

Round	19	Room	
Bracket			
Reader			

Tiebreaker Leg One

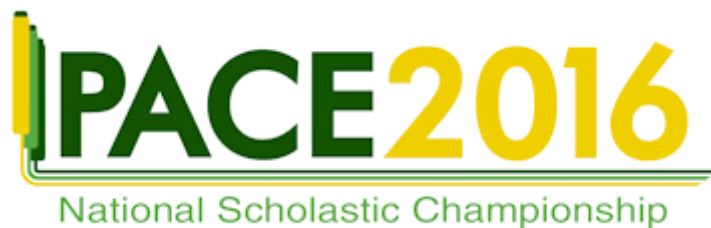
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Tiebreaker Leg Two

Team									Team								
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No substitutions, except for between tossup 10 and overtime. Start Leg Two with TU 11 and Bonus 11.

Individual performance in tiebreaker games is not tracked.



PACE NSC 2016 - Round 19 - Tossups

1. The third movement of Mozart's fifth violin concerto shifts from 3/4 to 2/4 time to imitate music from this country. During the Classical period, composers used a triangle, cymbals, and a bass drum to imitate music from this country. Beethoven's "The Ruins of Athens" includes a march inspired by this country's music. Haydn imitated this country's music in the second movement of his *Military* symphony as part of an (*) Austrian craze for this country's music in the late 18th and early 19th centuries. Mozart imitated the music of this country in the rondo of his 11th piano sonata and the overture to *The Abduction from the Seraglio*. For 10 points, name this country whose music grew popular after the failed siege of Vienna, when many composers imitated its janissary bands.

ANSWER: Republic of Turkey [or the Ottoman Empire] <Magin>

2. The author of the manifesto *2083* recently won an appeal in this country, where it was determined that a prison regime largely consisting of solitary confinement violated his human rights. In 2016, this country's immigration minister travelled to Lesbos and jumped into the ocean while wearing a survival suit to experience what it is like to be a refugee. NATO's current secretary general, Jens (*) Stoltenberg, is a member of this country's Labour Party, which opposes a Conservative Party politician known as "Iron-Erna" for her tough stance on immigration. Like Japan and Iceland, this country still engages in commercial whaling. For 10 points, a 2011 shooting was committed by Anders Breivik near what Nordic country's capital of Oslo?

ANSWER: Kingdom of Norway <Jose>

3. According to legend, this kingdom would be ruled by whoever was able to overturn the Naha Stone. This kingdom was unified after hundreds of troops were forced off a cliff at the Pali Lookout in the Battle of the Leaping Mullet Fish. This kingdom's government was overthrown with the help of Lorrin A. Thurston, who had written its Bayonet Constitution six years earlier. Its first king declared that every elderly person, woman and child could "lie by the roadside in (*) safety" in his Law of the Splintered Paddle. Sanford Dole was a prominent American businessman in this kingdom, whose territory was annexed by the U.S. in 1898 over the objections of its last queen, Liliuokalani. For 10 points, name this Pacific archipelago united by Kamehameha I.

ANSWER: Hawaii [or Kingdom of Hawaii; prompt on Big Island] <Wang>

4. A complex that activates this process was determined by Roger Kornberg to consist of over 30 proteins, and is called the "Mediator" complex. Escaping abortive initiation of this process can require a "scrunching effect." In bacterial cultures, it is inhibited using actinomycin-D (actin-oh-MICE-in-D) or alpha-amantinin (alpha-a-MAN-tin-in). In prokaryotes (pro-CARE-ee-oats), this process can be terminated by rut sites binding to the rho factor. Some bacteriophages can (*) hijack it by using their own very strong sigma factors. In eukaryotes (you-CARE-ee-oats), this process is initiated by GTFs binding to the TATA box. It is immediately followed by capping, polyadenylation (poly-uh-DEN-ill-a-shun), and splicing. For 10 points, name this process catalyzed by RNA polymerase reading the genome to produce RNA, often preceding translation.

