



NSC 2019 - Round 18 - Tossups

1. The only two breeds of these animals that have woolly coats are the Hungarian Mangalica ("man-gahl-EE-tsa"), and the extinct Lincolnshire Curly breed. Fringe scientist Eugene McCarthy posits that humans evolved from a chimp interbreeding with one of these animals, whose bladders were once used to store paint and to make rugby balls. One of these animals was detained along with the Chicago Seven after (*) Yippies nominated it for President at the 1968 DNC. A pungent odor found in this animal's testes is synthesized by truffles, so these animals are often used to hunt for them. Zhu Bajie resembles this animal in the novel *Journey to the West*. Foods made from this animal include rinds and *carnitas*. For 10 points, name these animals often raised in sties.

ANSWER: **pigs** [accept **boars** or **swine** or **hogs** or **Sus**; accept domestic **pigs**; accept **Pigasus** the Immortal]
<Jose, Other - Other Academic and General Knowledge>

2. British explorer Alexander Burnes was killed by a mob in this country's capital, supposedly for his womanizing. In this country, Malalai legendarily rallied troops at the Battle of Maiwand against a foreign army. Dr. William Brydon was the only person to survive the retreat of Elphinstone's army during a war where Shah Shuja was temporarily placed on the throne of this country. The modern founder of this country was a former commander under Nader Shah named (*) Ahmad Shah Durrani. This country was separated from British holdings by the Durand line, which separated its majority Pashtun population from the British-controlled city of Peshawar. For 10 points, what country on the western end of the Khyber Pass was led from Kabul?

ANSWER: **Afghanistan** [or Islamic Republic of **Afghanistan**]
<Dees, History - World>

3. This god explains why one side of a coin called the *as* bears a ship and recalls turning a fountain boiling hot with sulfur in the first book of an unfinished poem. While in the sacred grove of the god Alernus, this god deflowered a woman to whom he then gave the hawthorn plant. This god is interviewed in the first book of the poem *Fasti*, which recounts his rape of the nymph Cranae ("CRAH-nye") and her transformation into (*) Cardea ("car-DAY-ah"), the goddess of hinges. Numa Pompilius constructed a building in the Forum often referred to as a temple of this god, the doors of which were kept open during wartime and closed in times of peace. Beginning and endings were the domains of, for 10 points, what two-faced Roman god, the namesake of the first month of the year?

ANSWER: **Janus** [do not accept or prompt on "January" or "Januarius"]
<Jose, RMP - Greco-Roman Mythology>

4. A character in this novel carries a copy of Manzoni's novel *I Promessi Sposi* but has trouble reading it. Hardships in this novel include the main characters rigging up a "water-tank" using a pile of stones, and at one point accidentally killing a chicken that still has eggs within it. The cook-nanny Nora runs away in this novel after several Boeing airplanes have been destroyed by heat-seeking missiles, which causes the protagonists to escape violence by riding in a (*) "bakkie" truck. This novel concludes ambiguously by having Bam's wife Maureen running toward an unidentified helicopter. For 10 points, name this 1981 novel depicting the violent end of apartheid in South Africa, which was written by Nadine Gordimer.

ANSWER: *July's People*

<Jose, Literature - World and Miscellaneous>

5. The regulation of these structures can be modeled semi-empirically using the Ball-Berry-Leuning model which calculates their conductance. KAT-like transporters aid the uptake of potassium ions into the cells surrounding these structures. The fungal toxin fusicochin ("fyoo-suh-KAHK-sin") forces cells surrounding these structures to remain perpetually turgid. Root-produced abscisic acid triggers the (*) closure of these structures, which often occurs when water is scarce. Along with pavement cells, these structures make up most of the epidermis of plant shoots. They are surrounded by two guard cells and found mainly on the bottom surfaces of leaves. For 10 points, name these pores through which plants transpire water and take up carbon dioxide.

ANSWER: stomata [or stomates; accept guard cells until they are mentioned; prompt on pores]

<Kothari, Science - Biology>

6. Lawrence Abu Hamdan's sound installation of conversations with people in Syrian examples of these places was nominated for the 2019 Turner Prize. Portly figures are shown in their underwear in one of these places in a series of political paintings by Fernando Botero. Fantastic staircases feature in a series of prints of "imaginary" examples of these places by Giovanni Piranesi ("peer-ah-NAY-zee"). The seventh painting of *A (*) Rake's Progress* shows Tom in one of these places before he goes to Bedlam asylum. In a French Romantic painting set in one of these, grieving disciples turn away from the title thinker, who points to the ceiling as he reaches for a cup of hemlock. For 10 points, Jacques-Louis David's *The Death of Socrates* is set in what sort of institution?

