



## NSC 2018 - Round 15 - Tossups

1. **Physician Elena Boder is the dedicatee of one of this artist's many late-period still-lives with flags. Branches extend from the subject to leaves on a barren earth in this artist's painting *Roots*. This artist of *Coconut Tears* was commissioned by Clare Boothe Luce to paint a memorial painting that depicts a woman falling off Hampshire House. Nails perforate this artist's skin in a self-portrait whose title (\*)** broken column alludes to the pain of being hit by a trolley car. In a self-portrait by this artist of *The Suicide of Dorothy Hale*, two versions of this artist are linked by arteries extending from their hearts. Her *Self-Portrait with Thorn Necklace and Hummingbird* draws on native traditions. For 10 points, name this Mexican artist, the wife of Diego Rivera.

ANSWER: Frida **Kahlo** de Rivera [or Magdalena Carmen Frida **Kahlo** y Calderón]  
<Bentley, Arts - Painting>

2. **Kai Erikson's *Everything in Its Path* documented the aftermath of an impoundment dam flood in this state, which killed 125 people along Buffalo Creek. During the 1912 Paint Creek-Cabin Creek strike in this state, Mother Jones was kept under house arrest. The Logan Defenders opposed an uprising of laborers who wanted to unionize in its Battle of (\*) Blair Mountain.** The southern part of this state includes much of the Winding Gulf Coalfields. After the 2010 Upper Big Branch Mine disaster in this state, former Massey Energy CEO Don Blankenship was jailed. An older event in this present-day state ended after Robert E. Lee captured its leader in the engine house of an arsenal. For 10 points, in what present-day state did John Brown's raid on Harpers Ferry occur?

ANSWER: **West Virginia**  
<Kothari, History - American>

3. **Mikhail Chailakhyan first proposed a hormone that controls these organs' formation, but which has still not been isolated. Connation and adnation can result from the fusion of different parts of these organs. AGAMOUS (ag-ah-mus) is one of the MADS-Box genes that are important for controlling the development of these organs, which involves the differential expression of three different homeotic genes. The ABC model describes the formation of four different (\*) whorls (whirls) in these organs. The perigonium of these structures is made of the calyx and corolla. Shoot apical meristem can develop into these organs, which contain a pistil in their center.** For 10 points, name these reproductive organs that have petals.

ANSWER: **flowers** [accept **petals**, **sepals**, **stamens**, **carpels**, or **corollas** until read]  
<Ramaswami, Science - Biology>

**4. Luce Irigaray (LOOSE ee-ree-gah-RAY) accused this man of "fearing water" in a work titled for his "Marine Lover." Upon reading Spinoza, this man celebrated their shared tendency "to make all knowledge the most powerful affect" in a letter to Franz Overbeck. In one work, this philosopher rebukes the ahistoricism of the "English psychologists" before making an analogy to lambs being preyed on by eagles to explain how the (\*) "priestly caste" invented the notion of evil out of *ressentiment* (ruh-SAWN-tee-MAWN). That work contrasts the word pairs "good/bad" and "good/evil" to explain the difference between master and slave morality. For 10 points, name this German philosopher whose works include *On the Genealogy of Morals* and *Beyond Good and Evil*.**

ANSWER: Friedrich Wilhelm Nietzsche (NEE-chuh)

<Kothari, RMP - Philosophy>

**5. The author of this poem appended a note about "a phenomenon... well known to naturalists" to explain its lines about how "the sea-blooms and the oozy woods... tremble and despoil themselves." A heavily-enjambed (en-JAMMED) passage in this poem imagines the "dome of a vast sepulchre" (SEP-ul-kur) from which "black rain, and fire, and hail will burst." Written in five cantos of *terza rima* (TAIRT-sah REE-mah), this poem references its author's (\*) revolutionary ideals by asking its subject to be "the trumpet of a prophecy." The speaker of this poem asks its title "Destroyer and Preserver" to "drive" his "dead thoughts over the universe." This poem concludes by asking, "If Winter comes, can Spring be far behind?" For 10 points, name this poem by Percy Shelley addressed to a weather event.**

ANSWER: "Ode to the West Wind"

<Bollinger, Literature - British>

**6. The first half of the Book of Joel recounts the arrival of these creatures, which Joel compares to the army of God. In another passage, they are given the power to sting like scorpions, which they use to torture victims for five months. Variants of these creatures that have human faces and hair, lions' teeth, and iron breastplates attack those who lack the "seal of God" in the "First Woe" described in the (\*) Book of Revelation. According to the Gospel of Matthew, John the Baptist subsisted on wild honey and these creatures. After sending a hailstorm, God sends these creatures to destroy Egypt's remaining trees in the eighth plague from the Book of Exodus. For 10 points, name these insects that attack in swarms.**