ANSWER: **transcription** [prompt on answers like RNA synthesis; prompt on gene expression] <Mukherjee>

5. Philip Guston's painting titled for one of these non-courtroom places depicts a single Klansman with a cigarette and a large red hand. A print of *Look Mickey!* hangs on the wall in Roy Lichtenstein's painting of one of these places. A gravedigger, a rabbi, and Napoleon III disguised as a huntsman are among the figures on the left side of a painting set in one of these places. Like its artist's *The Meeting*, a painting set in one of these places depicts its artist's pointy beard and his (*) patron Alfred Bruyas. Charles Baudelaire and a nude model appear in that painting titled for one of these places, which is subtitled "A real allegory summing up seven years of my artistic and moral life" and is by Gustave Courbet. For 10 points, name this sort of room in which artists work.

ANSWER: artist's **studios** [or painter's **studios**; prompt on workshop or workroom] <Brownstein>

6. A statement developed by this mathematician was shown to be neither provable nor disprovable within ZFC by Paul Cohen's method of "forcing." Hilbert's first problem concerns the provability of a problem posed by this mathematician, whose "Crelle" paper proposed the concept of bijective functions. The idea that no set has a cardinality between aleph zero and aleph one was proposed by this mathematician. One of this man's results relied on the idea of constructing a list of (*) infinite binary sequences, and then altering the n th bit of every n th entry to create a number not in the list. For 10 points, name this mathematician who proved that the reals are "more numerous" than the natural numbers with his diagonalization argument.

ANSWER: Georg **Cantor** <Jose>

7. This man satirically cites the "school of Bratislava" and the "school of Freiburg" to explain the origins of the "Coffeepot from Hell." He recalls being given an avocado when he asks for a lawyer in an essay that discusses his act of emptying a minibar to make room for a fish. In a novel by this writer, the herbalist Severinus is found murdered the day after Venantius is found in a (*) vat of pig's blood. In that novel by this author, the blind Jorge of Burgos eats the comedy section of Aristotle's *Poetics*. This author of *How to Travel with a Salmon* wrote a novel in which Adso of Melk and William of Baskerville attempt to solve a series of murders at a monastery. For 10 points, *Foucault's Pendulum* and *The Name of the Rose* are novels by what Italian author?

ANSWER: Umberto **Eco** <Jose>

8. Coate and Loury developed a model of this policy in which employers use a noisy signal to make assignment decisions. In a comparative study of this policy, Thomas Sowell attacks William Bowen and Derek Bok's *The Shape of the River*. One court case about this policy held that policies that advance compelling state interests must be narrowly tailored. Opponents of this policy claim that it creates (*) "mismatches." A points-based version of this policy was ruled unconstitutional in *Gratz v. Bollinger*. This policy's name was coined in John F. Kennedy's Executive Order 10925. Although *Regents v. Bakke* upheld this policy, it banned specific admission quotas. For 10 points, name this policy which favors historically disadvantaged groups in hiring and college admission decisions.

ANSWER: **affirmative action** <Kothari>

9. This businessman served a meal made entirely out of soybeans to a group of unenthusiastic reporters at the Chicago World's Fair. Leaf blight ruined this man's attempt to build a giant plantation in the Brazilian jungle called his namesake "landia." This man introduced a product nicknamed the "Tin Lizzie," which was initially manufactured in his Highland Park plant. In 1920, he controversially (*) published the anti-Semitic *Protocols of the Elders of Zion* in his newspaper, the *Dearborn Independent*. This industrialist, who pioneered the five-dollar work day, once quipped that his most popular product was available in any color "as long as it's black." For 10 points, name this American industrialist who introduced the Model T.

ANSWER: Henry **Ford** <Wang>

10. In one of this author's novels, rebel troops are followed by a nearsighted journalist modeled on the real-life Euclides da Cunha (COON-yah). Another novel by this author has four narrators, one of whom is a shy boy called "The Poet," who works to avenge the death of his friend "The Slave." This author of a novel fictionalizing Brazil's Canudos War followed a gang called The Circle in a novel partly narrated by (*) Jaguar and Boa, who are cadets at a military academy. A novel by this author of *The War of the End of the World* divides its even and odd chapters between radio soap operas and the love story of an employee at Radio Panamericana. For 10 points, name this author of *The Time of the Hero* and *Aunt Julia and the Scriptwriter*, a Peruvian Nobel Laureate.