ANSWER: prisons [accept jails or detention centers; accept Imaginary Prisons] (Botero painted those works in response to the Abu Ghraib scandal.)

<Alston, Fine Arts - Painting>

7. Surface inhomogeneities of rotating stars can be identified using imaging named for this effect which sees the motion of dips and bumps on a spectral line profile. This effect may be used to infer the temperature of a plasma due to this effect causing a random motion of atoms that induces thermal broadening of spectral lines. The (*) Ives-Stilwell experiment tested the effects of time dilation on this effect. The relativistic factor for this effect is equal to the square root of the quantity 1 plus the Lorentz factor over 1 minus the Lorentz factor, while classically it produces a change in frequency proportional to $\Delta \nu$ over the wave velocity. For 10 points, name this effect explaining changing frequencies due to movement.

ANSWER: Doppler effect [accept Doppler shift; do not accept or prompt on "redshift" or "blueshift"]

<Reinstein, Science - Physics>

8. This municipality was the setting of the abortive novel *Talbot Whittingham*. In this town, after a carpenter fixes his bed to be level with the window, a man writes a book about people who snatch up truths and make them into falsehoods. The sight of a naked woman praying prompts a reverend to punch through a window in this town. "The Book of the Grotesque" opens a book depicting this town, whose residents include a man formerly named Adolph (*) Myers, and who was once accused of molestation. Twenty-two stories, including "The Strength of God" and "Hands," are set in this town. The journalist George Willard appears in "Departure," which is the final story in a collection named after, for 10 points, what Ohio town created by Sherwood Anderson?

ANSWER: Winesburg, Ohio

<Smith, Literature - American>

9. Versions of these statistics that take welfare into account are constructed using "conventional quality adjustment" or hedonic ("hih-DAWN-ic") regression. Substitution effects can be partly accounted for in these statistics by using "chained" methods developed by the Bureau of Labor Statistics. Formulas for these statistics which use specified period and base period quantities, respectively, are named for Paasche ("PAH-shuh") and Laspeyres ("luss-PAIRS"). Data from initial (*) transactions are used to calculate a "producer" or "wholesale" version of these statistics, while retail level values for a "basket of goods" are used for another of them. For 10 points, name these measurements of the amount of money demanded for products, such as the "consumer" one used to calculate inflation.

ANSWER: price indexes [accept price indices or hedonic price index or chained price index or Consumer Price Index or CPI; prompt on index or price]

<Qian, Social Science - Economics>

10. This company lends its name to an 1893 Act of Congress that barred government agencies from hiring its employees or those of George Thiel's rival firm. The Chartist founder of this company operated a stop on the Underground Railroad after fleeing Glasgow for Chicago. This company was the main rival of a firm established by William J. Burns, and its western division was headed by James McParland. This company gained a government contract after (*) foiling an 1861 plot in Baltimore against Abraham Lincoln. 300 employees of this organization, equipped with Winchester Rifles, floated down barges to seize "Fort Frick" in 1892 after being hired by Carnegie Steel during the Homestead Strike. For 10 points, name this private detective agency.

ANSWER: Pinkerton National Detective Agency [accept Pinkerton Consulting & Investigations, Inc. or Pinkertons; accept Anti-Pinkerton Act; prompt on Securitas AB]

<Bentley, History - American>

11. This character's question "how did you find the quarrel on the seventh cause?" leads a jester to describe his use of the "Retort Courteous," the "Quip Modest," and the "Reply Churlish" techniques to criticize a beard. A speech by this character mentions a soldier, "full of strange oaths," who seeks the "bubble reputation, even in the cannon's mouth." In the final scene of a play, this character takes up Duke Senior's former residence in a forest. This character describes (*) man as shifting into "lean and slipper'd pantaloons" in a speech ending with the image of "mere oblivions, sans teeth, sans eyes, sans taste, sans everything." For 10 points, what melancholy character from *As You Like It* likens "all the world" to a stage in a speech about man?

