



## NSC 2018 - Round 06 - Tossups

**1. Legends about this ruler spread to Europe in the figure of Rex Melly. This ruler commissioned an earthen building noted for its torons that once housed the world's largest library. This ruler had to be persuaded to pay an official visit to the court of Al-Malik an-Nasir. His son and successor Maghan suffered a humiliating loss to the Mossi people and was succeeded by this man's brother Sulayman, who was visited by (\*) Ibn Battuta. His architect Abu Es Haq es Saheli built the Djinguereber (jin-gah-ray-bair) mosque, and his general Sagmandia captured Gao. 500 slaves, each carrying a golden walking stick, joined him at Niani on a trip that depressed Cairo's gold market. For 10 points, name this Mali emperor, a grandson of Sundiata who went on a noted 1324 hajj.**

ANSWER: Mansa **Musa** [or Mansa **Mousa**; or Kankan **Musa**]  
<Bentley, History - World>

**2. A building of this type in Montreal was famed for its annex of stained glass windows called Peacock Alley. The Pritzker Prize is named for a family which made its fortune through these types of buildings. In 1931 Schultze & Weaver completed construction on an Art Deco successor to a building of this type that lends its name to a type of apple, walnut and grape (\*) salad. Canada is famed for buildings of this type like the Windsor that are located near its grand railways. One of these buildings on an artificial island in Dubai is shaped like a sail and is called the Burj Al Arab. One of these buildings was constructed on a series of concrete pillars that helped it survive the 1923 Great Kanto Earthquake. For 10 points, name this type of building that includes New York's Waldorf-Astoria.**

ANSWER: **hotels** [or railroad **hotels** or grand **hotels**] (The Pritzker family ran the Hyatt hotel chain.)  
<Bentley, Arts - Architecture>

**3. Bryngelson and Wolynes used spin glass theory to create a model of this phenomenon that predicts a low-temperature phase in which the system is "frozen" in one microstate. The compound beta-mercaptoethanol (beta-mer-CAP-toh-ethanol) can break bonds to undo the result of this process. The energy landscape theory of this process involves a system passing through a series of local minima to reach a principle of minimum frustration. According to (\*) Anfinsen's dogma, the result of this process depends only on primary structure. In many instances, this process is aided by chaperonins (shap-er-OH-nins) and other chaperones found in the endoplasmic reticulum. For 10 points, name this process in which a protein is assembled into its three-dimensional conformation.**

ANSWER: protein **fold**ing [accept word forms; prompt on anything about forming **bonds**]  
<Ramaswami, Science - Biology>

4. This writer criticized a preacher's "unscrupulosity of statement" and "perverted moral judgment" in "Evangelical Teaching: Dr. Cumming," an essay for the *Westminster Review*, which this writer edited. The protagonist neglects his wife Milly in favor of Countess Czerlaski in a story by this writer about the Reverend Amos Barton. This writer translated David Strauss's *Life of Jesus* and Feuerbach's *The Essence of Christianity* into English. This author of *Scenes of (\*) Clerical Life* wrote about John Raffles, who blackmails the Methodist banker Nicholas Bulstrode, in a novel whose protagonist marries a man who attempts to write *The Key to All Mythologies*. The Reverend Edward Casaubon and Dorothea Brooke appear in, for 10 points, what English novelist's *Middlemarch*?

ANSWER: George **Eliot** [or Mary Ann **Evans**]

<Kothari, Literature - British>

5. One of these things became angry at the sun god for not paying it enough attention, but was later tricked into permanently bowing down by the sage Agastya. Another of these things was balanced on the back of the turtle Kurma, and along with the *naga* Vasuki was used to perform the churning of the ocean of milk. Indra's anger was defused when Krishna held one of these things up to protect a (\*) village from torrential rains. A golden one of these structures, which is surrounded by the forest Himavant, is the center of the universe in Hindu cosmology. At the conclusion of the *Mahabharata*, the Pandavas try to reach heaven by ascending, for 10 points, what kind of geographical feature, mythological examples of which include Meru?

ANSWER: **mountains** [accept **mounts** or **hills** or **mountain ranges**]

<Jose, RMP - Other Myth>

6. Description acceptable. It's not anti-Communism, but a form of this sentiment was once called Vansittartism after the diplomat Robert Vansittart. A financier who helped develop the London Underground, Edgar Speyer, left the country due to this sentiment. In a move fueled by this sentiment, citizens of an Ontario city changed its name to "Kitchener." A poster promoting this sentiment depicts a gorilla carrying off a woman with the slogan, "Destroy This Mad (\*) Brute." Other posters advocating this sentiment often used the term "Hun." King George V renamed his family to the House of Windsor due to this feeling, which manifested itself in the US with renamed products such as liberty cabbage. For 10 points, name this prejudice against a country headed by Kaiser Wilhelm II in World War I.

