



## NSC 2019 - Round 03 - Tossups

This round is sponsored by Alumni of Fisher Catholic Quiz Bowl

1. Silhouettes of one of these objects, as well as of a bird, a key, and a chalice, appear on the chest of a headless man in the painting *The Liberator*. A large one of these objects is next to a depiction of one of them on an easel in the painting *The Two Mysteries*. Yet another painting of one of these objects is at the Los Angeles County Museum of Art, was described by Michel Foucault as an "unraveled calligram," and was first exhibited under the title *The Use of (\*) Speech I ("one")*. The question "could you stuff [one of these objects]" was asked by a Surrealist artist in response to a message he wrote in French below one of them. For 10 points, the message in the painting *The Treachery of Images* by Rene Magritte claims it does *not* depict what object?

ANSWER: pipes [accept tobacco pipe or smoking pipe or an image of a pipe; accept "Ceci n'est pas un pipe" or "This is not a pipe"]

<Bentley, Fine Arts - Painting>

2. The Czech startup LEO hopes to benefit from a new "fourth package" from the European Commission that will liberalize this industry, which China plans to expand from "four-by-four" to "eight-by-eight" by 2035. The largest infrastructure project in Kenya's history was a China-backed SGR project in this industry that boosted Kenya's GDP by 1.5%. A minister who oversaw this industry, Liu Zhijun ("lyoo zhee-joon"), was sentenced to death for a 2011 incident in Wenzhou ("wun-joe") where 40 (\*) people died. Creating a "Eurasian land bridge" for this industry has run into challenges due to different gauge sizes between China and Russia. Japan's Shinkansen is an example of, for 10 points, what industry that provides "bullet" ground links between cities such as Tianjin and Beijing?

ANSWER: railroads [accept railways; accept high-speed rail or bullet trains or commuter rail; prompt on transportation industry]

<Alston, Current Events - World>

3. This unnamed conflict's origins are the subject of a book by the scholars Edgar Branch and Robert Hirst. A character in this conflict asks the narrator a riddle about where Moses was when a candle went out. One side in this conflict lives in a home in which the tacky poem "Ode to Stephen Dowling Bots" hangs from its walls. This conflict climaxes after the narrator retrieves a Bible with the message "HALF (\*) PAST TWO" written in it. The participants in this conflict listen to a church sermon about "brotherly-love" while keeping their guns between their knees. In this conflict, a "colonel" and his sons are killed after young Sophia elopes with Harney. For 10 points, what deadly feud between two Kentuckian families is depicted in *Huckleberry Finn*?

ANSWER: the feud between the Grangerfords and the Shepherdsons [accept any synonym for feud that mentions the two families; prompt on answers that do not mention the two families, such as the feud in *Huckleberry Finn*]

<Jose, Literature - American>

4. A form of this technique that works on objects for which the well-founded relation holds is named for Emmy Noether. Augustin-Louis Cauchy used both the standard "forward" form of this technique and its alternative "backwards" form to prove the AM-GM inequality. This technique, which relies on the last of the Peano axioms to hold, is often used to show that " $n$  times quantity  $n$  plus 1 all divided by 2" is a formula for the (\*) positive natural numbers. In this technique, one assumes that some statement is true for some input  $n$ , and shows that it is also true for  $n + 1$  after having proved a base case. For 10 points, name this proof technique which shares its name with a type of logic that goes from the specific to the general.

ANSWER: proof by induction [accept mathematical induction or inductive proof; prompt on proof]

<Jose, Science - Math>

5. This man lost his highest post after a sermon by Anton Fister galvanized protesters who formed a 6,000-strong Academic Legion. This man published a pamphlet urging for defense against potential French attacks using the pseudonym "A Friend of Universal Peace," and he once remarked that Italy was "a geographical expression." In response to the murder of playwright August von Kotzebue ("KOT-zuh-boo"), this man ordered the closure of student *Burschenschaften* ("BOOR-sen-shoft-en") in the (\*) Carlsbad Degrees. This foreign minister's negotiations with Talleyrand at a conference discussing the organization of post-Napoleonic Europe established the Concert of Europe. For 10 points, name this conservative statesman who represented Austria at the Congress of Vienna.