ANSWER: Jaques ("JAY-kweez") or ("zhahk") [accept Melancholy Jaques]

<Jose, Literature - British>

12. This composer led an informal group of hooligans named for a Native American tribe that attended every staging of the first run of another composer's opera *Pelleas and Melisande*. This composer borrowed the *Assez vif* ("ah-say veef") marking of another composer's G minor piece for the second movement of his only string quartet, which is in F major and also gamelan-inspired. One piano suite by him has five movements dedicated to members of the Apaches ("uh-POSH"), while another is in (*) six movements, ends with a toccata, and is dedicated to friends who died in World War I. This composer of *Miroirs* ("meer-WAHR") and *Le tombeau de Couperin* ("luh tom-BOW duh coo-puh-RAN") turned a commission from Ida Rubinstein into a piece with an incessant snare drum ostinato. For 10 points, name this friend of Claude Debussy who composed *Bolero*.

ANSWER: (Joseph) Maurice **Ravel**

<Smith, Fine Arts - Music>

13. Protein FT-IR measurements are typically carried out in this solvent. The NMR peak corresponding to the acidic proton in an alcohol disappears when this compound is added due to chemical exchange. Despite pioneering a way to purify this liquid through electrolysis rather than distillation, GN Lewis lost out on the Nobel Prize awarded to Harold Urey. Solvent suppression is often necessary because this common NMR solvent is only sold by vendors at 99.9% atomic purity. This compound, a common source of (*) radiolabeled hydrogen, has a mass of 20 daltons and is sometimes used as a coolant and moderator in nuclear reactors. For 10 points, name this compound composed of oxygen bonded to two deuterium atoms.

ANSWER: **heavy water** [accept **deuterium oxide** or **D₂O**; do not accept or prompt on "water" or "H₂O"; do not accept or prompt on "deuterium" alone]

<Silverman, Science - Chemistry>

14. This government passed the Emminger Reform, which abolished the use of jurors as triers of fact. The newspaper *The People's Observer* was banned by this government after an incident in which a machine gun was placed in an auditorium and a man proclaimed "the revolution has broken out!" A false legend held that this government stabbed its people "in the (*) back" to explain why its country lost a war. The nationalist Wolfgang Kapp led a failed right-wing coup against this government. The Enabling Act modified the constitution of this government so that its chancellor did not need to consult its legislature to pass laws. The Beer Hall Putsch targeted, for 10 points, what democratic government of Germany that was overthrown by Adolf Hitler?

ANSWER: **Weimar** Republic [accept **Weimar** Germany; prompt on Germany before "Germany"]

<Jose, History - European>

15. During the 2017 French presidential election campaign, the Collective of 500 Brothers occupied one of these facilities and demanded more infrastructure spending. One of these facilities on the southern tip of the Mahia Peninsula in New Zealand was purchased following one company's development of the Electron. A European agency uses one of these facilities in Kourou ("coo-roo") in northwestern French Guiana due to Kourou's proximity to both the coast and the equator. One of these facilities in Xichang ("shee-chahng") in central China is a key part of the (*) Chang'e ("chong-uh") program; another in West Texas will be used by Blue Origin to test its New Glenn vehicle. For 10 points, name these places that include Florida's Cape Canaveral, where the Apollo missions began.

ANSWER: **spaceports** [or **rocket** launch sites; or **space launch** sites; or **space center**; or **satellite launch** center; or **launchpads**; or **Cosmodrome**]

<Bentley, Geography - World>

16. He's not John, but this man ate a scroll that tasted as sweet as honey in his mouth. This man symbolically burned, cut, and scattered different clumps of his hair after cutting it all off. This man saw a vision of a stream starting from the Temple that emptied into the Dead Sea. He's not Jesus, but this man is repeatedly referred to as "son of man." While lying on his left side for 390 days and on his right for 40 days, this man subsisted on bread baked with human (*) dung. While living in exile along the Chebar River, this prophet saw four creatures resembling a man, lion, an ox, and an eagle next to "wheels within wheels." For 10 points, name this contemporary prophet of Jeremiah who saw a valley of dry bones come to life in his namesake book.