ANSWER: locusts [or grasshoppers]

<Bollinger, RMP - Bible/Christianity>

**7. An inhabitant of this province named Cyprian lent his name to a plague that raged in the 250s AD. This Roman province's name, which is not "Ravenna," designates an "Exarchate" (ex-AR-kate) created by Emperor Maurice in 590 AD. Septimius Severus came from a city in this province called Leptis Magna. This province was divided into regions named Zeugitana, Byzacena, and Tripolitania. A "praetorian" version of this province was established under Justinian the Great after the (\*) conquest of the Vandal kingdom. The capital of this province was long near the site where Scipio defeated Hannibal at Zama Regia, but was later moved to the re-founded city of Carthage. For 10 points, name this Roman province that shares its name with the continent on which it is found.**

ANSWER: Africa [accept Africa Proconsularis or Proconsular Africa]

<Alston, History - European>

**8. The catalytic rate of enzymes limited only by this phenomenon are termed "perfect." After a pulsed field gradient echo in NMR, molecules undergoing this phenomenon will insufficiently refocus, causing loss of signal intensity. Albert Einstein's doctoral thesis calculated Avogadro's number by applying laws describing this phenomenon for sugar molecules. Those laws describe the dependence of this phenomenon on (\*) molar flux and were developed by Adolf Fick. This phenomenon can be visualized by dropping food coloring into water and observing the process by which the color spreads. For 10 points, name this phenomenon driven by a concentration gradient, moving molecules from high to low concentration regions.**  
ANSWER: diffusion [prompt on Brownian motion]  
<Prieto, Science - Chemistry>

**9. Donald Grantham, Kent Kennan, and Cecil Forsyth (SESS-ul FOR-sythe) wrote textbooks on this subject. "The unison–octave tutti" (YOO-niss-in OK-tiv TOO-tee) begins the second section of Samuel Adler's study of this subject. Leonard Bernstein (BURN-styne) opened a Young People's Concert on this subject with *Capriccio espagnol's* finale. Hector Berlioz assigned Opus 10 to the first major work on this subject; Richard Strauss updated it with (\*) Wagner tubas and saxophones. It's not harmony, but this topic is the subject of the fourth book by Walter Piston, an unfinished book by Rimsky-Korsakov, and a treatise by Berlioz. Ravel applied his mastery of this skill to Mussorgsky's *Pictures at an Exhibition*. For 10 points, name this skill of blending particular instruments in a symphony to achieve desired musical effects.**  
ANSWER: orchestration [or instrumentation; accept word forms; accept books/textbooks/treatises/manuals on orchestration; accept titles of specific works on orchestration; accept arranging music for orchestra; prompt on music arrangement; prompt on composition or composing]  
<Lifshitz, Arts - Music>

**10. In one section of this book, friends of a con artist named "Onion" steal a parrot feather from his knapsack and replace it with charcoal as a prank. In another section of this book, a woman tries to cure her sick son by asking for a nobleman's falcon, but the nobleman cooks the falcon for her as a meal. A section of this book in which Melchizedek (mel-KEE-zeh-dek) analogizes Christianity, Islam, and Judaism to a rich man's three rings inspired Gotthold Lessing's *Nathan the Wise*. (\*) Chaucer's "Clerk's Tale" draws from the final story in this book, which is a story told by Dioneo about the loyalty tests endured by the patient Griselda. For 10 points, name this collection of stories told by ten young Florentines fleeing the plague, written by Giovanni Boccaccio (jo-VAH-nee bo-KAH-choh).**  
ANSWER: *The Decameron, or Prince Galehaut* [or *Il Decamerone: Prencipe Galeotto*]  
<Bollinger, Literature - European>

**11. One group named for this type of people first organized to gain an audience with Monsignor Emilio Grasselli. A group named for these people moved from using Christian symbols to wearing white veils and carrying photographs and were derided as "las locas" by the ruling party. That same group of these people gathered each Thursday at 3:30 PM to march around a small pyramid commemorating their country's 1810 independence. 100 members of a group named for these people were arrested during a 1977 US visit by Terence Todman to General (\*) Videla. Many relatives of these people were sent on death flights during the Dirty War. For 10 points, name these type of women who gathered at Argentina's Plaza de Mayo to protest the disappearance of their children.**  
ANSWER: mothers [or madres; or grandmothers; or Argentine mothers; prompt on women or Argentine women]  
<Bentley, History - World>