ANSWER: Klemens von Metternich [or Klemens Wenzel Nepomuk Lothar, Prince von Metternich-Winneburg zu Beilstein]

<Husar, History - European>

6. In a backstory, a character with this profession entertained a general even though the general was responsible for the death of his son Leonard in the Boer War. At the conclusion of a novel, a character in this profession hopes to "pleasantly surprise his boss" after he cries while viewing lights at a pier in Weymouth. A man with this profession is forced to fire two Jewish women in his employ after his boss starts hosting meetings attended by "Herr (\*) Ribbentrop." An American named Mr. Farraday employs a man of this profession in a 1989 novel that consists of the protagonist's recollection of his former employer, a Nazi-sympathizer named Lord Darlington. For 10 points, Mr. Stevens has what profession in Kazuo Ishiguro's novel *The Remains of the Day*?

ANSWER: butlers [accept valets before "pleasantly"; prompt on house servant; prompt on house manager]

<Jose, Literature - British>

7. Though this curve itself is not drawn in an Edgeworth Box, its points are isoquants where the marginal rates of technical substitution of participants in an Edgeworth Box are equal, since those points are also all on the contract curve. This curve's slope defines the marginal rate of transformation. This curve is typically concave to the origin, but the existence of economies of scale can cause it to instead bend inwards due to decreasing (\*) opportunity costs. Points inside this curve are *not* at full employment, while points outside it are unattainable for a firm or economy. A classic example of this curve uses guns and butter to illustrate tradeoffs. For 10 points, name this "frontier" that shows configurations of different potential outputs.

ANSWER: production possibilities frontier [accept production-possibility frontier or production possibilities curve; accept PPF or PPC]

<Qian, Social Science - Economics>

**8. This person gave a sermon about a man who is hit by a poisoned arrow, but cares more about the man who shot it than finding a surgeon. Another of this person's sermons occasioned a "ten-thousand-fold world-element" to burst forth from the heavens and allowed a king to become the first "stream-enterer." He helped a follower understand formlessness simply by holding up a (\*) flower, a story exemplifying the "perfection of wisdom" genre of his teachings. This deliverer of the Flower Sermon gave his first sermon at the Deer Park in Sarnath, where he stated that eliminating craving, desire, and attachment would lead to *moksha* and the end of suffering. For 10 points, name this man who preached the Four Noble Truths of his namesake religion.**

ANSWER: The **Buddha** [accept **Siddhartha** Gautama or Siddhartha **Gautama** or **Shakyamuni**]  
<Alston, RMP - Other Religion>

**9. In 1950, a computer scientist at the RAND Institute used this adjective to describe his research to hide its mathematical nature from politicians. This adjective describes an approach to algorithm design that solves "overlapping subproblems"; the CYK parsing algorithm is an example of it. Amortized analysis is used to study arrays described by this adjective; those arrays have individual elements need to be copied over when they are resized, in contrast to (\*) fixed-length arrays. Memory that is put onto the heap is allocated in this fashion, often using the C functions "malloc" and "free." This adjective describes a type of random access memory that is volatile, and it puts the D in DRAM ("dee-RAM"). For 10 points, give this opposite of "static."**

ANSWER: **dynamic** [accept **dynamic** programming or **dynamically** allocated memory or **dynamic** Random Access Memory]  
<Jose, Science - Computer Science>

**10. This author of the anti-Catholic screed "Conspiracy Against the Liberties of the United States" was the Know Nothing candidate for Mayor of New York in 1836. This man was installed into the Order of Glory by Sultan Abdulmejid I after demonstrating his best-known invention. Chemistry professor Leonard Gale helped this failed painter realize his best-known invention, the idea of which he discussed on a ship back to the U.S. with Charles Jackson. This man's Magnetic Company eventually merged with (\*) Western Union and was built on technology that first connected Baltimore and Washington, D.C. with the phrase, "What hath God wrought." For 10 points, name this inventor of a coding system for telegraph messages.**

ANSWER: Samuel **Morse** [or Samuel Finley Breese **Morse**]  
<Bentley, History - American>

**11. Chester Nathan Gould compiled a list of the names of these figures and their etymologies in a study of "Old Icelandic Religion." A passage in the *Völuspá* claims that these beings arose from "Brimir's blood" and "Blainn's limbs." Two of these figures dropped a millstone on a widow's head after drowning her husband Gilling; those two owned Son and Bodn, a pair of vats in which they mixed honey with the remains of the god Kvasir. Scholars sometimes identify the (\*) *svartalfar* with these beings, two of whom named Fjalar and Galar made the mead of poetry. Another group of these figures, the Sons of Ivaldi, created Sif's hair and Odin's spear Gungnir. For 10 points, name these characters from Norse myth, a race of diminutive smiths.**