ANSWER: Ezekiel [accept Ezechiel or Yehezqel]

<Suh, RMP - Judeo-Christian, Bible>

17. Both Charlie Parker's "Anthropology" and Dizzy Gillespie's "Salt Peanuts" borrow the 32-bar chord progression of a song by this musician that belittles "old man trouble." Both the last Miles Davis album before *Kind of Blue* and the last collaborative album by "Ella and Louis" are named for a stage work by this Tin Pan Alley resident which includes the mournful song "Gone, Gone, Gone." Lyrics to his music describing how "the (*) fish are jumpin' and the cotton is high" were written by his brother, who also wrote the lyrics for his song "I Got Rhythm." A long piece by this brother of Ira was premiered by Paul Whiteman's band and opens with a clarinet glissando. For 10 points, name this composer of *Porgy and Bess* and *Rhapsody in Blue*.

ANSWER: George Gershwin [accept Jacob Bruskin Gershowitz]

<Smith, Fine Arts - Jazz>

18. In this novel, a character expresses a desire to eat some "breadfruit pasta" during a journey to collect supplies. This novel's narrator tries a "nicotine-rich" cigar while in a character's library, and observes the mysterious Latin phrase *mobilis in mobili* on his kitchen utensils. The plot of this novel begins after Farragut offers \$2,000 to anyone who can find a mysterious animal using their spyglasses while on board the (*) *Abraham Lincoln*. This novel's narrator is served by the Flemish Conseil. In this novel, the harpooner Ned Land and the academic Pierre Aronnax escape a certain vehicle when they encounter a storm called a Maelstrom. For 10 points, what novel about the submarine *Nautilus* commanded by Captain Nemo was written by Jules Verne?

ANSWER: *Twenty Thousand Leagues Under the Sea: A Tour of the Underwater World* or *Vingt mille lieues sous les mers: Tour du monde sous-marin*

<Reinstein, Literature - European>

19. This man is currently working on a web decentralization project called Solid. He collaborated frequently with Robert Cailliau ("kie-yoo"), who helped him program a piece of software that was marketed as Nexus. In the 1980s this man developed a project called ENQUIRE, a software suite used to keep track of electronic documents. In an interview, this man apologized for including a pair of double slashes as part of a certain (*) protocol that he developed while working at CERN in the 1990s. This engineer programmed the first browser, which was used to render hypertext documents sent via a network that he also designed, and which was built on top of the Internet. For 10 points, name this English computer scientist who invented the World Wide Web.

ANSWER: Tim Berners-Lee [or TimBL]

<Jose, Science - Engineering and Miscellaneous>

20. A peasant leader of this religion was president of the Ghadar Party, which was central to a 1915 army mutiny backed by Germany. Terrorists of this religion conducted simultaneous 1985 bombings at Narita Airport and on a flight over Canada. People assembled outside a place of worship for this religion were dispersed by troops empowered by the newly-passed Rowlatt Act. Agitation for (*) Khalistan independence by members of this religion led to Operation Blue Star, after which two bodyguards of this religion killed a world leader with Sten guns. In 1919, this religion's holiday of Vaisakhi ("vuh-SAH-kee") was interrupted by Reginald Dyer's troops firing into a crowd in Amritsar near its Golden Temple. For 10 points, name this religion founded by Guru Nanak.

ANSWER: **Sikhism**

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

21. Muslims who argue that this action is permissible often cite an instance in which Muhammad and Aisha observed some Abyssinians perform it in a mosque without objection. A variety of this action from Egypt called *tanoura* originated from a variety of it performed to facilitate "remembrance" or *zikr* ("ZIK-ur") in *sama* ceremonies. In those ceremonies, members of brotherhoods called *tariqat* within the (*) Mevlevi order perform this action while reciting the names of God and wearing a long, white garment with a broad skirt. This physical action is often accompanied by a *ney* flute when performed as a method of connecting with God by Sufi dervishes. For 10 points, give this action whose more *haram* varieties include its "belly" type.

ANSWER: **dance** [accept **dancing**; accept **whirling** or **belly dancing**]

<Alston, RMP - Other Religion>



NSC 2019 - Round 18 - Bonuses

1. In one year, these nine statements include "Please don't smoke in bed, or use candles," and "there should be no more than half a dozen people on the roof at any time." For 10 points each:

[10] Name this set of regulations posted at Ocean View Orchards. They title a novel in which Homer Wells is raised in St. Cloud's Orphanage.

ANSWER: The **Cider House Rules**

[10] In John Irving's *The Cider House Rules* Homer Wells continues Wilbur Larch's work of performing this practice. This medical operation is also suggested to "just to let the air in" in the short story "Hills Like White Elephants."

ANSWER: **abortion** [accept word forms; accept having a **miscarriage**]

[10] "Hills Like White Elephants" is a short story by this writer, who also wrote "The Snows of Kilimanjaro."