**12. Developers in the .NET (dot-net) framework can use this language's "Iron" implementation for easy interfacing. A solution stack using this language might use SQLAlchemy (S-Q-L-alchemy) to manipulate a database and Flask as a microframework. The IDLE (idol) development environment is used to write source code for this language. The web framework Django (jango) was written in this language. Data scientists often use this language's namesake (\*) "Num" library. This language uses indentation, rather than curly braces, to delimit blocks, and its creator supports the practice of using "spam" and "eggs" to illustrate examples. Guido van Rossum invented, for 10 points, what dynamically-typed language named in reference to a British comedy show?**

ANSWER: Python [accept Iron Python or NumPy (NUM-py)]

<Jose, Science - Computer Science>

**13. An essay exhorting these people notes that men may submit to a lion, but asks who would be "devoured alive by a rat," referring to the corrupt patent-holder William Wood. In a novel, this people's capital is represented as Lindalino, which wins a rebellion by mounting four magnets on four towers at its corners. In response to the imposition of underweight copper coins on these people, an author wrote the *Drapier's Letters*. An essay concerning this nationality lists (\*) possible reforms, including "quitting... Animosities" and taxing absentee landlords, but rejects them for a plan that is sure to produce gloves for women and boots for gentlemen. For 10 points, name these people whose babies Jonathan Swift suggests cooking in "A Modest Proposal."**

ANSWER: Irish people [prompt on Catholics]

<Bollinger, Literature - British>

**14. In a chapter from *Feminine Endings* about this composer, Susan McClary cites the embellishment of the G Dorian melody of his aria "Rosa del ciel" as evidence of the "rhetoric of seduction." An opera by this composer ends with Ottavia singing "Addio, Roma!", allowing her husband Nerone (neh-ROH-neh) to legitimize his affair with the title character. In an opera by this composer, strings represent pastoral Thrace and brass represents the underworld, which the protagonist enters by singing "Possente spirito." This composer pioneered the use of tremolos as part of his *stile concitato* (STEE-leh cone-chee-TAH-toh) in works like *The* (\*) *Coronation of Poppea*, and he subordinated music to words as part of his *seconda pratica*. For 10 points, name this Italian composer of the earliest opera in the common repertoire, *L'Orfeo* (lor-FAY-oh).**

ANSWER: Claudio Monteverdi [or Claudio Giovanni Antonio Monteverdi]

<Kothari, Arts - Opera>

**15. Pausanias (paw-SAY-nee-us) describes a ritual in which the Spartans sacrificed a horse to these gods on Mount Taygetus. In Book 20 of the *Iliad*, Aeneas recalls how one of these gods fathered twelve colts with the 3,000 mares of Erichthonius (eh-rik-THOH-nee-us). Eight of these gods are depicted in the frieze (freeze) of an octagonal clock tower in the Roman Forum in Athens. Eurus and Notus were two of these deities. Another of them kidnapped Orithyia (oh-REE-thee-ah) and had several children with her, including the snow goddess Chione (kye-OH-nee) and two sons who rescued (\*) Phineus from the Harpies. A fourth of these deities jealously caused the death of Hyacinthus. Calais (kah-LAY-iss) and Zetes (ZEE-teez) were the sons of Boreas, who like Zephyrus was one of, for 10 points, what Greek deities who represented the cardinal directions of a meteorological phenomenon?**

ANSWER: winds [or wind gods; or Anemoi]

<Carson, RMP - Greco-Roman Myth>

**16. Between 1838 and 1846, at least 17,000 "hunchbacks" attempted to leave this place by joining "General Cuckoo's Army," an event recounted in Daniel Beer's book about it. By 1845, this general place was the only location where the use of the knout (NOWT) was still legal. The unluckiest people who lived in this general place as part of the *katorga* system were given mine duty at (\*) Nerchinsk. In 1866, Poles who had been sent to this place after the January Uprising tried to revolt. In 1917, some 70,000 people, including Joseph Stalin, were allowed to return from this place after being sent there as enemies of the czar. For 10 points, name this place where Russian prisoners were forced to labor in the brutal cold.**

ANSWER: Siberia [or Russian Far East; or Siberian prison camps; or Siberian penal colonies; prompt on things such as prison camps or penal colonies; do not accept "Gulag" as none of the clues apply to that system]  
<Bentley, History - European>

**17. On the mass shell, the self-energy has a component proportional to this quantity, which can be inverted to find the lifetime of a particle. One over  $kT$  is replaced by time times this quantity over  $\hbar$  when performing a Wick rotation from Euclidean space to Minkowski space. The commutator of two conjugate variables equals this quantity times  $\hbar$ . This quantity is multiplied by  $\hbar$  and the time derivative of the wavefunction in the (\*) time-dependent Schrödinger equation. The reactance is multiplied by this quantity in the formula for impedance. The sine function is multiplied by this quantity in Euler's formula. For 10 points, name this quantity equal to the square root of negative one.**