ANSWER: Mario **Vargas Llosa** [or Jorge Mario Pedro **Vargas Llosa**] <Alston>

11. The "speckled Phrygian stone" of this building is described in an *ekphrasis* by Paul the Silentiary. A structure in this building that is always moist was thought to cure malaria and is called the "Sweating Column." A group of circular marble slabs in this building is named the Omphalion. Giuseppe and Gaspare Fossati were hired to renovate this building, leading them to conclude that the oft-spat on grave of (*) Enrico Dandolo in it is merely a memorial. Four pendentives were used to support the cupola of this building designed by Anthemius of Tralles and Isidorus of Miletus. Dedicated to the *Logos*, it was turned into a museum by Kemal Ataturk. Emperor Justinian financed, for 10 points, what large building, at one time a church and a mosque in Istanbul?

ANSWER: **Hagia Sofia** (EYE-yuh Sophia) <Jose>

12. This phenomenon is used to measure DNA or RNA concentration in ThermoFisher's Qubit apparatus. The energy of this process can be fine-tuned by adjusting the confinement size in a quantum dot. Two systems undergoing this process can exchange energy in Forster resonance transfer, or FRET, which is used to measure (*) distance. Quenching can reduce the quantum yield of this process, a measure of its efficiency. The timescale of this process is faster than a related phenomenon because its electrons start from a singlet state. Mercury vapor is heated inside a container coated in phosphor to generate light via this process. For 10 points, name this radiation process where light is re-emitted at a longer wavelength, which is used in efficient compact light bulbs.

ANSWER: **fluorescence** [accept word forms; prompt on radiation; do not accept "phosphoresence" or "luminescence"] <Wang>

13. The final man to hold this title spent 37 years living in Cascais, Portugal after being banned from his home country in 1948. A man with this title decorated General Bava-Beccarris for massacring striking workers. After a man with this title had his prime minister imprisoned in a mountain resort, that prime minister was rescued in the Gran Sasso raid and put in charge of the Republic of Salò. An (*) anarchist returned from New Jersey to kill a man with this title, inspiring the assassination of McKinley. A man with this title was made Emperor of Ethiopia after the deposition of Haile Selassie. A man with this title was forced to appoint a new government after the Blackshirts marched on his capital. For 10 points, name this title held by Victor Emmanuel III during Mussolini's dictatorship.

ANSWER: **King of Italy** [do not accept "King of Piedmont-Sardinia"] <Bentley>

14. William Tuke, a member of this religious denomination, founded the Retreat in York, which revolutionized the treatment of mental illness. Thousands of members of this faith were released from prison thanks to Margaret Fell's appeal to the king. James Nayler, a member of this faith, was arrested for re-enacting Christ's entry into Jerusalem in Bristol and was one of this faith's Valiant Sixty. This group's founder had a vision on Pendle Hill while traveling around England, preaching, and getting arrested for (*) blasphemy. A member of this faith made peace with the Lenape and was granted land in America in exchange for cancelling Charles II's debt. This denomination was founded by George Fox. For 10 points, name this pacifist religious denomination practiced by William Penn.

ANSWER: **Quakers** [or **Society of Friends**] <Bentley>

15. In a short story by this author, a 104-year-old general yells about kissing "pretty guls" while on stage at a graduation. Another story by this author climaxes with a woman exclaiming "You're one of my babies. You're one of my own children!" One of this author's characters reveals the whiskey and cards he keeps in a bible case before leaving a hayloft with (*) Hulga's artificial leg. After a stop at the Tower restaurant, characters created by this author of "A Late Encounter with the Enemy" try to visit a mansion that is actually in Tennessee. In a story by this author of "Good Country People," a car crash precipitates the grandmother's encounter with the Misfit. For 10 points, name this author of Southern Gothic stories such as "A Good Man is Hard to Find."

ANSWER: Flannery **O'Connor** [or Mary Flannery **O'Connor**] <Brownstein>

16. After one of these two characters loses his *pukku* and *mikku*, the other goes to the underworld to retrieve them. While one of them is wasting away, he tells the other his dream of being taken to *Aralu* by an Angel of Death. One of them dreams about embracing a fallen meteor and an axe, foretelling the arrival of the other. These characters use thirteen winds sent by a sun god to slay an inhabitant of the Cedar Forest. One of these men is formed from clay by the goddess (*) Aruru to counter the other's harshness toward his people. One of them seeks out the secret to eternal life after the other is killed for throwing the thigh of the Bull of Heaven at Ishtar. For 10 points, name these slayers of Humbaba, a "wild man" and the king of Uruk, who star in a Mesopotamian epic.