ANSWER: Ernest **Hemingway** [or Ernest Miller **Hemingway**]

<Jose, Literature - American>

2. A paper by C.A. Hooker aims to propose a "general theory" of this view. For 10 points each:

[10] Name this position holding that a more "basic" science can explain more complex sciences, such as the view that all of biology is explained by chemistry.

ANSWER: **reductionism** [or **reductionist**]

[10] This philosopher criticized theories of reductionism in his controversial 2012 book *Mind and Cosmos*. He wrote a paper that once asked "What is it like to be a bat?"

ANSWER: Thomas **Nagel**

[10] *Mind and Cosmos* discusses but ultimately rejects this idea, which relies on a principle of "irreducible complexity." Michael Behe promoted this pseudoscientific concept and distinguished it from creationism in his book *Darwin's Black Box*.

ANSWER: **intelligent design** [prompt on **ID**]

<Jose, RMP - Philosophy>

3. The Nagant M1895 is one of the only revolvers compatible with these devices because it uses a gas seal to reduce the report emitted from the cylinder gap. For 10 points each:

[10] Name these devices, legal in most states following an ATF background check. One type of these objects is named for a comparison to a soda can.

ANSWER: **silencer** [or sound **suppressor**; or **sound moderator**; or can **silencer**]

[10] Hiram Percy Maxim invented both silencers and these components of an engine's exhaust system that decrease noise by converting some of the sound energy to heat.

ANSWER: **mufflers** [generously prompt on **silencers** as they're called that in the UK]

[10] Resonators named for this man are used in mufflers to change the characteristic of the sound wave. This inventor of the ophthalmoscope ("**op-THALM-oh-scope**") also names a coil that produces a uniform magnetic field.

ANSWER: Hermann von **Helmholtz** [accept Hermann Ludwig Ferdinand von **Helmholtz**]

<Smart, Other - Other Academic and General Knowledge>

4. In the cluster form of this technique, a population is divided into groups that are heterogeneous within a cluster. For 10 points each:

[10] Name this process of choosing a portion of a population. It can be done "with replacement" or "without replacement."

ANSWER: **sampling** [accept word forms such as **sample**; accept **sampling without replacement** or **sampling with replacement**]

[10] The appropriate way to sample is often studied as part of this subfield of mathematics concerned with collecting and analyzing data. It is often paired with probability.

ANSWER: **statistics** [accept **stats**]

[10] This discrete probability distribution models g successes when sampling n items from a group without replacement. It is commonly used to model drawing cards from a deck.

ANSWER: **hypergeometric** distribution

<Jose, Science - Math>

5. In 1999, the stock price of MIS International surged when it changed its name to Cosmoz followed by this suffix. For 10 points each:

[10] Give this suffix that names a bubble and subsequent crash where firms like Cisco lost much of their market value.

ANSWER: **dot-com** [accept **dot-com** bubble or **dot-com** crash or **dot-com** collapse]

[10] This Chairman of the Fed's lowering of the interest rates in 2000 is sometimes said to be a cause of the dot-com bubble. He used the phrase "irrational exuberance" to describe the overvaluing of stocks during the dot-com bubble.

ANSWER: Alan **Greenspan**

[10] The dot-com bubble was exacerbated by another 2001 scandal in which this company declared bankruptcy. The firm that audited this company, Arthur Andersen, declared bankruptcy shortly thereafter.

ANSWER: **Enron** [or **Enron** Corporation]

<Jose, History - American>

6. In traditional cladistics, members of groups with this property have shared derived characteristics called synapomorphies. For 10 points each:

[10] Name this property possessed by a clade. It describes any taxonomic group that includes all descendents of a common ancestor.

ANSWER: **monophyly** [accept word forms like **monophyletic**]

[10] Groups of organisms that are not monophyletic may be incorrectly joined together due to this process, in which evolutionary lineages separately evolve similar characteristics.

ANSWER: **convergent** evolution [accept evolutionary **convergence** or **homoplasy**]

[10] A famous example of a group that is not monophyletic is this taxonomic kingdom, which includes eukaryotes that are not animals, plants, or fungi. Diatoms and amoebas belong to this kingdom, which is paraphyletic.

