

PACE NSC 2022 - Round 03 - Tossups

1. Mutations in the ryanodine ("rye-AN-uh-deen") receptor cause a condition named for increasing this physiological variable dangerously high after using halogenated anesthetics. The median preoptic nucleus of the anterior hypothalamus manages osmolarity and this variable. Nociception and data about this variable are transmitted through the spino-thalamic tract. This variable is partially maintained in the extremities by (*) countercurrent blood exchange. High progesterone after ovulation increases the basal value of this variable. High values of this quantity induce arteriolar dilation and eccrine ("EH-krin") gland secretion. Shivering and sweating allow modulation of, for 10 points, what physiological variable whose normal value in humans is 98.6 Fahrenheit?

ANSWER: body temperature

<Andrew Wang, Science - Biology> ~23839~

2. Kate Keller Kobayashi made a documentary about this painting's 1981 repatriation from a museum led at the time by Alfred Barr. A digital project from the Queen Sofia Museum on "Rethinking" this painting contains an interview with Tony Shafrazi, a man who wrote "KILL LIES ALL" on it. In 2021, Nelson Rockefeller Jr. temporarily reclaimed Jacqueline de la Baume Dürrbach's tapestry copy of this painting from the (*) Security Council room at the UN. On the left of this grisaille painting, a bull's chin almost touches a mother whose head is raised to the sky in agony. This 1937 painting commemorates atrocities carried out by the Condor Legion. For 10 points, name this Pablo Picasso painting commemorating a bombing in a town in Basque Country.

ANSWER: Guernica

<Michael Bentley, Fine Arts - Painting - European> ~23052~

3. Women from a minority religious group in this country are routinely targeted by fake "auction apps." This country's 2019 Citizenship Amendment Bill attracted criticism for denying one religious minority access to its National Register of Citizens. This country's right wing Times Now TV channel routinely airs stories about so-called "love jihads." In 2019, a presidential order revoked Article (*) 370 protections, creating two new union territories in a contested region of this country. Over 30 people in this country have been lynched by so-called "cow protection" groups. For 10 points, name this country whose minority population of 200 million Muslims have faced persecution under the BJP party led by Narendra Modi.

ANSWER: India [or Republic of India]

<Michael Bentley, Current Events - World> ~23527~

4. The Soviet Union manufactured playing cards based on art from this culture to honor Yuri Knorozov's breakthrough research on them. American interest in these people was sparked by an expedition co-led by artist Frederick Catherwood that produced images such as *Lithograph of Stela D. The Temple of the Warriors* built by this culture is a prime example of architecture from their (*) Late Classic period. During the equinoxes, a serpent appears on the steps of a temple built by these people known as "El Castillo." These people used *bak'tun* and *k'atun* to divide a construct termed the "Long Count". Pacal the Great ruled these people from the city of Palenque. For 10 points, name this pre-Colombian civilization who built Chichen Itza.

ANSWER: Maya [or Mayan civilization; accept Yucatec Maya or K'iche Maya]

<Michael Bentley, History - World - Latin American> ~22635~

5. The title character of a novella from this modern-day country, who attempts to show off by reciting opera verses, consoles himself with the reasoning that "a man is destined sometimes to have his head cut off." An author from this country wrote a novella whose title character tries to draw a perfect circle and declares things "spiritual victories." The line "save the children" ends a story from this country whose protagonist repeatedly sees the words (*) "eat people." An author from this country won the 2012 Literature Nobel for novels such as *The Republic of Wine*. It's not Russia, but the author of "A Madman's Diary" and *The True Story of Ah Q* was from this country. For 10 points, name this country home to Mo Yan and Lu Xun ("shoon").

ANSWER: China [or People's Republic of China or PRC or Zhongguo]

<Michael Bentley, Literature - World and Miscellaneous> ~23235~

6. One holder of this position, who employed the midwives Shiphrah ("SHIF-rah") and Puah, oversaw the construction of the supply depot Pithom. Jannes ("YON-nees") and Jambres ("YOM-brees") served another holder of this position, who demanded the same quota from his workers in Goshen even after ceasing to supply them with straw. Five times, that man in this position is described as (*) "hardening his heart." One holder of this position who "did not know Joseph" had a daughter, who rescued a baby from a basket among the reeds while bathing. The successor of that man in this position changed his mind after he lost his own firstborn as part of ten plagues on his lands. For 10 points, the holder of what position unwillingly let the Israelites out of his country?