ANSWER: Gilgamesh and Enkidu [accept answers in either order] <Jose>

17. George S. Cook documented the toll of this conflict, which was examined in *Republic of Suffering* by Drew Gilpin Faust, a historian known for studying the role of women in this war. The half-black Pearl learns nursing and falls in love with the soldier Stephen Walsh in a E. L. Doctorow novel set during this war. Bruce Catton wrote a three-part narrative history of this war. (*) Doris Kearns Goodwin recounted the formation of the presidential cabinet leading into this war in *Team of Rivals*, and it is the subject of Michael Shaara's 1975 Pulitzer-winning *The Killer Angels*. Rhett Butler serves as a blockade runner during this war in *Gone With the Wind*. For 10 points, name this war fought at sites like Shiloh and Gettysburg between the Union and the Confederacy.

ANSWER: U.S. Civil War <Wang>

18. This element is the heaviest element found in the molecule X-gal. In mass spectrometry, the presence of this element is easily seen because of an M-plus-2 peak at the same height. This element's binary acid adds anti-Markovnikov to an alkene in the presence of peroxides. Its (*) ethidium salt intercalates DNA and fluoresces during gel electrophoresis. Diphenyl ethers with many atoms of this element attached are used as a flame retardant. Double bonds in compounds are qualitatively detected by adding this element, since the solution will turn from brown to colorless. This element of group 17 has an electron configuration ending with 4p⁵. For 10 points, name this halogen that presents at room temperature as a reddish brown liquid.

ANSWER: bromine [or Br] <Silverman>

19. Although the trend started in New Zealand, this country had the largest ever number of people declare their religion as Jedi on a census. A thinker based in this country, Alain de Botton, has accused its Sunday Assembly movement of ripping off his idea of church for non-believers. Atheists in this country ran a series of bus ads that read (*) "There's Probably No God." A politician from this country was criticized for calling some other Muslims "Uncle Toms." Rowan Williams once led a church in this country. In 2016, this country's capital elected its first Muslim mayor, Sadiq Khan. For 10 points, name this country whose state church is led by the Archbishop of Canterbury and Queen Elizabeth II.

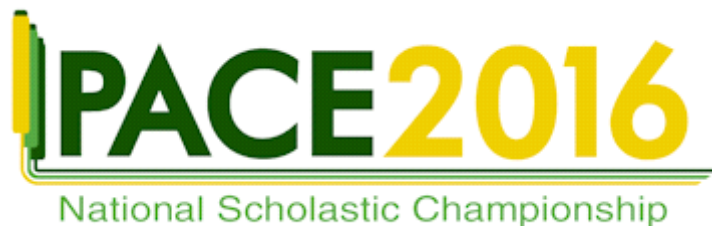
ANSWER: The United Kingdom of Great Britain and Northern Ireland [or the UK; or England; or Great Britain] <Kothari>

20. This character is told "the grave doth gape for thee thrice wider than for other men" before being banished. He is described as "ten times better than the Nine Worthies" by his loving companion Doll Tearsheet. This character drunkenly passes out behind an arras while hiding from a sheriff who implicates him in a robbery on Gad's Hill. This character gives a speech dismissing honor as a "mere scutcheon" before engaging (*) Douglas in combat and faking his own death during the Battle of Shrewsbury. Originally named Oldcastle, this character spends most of his time cavorting at the Boar's Head Inn with Pistol, Bardolph, Ned Poins, and Prince Hal. For 10 points, name this bumbling knight who appears in Shakespeare's *Henry IV*.

ANSWER: Sir John **Falstaff** <Manners>

21. Herodotus provides a detailed description of one of these systems in terms of parasangs. In the early 19th century, John Loudoun McAdam proposed a standard set of stones to be used for the British system of this type. One system of this type was supplemented by *tampu* buildings, which were similar to Roman buildings presided over by *mansionarius*. Men known as *chasquis* (CHOSS-kees) made use of one of these systems, often (*) carrying *quipus* (KEE-poos) with them. Susa and Sardis were served by a "Royal" one of these things built by Darius the Great. The Incan system of this kind made use of many rope bridges, and the Roman one of these systems included the Via Appia. For 10 points, name these transportation systems, which provide routes for foot and vehicle traffic.