ANSWER: **Protista** [accept **protists** or **Protoctista**]

<Kothari, Science - Biology>

7. This thinker worked with Jenő Adam ("YEH-no AH-dam") to create a pedagogical method whose approach includes both "authentic" folk music and high-quality classical pieces. For 10 points each:

[10] Name this ethnomusicologist who depicted a "Viennese Musical Clock" in a folk opera suite about a hussar.

ANSWER: Zoltan **Kodaly** ("KOH-dye") [accept **Kodály** Zoltán]

[10] Kodaly worked with this other Hungarian ethnomusicologist to collect their country's folk music. This man also composed *Duke Bluebeard's Castle*.

ANSWER: Bela **Bartok** [accept **Bartók** Bela or Béla Viktor János **Bartók**]

[10] Like the Orff Approach, the Kodaly method begins with this scale common in the folk musics of many Western countries, as well as much of the music of China and Japan. Playing only the black keys of a piano produces this sort of scale.

ANSWER: **pentatonic** scale [prompt on answers referring to five notes or tones]

<Smith, Fine Arts - Music>

8. A brand would be placed on a defendant's thumb after exercising this right so the same person couldn't exercise it again. For 10 points each:

[10] Name this right that would be granted to someone who could recite a Bible passage, thereby making him exempt from the king's jurisdiction.

ANSWER: **benefit of clergy** [accept **privilegium clericale**]

[10] The benefit of clergy could be applied to grand larceny but not the type of robbery performed along these things. The Romans built many paved examples of these things in England.

ANSWER: **highways** [accept **roads** or trunk **roads**]

[10] Australian highway robbers were known as "bushrangers" and included this outlaw, who wore a homemade suit of armor during his last battle with police in Glenrowan.

ANSWER: Ned **Kelly** [accept Edward **Kelly**]

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

9. This novel begins with an editor proclaiming that its contents are likely fiction, and then a second editor's note declaring that the story that follows is most definitely true. For 10 points each:

[10] Name this only literary work of note by the Freemason Pierre Choderlos de Laclos ("show-dare-LOH day lah-CLOH"). It depicts aristocratic Frenchmen seducing each other as part of the title encounters.

ANSWER: ***Dangerous Liaisons*** [accept *Les Liaisons dangereuses*]

[10] At the conclusion of *Dangerous Liaisons*, the Marquise of Merteuil loses an eye since she is afflicted with this disease. Lady Mary Montagu spread public awareness of this disease in several of her letters.

ANSWER: **smallpox**

[10] *Dangerous Liaisons* is often compared to this libertine French author's novels *Justine* and *120 Days of Sodom*.

ANSWER: Marquis de **Sade**

<Jose, Literature - European>

10. Kehinde Wiley ("keh-HIN-day WHILE-ee") created the most recent example of these paintings, which uses a background of green foliage interspersed with jasmines, blue lilies, and chrysanthemums. For 10 points each: [10] Give both the type of painting and the type of subject of these works. The first official example of them was executed by Gilbert Stuart.

ANSWER: **presidential portraits** [accept answers indicating a **portrait** of a **President** of the United States; prompt on **portraits**]

[10] This artist was commissioned in 1962 by the Truman Library to create a series of portraits of John F. Kennedy. Her husband painted the abstract landscapes *Interchange* and *Excavation*.

ANSWER: Elaine **de Kooning** [accept Elaine **Fried**; do not accept or prompt on "Kooning"] (Her husband was Willem de Kooning.)

[10] Rembrandt Peale painted an official portrait of this president at the end of his first term in office. This president designed his own residence at Monticello.

ANSWER: Thomas **Jefferson**
<Bentley, Fine Arts - Painting>

11. The protagonist of a novel by this author escapes from underground creatures called INKlings. For 10 points each:

[10] Name this author whose typically bizarre characters include a librarian from his novel *Hard-boiled Wonderland and the End of the World* who keeps unicorn skulls.

ANSWER: Haruki **Murakami** [accept in either order]

[10] This Murakami novel begins with Toru's search for his lost cat, and includes an episode in which Toru spends time at the bottom of a well after his wife Kumiko mysteriously vanishes.

ANSWER: *The **Wind-Up Bird Chronicle*** [accept ***Nejimakitori Kuronikuru***]

[10] In another Murakami novel, Toru feels nostalgic after hearing an orchestra cover this band's song "Norwegian Wood." When Mark David Chapman was arrested for killing one of this band's members, he was found carrying *The Catcher in the Rye*.