ANSWER: **anti-German** sentiment [or **Germanophobia**; or **anti-Nazi** sentiment; or equivalents; prompt on **pro-World War I** sentiment or similar answers]

<Bentley, History - European>

7. The partition function is proportional to the square root of temperature for a potential that depends on this power of a coordinate. Central force problems can be simplified by introducing an "effective potential" that is *inversely* proportional to this power of distance. Hermite (air-MEET) polynomials or ladder operators can be used to solve the Schrödinger equation in a potential that is proportional to this power of distance. By introducing the "reduced mass" and transforming to the (\*) center-of-mass frame, one can easily solve the problem involving this many gravitationally interacting bodies. When potential energy is proportional to distance raised to this power, objects oscillate sinusoidally as they undergo simple harmonic motion. For 10 points, how many masses are connected by a pulley in an Atwood machine?

ANSWER: **two** [or **2**]

<Mitchell, Science - Physics>

**8. This material was combined with egg whites to make a "shell" variant, some of which was used to accent the shell in Sandro Botticelli's *Birth of Venus*. The mordant form of applying this material was used to provide a different texture for the throne in the *Rucellai Madonna*. It's not wood, but this material dominates the background of the *Maesta* altarpiece by Duccio. This material was used for the dress of (\*) Adele Bloch-Bauer in a Gustav Klimt portrait. In works such as the *Lamentation* for the Scrovegni Chapel, this material surrounds the heads of many of the figures. In the early Renaissance, halos were often created from the thinly pounded "leaf" of this material. For 10 points, name this precious material applied during gilding.**

ANSWER: **gold** leaf [or **Au**; accept **gilding** until "gilding" is read; accept **gold** paint, **gold** foil, and other answers mentioning **gold**]

<Bentley, Arts - Painting>

**9. Whether subjects of this type can discriminate between stimuli is tested by Robert L. Fantz's experimental method of "preferential looking." Mary Ainsworth's assessment of subjects of this type in the "strange situation" aided her and John Bowlby's formulation of "attachment theory." A 1960 experiment run by Richard Walk and Eleanor Gibson assessed depth perception in this type of subject by placing them on a (\*) "visual cliff." The ability of these subjects to assess conservation was assessed in an experiment involving two beakers. Another experiment demonstrated classical conditioning in a subject of this type trained to fear white, furry objects. For 10 points, identify this kind of subject exemplified by John Watson's "Little Albert" and the subjects of many developmental experiments by Jean Piaget.**

ANSWER: **children** [or **kids**; or **infants**; or **babies**; accept any answer that indicates pre-adolescent **children** or **infants** or **babies**; prompt on answers indicating people or human beings]

<Hart, Social Science - Psychology>

**10. A poem originally written in this language describes the "exquisite music" of an "invisible procession" and advises the addressee to "say goodbye" to a city "that you are losing." The author of that poem used this language to write a poem whose title figures "are coming today" and are said to be "a kind of solution." A poem in this language with exactly 33,333 lines was written as a "modern sequel" to a poem in a much (\*) older form of this language. "The God Abandons Antony" and "Waiting for the Barbarians" were written in this language, as was a novel whose narrator runs a lignite mine that employs the *santuri*-playing foreman Alexis Zorba. For 10 points, name this European language used by Constantine Cavafy and Nikos Kazantzakis.**

ANSWER: **Greek** language [or Modern **Greek**; or **Hellenic**; or **elleniká** glossa] (The 33,333-line poem is Kazantzakis's *The Odyssey: A Modern Sequel*.)