ANSWER: **roads** [prompt on transportation before mentioned] <Bentley>



PACE NSC 2016 - Round 19 - Bonuses

1. An organization that regulated these two resources held the Messina Conference, at which the Spaak Committee was formed. For 10 points each:

[10] Name these two commodities, the most notable products of the Ruhr and Saar regions, which named the European Community that preceded the European Union.

ANSWER: **coal** AND **steel** [accept in either order]

[10] This speech declared that the European Coal and Steel Community would make war "not merely unthinkable, but materially impossible." This "Declaration" is named for the French foreign minister who wrote it.

ANSWER: **Schuman** Declaration [or **Schuman** Plan]

[10] The ECSC created the European Economic Community at a 1957 treaty named for this city. The Lateran Treaty made the Vatican an independent state within this city.

ANSWER: **Rome** [or **Roma**] <Brownstein>

2. The position of this highest-energy reaction coordinate is multiplied by the enthalpy of reaction in the Bell-Evans-Polanyi principle. For 10 points each:

[10] Name this entity that roughly corresponds to the activation energy of a chemical reaction. On a potential energy surface, it corresponds to a saddle point.

ANSWER: **transition states**

[10] If the structure of a transition state resembles these things, then the reaction will be predicted to be rapid and exothermic. The reaction equilibrium constant is equal to the product over this thing.

ANSWER: **reactants** [or **starting materials**; or obvious equivalents]

[10] This equation, similar to the Arrhenius equation, is derived from transition state theory and gives the kinetics of a reaction. The derivation for it assumes that activated complexes are in a state of quasi-equilibrium with the reactants.

ANSWER: **Eyring** equation [accept **Eyring-Polanyi** equation] <Jose>

3. This quantity is higher for harmonics than it is for the fundamental tone. For 10 points each:

[10] Name this rate of periodic motion measured in cycles per unit of time. If the time unit is seconds, then this quantity is measured in Hertz.

ANSWER: **frequency**

[10] Analysis of overtones uses the transforms named for this Frenchman. The short-time version of those transforms is often the most useful one for that purpose.

ANSWER: Joseph **Fourier**

[10] When doing Fourier analysis, it is easy to combine sine and cosine functions because they have this property, due to the fact that the integral of sine x times cosine x equals zero.

ANSWER: **orthogonality** <Reinstein>

4. The granddaughter of this work's creator once said that it requires enormous "artistic demands, because every movement and every gesture should signify a different experience." For 10 points each:
[10] Name this four-minute solo dance, inspired by a poem of Alfred, Lord Tennyson that depicts the last moments of the a certain creature. Anna Pavlova performed this piece over 4,000 times.

ANSWER: The **Dying Swan**

[10] *The Dying Swan* was choreographed by this man, whose other ballets include one in which a young girl dances with the title spirit, *The Spectre of the Rose*.

ANSWER: Michel **Fokine**

[10] Pavlova also popularized the "Jarabe Tapatio," a folk dance from this North American country. This country is also the origin of mariachi music.

ANSWER: **Mexico** [or the United **Mexican** States; or Estados Unidos **Mexicanos**] <Jose>

5. Name these crops introduced to Africa through the Columbian Exchange, for 10 points each:

[10] This tuber, now a staple crop of Africa and Asia, actually originated in the tropics of the Western Hemisphere. In the U.S., it is commonly conflated with the yam.

ANSWER: **sweet potato**

[10] Nigeria is now the world's largest producer of this other tuber, which is native to the Amazon. This crop, which cannot be eaten raw because it contains cyanide, is often dried to produce tapioca.

ANSWER: **cassava** [or **manioc**]

[10] In the late 1940s the British government unsuccessfully tried to cultivate 150,000 acres of Tanzanian scrubland with this crop, which originates from the Andes. This crop was championed by the head of the Agriculture Department at Tuskegee University.