ANSWER: The **Beatles**
<Raje, Literature - World and Miscellaneous>

12. The president of this country, a former sitcom actor, campaigned on the slogan that he was "neither corrupt nor a thief." For 10 points each:

[10] Name this country whose president, Jimmy Morales, is now under investigation by the UN's CICIG for, you guessed it, corruption.

ANSWER: **Guatemala** [or Republic of **Guatemala**]

[10] This Florida Senator and 2016 presidential candidate held up funding the CICIG over allegations that it had ties to the Kremlin.

ANSWER: Marco **Rubio** [or Marco Antonio **Rubio**]

[10] Prior to aid being cut off by Donald Trump, the US government spent millions helping Guatemalan farmers cope with this fungus, which has also devastated the economy of Colombia. This fungus has threatened supplies for companies such as Starbucks.

ANSWER: **coffee rust** or [***Hemileia vastatrix***]
<Bentley, Current Events - World>

13. This is the only known interaction capable of changing particle flavor. For 10 points each:

[10] Name this fundamental force responsible for radioactive decay. It is carried by the W and Z bosons.

ANSWER: **weak** force [or **weak nuclear** force; accept "interaction" in place of "force"]

[10] The weak force violates this symmetry, which is the invariance of the equations of physics under a change in one coordinate sign. Interactions that obey this symmetry behave the same way in left- and right-handed worlds.

ANSWER: **parity** [prompt on P]

[10] This Chinese-American physicist verified parity violation experimentally by studying beta decay from cobalt. She did not share the Nobel with Lee and Yang for her work.

ANSWER: Chien-Shiung **Wu**

<Rosenberg, Science - Physics>

14. For 10 points each, answer the following related to military footwear:

[10] Footwear for these animals tended to be much better than for foot soldiers because these animals cost more. Farriers manufactured these animal's namesake iron shoes.

ANSWER: war **horses** [accept **horseshoes**]

[10] The boots named for this general were deliberately uncomfortable to demonstrate that officers rode horses rather than marched. As Prime Minister, this man supported the 1829 Catholic Relief Act.

ANSWER: Arthur **Wellesley**, 1st Duke of Wellington [or Duke of **Wellington**]

[10] This inventor was so moved by the miserable condition of the boots worn by Sir John Moore's retreating troops from Portugal that he mass produced his own alternatives. His son built the Great Western Railway and the steamship SS *Great Western*.

ANSWER: Marc Isambard **Brunel**

<Bentley, History - European>

15. For 10 points each, name these game theory situations with relevance to international relations:

[10] Arms races are often considered examples of this "dilemma" in which both participants' optimal strategy is to defect, even though they would mutually gain from cooperating.

ANSWER: **prisoner's** dilemma

[10] Climate change treaties are often likened to this coordination game, in which each player pursues either a hare or the namesake animal, resulting in high payoff for all parties if they pick the latter.

ANSWER: **stag hunt** [prompt on assurance game or trust dilemma]

[10] China-India relations exemplify this situation whose two-word name comes from a trope in Westerns. In this situation, no strategy exists which allows a party to achieve victory without outside intervention.

ANSWER: **Mexican standoff** [prompt on standoff]

<Alston, Social Science - Economics>

16. A character is reminded of his many visits to this place while at Oxford when he billeted near it during World War II. For 10 points each:

[10] Give this country estate of the Catholic Flyte family. It partly titles a novel about "The Sacred and Profane Memories of Charles Ryder."

ANSWER: **Brideshead** Castle

[10] *Brideshead Revisited* is a novel by this British author, whose other satires include *Vile Bodies* and *A Handful of Dust*.

ANSWER: Evelyn **Waugh**

[10] One of these buildings named Hetton is where Tony Last and his wife Brenda lives in *A Handful of Dust*. Amusingly named characters such as Mr. Toobad and Mr. Flosky visit a "Nightmare" one in a novel by Thomas Love Peacock.

ANSWER: **abbey** [accept Hetton **Abbey** or Nightmare **Abbey**]

<Bentley, Literature - British>

17. Like enthalpy and entropy, this quantity is defined to be zero for the formation of pure elements at their standard states. For 10 points each:

[10] Name this form of free energy defined as enthalpy minus temperature times entropy.

ANSWER: **Gibbs** free energy [prompt on **G**]

[10] The *actual* free energy change in a process is calculated by taking the difference in the standard free energies of formation, products minus reactants, and adding to it: RT , multiplied by what concentration-dependent term?