ANSWER: **dwarfs** [accept **dwarves** or **dvergr** or **dvergar**; prompt on *svartalfar* before "svartalfar"]  
<Jose, RMP - World Mythology>

**12. Microbubbles are mainly used in drug delivery to treat diseases of this organ. A controversial February 2019 *Nature Microbiology* paper suggested that dysfunction of this organ is linked to depletion of species of *Coprococcus*. An aggressive tumor in this organ presents with a butterfly appearance and can be slowed using alternating electric field therapy. New treatments for diseases of this organ may focus on drugging the gut bacteria that form an axis with it. (\*) Valproic acid and fluoxetine treat diseases of this organ, such as one known to be correlated with high monoamine oxidase activity. A barrier layer of astrocytes makes this organ notoriously difficult to drug. For 10 points, name this organ affected by glioblastomas and depression.**

ANSWER: **brain** [accept **corpus callosum**; accept **cerebrum**; or **cerebral cortex**; do not accept or prompt on "cortex"]

<Silverman, Science - Biology>

**13. Jack Weatherford credits this empire's success to a "culture of meritocracy" in his book on its founder's role in "making the modern world." This empire created a official seal whose carriers could freely use postal routes and demand goods from civilians, called a *paiza* ("PIE-zah"). Its law code declared "all religions were to be respected" and Nestorian Christians were found at its court. This empire, which built the (\*) *yam* road system, was the largest to select a ruler through a great council called a *kuriltai* ("KOO-rit-tye"). After the Toluid Civil War was started by this empire's prince Ariq Böke ("AH-rik BOE-kuh"), it fractured into four realms which included the realm of Chagatai ("CHAH-gah-tye"), the Ilkhanate ("ILL-kuh-nate"), and the Yuan dynasty. For 10 points, name this empire founded by Genghis Khan.**

ANSWER: **Mongol** Empire [accept **Monggol** Uls] (Weatherford's book is titled *Genghis Khan and the Making of the Modern World*.)

<Alston, History - World>

**14. In a jam session with "Biddy" Fleet, this musician discovered he could use all 12 semitones of the chromatic scale to lead into any key, which influenced his greater use of often rapid passing tones. This musician authorized Aebersold and Slone to transcribe his music for his namesake *Omnibook*. A series of ii-V progressions characterize a variation on twelve-bar blues that is sometimes named for this musician's "Blues for Alice." A (\*) club on New York's 52nd Street was named his "land." This musician contra-facted Ray Noble's "Cherokee" into his song "Ko-Ko," which exemplifies a fast, upbeat jazz genre he pioneered alongside Dizzy Gillespie. For 10 points, name this bebop saxophonist of "Ornithology," who was nicknamed for his love of chicken.**

ANSWER: Charlie **Parker** [accept Charles **Parker** Jr.; accept **Bird** or **Yardbird** or **Birdland**]

<Smith, Fine Arts - Jazz>

**15. A novel titled for this stuff ends with the dying protagonist promising to meet his friend "beneath the falls." In another novel titled for this stuff, the Milky Way "[flows] down inside" the protagonist "with a roar" shortly after flames consume a woman whom he'd earlier spied on a train caring for a tuberculosis-stricken man. This stuff titles a novel centering on Satoko's affair with Kiyooki, and which was followed up with *Runaway Horses* as the first entry in the (\*) *Sea of Fertility* tetralogy. A novel titled for this stuff begins "The train came out of the long tunnel" as an expert on Western ballet travels to a remote hot spring. For 10 points, Shimamura's affair with the geisha Komako is depicted in a Yasunari Kawabata novel titled for a "country" of what cold stuff?**

ANSWER: **snow** [accept *Spring Snow* or *Snow Country*; accept *yuki*]

<Keyal, Literature - World and Miscellaneous>

**16. One of these instruments from India is tuned by applying *syahi* paste and has a wooden variety called the *dayan*, whose counterpart is the metal *bayan*. Japanese players of another of these instruments, exemplified by the Kodo group, traditionally only wear a *fundoshi* loincloth during furious public performances. An Arabic instrument called the *naker* evolved into the most common example of these instruments in Western orchestras, which is tuned using a sliding (\*) foot pedal and has a body that is usually made of copper. Asian examples of these instruments include the goblet-shaped *darbouka*, the Japanese *taiko*, and the Indian *tabla*. For 10 points, name these percussion instruments, conventional "kettle" types of which include the timpani.**

ANSWER: **drums** [accept **kettle drums** or **goblet drums**; accept **timpani** or **tabla** or **taiko**; prompt on **percussion**]