ANSWER: **peanut** [or **groundnut**] <Wang>

6. During his term as cantor at Leipzig, J.S. Bach was commissioned to write one of these pieces for each holiday and Sunday service. For 10 points each:

[10] Name this genre of choral music which was often based on an existing chorale. They include Bach's *Wachet auf, ruft uns die Stimme* and *Herz und Mund und Tat und Leben*.

ANSWER: **cantata** [or **chorale cantata**; or **church cantata**]

[10] This religious figure is described as the "Joy of Man's Desiring" in the chorale that ends Bach's cantata *Herz und Mund und Tat und Leben*.

ANSWER: **Jesus** [or **Jesu**; or **Christ**; or obvious equivalents]

[10] Bach reworked the so-called "Shepherd's Cantata" into this 1725 oratorio, which assigns the four vocal parts to Peter, John the Apostle, Mary Magdalene, and Mary of Clopas. It begins with the line "Kommt, eilet und laufet".

ANSWER: **Easter** Oratorio [or **BWV 249**] <Kim>

7. This king ruled England without a Parliament from 1629 to 1640, a period known as the "Eleven Years' Tyranny." For 10 points each:

[10] Name this English king who was beheaded in 1649 after losing a civil war to Oliver Cromwell.

ANSWER: **Charles I** [prompt on **Charles**]

[10] As part of his personal rule of England, Charles I provoked outrage when he attempted to levy this tax on inland towns during peacetime. This tax was traditionally only paid by coastal towns during wartime.

ANSWER: **ship money**

[10] The execution of Charles I became possible after this colonel of the New Model Army detained less radical members of the Long Parliament as part of his namesake "purge," thus creating the Rump Parliament.

ANSWER: Thomas **Pride** <Wang>

8. The real-life cat of explorer Matthew Flinders was named after this character, who repeatedly tells the story of the King of Bohemia and his castles. For 10 points each:

[10] Name this character who frequently assists in his master's "hobby-horse" of reenacting historical battles.

ANSWER: Corporal **Trim**

[10] Corporal Trim appears in this novel by Laurence Sterne, in which the title character is circumcised by a falling window while urinating and is not actually born until its third volume.

ANSWER: **Tristram Shandy**

[10] A parson of this name appears in both *Tristram Shandy* and Sterne's other novel *A Sentimental Journey*. In *Hamlet*, Hamlet calls a person of this name "a fellow of infinite jest" while holding his skull during the graveyard scene.

ANSWER: **Yorick** <Jose>

9. After this woman is accused of being George Dorset's mistress, she is forced out of high society and becomes a hat-maker. For 10 points each:

[10] Name this socialite, who overdoses on a sedative after using her inheritance from her aunt Peniston to repay her debt to Gus Trenor.

ANSWER: **Lily Bart** [accept either underlined answer]

[10] The death of Lily Bart ends this novel, which takes its title from a passage in the Book of Ecclesiastes about where the "heart of fools" can be found.

ANSWER: *The* **House of Mirth**

[10] *The House of Mirth* was written by this author, who also described a man having an affair with Mattie Silver in *Ethan Frome*.

ANSWER: Edith **Wharton** <Jose>

10. In January 2015, residents of a certain island protested that the Australian government has allowed a petroleum company to start searching for oil in this body of water. For 10 points each:

[10] Name this body of water, a part of the Indian Ocean that indents the states of South Australia and Western Australia.

ANSWER: **Great Australian Bight** [prompt on partial answers]

[10] During the Miocene Epoch, this area, which was formerly part of the Great Australian Bight, was uplifted and became part of the mainland. This flat region is so-named for its lack of trees.

ANSWER: **Nullarbor** Plain

[10] This island, which is just off the coast of South Australia, is Australia's third largest island. It is named for a bouncing marsupial with powerful hind legs. Note that the answer is not "Wallaby Island."

ANSWER: **Kangaroo** Island <Jose>

11. The pre-Bötzinger complex governs this process in the reticular formation. For 10 points each:

[10] Name this behavior which is controlled by the autonomic nervous system by two centers in the medulla and two centers in the pons.

ANSWER: **breathing** [or word forms; or **respiration**; or word forms; or **ventilation**; or word forms; prompt on gas exchange]

[10] Both the medulla and pons are found in this part of the brain, which connects the midbrain to the spinal cord. Ten of the cranial nerves begin in this structure.