ANSWER:  $i$  [or  $j$ ; or the imaginary unit; accept equivalents like the square root of negative one until read]  
<Mukherjee, Science - Physics>

**18. Pixelated mugshots of supporters of this cause were removed from the 2018 ARCO (ARR-ko) art fair. German highway police arrested the most high-profile supporter of this cause in March 2018. It is supported by the ERC (E-R-C) and CUP (C-U-P). Parties supporting this cause narrowly won an Article 155 snap election in December 2017. A leader of this cause has attempted to form a (\*) government-in-exile in Belgium. 700,000 leaflets supporting this cause were seized before a violent October 1st, 2017 vote. Carles Puigdemont (KAR-luss pooj-duh-MON) supports this movement, which is opposed by Mariano Rajoy (rah-HOY). If this goal is achieved, the resulting country would have a GDP equivalent to nearby Portugal. For 10 points, name this movement to separate a region whose capital is Barcelona from Spain.**

ANSWER: Catalonian independence [or independence for Catalonia; or separation of Catalonia from Spain; or self-determinism for Catalonia; or creation of Catalonia; accept Catalan in place of "Catalonian"; prompt on things like greater autonomy for Catalonia; prompt on the further use of the Catalan language; prompt on Catalan nationalism]  
<Bentley, Current Events - Foreign>

**19. A set of staircases in the Lello, one of these businesses in Portugal, supposedly inspired Hogwarts. The fictional Carl Conrad Coreander owns one of these businesses in a Michael Ende novel. Since 1986, Barack Obama has been a member of a Chicago-based business of this type called the Seminary Co-Op. The largest independent type of this sort of business can be found in Portland, Oregon, and was founded by Andrew (\*) Powell. A company that began as an online business of this type now offers AWS (A-W-S) cloud computing. The Beat poet Lawrence Ferlinghetti established one of these retailers called City Lights in San Francisco. The largest chain of these businesses sells the Nook tablet. For 10 points, name this type of business managed by Barnes & Noble.**

ANSWER: bookstores [or book shops; or used book shops; or second-hand book shops; or online bookstore; prompt on retail store]  
<Jose, Mixed/Other/General Knowledge>

**20. One poem by this author suggests "when skies are hanged and oceans drowned, / the single secret will still be man." This author's collection  $1 \times 1$  (one times one) includes a poem exhorting "pity poor flesh and trees, poor stars and stones, but never this fine specimen of hypermagical ultraomnipotence." This author wrote "there's a hell of a good universe next door; let's go" in a poem that calls (\*) "manunkind" (man-unkind) a "busy monster." He asked "how do you like your blue-eyed boy, / Mister Death" in a poem that begins "Buffalo Bill's / defunct." One of his poems parenthetically declares that "noone stooped to kiss his face" and repeats the phrase "sun moon stars rain." For 10 points, name this author of "anyone lived in a pretty how town," known for his unusual capitalization.**

ANSWER: E. E. **Cummings** [or Edward Estlin **Cummings**]

<Jose, Literature - American>

**21. The wealth that this native of Extremadura gained on one expedition enabled him to marry Isabel Bobadilla. This man was assisted with translation on one expedition by Juan Ortiz, a survivor he found at Espiritu Santo Bay. He emerged victorious in a war against Gil Gonzalez de Avila for control over the slave trade in Nicaragua and provided the ships for Francisco Pizarro's conquest of the Inca Empire. After he died of illness, his mission was continued by Luis de Moscoso Alvarado. That mission was inspired by (\*) Panfilo de Narváez's failed journey, started in modern-day Florida, and ended with him dying in Louisiana after finding the "father of the water" in Arkansas. For 10 points, name this explorer, the first European to discover the Mississippi River.**

ANSWER: Hernando **de Soto** [or Fernando **de Soto**]

<Bentley, History - World>



### NSC 2018 - Round 15 - Bonuses

1. Thorstein Veblen introduced the term for this approach to economics to refer to the methods of Alfred Marshall. For 10 points each:

[10] Name this approach to economics that was "synthesized" with Keynesianism (**CANES-ee-an-ism**) to create New Keynesian economics. Its name implies that it updates the ideas of David Ricardo and Adam Smith.