ANSWER: the Pharaoh [or descriptive equivalents such as the king of Egypt; prompt on king]

<Jon Suh, RMP - Hebrew Bible> ~22490~

7. In the 1950s, this company hired high school principal Mary Alexander to be the first African-American woman in its ads. It doesn't make cars, but Frank Mason Robinson created this company's iconic logo in Spencerian script. This company's products were marketed alongside those of its co-founder Asa Candler. In 1985, this company's CEO Roberto Goizueta ("goy-SWET-uh") announced a reviled (*) "new" version of its signature product, whose poor sales led it to be quickly revoked. To cure morphine addiction, this company's founder experimented with an African nut and a South American plant wine to create a formula which was locked away in Atlanta's Truist Bank. For 10 points, John Pemberton created the secret formula of what soda company, which rivals Pepsi?

ANSWER: Coca-Cola [or Coke; or the Coca-Cola Company] (Asa Candler also sold other pharmaceutical products containing cocaine.)

<Hari Parameswaran, History - American - 1945+> ~23248~

8. Martha Nussbaum's *The Fragility of Goodness* analyzes a speech about this concept which compares Socrates to a statue of Silenus ("sie-LEE-nus"), which opens to reveal tiny statues inside. This concept is called a "divine madness" in a work that compares the soul to a chariot driven by two horses of different temperaments. It unites the Elements into mixtures according to Empedocles, who placed it in opposition to strife. This concept is likened to a (*) ladder that can be climbed to learn the form of Beauty in a metaphor Socrates attributes to Diotima. Alciabiades delivers a drunken speech in that dialogue about this concept. For 10 points, Plato's *Symposium* is about what concept, which the Greeks divided into *philia*, *agape*, and *eros*?

ANSWER: love [accept philia, agape, or eros until mentioned]

<Caleb Kendrick, RMP - Philosophy> ~23848~

9. A poem in this language describes how "we dig a grave in the air; there one lies at ease." Though he didn't write in it, Yehudi Amichai's ("AMM-ee-kye's") childhood speaking this language influenced his colloquial poetry. A poem in this language describes drinking the "black milk of daybreak," and contrasts the "ashen hair" and "golden hair" of two women; that poem is (*) "Death Fugue." A poem in this language laments "there was no one left" after stating that "I was not a trade unionist" to explain why "I did not speak." The "Anthem of Europe" uses a poem in this language that describes a "spark of divinity" and "daughter of Elysium." For 10 points, name this language used for "First they came..." by Martin Niemöller ("NEE-murl-ur") and "Ode to Joy" by Friedrich Schiller ("shiller").

ANSWER: German [or Deutsch; do not accept or prompt "Dutch"]

<Clark Smith, Literature - European - Poetry> ~17457~

10. Thomas Huxley dedicated a lecture to a piece of this rock in which he described its formation to the men of Norwich. This rock and sandstone serve as petroleum reservoirs in the oil fields of the Gulf Coast and the North Sea. Close examination of this rock will reveal countless discarded tests of foraminifera ("for-AM-in-i-fera"). A vast bed of this rock underlying most of Europe was formed in the shallow seas of the (*) Cretaceous, which is named for it. The high porosity of this rock produces an extremely vigorous reaction in the acid test. This rock is marginally harder than gypsum and thus produces less dust when rubbed on a surface. For 10 points, name this form of calcium carbonate rock used to write on blackboards.

ANSWER: chalk [or The Chalk; or dustless chalk; accept *On a Piece of Chalk* or limestone; prompt on calcite, aragonite, or lime; prompt on calcium carbonate before read]

<Kevin Wang, Science - Earth> ~23754~

11. In 2005, Douglas Levere published a photobook that tried to recreate all the photos of this city in Bernice Abbott's collection of its "Changing" state. Bill Cunningham spent decades biking around this city to photograph fashionable people. A work of "straight photography" taken in this city depicts a series of people with long shadows walking beneath five large, black, semi-abstract windows of a bank and was taken by Paul Strand. A child with one of his overalls loose holds a toy (*) grenade in a photo Diane Arbus took in this city. Corbis Images's most popular stock photograph depicts 11 men in this city having lunch while seated on a crossbeam 850 feet in the air. For 10 points, name this city the setting of the photo *Wall Street*.