<Alston, Fine Arts - Music>

**17. A character in this play recalls seeing peasants stretched out "side-by-side" during a typhoid epidemic during the third week of Lent. This play's title character exclaims that a man, whom he once thought was a "being of a higher order," was actually just a writer who "writes about art" even though "he understands nothing about art." It concludes with a speech thrice proclaiming "We must rest . . ." as the landowner (\*) Waffles plays the guitar. After a professor wishes to invest in "interest-bearing bonds" so that he and his wife Yelena can afford a *dacha* villa in Finland, the title character tries to shoot him, but repeatedly misses. Professor Serebryakov is supported by Voynitsky, the title character of, for 10 points, what drama by Anton Chekhov?**

ANSWER: ***Uncle Vanya*** [accept ***Dyadya Vanya***]

<Jose, Literature - European>

**18. This physicist introduced the concept of "whispering gallery waves" to explain echoes that could be heard from across the room at St Paul's Cathedral. This physicist used a quasi-static approximation for the electric field near a radiating dipole much smaller than the wavelength of light to demonstrate that the intensity of light re-radiated by that dipole is proportional to the negative (\*) fourth power of wavelength. The resolution of an imaging system is limited by his namesake "criterion," and his approximation to Mie scattering explains why sunlight traveling through lots of air at sunset appears red when it reaches our eyes. For 10 points, name this British physicist whose namesake form of scattering explains why the daytime sky is blue.**

ANSWER: Lord **Rayleigh** ("RAY-lee") [accept either underlined portion of John William **Strutt**, 3rd Baron **Rayleigh**]

<Rosenberg, Science - Physics>

**19. Pierre Benton argued that Canada's "last good year" was during this decade. In the first year of this decade, First Nations people were given the right to vote in Canadian elections without sacrificing their treaty status. The Red Ensign was replaced with the Maple Leaf flag in this decade. Jean Lesage's election as premier in the first year of this decade began the Quiet Revolution in Quebec. Bomarc missiles were delivered to Canada during this decade, with the resulting controversy contributing to (\*) John Diefenbaker's electoral defeat to Lester Pearson. Pierre Trudeau was first elected as Prime Minister in this decade. For 10 points, name this decade in which Pearson gave a speech criticizing Lyndon Johnson's bombing of North Vietnam.**

ANSWER: **1960s**

<Bentley, History - Cross, Historiography, and Miscellaneous>

20. This philosopher quoted the jurist William Barclay, who argued against the Monarchomachs, in a chapter discussing when the "dissolution of government" should be sought. A work by this philosopher refutes the claim that kings derived their authority from the Biblical Adam and dismisses the "glib nonsense" found in the English of Robert Filmer's treatise *Patriarcha*. He used the example of humans picking (\*) "apples from the trees" to illustrate his belief that ownership comes from one's own labor. A book by this philosopher discussing the "true origin" and "extent" of "civil government" claims that all men are entitled to "life," "liberty," and "property." For 10 points, name this philosopher who wrote *Two Treatises of Government*.

ANSWER: John **Locke**

<Jose, RMP - Philosophy>

21. The film *The Song of the Mango* was produced during a craze for mangos during this period. Journalist Anthony Grey was imprisoned during this period after the British Legation was stormed. This period was sparked by conflict with the Five Man Group, which initiated studies on a play about a historical figure "Dismissed from Office." It began with a newspaper editorial published on (\*) Children's Day titled "Sweep Away all Monsters and Demons." A popular slogan during this period was "To Rebel is Justified". During this period which began in 1966, "capitalist roaders" were attacked in struggle sessions and targeted by Red Guards. For 10 points, name this period following the Great Leap Forward where Chairman Mao sought to purify Communism.

ANSWER: The **Cultural Revolution** [accept The Great Proletarian **Cultural Revolution** or **Wénhuà dàgémìng** or Wúchǎnjiējí **wénhuà dàgémìng**]

<Bentley, History - World>



### NSC 2019 - Round 03 - Bonuses

1. A contemporary critic called this building "a monumental political argument". For 10 points each:

[10] Name this highlight of the Universal Exposition which was saved from destruction after it was put to use broadcasting radio signals.

ANSWER: **Eiffel Tower**

[10] A replica of this building was constructed for the Universal Exposition. The storming of this prison fort in 1789 is the symbolic start of the French Revolution.

