

Minnesota Undergraduate Tournament 2013

Questions by Rob Carson, Mike Cheyne, Andrew Hart, Gaurav Kandlikar, Matt Menard, and Bernadette Spencer

Round 5: An Awkwardpelago of Sublimated Lesbianism

Tossups

1. Near the beginning of this work, one character claims to be traveling along “the road of alases”. In one scene in this work, an inspector, a dealer offering the laws of the Olophyxians, and the geometer Meton are all soundly beaten. This play’s chorus claims to offer a thousand proofs of their descent from Eros and continually repeats variations on the word “tíotíotíotinx”. After kicking out the incoherent poet Cinesias, this play’s protagonist negotiates with a delegation including the barbarian god (*) Triballus and marries Basileia, or Sovereignty. This play’s protagonist conspires with Euelpides and the transformed Tereus to build a structure that will blockade man from the gods. For 10 points, identify this comic play in which Pisthetaerus and the Hoopoe lead the construction of Clouduckooland, a work of Aristophanes.

ANSWER: *The Birds* [or *Ornithes*]

2. The mechanisms of catalytic converters and the synthesis of this compound were included in Gerhard Ertl’s citation for the 2007 Nobel in Chemistry. This compound is converted to a less toxic compound by the Ornithine cycle. Organisms in the genus *Frankia* are known for their ability to synthesize this compound. Plants in the *Fabaceae* family contribute to global cycling of this compound because their associated (*) rhizobia use molybdenum based catalysts to “fix” a certain atmospheric gas. An iron-based catalyst is used in the industrial production of this compound, which has trigonal pyramidal VSEPR geometry. For 10 points, name this product of the Haber-Bosch process, which has chemical formula NH_3 .

ANSWER: ammonia [accept NH₃ before mentioned]

3. When running for president, this man claimed that his opponent in the primaries, Joseph Foraker, would be “useful with the colored vote.” This man formed a namesake agreement with Japanese Prime Minister Katsura Taro regarding Korea and the Philippines. He won a nomination at a contentious convention chaired by Elihu Root, once the top ally of his rival. During his presidency, his Secretary of the Interior, (*) Richard Ballinger, had a dispute with Forestry Service Chief Gifford Pinchot. This man’s Secretary of State, Philander Knox, promoted economic development in Latin America with “Dollar Diplomacy.” He was later named the tenth Chief Justice of the United States. For 10 points, name this successor to Teddy Roosevelt as President, a dude known for being fat.

ANSWER: William Howard Taft

4. One of this man’s poems compares the title phenomenon to “human toil”, which “lights up my abyss from time to time”. Another of his poems compares the subjects to “the peace of pastures dotted with animals”, a “sublime Trumpet full of strange piercing sounds”, “lances of glaciers”, and a “velvety jacket of brilliant flies”. He exclaims “*De profundis Domine*, what a creature I am!” and laments his Gallic eye in “Bad Blood”, a section of a longer poem. Another of his speakers describes “yellow-blue awakenings of singing phosphorus” and (*) “nets where a whole Leviathan rots” after relating how “Redskins” killed its crew. This author of a sonnet assigning colors to the vowels abandoned poetry at age 20 after ending his chaotic relationship with Paul Verlaine. For 10 points, identify this French poet of “A Season in Hell” and “The Drunken Boat”.

ANSWER: Arthur Rimbaud [or Jean Nicolas Arthur Rimbaud]

5. **This composer's first symphony, which he submitted and resubmitted for criticism to his teacher Nikolai Zarembo, nearly led to his mental breakdown. This man used his material from his unpublished opera *Undine* in the second movement of his C-minor second symphony, whose basis in Ukrainian folk songs led to a nickname coined by Nikolai Kashkin. This composer's final symphony, which contains a (*) "limping waltz" in 5/4 time, was premiered just nine days before his death and dedicated to his homosexual lover. For 10 points, name this composer of the symphonies nicknamed *Little Russian*, *Winter Daydreams*, and *Pathetique*, who also composed the "1812 Overture."**

ANSWER: Peter Ilyich **Tchaikovsky** [or Pyotr Ilyich **Tchaikovsky**]