ANSWER: **neoclassical** economics [accept **neoclassical** synthesis; do not accept or prompt on "classical economics"]

[10] New Keynesian theories incorporate the concept of rational expectations, which assume that agents choose actions that maximize this value. It is used in economics to refer to any benefit.

ANSWER: **utility**

[10] In the 1970s, this Chicago school economist used rational expectations theory to critique macroeconomics, arguing that outcomes from old policies could not be used to forecast outcomes of new ones.

ANSWER: Robert **Lucas** [accept **Lucas** critique]

<Alston, Social Science - Economics>

2. Measurements of this phenomenon were used in the Michelson–Morley experiment to suggest the non-existence of the luminiferous aether. For 10 points each:

[10] Name this phenomenon in which two light waves with the same frequency add together in a "constructive" or "destructive" fashion.

ANSWER: **interference** [accept constructive **interference** or destructive **interference**]

[10] Michelson's interferometer consists of two perpendicular arms and one of these optical devices, which take one input wave and produce two output waves.

ANSWER: **beam splitter** [prompt on **splitter**; prompt on **BS**]

[10] This scientist performed two experiments involving rotating capacitors and resistors, respectively, to test for the luminiferous aether. He carried out the former of those experiments alongside H. R. Noble.

ANSWER: Frederick Thomas **Trouton**

<Kalathiveetil, Science - Physics>

3. This author inserted himself into his novel *The Razor's Edge* as an unimportant writer who discusses Hindu spirituality with Larry Darrell. For 10 points each:

[10] Name this author of an autobiographical novel about the clubfooted Philip Carey, *Of Human Bondage*.

ANSWER: William Somerset **Maugham** (mawm)

[10] This author winds his clock back fifteen minutes before narrating the third ending of his book about Charles Smithson and Sarah Woodruff, *The French Lieutenant's Woman*.

ANSWER: John **Fowles**

[10] This author's advice is dismissed by the ad-man John Self in his novel *Money*. This author wrote about Nicola Six, who predicts her own murder on her 35th birthday, in *London Fields*.

ANSWER: **Martin Amis** [prompt on **Amis**]

<Bollinger, Literature - British>

4. Identify the following about some examples of Ancient Greek humor, for 10 points each.

[10] This king gave a silver talent to a drinking club in Athens to write jokes for him. This king's son led the Companion Cavalry at the Battle of Chaeronea, where his forces crushed the Theban Sacred Band.

ANSWER: **Philip II** [or **Philippos II**; prompt on **Philip**]

[10] This philosopher satirized Socrates's definition of man as a "featherless biped" by presenting a plucked chicken to the Academy and yelling, "Behold! I bring you a Man!" This Cynic from Sinope (**SYE-noh-pee**) supposedly went around with a lantern looking for an honest man.

ANSWER: **Diogenes** the Cynic

[10] This historian collected the pithy sayings of Laconic Women in one book. His best known work begins by comparing Theseus with Romulus.

ANSWER: **Plutarch** [or Lucius Mestrius **Plutarchus**]

<Bentley, History - European>

5. This architect designed the Church of San Giorgio Maggiore (**mah-JOH-ray**) on an island in Venice. For 10 points each:

[10] Name this Italian architect who designed many country homes, such as the Villa Barbaro in Treviso. He wrote *Four Books on Architecture*.

ANSWER: Andrea **Palladio**

[10] Palladio's *Four Books on Architecture* were studied by this American architect, who drew inspiration from them to design his personal residence, Monticello.

ANSWER: Thomas **Jefferson**

[10] Many of Palladio's buildings, such as the Villa La Rotonda and the Santa Maria Nova, can be found in this city, which houses over 20 of Palladio's buildings. It was turned into a UNESCO World Heritage site to commemorate Palladio's works.

ANSWER: **Vicenza** (**vee-CHENT-sah**) [or **Vicetia** or **Vincentia**]

<Jose, Arts - Architecture>

6. Jonathan Franzen summarized the stereotypical story from this publication from the 1950s as having "too many... mopey suburbanites." For 10 points each:

[10] Name this magazine that first published James Thurber's story "Walter Mitty" under editor Harold Ross.

ANSWER: *The **New Yorker***

[10] This longtime *New Yorker* contributor wrote the children's books *Stuart Little* and *Charlotte's Web*.

ANSWER: E. B. **White** [or Elwyn Brooks **White**]

[10] E. B. White expanded on the guidelines set forth by William Strunk, Jr. in this manual on how to write, which is informally known as "Strunk & White."

ANSWER: *The **Elements of Style*** [prompt on "**Strunk & White**"]

<Bentley, Literature - American>



7. A conductivity meter is often used to provide an estimate of this quantity. For 10 points each:

[10] Name this measure of all the soluble substances in a sample of groundwater. Abbreviated TDS, it is often used as a measure of the amount of contaminants.