ANSWER: The **Bastille** [or **Bastille** Saint-Antoine]

[10] One of the main attractions of the Universal Exposition was one of these devices contained within a 60 meter steel tube. A large one of these devices in Wisconsin is in a building named for Charles Yerkes and was built on behalf of George Ellery Hale.

ANSWER: refracting **telescope** [prompt on observatory]

<Bentley, History - European>

2. The circular form of this property requires the perpendicular components of the fields to be equal in magnitude and 90 degrees out of phase. For 10 points each:

[10] Name this property of electromagnetic waves which describes the orientations of the electric and magnetic fields in space. It also comes in linear and elliptical types.

ANSWER: **polarization**

[10] A linearly polarized wave can be converted to a circularly polarized one or vice versa using one of these devices, which induce a 90-degree phase difference to passing waves.

ANSWER: **quarter-wave plate** [prompt on wave plate or retarder]

[10] The anisotropic materials used in quarter-wave plates are said to have this property, meaning they refract light differently depending on the direction of the light.

ANSWER: **birefringent** [or **birefringence**]

<Rosenberg, Science - Physics>

3. A gate in this city called the "Buland Darwaza" was built to celebrate its founder's conquest of Gujarat. For 10 points each:

[10] Name this city that once housed a building for religious disputation called the "Ibadat Khana." The Panch Mahal complex in this city are the remains of a large palace.

ANSWER: **Fatehpur Sikri** ("FAH-tay-poor SICK-ree")

[10] Fatehpur Sikri was built by this Mughal emperor. This ruler chose to rebuild its tomb of the Sufi Salim Chisti in thanks for the birth of his son.

ANSWER: **Akbar** the Great [accept **Jalaluddin Muhammad** Akbar, or **Jalaluddin Muhammad** the Great; or Abu'l-Fath Jalal-ud-din Muhammad **Akbar**; or **Akbar** I; or **Akbar**-i-azam]

[10] Akbar commissioned a tomb for his father Humayun which contains a large charbagh garden system and is near this city's *Purana Qila* or Old Fort. A rust-resistant Iron Pillar is located near this city's Qutub Minar.

ANSWER: **Delhi** [do not accept or prompt on "New Delhi"]

<Dees, Fine Arts - Architecture>

4. The man who "discovered" this place found an inscription reading "Lizarraga 1902" indicating someone else had visited it 10 years before he did. For 10 points each:

[10] Name this archaeological site in the Urubamba River Valley. The stone walls at this site were constructed without mortar.

ANSWER: **Machu Picchu**

[10] Machu Picchu is located in the mountains of this country, also home to the Inca capital of Cuzco.

ANSWER: **Peru** [accept Republic of **Peru**]

[10] Chan Chan, the largest Pre-Columbian city in South America, resides in a valley named for these people, the predecessor of the Chimu. One can visit the large Huaca del Sol and Huaca de la Luna erected by these people, noted for their erotic pottery.

ANSWER: **Moche** [prompt on **Pre-Chimu** or **Early Chimu** or **Proto Chimu**]

<Bentley, Geography - World>

5. The title birds sing, "Ploffskin, Pluffskin, Pelican jee!" in this author's poem "The Pelican's Chorus." For 10 points each:

[10] Name this author of the collection *Nonsense Songs, Stories, Botany and Alphabets*. The two title characters of one of his poems encounter a Piggy-wig "with a ring at the end of his nose."

ANSWER: Edward **Lear**

[10] Edward Lear wrote several poems using this five-line format. These bawdy poems are possibly named for an Irish city, and often begin with a structure similar to "There once was a man from Decatur . . ."

ANSWER: **limericks**

[10] After being married "by the Turkey who lives on the hill," the Owl and the Pussycat dine on "mince, and slices of quince" with a spoon described by this word. Edward Lear used this nonsense adjective in many of his poems.

ANSWER: **runcible**

<Bentley, Literature - British>

6. Two teams that played the hip-based version of this game were brought back to Spain by Hernan Cortes to demonstrate it to Charles V. For 10 points each:

[10] Give the common English name of this game prevalent throughout Mesoamerica. The Aztecs imported large quantities of rubber to create equipment used in this game.

ANSWER: Mesoamerican **ball** game

[10] Murals in this city demonstrate a version of the ball game played with sticks. The Avenue of the Dead connects most of the great pyramids in this city, which collapsed some time in the 1st millennium CE.

ANSWER: **Teotihuacan** ("tay-oh-tee-WAH-kan")

[10] Seventh century CE rulers of this city adopted the title of "ball player" when they took the throne of this Maya city in modern-day Chiapas.