6. **The elements that enter this process cannot be followed past its fifth step because the products are symmetric. An isomerism step in this reaction is catalyzed by an enzyme which contains an iron-sulfur center. The aspartate - arginino-succinate shunt of this process is coupled with the Urea cycle in a process known as its discoverer's "bi-cycle." FAD is reduced to FADH₂ in a step that also produces (*) fumarate in this process. Aconitase is an early enzyme in this process, one of whose names refers to the fact that its first product has three carboxyl groups. Two decarboxylations in this cycle release carbon dioxide. For 10 points, name this process that follows pyruvate dehydrogenase's production of Acetyl-CoA, which was elucidated by Hans Krebs.**

ANSWER: **citric acid** cycle [accept **TCA** cycle or **tricarboxylic acid** cycle until "carboxyl" ; accept Szent-Gyorgyi-**Krebs** cycle until mentioned]

7. **This man infuriated a subordinate with a genitalia wound by forcing him to use insulting watchwords such as "Priapus." While entertaining Ptolemy of Mauretania, he executed him and annexed his kingdom. This ruler defied an astrologer by outdoing a Persian when he rode across a gigantic floating bridge of ships at the Bay of Baiae. This man was supported in taking the throne by his predecessor's Praetorian Prefect, Macro, and was accused of having an incestuous relationship with his sister, (*) Agrippina the Younger. While addressing an acting troupe, he was killed by the Praetorian Guard in AD 41. He was given a nickname meaning "little soldier's boot" and he supposedly wanted to make Incitatus, his horse, a consul. For 10 points, name this loony Roman emperor, the heir to Tiberius.**

ANSWER: **Caligula** [or **Gaius** Julius Caesar Augustus Germanicus]

8. **Six "canons" of this school of thought were outlined by Russell Kirk in a book about this type of mind. One man associated with this school of thought claimed that the free market didn't prioritize existential needs in a work that gave only the title "two cheers" to capitalism. That man's son founded the Project for the New American Century and *The* (*) *Weekly Standard*. Another member of this school of thought claimed that civil rights were not intrinsic but inherited in a work that rebuked the French Revolution for ignoring established traditions. Influential members of this school of thought include William and Irving Kristol and Edmund Burke. For 10 points, name this school of political philosophy that emphasizes the preservation of political structures and customs, often associated with the modern Republican Party.**

ANSWER: neo**conservatism** [accept word forms of **conservative**]

9. **It's not Sony, but this company ran an ad where actor Jerry Lambert awkwardly dances the "Robot." This company produced advertisements in which contestants compete on the fictional show *Tiny House* and another in which a dog and cockatoo play the song "Take On Me." Recent commercials have featured Dikembe (*) Mutumbo blocking people throwing laundry into a basket and Eddie Money singing "Two Tickets to Paradise" at a travel agency. This company's current campaigns feature Maxwell the Pig shouting "Weeeeeeeeeeeee!" and a musical duo commenting that people who save money using it are happier than a witch at a broom factory. For 10 points, name this auto insurance company whose advertisements still feature a talking gecko.**

ANSWER: **GEICO** [or **Government Employees Insurance Company**]

10. According to Innocent Gentillet, this event was the fault of Machiavellianism. Vasari was commissioned to produce twin frescoes depicting the Battle of Lepanto and this event. Pope Gregory XIII reportedly sent a golden rose to one ruler after this event. Effectively ending the brief Peace of Saint-Germain, it was kicked off by the ringing of bells for matins at a church in the capital. Labeled a preemptive strike against a plot by (*) Charles IX, this event saw the death of Admiral Gaspard de Coligny. Instigated by Catherine de' Medici, it took place shortly after the wedding of Margaret of Valois and Henry III of Navarre, which was why many Protestants were in Paris. For 10 points, name this August 1572 massacre of many Huguenots which began on the eve of the namesake saint's day.

ANSWER: Saint **Bartholomew's Day** massacre

11. This thinker accused Keynesian economists of teaching that "bad money is better than good" in his lecture "Ideal Money". He names a concept that was refined by a German economist into a "perfect" variant that applies to all sub-profiles of dynamic situations. One concept developed by this man, which is a stronger form of a similar concept named for epsilon, is named for Cournot in the case of pure strategies. With Reinhard Selten and John (*) Harsanyi, this man won the 1994 Economics Nobel. He names a scenario in which players in a non-cooperative game know each other's strategies and stand to gain nothing by changing their own strategy. For 10 points, name this game theoretician who developed a namesake type of equilibrium, an American economist also noted for being a paranoid schizophrenic.

ANSWER: John Forbes **Nash** Jr.