ANSWER: total **dissolved solids** [accept answers indicating **dissolved solids** count; prompt on **TDS**]

[10] In this kind of water, the total dissolved solids is less than 1,000 milligrams per liter. This kind of water becomes brackish when it is mixed with its more saline counterpart.

ANSWER: **freshwater** [accept **sweet** water]

[10] If there are over 35,000 milligrams of total dissolved solids per liter in a sample of water, then it is classified as this kind of water. Namesake, saline-loving "shrimp" dwell in "pools" of this kind of water.

ANSWER: **brine** water [or **briny** water; accept **brine** shrimp]

<Jose, Science - Earth Science>

8. In his 1970 book *Between Two Ages*, this man predicted that the Cold War would wind down with the US and Soviet Union each moving ideologically towards the other. For 10 points each:

[10] Name this Polish-American political scientist and National Security Adviser who advocated harder line positions than Secretary of State Cyrus Vance.

ANSWER: Zbigniew **Brzezinski** (ZBIG-nee-ev brr-zeh-ZIN-ski) [or Zbigniew Kazimierz **Brzezinski**; or Zbig **Brzezinski**]

[10] Brzezinski and Vance both served under this Democratic president, on whose watch the Iran hostage crisis started.

ANSWER: Jimmy **Carter** [or James Earl **Carter** Jr.]

[10] Barry Goldwater sued the Carter administration after it withdrew from a mutual defense treaty with this Asian country, which once held a permanent seat on the UN Security Council.

ANSWER: **Taiwan** [or **Republic of China**; or **ROC**; do NOT accept or prompt on just "China"]

<Bentley, History - American>

9. This woman's son offers the homily (HOM-uh-lee), "If you shake the trunk of this palm tree, it will drop ripe dates for you." For 10 points each:

[10] Name this "descendant of Aaron" who is the only woman mentioned by name in the Qur'an.

ANSWER: **Maryam** [or **Mary**; or Virgin **Mary**; or **Madonna**]

[10] Maryam's son Isa, or Jesus, is referred to as one of these types of people in the Qur'an. Muslims hold that Muhammad is the last of these people who relate the will of Allah.

ANSWER: **prophets** [or holy **messengers**; or **nabi**; or **rasul**]

[10] Many Islamic scholars hold that Maryam is the greatest woman of all time, bar none; other commentators hold that Fatimah or this woman, Muhammad's first wife, are her equal.

ANSWER: **Khadijah** bint Khuwaylid [or **Khadijah** al-Kubra; or **Khadijah** the Great]

<Bentley, RMP - Other Religion>

10. An event at this facility created the "Red Forest," whose name references the color of a group of dead pine trees. For 10 points each:

[10] Name this nuclear power station in Ukraine. In 1986, it caused a nuclear accident that devastated the town of Pripyat (**PRIP-yott**).

ANSWER: **Chernobyl** Nuclear Power Plant [or **Chernobyl** Nuclear Power Station; or V. I. **Lenin** Nuclear Power Station]

[10] Scientists have observed high rates of this phenomenon in the birds of Chernobyl. It's not blindness, but people with this condition in Tanzania have been murdered for their body parts.

ANSWER: **albinism** [accept **albino**]

[10] A one-gigawatt facility of this type at Chernobyl will go online in 2018. The largest one of these operations in the world in 2017 is the "Kurnool Ultra Mega" in Andhra Pradesh.

ANSWER: **solar farm** [or **solar power plant**; or **solar panels**; or **solar park**; or **solar ranch**; or **photovoltaic power** station; prompt on things like **power plant**]

<Jose, Geography - Europe>

11. Identify the following about the art collection of Carl Gustaf Tessin, tutor to Sweden's Gustav III, for 10 points each.

[10] Tessin's most expensive purchase was *The Triumph of Venus*, a canvas by this rear-end-loving artist of *The Toilet of Venus* who made several portraits of Madame de Pompadour.

ANSWER: François **Boucher** (**boo-SHAY**)

[10] Boucher worked in this style, characterized by pastel colors and frivolous subjects. Tessin bought works by another painter in this style, Jean-Antoine Watteau (**vah-TOH**).

ANSWER: **Rococo**

[10] Tessin commissioned a *Morning Toilet* featuring a mother and daughter from this French master of genre painting. A pouncing cat is visible in his still life *The Ray*.