ANSWER: New York City [anti-prompt on Manhattan]

<Michael Bentley, Fine Arts - Photography> ~23266~

12. Some electric versions of this instrument were made to be "Leslie-proof," preventing them from connecting to Leslie speakers. Booker T. Jones used a version of this instrument to establish the Memphis soul sound on "Green Onions." A massive one of these instruments named for John Wanamaker is played twice a day at a Macy's in Philadelphia. Laurens Hammond manufactured a popular electric version of this instrument. The (*) "theater" version of this instrument was frequently used to provide a live soundtrack for silent films. Robert Hope-Jones modified the "Mighty Wurlitzer" version of this instrument to create a horseshoe console that was easier to deactivate pipe ranks. For 10 points, name this keyboard instrument often played in churches.

ANSWER: organ [accept electric organ or Hammond organ; prompt on keyboard]

<Michael Bentley, Fine Arts - Music - Miscellaneous> ~23109~

13. This is the lowest number of electrons for which the Tanabe-Sugano ("TAH-nah-bay SOO-gah-no") diagram distinguishes between low and high spins. A geometry with this many ligands is almost exclusively high spin due to possessing energy splitting equal to roughly 4/9 that of an octahedral complex, and contains 3 high-energy t_{2g} ("t-sub-2-g") orbitals and 2 lower energy e_g ("e-sub-g") orbitals. The anti-cancer drug cisplatin ("sis-PLAT-in") has this many ligands bound to platinum. This many imi·daz·ole equivalents form the (*) porphyrin ("POR-fur-in") ring found in heme. The seesaw VSPER ("vesper") geometry has this many bonds, as does a geometry with roughly 109.5 degree bond angles. For 10 points, name this number of bonds in molecules with tetrahedral and square planar geometries.

ANSWER: four

<Victor Prieto, Science - Chemistry> ~23812~

14. Paul Cantor argues that the sections of this novel set in rural Iping ("EYE-peeng") allows the author to criticize Adam Smith. In one scene, this novel's title character is chased out of the Omniums, a department store where he gets the idea to buy wigs and fake noses. Its protagonist experiments on a cat, drawing unwanted attention from a neighbor who suspects him of being a vivisectionist. The protagonist of this novel endeavors to start a (*) "Reign of Terror" and had earlier avoided eating in front of guests at the Coach and Horses Inn so that no one would see his unusual mouth. This novel's title character, Griffin, is a scientist who adjusts the refractive index of his body. For 10 points, name this H. G. Wells novel whose protagonist makes himself disappear.

ANSWER: *The Invisible Man* [this tournament's decision is to explicitly accept just Invisible Man (without a "the") for this answer line, overriding any other rule on this]

<Michael Bentley, Literature - British - Long Fiction> ~17123~

15. *Description acceptable.* A joint stock company funded Black Jack Norris's disastrous counter to this campaign, which lost many men to enemy *zabras*. Numerous medals with the phrase "He blew with His winds" were cast following this campaign. Pope Sixtus V promised a one million ducat reward following the successful completion of this campaign. Prior to the key battle in this campaign, one side broke its crescent formation out of fear of (*) "hellburners." Legends about this campaign spread in numerous Tilbury ballads. Many participants in this campaign fled Calais without anchors prior to the Battle of Gravelines ("grov-leen") due to harassment from fireships. For 10 points, name this military campaign to replace Queen Elizabeth I.

ANSWER: the failed Spanish invasion of England of 1588 [accept any answer mentioning the Spanish Armada; accept answers like Phillip II's naval campaign against England or Elizabeth; prompt on Anglo-Spanish War or Spanish Invasion]

<Michael Bentley, History - European - 1500-1900> ~22928~

16. Many of this author's "swans" were scandalized by an excerpt of his unfinished novel *Answered Prayers*. A character named for this author's great-aunt Sook gives Buddy a kite in his story "A Christmas Memory." This author wrote a book detailing Officer Dewey's interrogation of a man sent to "The Corner" for an action that netted him just a portable radio and \$40. That (*) "non-fiction novel" by this author chronicles a gruesome crime committed by Perry Edward Smith and Dick Hickock. This author's novella about a jobless Manhattan socialite was adapted into a 1961 movie starring Audrey Hepburn. For 10 points, name this author who wrote about the murder of the Clutter family in *In Cold Blood*, and created Holly Golightly in *Breakfast at Tiffany's*.