ANSWER: **Palenque** ("pah-LANE-kay")

<Bentley, History - World>



7. This philosopher argued that "passion often turns the brightest man into a fool" in some *Commentaries on the Maxims of La Rochefoucauld*. For 10 points each:

[10] Name this philosopher whose maxims are collected in *The Heroic Sentiments*. One of her goals was to turn the town she ruled into an "Athens of the North."

ANSWER: Queen **Kristina** Vasa [accept Queen **Christina**]

[10] In one of her *Sentiments*, Kristina argued that this thing has no "gender" or "sex." Kristina was the dedicatee of a treatise about the "passions of" this thing, in which a thinker placed it in the pineal gland.

ANSWER: the **soul**

[10] *Passions of the Soul* is a work by this author, who maintained a philosophical correspondence with Kristina. He proclaimed "I think therefore I am" in *Discourse on Method*.

ANSWER: Rene **Descartes** [accept Renatus **Cartesius**]

<Jose, RMP - Philosophy>

8. In a short story, a woman named La Folle cannot go "beyond" this kind of place due to a traumatic incident in which P'tit Maitre was wounded during the Civil War. For 10 points each:

[10] Name this kind of place whose "folk" titles the debut 1894 collection of a certain author. That collection includes a story in which a woman flees into one of these places after Armand suspects that she is part-black.

ANSWER: **bayou** [accept "Beyond the **Bayou**" or **Bayou Folk**]

[10] *Bayou Folk* is by this author and includes the aforementioned story "Desiree's Baby."

ANSWER: Kate **Chopin** [or Katherine **O'Flaherty**]

[10] Kate Chopin's other works of local color includes this novella, in which Edna Pontellier's burgeoning sexuality is explored through her affairs with Robert Lebrun and Alcée Arobin ("**all-SAY ah-roh-BAN**").

ANSWER: *The **Awakening***

<Jose, Literature - American>

9. This quantity over the gas constant is the slope of a van't Hoff-style plot whose y-axis is the log of the rate constant, not the equilibrium constant. For 10 points each:

[10] Name this quantity, the energy required to bring reactants to the transition state and initiate a reaction.

ANSWER: **activation** energy

[10] In reality, for exothermic reactions, the reaction rate increases super-exponentially due to this dangerous effect, in which the released heat increases temperature in a positive feedback loop.

ANSWER: **runaway** reaction [accept thermal **runaway**]

[10] One reason for thermal runaway is that the rate of this process also increases exponentially with temperature. This process caps how fast catalytically perfect reactions can occur.

ANSWER: **diffusion** [prompt on mass transport]

<Silverman, Science - Chemistry>

10. Identify the following about the "Fourth Estate," for 10 points each.

[10] The Fourth Estate usually refers to this institution comprised of newspapers, magazines and other written sources. The First Amendment guarantees "Congress shall make no law ... abridging the freedom of speech, or of" this institution.

ANSWER: the **press** [or freedom of the **press**; prompt on the news media]

[10] In *On Heroes and Hero-Worship*, this author attributes the phrase "the Fourth Estate" to Edmund Burke. Another of his books, *Sartor Resartus*, follows a "philosopher of clothing" named Diogenes.

ANSWER: Thomas **Carlyle**

[10] James Graham's 2017 play *Ink* chronicles this man's purchase of *The Sun* tabloid in the 1960s. His children Elisabeth, James, and Lachlan all runs parts of his media empire.

ANSWER: Rupert **Murdoch** [or Keith Rupert **Murdoch**]

<Jose, Other - Other Academic and General Knowledge>

11. Positive and negative clonal selection steps occur during this process. For 10 points each:

[10] Give the term commonly used for this process by which thymocytes begin to differentiate and express a T cell receptor, CD4, or CD8 on their surfaces. This same word is used to describe a process in which B cells produce stronger antibodies in response to an infection.

ANSWER: T cell **maturation** [or affinity **maturation**]

[10] T cells are named for the fact that they mature in this organ, a small bilobed structure in the upper chest.

ANSWER: **thymus**

[10] Affinity maturation is driven by the ability of B cells to rapidly accelerate the rate of this process by expressing cytidine deaminase. Alkylating agents typically increase the rate of this process in cells.

ANSWER: rate of **mutation** [or word forms]

<Silverman, Science - Biology>

12. This woman offers the advice "fill your belly with good things; day and night, night and day, dance and be merry, feast and rejoice." For 10 points each:

[10] Name this alewife whose advice is ignored by a hero who seeks Utnapishtim (**oot-nah-PISH-tim**) in a quest for immortality.