<Carson, Literature - European>

**11. A long prelude by this composer climaxes with slow four-note block chords in both hands moving in parallel over a low C pedal, an example of harmonic planing (PLANE-ing). He opened that piece with rising parallel fifths to evoke distant bells from a building in a legendary city. A piano piece by this composer based on whole-tone harmony is ambiguously titled "veils" or "sails." This composer began a symphonic poem with a (\*) chromatic descent on flute from C-sharp to G. This composer printed descriptive titles in parentheses at the ends of his 24 piano preludes, like "Voiles" (vwahl) and "The Sunken Cathedral." A Paul Verlaine (vair-LEN) poem about moonlight inspired the third movement of his *Suite Bergamasque* (bair-gah-MASK). For 10 points, name this French composer of "Clair de Lune."**

ANSWER: Claude **Debussy** [or Achille-Claude **Debussy**]

<Magin, Arts - Music>

**12. This work's epigraph mention "clouds" that pass through "gay castles" that are "forever flushing round a summer sky," and is taken from James Thomson's *Castle of Indolence*. This story is set in a town where "stars shoot and meteors glare oftener across the valley" than elsewhere, and which received its name from housewives whose husbands lingered about the village tavern on market days. An "old Indian chief" and his "powwows" may have (\*) bewitched the setting of this story, which is near the river Tappan Zee. A "Hessian trooper" who was killed during a "nameless battle during the Revolutionary war" inhabits Tarry Town's glen in, for 10 points, what Washington Irving story centering on a legend about a headless horseman?**

ANSWER: "The Legend of **Sleepy Hollow**"

<Jose, Literature - American>

**13. A serialized novel titled for this man by "dime millionaire" Ned Buntline was the "wildest and truest story [this man] ever wrote." He was celebrated as taking "the first scalp for Custer" when he killed a Cheyenne soldier shortly after Little Big Horn. Both Jack Omohundro and this man had their exploits popularized by the 1872 play *The Scouts of the Prairie*. He earned his nickname gathering (\*) food for a railroad company. He inspired Theodore Roosevelt with his pro-manhood "Congress of Rough Riders" tour. One of his highest-paid employees was Sitting Bull. Some six million people saw him perform at the Chicago's World's Fair alongside a woman known as "Little Sure Shot." For 10 points, Annie Oakley was a star of which man's namesake Wild West show?**

ANSWER: **Buffalo Bill** [or William Frederick **Cody**]

<Bentley, History - American>

**14. The Schwarz–Christoffel mapping is applied on sets of these numbers, as are all conformal mappings. Functions of these numbers are often visualized using color-wheel graphs. Several theorems about these numbers can be proven using the maximum modulus principle. If a function whose values are numbers of this type is differentiable at every point of its domain, then it is known as a holomorphic function. A field of (\*) analysis named after these numbers was founded by Augustin-Louis Cauchy (koh-SHEE). Roots of these numbers can be calculated using De Moivre's (duh MWAHV's) formula. Any number of this type multiplied by its conjugate equals a real number. For 10 points, name these numbers that take the form " $a$  plus  $b i$ ."**

ANSWER: **complex** numbers

<Minarik, Science - Math>

**15. Participants wore rings of sage and whistles during a ritual centered on this activity that began with the felling of a cottonwood tree. During a ceremony named for this activity, young men had their chests pierced with bone, then were attached to a pole with a rawhide tong while they engaged in this activity. The Lakota practiced that form of this activity named for the (\*) Sun. Wovoka founded a religious movement named for this activity, whose adherents wore shirts that were supposed to be invulnerable to bullets. The victims of the Wounded Knee Massacre were practitioners of a religion named for this activity, whose adherents believed that performing this activity in a circle would summon ghosts. For 10 points, name this practice of moving the body in a rhythmic fashion.**

ANSWER: **dance** [accept word forms of **dancing**]

<Brownstein, RMP - Other Religion>

**16. This philosopher wrote that the Sputnik launch was "second in importance to no other" and argued that the technical achievements of space travel would diminish the stature of man. This thinker contended that the emergence of *animal laborans* over *homo faber* were hallmarks of modernity in a work that traces changes in the (\*) *vita activa*. This philosopher rebuked a man who claimed to follow Kant's categorical imperative by noting that he failed to consider himself as a legislator instead of the head of state. This one-time student of Martin Heidegger and author of *The Human Condition* documented the trial of a Nazi war criminal in a book that introduced the term "banality of evil." For 10 points, name this author of *Eichmann in Jerusalem*.**

ANSWER: Hannah **Arendt** [or Johanna **Arendt**]

<Kothari, RMP - Philosophy>

**17. An American submarine called the *USS Scorpion* leaves this country to investigate signals from the Pacific Northwest after a nuclear war in the novel *On the Beach*. An author from this country wrote a novel about this country's Ern Malley literary hoax called *My Life as a Fake*. That author from this country also created Tobias Oates, a fictionalized version of Charles Dickens, in a 1997 novel that reworks (\*) *Great Expectations*. In 1950 Nevil Shute moved to this country, which is the source of a ballad genre whose most famous example describes a "jumbuck" being shoved into a "tucker bag" by a "swagman," who then jumps into a billabong. *Jack Maggs* author Peter Carey is from, for 10 points, what country, whose "unofficial national anthem" is "Waltzing Matilda"?**