ANSWER: Truman Capote [or Truman Garcia Capote; or Truman Streckfus Persons]

<Michael Bentley, Literature - American> ~23021~

17. In Guizhou ("gway-DJOE"), it's common for a mother to bring some of these objects wrapped in red paper to the family of the girl her son plans on marrying. A Japanese faux pas involves the "crying" form of these objects where liquid is allowed to drip off them like tears. A ritual called *kotsuage* ("kote-SWA-gay") is traditionally the only time in which two people will touch the same object with one of these things and is done following (*) cremation in Japanese funerals. A common commencement ritual involves breaking apart *waribashi*, the name for a disposable type of these objects. Long, metal examples of these objects used when deep frying often have bamboo tips to keep the cook from getting burned. For 10 points, name these eating utensils commonly used in East Asia.

ANSWER: chopsticks [prompt on utensils]

<Michael Bentley, Other - Other Academic and General Knowledge> ~22647~

18. This character fabricates a story about a Massylian ("ma-SIL-ee-un") priestess who used poppy seeds to drug the serpent Ladon. This character admits to feeling "the scars of the old flame" before calling for the earth to swallow them up. In the Underworld, this character wanders the Fields of Mourning and ignores a visitor's pleas. This character strikes a deal for as much land as (*) she can cover with an oxhide, then cuts the oxhide into strips so it can surround the hill of Byrsa. This woman calls for an "avenger to rise up from her bones" on her funeral pyre after finding out that her lover is sailing for Italy. For 10 points, name this queen of Carthage whose doomed love for a Trojan prince is depicted in the *Aeneid*.

ANSWER: Dido [or Elissa]

<Matthew Bollinger, RMP - Greco-Roman Mythology> ~23918~

19. *Description acceptable.* The 1832 Massacre at Duffy's Cut in Pennsylvania was a nativist reaction to one of these events. Dilip Mahalanabis ("mah-huh-LAN-uh-bis") developed a low-tech ORT therapy to counter these events in Bangladesh. An 1831 riot named for one of these events sacked a building on Sennaya Square in St. Petersburg. A Steven Johnson book about how one of these events in 1854 "Changed Science, Cities, and the Modern World" is titled *The Ghost Map*. UN Peacekeepers responding to a 2010 (*) earthquake caused one of these events in Haiti that killed at least 10,000 people. One of these events in London was traced back to the Broad Street water pump by John Snow, an epidemiologist. For 10 points, name these events that cause people to become sick with watery diarrhea.

ANSWER: cholera outbreaks [or cholera pandemics; or cholera epidemic; accept anything along the lines of getting sick from cholera; prompt on epidemic or outbreak or pandemic or foodborne infections or vibrio outbreaks by asking "of what disease?"]

<Michael Bentley, History - Cross, Historiography, and Miscellaneous> ~22643~

20. In natural units, a law named for this physicist includes the factor "one over the exponential of frequency over temperature, minus one." Differentiating that equation named for this physicist shows that it peaks at about $2.8kT$ (" $2.8 K T$ "), which leads to one form of Wien's ("VEE-uhns") displacement law. That equation named for this physicist converges to zero at high frequencies but reproduces the Rayleigh-Jeans law at low frequencies, which resolved the (*) ultraviolet catastrophe by describing the spectrum of black-body radiation. This physicist's namesake constant over momentum gives the de Broglie ("BROY") wavelength. A photon's energy and frequency are related by, for 10 points, what pioneering German quantum physicist's namesake constant, symbolized h ?

ANSWER: Max Planck [accept Planck's law or Planck's equation or reduced Planck's constant]

<Charles Yang, Science - Physics> ~21078~

21. The outer panels of a now-dispersed triptych by this artist reveal a man in gray carrying a basket and a wooden spoon on his back as he wards off a dog with his walking stick. A pope that some scholars have identified as Alexander VI rides next to an emperor behind the title conveyance in one painting by this artist. This artist's *Wayfarer* triptych was separated into panels such as *The (*) Ship of Fools*. An owl perches in the center of a pink fountain above Adam and Eve in the left panel of a triptych by this artist. The right panel of that painting by this artist depicts a Tree-Man and a birdlike creature who defecates out souls in Hell. For 10 points, name this Early Netherlandish painter of *The Haywain* and *The Garden of Earthly Delights*.
ANSWER: Hieronymus **Bosch** [or Jheronimus van **Aken**; or Joen van **Aken**; prompt on Hieronymus]
<Michael Bentley, Fine Arts - Painting - European> ~24048~

PACE NSC 2022 - Round 03 - Bonuses

1. For 10 points each, answer the following about wisdom contests in Norse mythology.

[10] After Thor keeps him up all night with Norse myth trivia questions, the dwarf Alvis suffers this fate. In Greek mythology, this fate befalls the entire court of Polydectes after a foster-child of Dictys returns to Seriphos.