ANSWER: **brainstem**

[10] The pre-Bötzinger complex is composed of these neurons, which are normally inhibitory in the CNS. In the PNS, these neurons are found in the middle of polysynaptic reflex arcs.

ANSWER: **interneurons** [prompt on relay neurons; prompt on connector neurons; prompt on local neurons] <Jose>

12. Two children play with a Swedish flag while seated on a cliff in one of this artist's paintings. For 10 points each:

[10] Name this painter whose painting *The Stages of Life* parallels the ages of five people in the foreground with the distances of the five ships visible in the background.

ANSWER: Caspar David **Friedrich**

[10] Friedrich also painted this religious scene in a mountain setting for his *Tetschen Altarpiece*. In Christian art, this scene is traditionally followed by the Deposition of its victim.

ANSWER: the **Crucifixion** of Jesus Christ

[10] In this other Friedrich painting, the title traveler holds a walking stick and gazes out from a rock onto a mountainous landscape. The man in this painting may be a portrait of a deceased colonel in the Saxon infantry.

ANSWER: *The **Wanderer above** the Sea of **Fog*** [or *The **Wanderer above** the Sea of **Mist*** or *Der **Wanderer über dem Nebelmeer***] <Bentley>

13. The horizon problem asks how two different parts of this entity can be isotropic if its opposite parts couldn't have been near each other in the past. For 10 points each:

[10] Name this large object, which originated from a single point according to the Big Bang model.

ANSWER: **universe**

[10] The universe, for the most part has this shape, since its critical density is almost equal to its energy density.

ANSWER: **flatness**

[10] The so-called "fine-tuning" problem that asks why the universe is so flat was possibly solved by this physicist, who proposed the theory of cosmic inflation.

ANSWER: Alan **Guth** <Jose>

14. Published in 1738, this book is divided into three parts: "Of the Understanding," "Of the Passions," and "Of Morals." For 10 points each:

[10] Name this work, which argues that time and space are not infinitely divisible. Some of this text was later reworked into its author's later *Enquiry Concerning Human Understanding*.

ANSWER: A ***Treatise of Human Nature***[: *Being an Attempt to Introduce the Experimental Method of Reasoning into Moral Subjects*]

[10] In *A Treatise of Human Nature*, this Scottish philosopher states that he often plays a game of backgammon to cure himself of philosophical melancholy and skepticism.

ANSWER: David **Hume**

[10] In *A Treatise of Human Nature*, Hume argues that humans may imagine a sensory experience without experiencing it by arguing that humans can imagine a shade of this color that they had not seen.

ANSWER: missing shade of **blue** <Jose>

15. Mr. Herbert is a representative of a company that harvests this commodity, and helps sets up a plantation on which to grow it. For 10 points each:

[10] Identify this product which is gathered by workers on a property run by Mr. Brown. When those workers strike, all but one of them are brutally massacred.

ANSWER: **bananas** [prompt on **fruit**]

[10] The only survivor of the banana massacre is José Arcadio Segundo, a resident of this town. This town was founded by José Arcadio Buendía and was inspired by the real-life town of Aracataca.

ANSWER: **Macondo**

[10] Macondo appears in this magical realist novel by Gabriel García Márquez, which ends with a cyclone destroying the town.

ANSWER: ***One Hundred Years of Solitude*** [or ***Cien Anos de Soledad***] <Jose>

16. During the Trojan War, this man kills Deiphobus and is about to kill his former wife, but loses his resolve to do so when he sees her naked body. For 10 points each:

[10] Name this ruler of Sparta, who was succeeded by his son Megapenthes after he was brought to the Elysian Fields.

ANSWER: **Menelaus**

[10] Menelaus was married to this woman, a daughter of Zeus and Leda whose abduction by Paris was the key cause for the Trojan War.

ANSWER: **Helen** of Troy [or **Helen** of Sparta]

[10] The *Odyssey* states that while Helen and Menelaus were returning to Sparta, a storm blew them off course and they met this shape-changing "Old Man of the Sea," who predicted a long life together for the couple.