ANSWER: **Australia** [or the Commonwealth of **Australia**]

<Carson, Literature - World>

**18. A 1989 Frederick Wiseman documentary chronicles the Conservancy that funds this place. This place contains a statue of Balto but no longer has one of the "father of gynecology," J. Marion Sims. Charles B. Stover tried to convert its Dairy into a playroom. Women were assaulted during the "35 scary minutes" in this place following the 2000 (\*) Puerto Rican Day Parade. Its designer later planned the Emerald Necklace in Boston. Trisha Meili's comatose body was found in this place in 1989, prompting Donald Trump to take out a full-page ad advocating a return of the death penalty; Meili was known as its namesake "jogger." It spans the Upper West and East Sides and was designed by Frederick Law Olmsted. For 10 points, name this large green space in Manhattan.**

ANSWER: **Central Park** [prompt on New York City or NYC; prompt on Manhattan]

<Bentley, Geography - United States>

**19. A large contingent of soldiers with this ethnicity defected from Napoleon's army to become citizens in an independent Haiti. People of this ethnicity congregated at the Hotel Lambert in Paris during the Great Emigration of the 19th century. France's Henry III agreed to the Henrician Articles, which granted nobles of this ethnicity the right to elect a monarch who was bound to regularly convene a parliament; in that parliament, these people had the (\*) liberum veto. In 1848, people of this ethnicity sought to throw off Prussian yoke in the Poznań Uprising. Their homeland ceased to exist in 1795 after the Kościuszko (kosh-CHOOSH-koh) Uprising resulted in a partition. For 10 points, name these people once joined in a commonwealth with Lithuania, many of whom resided in Warsaw.**

ANSWER: **Poles** [or **Polish** people]

<Bentley, History - European>

**20. Michael Ghiselin published a paper explaining evolutionary strategies for this phenomenon, such as the low-density model. In Charnov's explanation, a convex fitness set curve favors this phenomenon while a concave curve favors dioecy (DIE-ee-see). The California sheephead fish exhibits the protogynous form of this phenomenon, which is favored by territoriality and mate selection. Clownfish possess the sequential form of this feature, while (\*) earthworms exhibit its simultaneous form. Plants that exhibit this phenomenon have perfect flowers that have both carpels and stamens. Monoecious (muh-NE-shiss) plants exhibiting this strategy can vary flowering times to prevent self-fertilization. For 10 points, name this strategy in which animals produce gametes of both sexes.**

ANSWER: **hermaphroditism** [accept word forms like **hermaphrodite**; accept **monoecy** until "monoecious" is read]

<Grames, Science - Biology>

**21. Klystrons are primarily used as sources of this phenomenon, which is used to stimulate transitions created by the Zeeman effect in electron spin resonance. Cavity magnetrons produce this phenomenon. OH and CH radicals in molecular clouds serve as sources of this kind of radiation from space. Charles Townes invented a device which uses rotational transitions in molecules of ammonia to produce a coherent beam of this kind of radiation via (\*) stimulated emission. Molecules with a high dipole moment, such as water, are excellent absorbers of this kind of radiation, allowing this radiation to be used in dielectric heating. For 10 points, name this radiation with wavelengths between infrared and radio waves, which is used to efficiently reheat food.**

ANSWER: **microwave** radiation (The device refers to the ammonia maser.)

<Wang, Science - Physics>



### NSC 2018 - Round 06 - Bonuses

1. In this author's autobiography, she tells of how her landlord hung himself for having to rent to a black family and later describes her relationships with women like Muriel and Afrekete. For 10 points each:

[10] Name this black, female, lesbian poet who wrote "The Black Unicorn" and the biomythography *Zami: A New Spelling of My Name*.

ANSWER: Audre **Lorde** [or Audrey Geraldine **Lorde**]

[10] Lorde's poetry was included in the collection *New Negro Poets, U.S.A.*, whose foreword was written by this poet of "We Real Cool."

ANSWER: Gwendolyn **Brooks**

[10] Lorde grew up in this neighborhood. It was the site of a literary "Renaissance" whose writers included Zora Neale Hurston.

ANSWER: **Harlem**

<Games, Literature - American>

2. The Canadian company D-Wave Systems purports to sell these devices. For 10 points each:

[10] Identify these devices that use qubits (**Q-bits**) to implement algorithms. One of these devices running Shor's algorithm could break classical encryption.