ANSWER: **Siduri**

[10] Siduri's advice is ignored by this king of Uruk, the namesake of a Mesopotamian epic.

ANSWER: **Gilgamesh** [accept the ***Epic of Gilgamesh***]

[10] To reach Utnapishtim, Gilgamesh is told by Urshanabi to go one of these places and create 120 poles. Earlier in the epic, Shamash sends Gilgamesh three dreams while he is on the way to one of these places.

ANSWER: **forests** [accept cedar **forest**; accept answers indicating an area with **trees**]

<Bentley, RMP - World Mythology>

13. This family set up shop on a barge in Lake Malaren after they were barred from building factories in populated areas. For 10 points each:

[10] Name this family whose member Emil was killed in a September 1864 factory explosion.

ANSWER: **Nobel**

[10] The Nobels made their fortune manufacturing this product from a combination of kieselguhr and nitroglycerine. This product shouldn't be confused with TNT.

ANSWER: **dynamite** [prompt on Nobel's Blasting Powder]

[10] As a young man, Alfred Nobel went to America and worked under John Ericsson, best known for designing an early one of these things. Gustavus V. Fox helped secure funding for 56 of these things built by the Union during the Civil War.

ANSWER: **ironclad** warships [or **Monitors**; prompt on armored warships; prompt on warships; prompt on boats]

<Bentley, History - Cross, Historiography, and Miscellaneous>

14. One step in this process is the drafting of a *positio*, which can run for thousands of pages. For 10 points each:

[10] Name this process overseen by officials with titles such as Promotor Fidei. An ad-hoc form of this process is described by the adjective Equipollent.

ANSWER: **canonization** [or making someone a Catholic **saint**; or making someone a candidate for **canonization**; accept Equipollent **canonization**; prompt on **beatification**]

[10] The canonization process requires the verification of two of these extraordinary events. A saint may have performed two of the *quoad modum* type of these actions wherein individuals are healed from long-term illnesses.

ANSWER: **miracles**

[10] People in between Servant of God and Blessed during the canonization process are described by this adjective, also used to describe a Benedictine monk who wrote a history of the English church in the 8th century.

ANSWER: **Venerable** [or **Venerabilis**; accept **Venerable** Bede or Bede the **Venerable**]

<Augelli, RMP - Judeo-Christian, Bible>

15. The author of the novel *Save Me the Waltz*, who was an iconic example of these people, declared that an ideal one of them should have a talent for "dramatizing herself." For 10 points each:

[10] Name these people who partly title a collection that includes "The Ice Palace." Another story from that collection, "The Offshore Pirate," centers on one of these people named Ardita.

ANSWER: **flappers** [accept **Flappers and Philosophers**; prompt on **women** or **girls**]

[10] This title character of another story from *Flappers and Philosophers* is an archetypal flapper who gets a provocative haircut and shears off her cousin Marjorie's braids.

ANSWER: **Bernice** [accept "**Bernice Bobs Her Hair**"]

[10] This author of *Flappers and Philosophers*, himself the husband of a flapper named Zelda, also wrote *The Great Gatsby*.

ANSWER: F. Scott **Fitzgerald** [accept Francis Scott Key **Fitzgerald**]

<Alston, Literature - American>

16. The so-called "Paganini" of this instrument in the 19th century was Giovanni Bottesini ("joh-VAH-nee bot-teh-SEE-nee"). For 10 points each:

[10] Name this instrument played by bluegrass musician Edgar Meyer and Israeli folk jazz musician Avishai Cohen. Unlike other members of its family, it is usually tuned in fourths.

ANSWER: double **bass** [accept upright **bass**; do not accept or prompt on "bass guitar"]

[10] Bassist Adrian Beers often collaborated with this composer, who included a slowly accelerating variation for solo basses in a set of variations on the "Rondeau" from Henry Purcell's ("PUR-sulls") *Abdelazer*.

ANSWER: Benjamin **Britten** [accept Edward Benjamin Britten, Baron **Britten**] (The piece is *The Young Person's Guide to the Orchestra*.)

[10] The "Romance" from this composer's *Lieutenant Kijé* ("kih-ZHAY") suite contains a difficult double bass solo. Peter is represented by the double bass and other strings in this composer's *Peter and the Wolf*.

