

ANSWER: Georges **Bizet**

[10] Choreographer Georges Balanchine choreographed a version of Delibes' *Coppélia* for this city's ballet company. This city is also the headquarters of the Martha Graham Dance Company.

ANSWER: **New York** City <NS>

12. In this novel, the protagonist is born with a jade in his mouth. For 10 points each:

[10] Identify this novel which chronicles the downfall of the Jia family. This novel by Cao Xueqin is alternatively named *The Story of the Stone*.

ANSWER: ***Dream of the Red Chamber*** [accept ***Hong Lou Meng***]

[10] *Dream of the Red Chamber* is one of China's four great classic novels, as well as this novel which includes the Peach Garden Oath and the Battle of Red Cliffs in a retelling of a conflict between the Wu, Wei, and Shu states.

ANSWER: ***Romance of the Three Kingdoms*** [accept ***San Guo Yan Yi***]

[10] Another classic Chinese novel about the adventures of 108 bandits is titled for this substance. Li Bai admired this substance falling from Lushan Mountain, comparing it to "the Milky Way pouring down from Heaven."

ANSWER: **water** [accept ***Water Margin***; accept "**Waterfall** at Lushan Mountain"] <NS>

13. Klaus von Klitzing discovered a “quantum” form of this effect that allows for precise measurement of the fine structure constant. For 10 points each:

[10] Name this effect in which a potential difference is produced across a conductor when it is placed in a magnetic field.

ANSWER: **Hall** effect [accept **quantum Hall** effect]

[10] For the Hall effect to occur, the magnetic field must have this directional relationship to the flow of current through the conductor. The normal force on an object is named for having this relationship to the surface in contact.

ANSWER: **perpendicular** [or **orthogonal**; prompt on **normal**; accept descriptive answers that mention being at a **right** or **90 degree** angle]

[10] While observing the quantum Hall effect, von Klitzing found that conductivity was quantized in multiples of elementary charge squared over this value. This value is divided by momentum to calculate De Broglie (“duh BROY”) wavelength.

ANSWER: **Planck**’s constant [or **h**; do NOT accept or prompt on “reduced Planck’s constant” or “h-bar”] <JA>

14. Asa Whitney and Theodore Judah both advocated for this structure’s construction. For 10 points each:

[10] Name this construction project that was completed by the Union Pacific and Central Pacific companies. Its completion saw Leland Stanford drive a golden spike at Promontory, Utah.

ANSWER: First **Transcontinental Railroad**

[10] This other railway, which was completed in 1916, was taken over by the Czechoslovak Legion two years later. This railway’s eastern terminus is at the city of Vladivostok.

ANSWER: **Trans-Siberian** Railway

[10] This first Prime Minister of Canada resigned after it was revealed that Hugh Allan bribed Conservative Party members to win the contract to build a transcontinental railroad in Canada.

ANSWER: Sir John Alexander **Macdonald** <GP>

15. This author wrote a play in which Vivie refuses to shake her mother's hand after learning that her mother runs brothels for a living. For 10 points each:

[10] Identify this playwright of *Mrs. Warren's Profession*. He also wrote about a Christian slave who saves the title animal with a wounded paw in *Androcles and the Lion*.

ANSWER: George Bernard **Shaw**

[10] Colonel Pickering makes a deal with Henry Higgins that the flower girl Eliza Doolittle cannot speak like a duchess due to her cockney accent in this most famous Shaw play.

ANSWER: **Pygmalion**

[10] Shaw referred to the worship of this writer's works as "bardolatry" in the preface to his *Three Plays For Puritans*. Late in life, Shaw rewrote the fifth act of this author's play *Cymbeline*.

ANSWER: William **Shakespeare** <NS>

16. Answer the following about social movements centered on parks. For 10 points each,

[10] The demolition of Gezi Park in this city, the largest in its country, sparked a wave of protests in 2013. Those protests were suppressed by the government of Recep [ruh-jep] Tayyip Erdogan [air-dough-wan].

ANSWER: **Istanbul**

[10] This early 2010s social movement was centered on an encampment in New York’s Zuccotti Park and spawned imitators in financial districts including Hong Kong’s Central and Paris’s La Defense.

ANSWER: **Occupy** Wall Street

[10] Bolotyna Park served as a gathering point for protesters against Vladimir Putin’s regime in 2011 coordinated in part by this Russian opposition figure who leads the Russia of the Future party and was attacked with green dye while campaigning in a 2017 election.

ANSWER: Alexei **Navalny** <JM>

17. This city's airport was the world's busiest by cargo traffic before being passed by Hong Kong in 2009. For 10 points each:

[10] Name this city on the Mississippi River. It contains the headquarters of FedEx, causing it to grow into a major shipping hub.

ANSWER: **Memphis**, Tennessee

[10] This other southern city contains Hartsfield-Jackson, the busiest passenger airport in the world. Centennial Olympic Park and the World of Coca Cola Museum are attractions in this city, whose main thoroughfare is Peachtree Street.

ANSWER: **Atlanta**, Georgia

[10] Hartsfield-Jackson serves as the primary hub for this airline, which provides three quarters of its traffic. This airline is named for the triangular plain formed by the mouth of the Mississippi River.

ANSWER: **Delta** Air Lines <JA>

18. The killing of pigeons by British soldiers in this country led to the Denshawai Incident. For 10 points each:

[10] Name this country which was occupied and ruled by the British empire following the Urabi Revolt. Fuad I declared himself king of this country following its independence from Britain in 1922.

ANSWER: **Egypt** [accept **Khedivate of Egypt**, **Sultanate of Egypt**, or **Kingdom of Egypt**]

[10] Fuad I attempted to gain control of Albania, which at the time was a part of this empire. Located in modern-day Turkey, it dissolved after World War I.

ANSWER: **Ottoman** Empire

[10] Fuad I's son Farouk I was overthrown in 1952 by the Free Officers Movement, led by Muhammad Naguib and this man. This man led Egypt during the Suez Crisis in 1956, and was succeeded as president by Anwar Sadat.

ANSWER: Gamal Abdel **Nasser** [or Gamal Abdel **Nasser** Hussein] <GP>

19. This hero, who spent 700 years in his mother's womb, tried to woo the Maiden of the North. For 10 points each:

[10] Name this bard and rival of Joukahainen who tricked Ilmarinen into crafting the Sampo.

ANSWER: **Vainamoinen**

[10] Vainamoinen is the protagonist of this Finnish epic poem written by Elias Lonnrot. Other characters in it include Ukko and Kullervo.

ANSWER: **Kalevala**

[10] While hunting for one of these animals, Lemminkainen is shot by the Shepherd of the North. In Greek myth, Zeus seduces Leda in the form of one of these birds, and they legendarily sang a beautiful song only at death.

ANSWER: **swan** <NS>

20. Competence refers to a cell's ability to undergo this process, which is facilitated by Sec and Tat transport proteins. For 10 points each:

[10] Name this process in which a cell uptakes DNA directly from its surroundings. This process is often contrasted with conjugation and transduction.

ANSWER: **transformation**

[10] Electroporation is used to induce artificial competence by forming holes in this structure. The fluid mosaic model describes this semipermeable structure composed of a phospholipid bilayer.

ANSWER: cell **membrane** [or plasma **membrane**]

[10] The bacterium *A. tumefaciens* is used to transfer genes to this model organism, a plant also called the thale cress or mouse-ear cress.

ANSWER: **Arabidopsis thaliana** [or **A. thaliana**] <AG>