ANSWER: **quantum** computers [prompt on **computers**]

[10] Theoretically, all quantum computers can be simulated as a modified form of one of these devices, which consist of a "head" that manipulates symbols on an infinite tape. Hopcroft and Ullman gave a definition of them as a specific 7-tuple.

ANSWER: **Turing** machines

[10] In 2017, this company released the language Q# (**Q-sharp**), which allows for the simulation of quantum algorithms. This company created the web server IIS (**eye-eye-S**) and the .NET (**dot-net**) framework.

ANSWER: **Microsoft**

<Jose, Science - Computer Science>

3. The names al'Awwal and al'Akhir are names of God that parallel the use of these letters. For 10 points each:

[10] Name this pair of letters that follow "I am" in a book of the bible. In later parts of that book, the phrase "I am" these two letters is followed by "I am the beginning and the end."

ANSWER: **alpha** AND **omega** [do not accept or prompt on incomplete answers]

[10] This Hebrew word consists of the first, middle, and last letters of the alphabet. Writing this word activates a golem, which can be deactivated by erasing the first letter, resulting in the word for death.

ANSWER: **emet** (eh-MET) [prompt on **truth**]

[10] The phrase "I am the alpha and the omega" first appears in chapter one, verse eight of this book of the Bible. This book is attributed to John of Patmos.

ANSWER: Book of **Revelation** [do not accept "Revelations" or "Book of Revelations"]

<Wang, RMP - Bible/Christianity>

4. The 12th and final sonatas in Vivaldi's Opus 1 and Corelli's Opus 5 are variations on the "late" version of a simple, popular dance theme often named for this country. For 10 points each:

[10] Identify this country whose name is often appended to *La folia*, a stock eight-bar chord progression that originally came from 16th-century Portugal. The sarabande, a slow Baroque dance from this country, was banned in it.

ANSWER: **Spain** [or **España**; accept *La folia de España*, *Les folies d'Espagne*, Follies of **Spain**, etc.]

[10] Handel's Sarabande, which is based on *La folia*, is in this meter. The minuet was an easy, elegant court dance in this meter.

ANSWER: **triple** time [or simple **triple** meter; accept **3/4** time or **three-four** time]

[10] *La folia* only uses four distinct chords. Suppose the first three chords of *La folia* are (read slowly) A minor, E major, and A minor. What is the fourth chord?

ANSWER: **G major** [prompt on **G**] (*La folia* has the following memorable symmetrical chord progression: i V i, VII III VII, i V i.)

<Lifshitz, Arts - Music>

5. This author described his country as "an iron house, without windows or doors" in the introduction to his collection *A Call to Arms*, which includes a story whose title character considers his many humiliations "spiritual victories." For 10 points each:

[10] Name this pioneering modern author, whose stories include "A Madman's Diary" and "The True Story of Ah Q."

ANSWER: **Lu Xun** (**loo shwin**) [or **Zhou Shuren**]

[10] Many of Lu Xun's short stories described this country's 19th-century decline under the Qing (**cheeng**) dynasty.

ANSWER: **China** [or **Zhongguo**]

[10] The title character of Lu Xun's story "Kong Yiji" is an elderly scholar who failed to accomplish this task, much like Lu Xun's father. Lu Xun himself chose to study medicine in Japan rather than seriously attempt this task.

ANSWER: passing the Imperial **civil service examinations** [or passing the **imperial examinations**; or **keju**]

<Raje, Literature - World>

6. The carbocation intermediate in SN1 reactions has this molecular geometry before reacquiring a tetrahedral geometry. For 10 points each:

[10] Identify this molecular geometry present in boron halides but not aluminum halides, because boron is unable to support an additional lone pair due to an octet rule exception.

ANSWER: **trigonal planar** [prompt on partial answer]

[10] BF<sub>3</sub> is predicted to have trigonal planar geometry by this theory, which counts the number of ligands and lone pairs surrounding a central atom.

ANSWER: **VSEPR** (**vesper**) theory [or **valence shell electron pair repulsion** theory; prompt on partial answer]

[10] Two answers required. Molecules with a steric number of five can have four possible molecular geometries: trigonal bipyramidal, see-saw, and these two geometries. It may help to know that they contain two and three lone pairs, respectively.