ANSWER: Sergei **Prokofiev** [accept Sergei Sergeyeovich **Prokofiev**]

<Alston, Fine Arts - Music>

17. In April 2019, the *New York Times* reported that *Candida auris*, a highly drug-resistant and nearly ineradicable organism in this kingdom, had invaded several Chicago-area hospitals. For 10 points each:  
[10] Name this eukaryotic kingdom whose pathogens include the causative agents of thrush and *Aspergillus* infections.

ANSWER: **Fungi** [or **fungus**; or word forms]

[10] *Candida auris* is so new, that this process has yet to be completely done to it, making targeted therapies difficult. This process involves finalizing a draft genome sequence by recombining the fragments read out during NGS.

ANSWER: genome **assembly**

[10] What we do know is that *C. auris* is in this fungal phylum, which contains sac-like fungi. *S. cerevisiae* is in this most common fungal phylum.

ANSWER: **Ascomycota** [accept **ascomycetes**]

<Silverman, Science - Biology>

18. Identify the following about Bancroft-winning historian Edmund Sears Morgan, for 10 points each.

[10] In Morgan's book titled for the crisis following the passage of this legislation, Morgan profiles Daniel Dulany, author of the most widely-read pamphlet criticizing this act. A Declaration of Rights and Grievances drafted in response to this legislation attacked the use of Admiralty Courts.

ANSWER: **Stamp** Act of 1765 [accept **Duties in American Colonies** Act 1765]

[10] Morgan's book *The Puritan Dilemma* is subtitled for "the story of" this man, who coined the term "a city upon a hill" in his sermon "A Model of Christian Charity".

ANSWER: John **Winthrop**

[10] John Winthrop was one of the founders of this colony, which was centered around Salem and Boston in its namesake state.

ANSWER: **Massachusetts** Bay Colony

<Rosenberg, History - American>

19. Infrared studies revealed that the artist of this painting used the palm of his hand to modify the still-wet paint. For 10 points each:

[10] Name this Renaissance painting that sold at auction for \$450 million in 2017. It's a mystery as to why this painting hasn't gone onto display at the Louvre Abu Dhabi.

ANSWER: **Salvator Mundi**

[10] *Salvator Mundi* was likely produced by the workshop of this Renaissance master of *The Virgin of the Rocks* and *The Last Supper*.

ANSWER: **Leonardo** da Vinci [accept Leonardo **da Vinci** or Leonardo di ser Piero **da Vinci**]

[10] In *Salvator Mundi*, Christ crosses his fingers in his raised right hand, while his lowered left hand holds one of these objects.

ANSWER: **orb** [accept rock crystal **orb** or glass **orb**; accept answers that denote a glass or crystal **sphere** or **spherical** object or **ball**; accept **globus** but do not accept or prompt on "globe" or "globus cruciger"]

<Bentley, Fine Arts - Painting>

20. On the penalty of death, this character tasks his court astrologer to find a man who has never shaved or worn boots. For 10 points each:

[10] Name this seven-headed character who is defeated after the young girl Marie gives another character a sword. After this character's death, Marie observes the seven crowns that this character used to wear.

ANSWER: The **Mouse King** [accept **Mausekönig**]

[10] The Mouse King is the antagonist of this author's novella "The Nutcracker and the Mouse King." This German Romantic also wrote "The Sandman."

ANSWER: E. T. A. **Hoffmann** [accept Ernst Theodor Amadeus **Hoffmann** or Ernst Theodor Wilhelm **Hoffmann**]

[10] One of E.T.A. Hoffmann's two novels is narrated by this kind of animal. The French author "Mother Goose" popularized a story about a conniving one of these animals who wears a pair of boots.

ANSWER: **cat** [accept **Puss in Boots**]

<Jose, Literature - European>

21. One work in this genre, *Spiny Top, Curly Bottom*, was constructed from five pieces of machine-cut steel and is on display at the Getty Center. For 10 points each:

[10] Give this type of large sculpture whose name was coined by Jean Arp. Unlike other sculptures by their artist, they were placed on the ground.

ANSWER: **stables** ("STAY-byles")

[10] In addition to his stables, this artist sculpted kinetic mobiles such as *Lobster Trap and Fish Tail* for a stairwell at the Museum of Modern Art.

ANSWER: Alexander **Calder** [accept Sandy **Calder**]

[10] Like *Spiny Top, Curly Bottom*, this other stabile is painted the iconic "Calder red" color. This abstract sculpture of the title animal stands in front of the Kluczynski ("kloo-CHIN-skee") Federal Building in Chicago.

ANSWER: **Flamingo**

<Bentley, Fine Arts - Sculpture>