ANSWER: **turning to stone** [or **petrification**; accept being **turned to stone** by Medusa's head or the sun]

[10] In a lay from the *Poetic Edda*, the giant Vafthrudnir stakes his head on a wisdom contest against this one-eyed, spear-wielding ruler of the Aesir.

ANSWER: **Odin** [or **Woden**; or **Wotan**]

[10] After a friendly riddle contest with Heidrek, Odin flew away in the form of a hawk, inciting Heidrek to attack Odin with this weapon. This cursed sword was fated to bring about three "evil deeds."

ANSWER: **Tyrfing** [or **Tyrving**]

<Matthew Bollinger, RMP - World Mythology> ~19183~

2. This process may begin with the deposition of an initial strike to serve as a foundation. For 10 points each:

[10] Name this general process, a subtype of which includes galvanoplasty. A Haring-Blum cell can be used to determine the throwing power of a bath used in this process, which indicates its ability to cover uniformly.

ANSWER: **electroplating** [accept **electroforming**; prompt on **plating**]

[10] The rate of electroplating can be calculated using the laws of electrolysis named for this scientist, who names a unit equal to the charge carried by a mole of electrons.

ANSWER: Michael **Faraday**

[10] Electroplating is often used to apply this metal to surfaces as a form of gilding. Other methods to apply this metal may first dissolve it in aqua regia.

ANSWER: **gold**

<Andrew Wang, Science - Chemistry> ~19275~

3. This faction's leader William Leggett referred to his goals as the "Dupes of Hope Forever." For 10 points each:

[10] Name this faction of very liberal Democrats, who founded a splinter Equal Rights Party in the 1830s. This faction was named for holding meetings using a brand of matches.

ANSWER: **locofocos**

[10] Locofoco ideas bled into the Young America movement, which embraced this idea coined by John O. Sullivan. This idea says that Americans had a right to annex the entire continent and spread democracy.

ANSWER: **manifest destiny**

[10] Locofoco ideas were also adopted by Samuel Dorr, who led a rebellion in this state to argue for universal male suffrage. The *HMS Gaspee* was burned off of this state's coast.

ANSWER: **Rhode Island**

<Hari Parameswaran, History - American - Pre-1865> ~18278~

4. In a novella by this author, the title priest becomes depressed after hiding his true atheism for the good of his townspeople. For 10 points each:

[10] Name this author of *San Manuel Bueno, Mártir* and *Abel Sanchez*, who coined the term "nivola" to describe his work *Mist*.

ANSWER: Miguel de Unamuno y Jugo

[10] Unamuno was a prominent member of a Spanish literary movement named for one of these things "of '98." Federico Garcia Lorca was in a later group named for one of these things "of '27."

ANSWER: generations [or generaciones]

[10] Unamuno referred to a set of stories by this earlier author with his collection of three "exemplary novels." In *Mist*, Augusto disputes with Unamuno himself as to the relationship of this author to his character Don Quixote.

ANSWER: Miguel de Cervantes ("sair-VAN-tays") Saavedra

<Joseph Krol, Literature - European - Short Fiction> ~18275~

5. Desdemona's "Ave Maria" in Giuseppe Verdi's *Otello* inspired an Act III scene in this opera in which the title character's wife Marie reads from the Bible. For 10 points each:

[10] Name this opera in which an "Invention on a Single Note B" plays in a scene set on a night with a blood-red moon overhead.

ANSWER: Wozzeck

[10] Marlis Petersen almost always used a voice double to perform the bloodcurdling scream that ends this other Alban Berg opera whose title femme fatale is killed by Jack the Ripper.

ANSWER: Lulu

[10] Alban Berg was a member of the "Second" school of this city, alongside Anton Webern and Arnold Schoenberg. This city's Court Opera was inaugurated with a performance of *Don Giovanni* with Emperor Franz Josef in attendance.

ANSWER: Vienna [accept Second Viennese School]

<Michael Bentley, Fine Arts - Opera> ~19197~

6. In 1837, two French professors fought a duel over the proper usage of this punctuation mark. For 10 points each:

[10] Name this punctuation mark used to terminate statements in C++. The winking emoticon is usually formed by a combination of this mark and a parenthesis.