ANSWER: Jean-Baptiste Simeon **Chardin** (**shar-DANN**)

<Bentley, Arts - Painting>

12. In this country, the reformer Nicolás Azcárate (**as-CAR-ah-tay**) popularized the practice of "tobacco reading" in cigar factories. For 10 points each:

[10] Name this Caribbean country. A poem from the collection *Versos Sencillos* (**VAIR-sos sen-SEE-yos**) by its native son José Martí was adapted into the song "Guantanamera."

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

[10] This Swiss-born Cuban author pioneered an early form of magical realism with his historical novels *Explosion in a Cathedral* and *The Kingdom of this World*.

ANSWER: Alejo **Carpentier** (**ah-LAY-ho car-pen-tee-AIR**) [or Alejo **Carpentier** y Valmont]

[10] Carpentier's contemporary Nicolás Guillén (**ghee-YEN**) was strongly influenced by his 1930 meeting with this American poet, whose poems include one about a piano player who is "droning a drowsy syncopated tune."

ANSWER: Langston **Hughes** [or James Mercer Langston **Hughes**] (That poem is "The Weary Blues.")

<Kothari, Literature - World>

13. This interrogative phrase titles Alwyn Turner's history of England during the 1970s. For 10 points each:  
[10] Give this three-word headline used by the tabloid newspaper *The Sun* to capture the indifference of Prime Minister James Callaghan to a strike of lorry drivers after returning from overseas.

ANSWER: "**Crisis? What Crisis?**"

[10] This Shakespeare-inspired three-word phrase was used by James Callaghan to describe the period from 1978 to 1979 during which many of the UK's public sector employees, such as gravediggers and garbage men, went on strike.

ANSWER: **Winter of Discontent** [do not accept any other answer]

[10] The Winter of Discontent occurred after Callaghan's government sought to control the rate of this phenomenon to less than five percent. In this phenomenon, prices rise and money becomes less valuable.

ANSWER: **inflation**

<Jose, History - European>

14. One of these substances, cyclamate, was banned by the FDA in 1969 after its use was linked to bladder cancer in trials with rats. For 10 points each:

[10] Name these food additives. They include aspartame (**ASS-par-tame**) and saccharin (**SACK-uh-rin**) and are sold under brand names such as Stevia.

ANSWER: artificial **sweeteners** [or **sugar substitutes**; do not accept or prompt on "sugar"]

[10] The artificial sweetener aspartame can be dangerous for individuals with PKU, as they cannot metabolize this amino acid that makes up part of the aspartame molecule. This essential amino acid has a benzyl side chain.

ANSWER: **phenylalanine** [prompt on **Phe** or **F**]

[10] This molecule, the most common artificial sweetener used in food products, is formed by the chlorination of another disaccharide. It is sold under the brand name Splenda.

ANSWER: **sucralose** [prompt on **Splenda**]

<Ramaswami, Science - Biology>

15. In the first scene of this play, the title character predicts the deaths of her children Eilif, Katrin, and Swiss Cheese, who each draw a slip of paper with a black cross. For 10 points each:

[10] Name this play whose title character profits off the Thirty Years' War by selling supplies from her canteen wagon.

ANSWER: ***Mother Courage and Her Children*** [or ***Mutter Courage und ihre Kinder***]

[10] *Mother Courage and Her Children* was written by this German communist, who collaborated with Kurt Weill (vile) on *The Threepenny Opera*.

ANSWER: Bertolt **Brecht** [or Eugene Berthold Friedrich **Brecht**]

[10] Viktor Shklovsky's concept of "defamiliarization" inspired Brecht to theorize this dramatic "effect," in which certain elements, such as captions projected onto the stage or characters breaking into song, jolt the audience out of its immersion in the play.

ANSWER: **distancing** effect [or **alienation** effect; or **a-effect**; or **Verfremdungseffekt**; or **V-effekt**]

< Bollinger, Literature - European >

16. The Bridgewater Treatises were inspired by William Paley's book on this discipline, which uses an analogy to a watch to suggest that the physical workings of the universe imply a divine creator. For 10 points each:  
[10] Name this discipline which seeks to infer the nature of God from physical reality. The Gifford Lectures were endowed to promote the study of this discipline.

ANSWER: **natural theology** [or **physico-theology**; prompt on theology or naturalism]

[10] This thinker wrote a Ninth Bridgewater Treatise that defended miracles while arguing for Charles Lyell's uniformitarianism. This collaborator of Ada Lovelace proposed an early computer called an Analytical Engine.

ANSWER: Charles **Babbage**

[10] Perhaps some of the most influential Gifford Lectures became this philosopher's *The Varieties of Religious Experience*.