ANSWER: natural **logarithm** of the **reaction quotient** [or **log Q**; or **ln Q**; prompt on natural **logarithm** or **ln**; do not accept or prompt on just "Q" or "reaction quotient"]

[10] You can use that result to get to the Nernst equation in one step, dividing everything through by the negative product of *these two variables*, which form the denominator of the RT term in the Nernst equation. Symbols are fine.

ANSWER: **number** of moles of **electrons** times **Faraday's** constant [accept **nF**; accept answers that indicate the number of **moles** of **electrons** transferred times **Faraday's** constant; prompt on answers containing **electrons** and **Faraday's** constant but not "number" or "moles"]

<Silverman, Science - Chemistry>

18. This ruler sent two types of food to the strange men on "floating mountains" to see if they were humans or gods. For 10 points each:

[10] Name this ruler, who, like his predecessors, held the title of *tlatoani* or speaker of the gods.

ANSWER: **Montezuma** II [or **Moctezuma II**; or **Montezuma** the Young; or **Moteuczoma**; or **Motecuhzoma**; or **Motēuczōmah**; or **Motecuhzoma** Xocoyotzin]

[10] One bad omen during Montezuma's rule was a thunderless lightning bolt which destroyed a temple in this Aztec capital.

ANSWER: **Tenochtitlan** [accept **Mexico City**; or **City of Mexico**; or **Ciudad de México**; or **CDMX**]

[10] Although he likely wore a turquoise diadem instead, the Museum of Ethnology in Vienna houses a headdress made from hundreds of these objects once thought to belong to Montezuma.

ANSWER: bird **feathers** [or quetzal **feathers**; prompt on **birds**]

<Bentley, History - World>

19. This album received five stars from one reviewer but no stars from another in a "Double View" in *Down Beat* magazine. For 10 points each:

[10] Name this Ornette Coleman album recorded with a "double quartet." This 1961 "Collective Improvisation" named a nascent jazz style that eschews set song forms and chord progressions.

ANSWER: **Free Jazz: A Collective Improvisation**

[10] Coleman played a plastic Selmer version of this saxophone pitched in E-flat. It is sized between the soprano sax and tenor sax.

ANSWER: **alto** saxophone [accept **alto** sax]

[10] A "spiritual" type of free jazz is exemplified by *Journey in Satchidananda* ("sah-chee-duh-NAHN-duh"), an album by a harpist with this surname. Her husband, who also had this surname, closed a 1965 album with a "musical narration" of a poem on the track "Psalm."

ANSWER: **Coltrane** [accept Alice **Coltrane** or John **Coltrane**]

<Smith, Fine Arts - Jazz>

20. The Cologne Codex describes how this man possessed a *syzygos*, or "twin spirit," who enlightened him. For 10 points each:

[10] Name this Gnostic prophet whose preachings of a dualistic faith are outlined in the *Shabuhragan* ("shah-booh-rah-GAHN"), which describes how the Father of Greatness battles the Demon of Greed.

ANSWER: **Mani** [accept **Manes** or **Manichaeus** or **Mani** hiyya]

[10] In Manichaeism, a "world" named for this thing is defended by the Father of Greatness. God says "let there be" this thing in *Genesis*.

ANSWER: **light** [accept Apostle of **Light** or "let there be **light**"]

[10] Among the major Manichaean texts is a "sermon" describing a figure referred to jointly by "light" and this Greek term. In Gnostic theology, this Greek word for "mind" or "intellect" refers to the ordering principle of the universe.

ANSWER: **nous** ("noose") [accept Light-**Nous** or *Sermon on the Light-**Nous***]

<Evans, RMP - Other Religion>

21. This character learns about traditional herbal medicine from Mama Yaya in a 1986 Maryse Conde novel. For 10 points each:

[10] Name this character who is accused of witchcraft after trying to help Abigail Williams and her friends make love potions.

ANSWER: **Tituba** [accept **I, Tituba**]

[10] Tituba, like John Proctor and Giles Corey, is a victim of the Salem Witch Trials in this Arthur Miller play.

ANSWER: *The **Crucible***

[10] In Maryse Conde's *I, Tituba*, the title character shares a jail cell with this woman, who is pregnant with a daughter. This character is the protagonist of a novel which begins with a long preface called "The Custom-House."

ANSWER: **Hester Prynne** [accept either]

<Smith, Literature - American>