ANSWER: **T-shaped** AND **linear** molecular geometries [accept answers in either order; do not accept or prompt on incomplete answers]

<Prieto, Science - Chemistry>



7. Identify the following about French taxes, for 10 points each.

[10] In the spring of 1662, peasants in Boulogne and Calais revolted against this tax levied on subjects who did not bear arms. The *personnelle* version of this tax was collected in Northern France.

ANSWER: **taille** (tie)

[10] The *taille* was not applied to most noblemen or to members of this profession. Members of this profession constituted the First Estate and were supported by payments such as the tithe.

ANSWER: **clergy** [or **priests**; or **bishops**; or **churchmen**]

[10] Residents of this city were exempt from paying the *taille*. Although taxes were reformed in the Revolution, the silk industry in this capital of the Rhone department plummeted during the turmoil.

ANSWER: **Lyon** [or **Lyons**]

<Bentley, History - European>

8. In February 2018, this man won the "Charlton Heston Courage Under Fire" award from the NRA. For 10 points each:

[10] Name this one-time attorney for Verizon, who now is the chairman of the Federal Communications Commission.

ANSWER: Ajit **Pai** [or Ajit Varadaraj **Pai**]

[10] Under Pai's tenure, the FCC overturned a policy of keeping this system "neutral." Under the new policy, providers of this service may charge different rates depending on the type of content that a user accesses.

ANSWER: **Internet** [or **World Wide Web**; or **Web**; or **Net**; or **broadband**; accept **net neutrality**]

[10] The term "net neutrality" was coined by this Chinese-American professor at Columbia, who advised the FCC under Obama. His book *The Master Switch* argues that information companies generally evolve from being an open system to a closed system.

ANSWER: Tim **Wu**

<Jose, Current Events - United States>

9. The name for this practice came from the Latin word for free, and members of Congress are entitled to a privilege of this name which lets them mass communicate with their constituents. For 10 points each:

[10] Identify this practice of sending free snail mail.

ANSWER: **franking** [or **franking** privilege; or Congressional **Frank**]

[10] Ben Franklin, who changed his witty franking stamp to the more patriotic "B. free Franklin," was the first man to hold this post under the Continental Congress. This chief of the USPS was once a cabinet position.

ANSWER: **postmaster general** [or United States **Postmaster General**; prompt on **CEO** of the United States Postal Service]

[10] This president appointed Postmaster General John McLean to the Supreme Court since McLean wouldn't agree to his patronage requests. His opponents criticized him as "King Mob."

ANSWER: Andrew **Jackson**

<Bentley, History - American>

10. Answer the following about the orthodox Mimamsa school of Hindu philosophy, for 10 points each:

[10] The Mimamsa school was concerned with deriving a philosophy of ritual action from the first four of these foundational Hindu texts. The Upanishads are commentaries on the earlier examples of these texts, including the "Rig" one.

ANSWER: **Vedas**

[10] The Mimamsa emphasis on the early Vedas contrasted with the Vedanta school, whose Advaita and Dvaita sub-schools clashed on whether the soul is equivalent to this concept, which refers to ultimate reality.

ANSWER: **Brahman**

[10] Mimamsa philosophers like Kumarila argued that this phenomenon has no defined origin. Many twentieth century philosophers based arguments around the "ordinary" type of this phenomenon.

ANSWER: **language** [accept ordinary **language**]

<Kothari, RMP - Philosophy>

11. King Pierus (**pee-AIR-us**) of Macedon named his daughters after these figures, who turned those daughters into magpies after Pierus challenged these figures to a match. For 10 points each:

[10] Name these nine goddesses of the arts and sciences, including Calliope (**kuh-LYE-oh-pee**), Terpsichore (**terp-SICK-uh-ree**), and Urania.

ANSWER: **Muses** [or **Mousai**]

[10] The Muses are most commonly held to be the children of Zeus and this Titaness of memory.

ANSWER: **Mnemosyne** (**nuh-MOSS-in-ee**)

[10] Book 2 of the *Iliad* briefly relates the story of this Thracian singer, who challenged the Muses to a singing contest, lost, and had his faculties for singing, playing the lyre, and even seeing taken from him as punishment.

ANSWER: **Thamyris**

<Carson, RMP - Greco-Roman Myth>

12. Deposits of this mineral in tendons can result in calcific tendinitis, which can lead to the development of a frozen shoulder. For 10 points each:

[10] Name this mineral that contains calcium, phosphate groups, and hydroxyl groups. This mineral is the primary component of dentin and dental enamel.