ANSWER: semicolon

[10] An error in semicolon placement resulted in this city banning liquor sales for six years. In 1896, officials in this seat of Suffolk County banned \$5 bills due to nudity on the bill, contributing to the phrase "banned in [this city]."

ANSWER: Boston [or City of Boston]

[10] This author of *Player Piano* declared, "All [the semicolon does] is show you've been to college." This man's college-educated brother pioneered using silver iodide for cloud seeding.

ANSWER: Kurt Vonnegut

<Michael Bentley, Other - Other Academic and General Knowledge> ~18202~

7. The covariant derivative of a divergenceless one of these mathematical objects denoted by a capital G equals zero, according to the contracted Bianchi ("bee-AN-kee") identities. For 10 points each:

[10] Name these mathematical objects. One of them often written using subscripts "mu" and "nu" appears in the Einstein field equations.

ANSWER: tensors [accept Einstein tensor or Ricci tensor or stress-energy tensor]

[10] The stress-energy tensor appears on the right-hand side of Einstein's field equations, which describe this theory that followed a decade after a similarly-named "special" theory.

ANSWER: general relativity [or GR; prompt on relativity]

[10] In Einstein's field equations, the metric tensor is multiplied by this constant denoted lambda, whose inclusion Einstein infamously called his "greatest blunder."

ANSWER: cosmological constant

<Joseph Krol, Science - Physics> ~18149~

8. This substance lends its name to the day on which paintings were finished prior to exhibition at the Royal Academy. For 10 points each:

[10] Identify this coating, usually made from a resin dissolved in a drying oil, that was applied to paintings to make them appear glossier. It shouldn't be confused with lacquer.

ANSWER: varnish

[10] This artist's technical mastery was on display on Varnishing Days. This British landscape artist painted *The Fighting Temeraire* and *Rain, Steam and Speed*.

ANSWER: J.M.W. Turner [or Joseph Mallord William Turner]

[10] The subscription ticket for this artist's *Sigismonda* series depicts Time seated next to a varnish jar. This artist of *Gin Lane* sometimes lends his name to the Engravers' Copyright Act of 1735.

ANSWER: William Hogarth

<Michael Bentley, Fine Arts - Painting - European> ~17708~

9. Patrick Leigh Fermor's travelogue *A Time of Gifts* describes how at age 18, he decided to walk from the Hook of Holland to this city. For 10 points each:

[10] Name this city. Early in *Murder on the Orient Express*, Poirot ("pwa-ROH") plans to visit the Bosphorus, which splits this city's Asian and European parts.

ANSWER: Istanbul [accept Constantinople or Byzantium]

[10] Fermor passed the time on his 2,500-mile journey by reciting this set of poems by the author of "Ars Poetica," one of which originated the Latin phrase "carpe diem."

ANSWER: Horace's Odes [or the Odes of Quintus Horatius Flaccus or the Horatian Odes or the Carmina of Horace]

[10] This author recounted Fermor's penchant for singing Greek songs in his memoir *Bitter Lemons*. This author described the dalliances of L. G. Darley in the novels *Justine*, *Balthazar*, *Mountolive* and *Clea* ("KLAY-uh").

ANSWER: Lawrence George Durrell [Those novels form the *Alexandria Quartet*.]

<Rahul Keyal, Literature - World and Miscellaneous> ~15238~

10. According to historian Martha L. Rose, this man's second son is the "only significant instance of a deaf person's appearance in the surviving Greek literature." For 10 points each:

[10] Identify this king of Lydia whose other son, Atys, died prior to this man's failed conquest of Persia.

ANSWER: Croesus [or Kroisos]

[10] The tale of Croesus and his sons are told by this Greek historian, often considered the "father of history" for his chronicle of the Greco-Persian Wars.

ANSWER: Herodotus

[10] Herodotus relates a dialogue between Croesus and this Athenian lawmaker, whose extensive travels abroad included a visit to a temple in Cyprus that was named in his honor.

ANSWER: Solon

<Michael Bentley, History - European - Classical> ~17953~

11. The narrator of a book describes how "the daring spirit" came upon him, provoking him to perform "a vigorous and sudden snatch" to bring this man to the ground. For 10 points each:

[10] Identify this "slave breaker" who the narrator is sent to by the Aulds, an incident described in the author's "Narrative Life."

ANSWER: Edward **Covey** [or **Edward** Covey]

[10] This founder of the *North Star* newspaper described his rebellion against Edward Covey in his slave narrative.