ANSWER: William **James**

<Kothari, RMP - Philosophy>

17. This composer sought to free himself from Wagner's influence by creating music "without sauerkraut." For 10 points each:

[10] Name this French composer of *Gymnopédies* (jeem-no-pay-DEE) who assembled Les Six (lay SEESE).

ANSWER: Erik **Satie** [or Éric Alfred Leslie Satie]

[10] This type of music inspired Satie's *Ogives* (oh-ZHEEV), Francis Poulenc's (frawn-SEES poo-LANK's) *Gloria*, and Maurice Duruflé's *Requiem*. This sacred Catholic monophonic music comes in 12 modes, is often written with neumes (noomz), and is named for a 6th-century pope.

ANSWER: **Gregorian chant** [prompt on chant or plainchant or plainsong]

[10] Nuns file into the guillotine and chant this Marian hymn at the end of Poulenc's opera *Dialogues of the Carmelites*, then break off into four-part harmony before Blanche chants the Veni Creator Spiritus alone. It was set by Poulenc, Handel, and Arvo Pärt (PAIRT).

ANSWER: **Salve Regina** (SAL-vay reh-JEE-na) [or Hail Holy Queen]

<Bentley, Arts - Music>

18. Apollo made all of this man's cows bear twin calves while serving as this man's herdsman. For 10 points each:

[10] Name this man who married a daughter of Pelias after successfully yoking a lion and a boar to a chariot.

ANSWER: **Admetus**

[10] Admetus extracted a promise from the Fates to allow any volunteer to die in his place, but only this woman, his wife, volunteered. Heracles returned a favor to Admetus by rescuing this woman from the underworld.

ANSWER: **Alcestis**

[10] Other stories suggest that this goddess, the wife of Hades and the queen of the underworld, simply returned Alcestis to the land of the living herself.

ANSWER: **Persephone** [or Proserpine or Proserpina]

<Jose, RMP - Greco-Roman Myth>

19. The cultural reputation of this city improved in the 1820s when Ruan Yuan (r'WEN y'WEN) founded an academy called the Sea of Learning. For 10 points each:

[10] Name this "city of the rams" once home to the 13 Factories. This city in the Pearl River Delta was seized by the British in 1857 during the Arrow War.

ANSWER: **Guangzhou** (gwong-JOH) [or **Canton**; or **Kuang-chou**; or **Kwangchow**]

[10] Cantonese is mutually unintelligible with this language. A campaign to make this "common speech" the standard language of China raised the population's understanding of it from 41 to 90 percent from 1949 to 1984.

ANSWER: **Mandarin** Chinese [or Modern Standard **Mandarin**; or **Putonghua**; or **Guoyu**; prompt on **Guānhuà**; prompt on **Northern dialects**; prompt on Modern Standard **Chinese**]

[10] A 1911 uprising in Guangzhou led by this author of the Three Principles of the People preceded the more general Chinese Revolution.

ANSWER: **Sun** Yat-sen [or **Sun** Yixian; or **Sun** I-hsien; or **Sun** Wen; or **Sun** Deming; or **Sun** Rixin; or **Sun** Zhongshan]

<Bentley, History - World>

20. A 2018 biography of this mathematician by Massimo Mazzotti discusses how she eventually renounced mathematics and devoted herself to God. For 10 points each:

[10] Name this mathematician who names a curve formed by tracing the secant line as a circle is rotated.

ANSWER: Maria **Agnesi** (ahn-YAY-zee) [accept witch of **Agnesi**]

[10] Maria Agnesi discussed the witch of Agnesi in one of the first textbooks on this discipline, which has "differential" and "integral" forms.

ANSWER: **calculus**

[10] The witch of Agnesi was first constructed by Luigi Grandi, whose namesake series consists of "one minus one plus one minus one" and so on. That series is notable since it only has the "conditional" form of this property of tending towards a finite value.

ANSWER: **convergence** [or **convergent**]

<Jose, Science - Math>

21. The Court Jester hypothesis, which considered abiotic interactions, was formed in response to this theory. For 10 points each:

[10] Name this hypothesis named for a Lewis Carroll character. It states that species must continuously evolve as they are locked in a coevolutionary arms race.

ANSWER: **Red Queen** hypothesis

[10] The Red Queen hypothesis explains how this mode of reproduction is advantageous because it allows for faster evolution than offspring produced from a single organism. This type of reproduction involves the fusion of gametes to form zygotes in fertilization.

ANSWER: **sexual** reproduction

[10] The Red Queen hypothesis was proposed by this man, who defined the ecological species concept. This American biologist names a "Law of Extinction."

ANSWER: Leigh **Van Valen**

<Grames, Science - Biology>