ANSWER: **hydroxyapatite** [or **hydroxylapatite**; prompt on bone mineral; prompt on apatite]

[10] Hydroxyapatite is the major constituent of this type of tissue, which comprises the skeletal system. Osteoblasts and osteoclasts are responsible for the formation and resorption of this tissue.

ANSWER: human **bone** tissue [or **osseous** tissue]

[10] Type I collagen comprises nearly 90 percent of a part of the bone named for this word, which surrounds individual bone cells. This word also refers to the space within the inner membrane of a mitochondrion.

ANSWER: bone (extracellular) **matrix** [or mitochondrial **matrix**]

<Ramaswami, Science - Biology>

13. In its first year of publication, this book sold one million copies in Great Britain, compared to only 300,000 in the US. For 10 points each:

[10] Identify this book which prompted response novels such as William Gilmore Simms' *The Sword and the Distaff*. Stage adaptations of this novel, its namesake "shows," were extremely popular throughout the 19th century.

ANSWER: **Uncle Tom's Cabin** [or **Uncle Tom's Cabin; or, Life Among the Lowly**]

[10] After a Thanksgiving meeting in 1862, Abraham Lincoln apocryphally told this author of *Uncle Tom's Cabin* that she was "the little woman who made the great war."

ANSWER: Harriet Beecher **Stowe** [or Harriet Elisabeth Beecher **Stowe**; or Harriet Elisabeth **Beecher**]

[10] Many "Tom shows" featured songs from this "father of American music," who penned such minstrel hits as "Old Black Joe."

ANSWER: Stephen **Foster** [or Stephen Collins **Foster**]

<Bentley, Mixed/Other/General Knowledge>

14. Identify the following about nicknames for soldiers during World War I, for 10 points each.

[10] Troops from this country were known as doughboys, and after the war thousands of Doughboy monuments were erected. The sinking of the *Lusitania* helped bring this country into the war.

ANSWER: **United States** of America [or **USA**; or **America**]

[10] This was the stereotypical name of a British soldier. Harry Patch, who died in 2009, was celebrated as being the last of these people.

ANSWER: **Tommy** [or Tommy **Atkins**]

[10] Troops from this unit referred to some of their enemies as "Johnny Turk" and originated Digger slang such as "chocs" for the "chocolate soldiers" who were too afraid to fight.

ANSWER: **ANZAC** [or **Australian and New Zealand Army Corps**]

<Bentley, History - European>

15. Identify the following about art thefts across history, for 10 points each.

[10] This Leonardo da Vinci painting of an enigmatically smiling woman was stolen from the Louvre by a man who claimed he was returning it to Italy.

ANSWER: **Mona Lisa** [or **La Gioconda**; or **La Joconde**]

[10] In 1990, thieves dressed as police officers absconded with several paintings, including Vermeer's *The Concert*, from the Isabella Stewart Gardner Museum in this city. Augustus Saint-Gaudens's (saint-GAW-dins's) *Shaw Memorial* is located in this city.

ANSWER: **Boston**

[10] This artist's *Marriage Feast of Cana* was found in a pawn shop in 1961. This painter of the dome of the Florence Cathedral and builder of a namesake corridor connected to the Palazzo Vecchio also originated the story of Giotto drawing a perfect circle for the pope.

ANSWER: Giorgio **Vasari**

<Bentley, Arts - Painting>

16. Answer the following about writers discussed in Fleur Jaeggy's (YAG-ee's) essay collection *These Possible Lives*. For 10 points each:

[10] The first essay is about this writer, whose work *The Last Days of Immanuel Kant* Jaeggy translated into Italian. His attempts to write "impassioned prose" are captured in works like *Suspiria de Profundis* and *The English Mail-Coach*.

ANSWER: Thomas (Penson) **De Quincey**

[10] The second essay is about the life and death of John Keats, who wrote the line "tender is the night" in this poem, which ends by asking "Do I wake or sleep?"

ANSWER: "**Ode to a Nightingale**"

[10] The essay on De Quincey claims that Sara Coleridge accused De Quincey of providing his children with this drug. A dream Samuel Taylor Coleridge had after consuming this drug in the form of laudanum supposedly inspired his poem "Kublai Khan."

ANSWER: **opium**

<Kothari, Literature - British>

17. Porfirio Diaz ironically led a campaign against this practice at the beginning of his political career. For 10 points each:

[10] Identify practice that has been banned in Mexico since the 1917 revolution, resulting in the *sexenio*. Because of the ban on this practice, the *dedazo* or "tap" is used to appoint a successor.