ANSWER: Frederick **Douglass** [or Frederick **Bailey**]

[10] In the *Narrative Life of Frederick Douglass*, Douglass describes how his mother, who had this first name, would walk twelve miles just to see him. Another woman with this first name used the alias Linda Brent to publish her *Incidents in the Life of a Slave Girl*.

ANSWER: **Harriet** [accept **Harriet** Ann Jacobs or **Harriet** Bailey]

<Michael Bentley, Literature - American> ~17706~

12. A piano sonata by this composer begins with a *legendaire* tempo in 4/8 with alternating chromatically descending major thirds and diminished sevenths. For 10 points each:

[10] Name this composer, who used the dissonant minor ninth interval in his "Black Mass" sonata.

ANSWER: Alexander **Scriabin** [or Alexander Nikolayevich **Scriabin**]

[10] In works such as *Prometheus: The Poem of Fire*, Scriabin frequently used his "mystic" chord, in which this interval is "stacked." This interval, which can be augmented to form a tritone, can be inverted to create a fifth.

ANSWER: **fourths** [accept augmented **fourths** or perfect **fourths** or diminished **fourths**]

[10] Scriabin composed 24 of these types of pieces in every key for his Opus 11 collection. These types of pieces were originally named for the fact that they served as introductions to a collection of pieces, often being paired with fugues in the Baroque era.

ANSWER: **preludes**

<Benjamin Chapman, Fine Arts - Music - 1900 to 1970> ~18282~

13. The polarization identity says that if the parallelogram law holds, an inner product can be induced by this type of operation. For 10 points each:

[10] Name this type of operation that obeys the triangle inequality and assigns each vector in a vector space a nonnegative value.

ANSWER: **norm** [prompt on distances or lengths]

[10] In a complete vector space, every Cauchy sequence has this property. The alternating harmonic series has this property's conditional form.

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

[10] For a vector space, scalar multiplication must have this property with respect to vector addition.

Multiplication has this property with regards to addition because (read slowly) a times the sum " b plus c " equals a times b plus a times c .

ANSWER: **distributive** [or **distributes** over addition]

<Jonathen Settle, Science - Math> ~18533~

14. This man told his subordinate Stanley Druckenmiller to "go for the jugular" and make a massive bet that the pound would be devalued on Black Wednesday in 1992. For 10 points each:

[10] Name this founder of the Quantum Fund who earned the nickname The Man Who Broke the Bank of England. He founded Central European University.

ANSWER: George **Soros** [or György **Schwartz**]

[10] Soros was born György Schwartz in this modern-day country. This country's current Prime Minister, Viktor Orbán, was once a Soros Foundation beneficiary.

ANSWER: **Hungary** [or **Magyarország**]

[10] This longtime Malaysian leader made antisemitic remarks about Soros during the Asian financial crisis. This author of the book *The Malay Dilemma* was reelected Prime Minister in 2018 at age 92.

ANSWER: **Mahathir** Mohamad [or **Mahathir** bin Mohamad; or **Mahathir** a/l Iskandar Kutty; prompt on Mohamad]

<Michael Bentley, History - Cross, Historiography, and Miscellaneous> ~18576~

15. Books such as *Authentic Leadership* are included in a fourteen-book "Ultimate" collection on this concept issued by the *Harvard Business Review*. For 10 points each:

[10] Give this two-word term popularized in a 1995 book by Daniel Goleman that describes one's "ability to monitor one's own and others' feelings."

ANSWER: **emotional intelligence** [or **EI**; accept **Emotional Quotient** or **EQ**]

[10] Dinah Mistilis published a book on Emotional Intelligence for people in this job. A person in this profession coined the term "yips" for a psychological condition affecting them.

ANSWER: professional **athletes** [accept more specific answers like **swimmers** or **triathletes** or **baseball** players or **golfers**]

[10] This psychologist formulated the earlier concept of Emotional Strength. Eleanor Roosevelt exemplified a person who had obtained Self-Actualization in this psychologist's hierarchy of needs.

ANSWER: Abraham **Maslow** [or Abraham Harold **Maslow**]

<Michael Bentley, Social Science - Psychology> ~18054~

16. A prince from this Chinese kingdom supposedly used a kite to fly himself two miles in the 4th century BCE. For 10 points each:

[10] Name this kingdom, which was sandwiched between the Qin, Qi, Chu and Han during the Warring States period. Cao Cao ("**tsow tsow**") ruled a state with the same name as this one during the Three Kingdoms period.