ANSWER: **Proteus** <Jose>

17. The "Door of No Return" in Elmina Castle was one starting point for this journey. For 10 points each:

[10] Identify this journey, which came to be dominated by the British following the *asiento* of 1713. This journey was a part of the triangular trade.

ANSWER: **Middle Passage**

[10] One Door of No Return memorial is located in modern-day Benin, the site of this African kingdom. The Europeans who obtained slaves from the rulers of this kingdom referred to this kingdom's female warriors as "Amazons."

ANSWER: **Dahomey**

[10] During the slave trade, perhaps five million people were sent across the Middle Passage to this South American country colonized by Portugal. Escaped slaves from this country formed communities called Quilombos.

ANSWER: **Brazil** [or **Brasil**] <Bentley>

18. One church named after this location was led by Rob Bell, the star of the NOOMA video series. For 10 points each:

[10] Name this location in Athens where St. Paul gives a sermon about an altar inscribed, "To an Unknown God." The controversial pastor Mark Driscoll resigned from a megachurch named for this place.

ANSWER: **Mars Hill** [or the **Areopagus**; or **Ares Hill**; or **Mars Rock**; or **Ares Rock**]

[10] After this denomination elected a female Presiding Bishop, Katherine Jefferts Schori, Driscoll asked if they would next elect a fluffy bunny. This is the American wing of the Anglican Communion.

ANSWER: **Episcopal** Church of the United States [accept **Episcopalians** or other word forms; prompt on **Anglican** Communion or Church; don't accept or prompt on "Church of England"]

[10] To explain his views on gender roles, Driscoll often refers to this erotic book of the Old Testament about a Shulamite and her lover, who "pastures his flock among the lilies."

ANSWER: **Song of Solomon** [or **Song of Songs**; or **Canticle of Canticles**; or **Sir HaSirim**; or **Asma Asmaton**] <Kothari>

19. Jean Giraudoux wrote a play about how this conflict "Will Not Take Place" that was translated into English by Christopher Fry as *The Tiger at the Gates*. For 10 points each:

[10] Identify this war chronicled in Homer's *Iliad*, which is fought after Paris kidnaps Helen.

ANSWER: **Trojan** War [or Siege of **Troy**]

[10] This 17th century play's title character asks "Was this the face that launched a thousand ships?" of the shade of Helen of Troy. This play's title character also strikes a bargain with Mephistophilis.

ANSWER: **Doctor Faustus** [or *The Tragical History of the Life and Death of Doctor Faustus*]

[10] This other European playwright depicted a battle between the Greeks and the Amazons from the Trojan War in his *Penthesilea*. Jeronimo Rugera is the protagonist of this author's novella *The Earthquake in Chile*.

ANSWER: Heinrich von **Kleist** <Alston>

20. A one-time member of this political party described it as a union made between "the lords of the lash and the lords of the loom." For 10 points each:

[10] Name this political party which split into Cotton and Conscience factions. This party coalesced around Henry Clay and Daniel Webster in 1834 on a platform opposing Andrew Jackson's Democrats.

ANSWER: **Whigs**

[10] This Conscience Whig was a brother-in-law of the leader of the Cotton Whigs, Nathan Appleton. He was caned by Preston Brooks after giving the "Crime Against Kansas" speech.

ANSWER: Charles **Sumner**

[10] Another Conscience Whig was Thurlow Weed, who once published *The Register* from this city. A political machine based in this city was dominated by William Marcy and Martin Van Buren.

ANSWER: **Albany** <Bentley>

21. Fluoroquinolone drugs like ciprofloxacin inhibit the activity of these enzymes in bacteria. For 10 points each:

[10] Name these enzymes which relieve the torsional strain of DNA caused by helicase during replication. Gyrase is a member of this family of enzymes.

ANSWER: DNA **topoisomerases**

[10] At the replication fork, double-stranded DNA is separated by this enzyme into a leading strand and a lagging strand. It is often described as "unwinding" DNA.

ANSWER: **helicase**

[10] After synthesis of the lagging strand, the RNA primers must be converted back into DNA. Besides the deoxygenated sugar backbone, the main difference between RNA and DNA is the replacement of uracil with this nucleic acid.

ANSWER: **thymine** [prompt on **T**] <Zhang>