ANSWER: **re-election** of the President of Mexico [prompt on election]

[10] Diaz seemed to imply that he would not run for re-election in "Thrilling Story of President Diaz, the Greatest Man on the Continent," an article by a reporter from this country. The Zimmermann Telegram sent to Mexico helped bring this country into World War I.

ANSWER: **United States** of America [or **USA**; or **America**]

[10] These technocrats, the principal advisors of Porfirio Diaz, included Positivist finance minister Jose Yves Limantour.

ANSWER: **Cientificos** [or **scientists**]

<Bentley, History - World>

18. Graphing the heat capacity of this substance versus temperature produces a discontinuity at the lambda point. For 10 points each:

[10] Name this substance, which, at atmospheric pressure, vaporizes at around 4 kelvin.

ANSWER: **liquid helium** [prompt on helium; do not accept or prompt on "superfluid helium"]

[10] Sufficiently cold liquid helium can exhibit this property, in which a fluid loses all viscosity.

ANSWER: **superfluids** [accept **superfluidity**]

[10] In superfluid helium, this process can occur via wavelike motion whose resemblance to longitudinal pressure waves led to its name of "second sound." A coefficient named for this phenomenon is sometimes called the film coefficient.

ANSWER: **heat transfer** [accept descriptive equivalents indicating that **heat** is **moving** down a temperature gradient from one point to another; anti-prompt on convection by asking "can you be less specific?"; do not accept or prompt on "conduction" or "radiation"]

<Kalathiveetil, Science - Physics>

19. Answer the following related to jazz musician Bix Beiderbecke (**BY-der-BECK-ee**), for 10 points each.

[10] Bix's two instruments were the piano and this primary instrument of "King" Oliver. When not playing the trumpet, Louis Armstrong generally played this smaller brass instrument.

ANSWER: **cornet**

[10] Bix made popular recordings of "Tiger Rag" and other songs by a "jazz band" named for the "original" version of this place. A popular folk song claims "I'll take my stand" in this place, whose name is synonymous with the Deep South.

ANSWER: **Dixieland** [or **Dixie**; accept Original **Dixieland** Jazz Band]

[10] Before he died at age 28, Bix's last gig was playing in the orchestra of this New York bandleader, the most popular in the US at the time. This bandleader commissioned George Gershwin's *Rhapsody in Blue*.

ANSWER: Paul **Whiteman** [or Paul Samuel **Whiteman**]

<Alston, Arts - Jazz>

20. The protagonist of this poem wanders the streets madly for a year after discovering that Parasha's house was destroyed in a flood. For 10 points each:

[10] Name this poem in which Evgeny's corpse is found after he threatens a statue, which comes to life and chases him.

ANSWER: "The **Bronze Horseman**" [or "The **Copper Horseman**"; or "**Mednyi Vsadnik**"]

[10] "The Bronze Horseman" is by this Romantic author, who is often considered the greatest Russian-language poet. He created a 14-line stanza that alternates between masculine and feminine rhymes for his verse novel *Eugene Onegin* (un-YAY-ghin).

ANSWER: Alexander Sergeyevich **Pushkin**

[10] In this short story by Pushkin, the engineer Hermann learns the secret three cards that the Count of St. Germain told a Russian countess, but loses everything gambling and goes insane.

ANSWER: "The **Queen of Spades**" [or "**Pikovaya Dama**"]

<Bollinger, Literature - European>

21. The first use of an electronic instrument in a film score was by Arthur Honegger (ar-TOOR oh-neh-GAIR) for Berthold Bartosch and Franz Masereel's film *The Idea*. For 10 points each:

[10] Name this electronic instrument played with a keyboard or by sliding a metal ring in front of the keyboard. Jeanne Loriod (loh-ree-OH) played it for many works by Olivier Messiaen (oh-leev-YAY mess-YAWN).

ANSWER: **ondes Martenot** (ond mart-NO) [or **ondes**; or **Martenot**; or **ondium Martenot**; or **ondes musicales**]

[10] A suite for ondes Martenot and piano was written by Darius Milhaud (dar-YOOS mee-YO), who like Honegger, was a member of this group of 20th-century French composers.

ANSWER: Les **Six** (lay SEESE) [or The **Six**]

[10] Maurice Martenot, who invented the ondes Martenot, wanted to emulate the expressivity of this low string instrument. In "The Swan" from *The Carnival of the Animals*, it is accompanied by two pianos.

ANSWER: **cello** [or violon**cello**]

<Kothari, Arts - Music>