ANSWER: **Wei** Kingdom [accept Cao **Wei** or Former **Wei**]

[10] Many Chinese kites feature images of these mythical, flying, and fire-breathing creatures which were strongly associated with the Emperor.

ANSWER: **dragons** [or **long** or **lung**]

[10] Emperor Wudi of the Liang dynasty used a kite as an SOS signal during a siege of this city. Two soldiers held a contest to kill 100 people with a sword during a later event in this city.

ANSWER: **Nanjing** [or **Nanking**]

<Michael Bentley, History - World - Asian> ~18574~

17. This organism can functionally transfer memories to its offspring to avoid undesirable bacteria. For 10 points each:

[10] Name this model organism which has exactly 959 somatic cells in its hermaphroditic form and 1031 in its adult male form, all of which have had their developmental fates mapped.

ANSWER: C. elegans [or Caenorhabditis elegans]

[10] The passage of memories in *C. elegans* occurs through Cer1, an example of one of these structures that uses a RNA intermediate. These DNA equivalents are non-replicative and called "jumping genes."

ANSWER: retrotransposons [or transposable elements]

[10] The inactivation of transposons through methylation and the modification of histones is studied in this field that focuses on phenotype changes that occur without affecting DNA's sequence.

ANSWER: epigenetics

<Michael Bentley, Science - Biology> ~18596~

18. For 10 points each, identify the following about old-growth forests.

[10] This state's Baxter State Park contains over 23,000 acres of old-growth forests and this state's highest peak, Mount Katahdin ("kuh-TAH-din"). The Appalachian Trail runs through the Hundred-Mile Wilderness in this state.

ANSWER: Maine

[10] Many of the last old-growth forests in the Pacific Northwest were saved to preserve the habitat of one of these animals. Bumper stickers reading "Kill [one of these creatures]--Save a Logger" were common in Northwest logging communities in the early 1990s.

ANSWER: owls [accept Northern Spotted Owl or Strix occidentalis caurina or Strigiformes; prompt on bird]

[10] Biologist Rachel Holt has argued that this Canadian province has vastly over-counted its old growth forest acreage. This province's capital is Victoria.

ANSWER: British Columbia [or B.C.]

<Michael Bentley, Geography - United States> ~18106~

19. A lion sits on one of these objects in one of Ashoka's pillars erected at Sarnath. For 10 points each:

[10] Identify this plant that symbolizes beings who rise up through samsara to achieve enlightenment. A Mahayana sutra named for this plant contains the "parable of the burning house."

ANSWER: lotus [accept lotus flower; prompt on flower]

[10] The lotus is one of the Eight Auspicious Symbols in Buddhism. Another of the symbols is one of these objects that represents dharma, and has spokes that represent the Eightfold Path.

ANSWER: wheel [or chakra; accept Dharma Wheel or dharmachakra]

[10] This woman had a dream of a white elephant carrying a lotus flower entering her right side, foretelling that she would give birth to Gautama Buddha.

ANSWER: Maya [or Queen Maya of Sakya; or Maha Maya]

<Michael Bentley, RMP - Buddhism> ~18877~

20. In a footnote to the 1912 edition of this novel, readers are told that they "can therefore choose between the endings," as the author did not originally intend for one character to get married to a reddleman. For 10 points each:

[10] Name this novel that opens on Guy Fawkes Night in the village of Egdon Heath.

ANSWER: *The Return of the Native*

[10] *The Return of the Native* was written by this author of *Tess of the D'Urbervilles*.

ANSWER: Thomas Hardy

[10] *Return of the Native* was originally serialized in *Belgravia* magazine with illustrations by the brother of this poet. A poem by this man opens, "Glory be to God for dappled things."

ANSWER: Gerard Manley Hopkins (The poem is "Pied Beauty.")

<Michael Bentley, Literature - British - Long Fiction> ~18187~

21. All interactions between atoms in a gas are assumed to have this property in the kinetic theory of gasses. For 10 points each:

[10] Give this property of interactions in which total kinetic energy is conserved.

ANSWER: perfectly **elastic** collisions

[10] In addition to total kinetic energy, in elastic collisions this quantity, equal to the product of mass and velocity, is conserved.

ANSWER: linear **momentum**

[10] Perfectly elastic collisions correspond to a value of one for this quantity, which equals the ratio of the magnitudes of the final and initial relative velocities.

ANSWER: **coefficient of restitution** [or **CR**; prompt on e]

<Joseph Krol, Science - Physics> ~18579~