12. This religious movement traditionally recognized "Recorded Ministers," some of whom ran unplanned "waiting worships" that concluded when the two eldest worshipers exchanged a handshake. Its earliest leaders were known as the "Valiant Sixty." The "Gurneyites" are one offshoot of this movement, whose members typically attend Yearly Meetings. This religious movement, which traditionally used the pronoun (*) "thee" and refused to swear oaths, believes that they all have Christ's "inner light" shining within them. It was founded in the 1600s in England by George Fox. For 10 points, name this nonviolent protestant sect also known as the "Society of Friends."

ANSWER: **Quakers** [accept **Friends** Church or Religious Society of **Friends** before "Friends"]

13. This artist created a work in which a tiny old building in the foreground contrasts with a huge building being constructed behind it. One work by this artist shows a carriage trudging through the titular street, and he pioneered a proto-abstract style by depicting the sky in his *Equivalents*. This artist collaborated with Clarence Hudson White on several nudes, while his own works include *The Terminal* and *Winter Fifth (*) Avenue*. This artist founded the Gallery 291. This leader of the Photo Secessionists created a work which shows the differences between the occupants of the upper and lower decks of a ship. For 10 points, name this photographer of *The Steerage*, who also took many pictures of his wife, Georgia O'Keefe.

ANSWER: Alfred **Stieglitz**

14. One mechanism for the generation of this property involves the absorption of Nambu-Goldstone bosons. One of the Millennium Prize Problems is to prove the existence of Yang-Mills theory and a corresponding gap named for this quantity. This value for an atomic nucleus includes a term proportional to the binding energy which can be approximated by the semi-empirical formula for it. One formulation of the equivalence principle in general relativity equates the (*) inertial and gravitational forms of this property. A two-body problem in mechanics can be turned into a one-body problem by introducing the reduced version of this quantity. This quantity is related to energy by a factor of c^2 in an equation due to Einstein. For 10 points, name this quantity for which the SI unit is a kilogram.

ANSWER: **mass**

15. In one scene in this work, a man begins throwing snapdragons around after asserting that the moon rose again after setting. One character in this work relates an anecdote about punching another character into a huckleberry bush, after which the other character appears carrying a shotgun that shoots a Chinese parasol. After the revelation that one character's novel was suppressed by his father-in-law, that character describes his "second novel", which is actually a disguised revelation of another character's (*) hysterical pregnancy. Set at New Carthage College, it is divided into sections titled "The Exorcism", "Walpurgisnacht", and "Fun and Games". This play ends with one character "killing off" a fictional child in the game "Bringing Up Baby". For 10 points, name this play in which Nick and Honey experience George and Martha's weird marital strife, a work of Edward Albee.

ANSWER: Who's Afraid of Virginia Woolf?

16. A Nestorian agent of this dynasty, Rabban Bar Sauma, was dispatched on an ultimately unsuccessful pilgrimage to Jerusalem. During this dynasty, *zaju* plays like *The Injustice to Dou E* were popular. It consolidated power after the Battle of Yamen, in which Zhang Hongfan reportedly captured 8,000 enemy ships. This dynasty used a banknote called the Chao, the first paper currency to be the predominant medium in the history of its country. Constructing the capital of Dadu, it was eventually overthrown in the (*) Red Turban Rebellion. This dynasty entertained the Venetian merchant Marco Polo and was foiled by the so-called "divine wind" or "kamikaze" when invading Japan. For 10 points, name this dynasty of China founded by Kublai Khan and the Mongols.

ANSWER: Yuan Dynasty [prompt on Mongols until mentioned]

17. One aspect of this god attempted to shoot the sun with an arrow but ended up shooting himself. Temples to another of his aspects were constructed as cylinders in order to reduce wind resistance. Also known by the calendar name "One Reed", he used his blood and the ground bones of four previous races of man to construct the humans of the fifth age. This deity once drunkenly slept with either a temple priestess or his own sister, then burned himself to death, due to the machinations of a fellow son of (*) Ometeotl. His heart became the morning star, while the evening star was represented by his dog-headed skeletal psychopomp brother Xolotl. For 10 points, Hernan Cortes is not to be confused with which rival of Tezcatlipoca, an Aztec god usually represented as a feathered serpent?

ANSWER: Quetzalcoatl [or Quetzalcohuatl; anti-prompt on "Tlahuizcalpantecuhtli" or "Ehecatl"]

18. The natural numbers form a complete distributive lattice with this operation corresponding to meet. In a principal ideal domain, this operation corresponds to finding the generator of the ideal generated by two elements. For integers x and y , this is the smallest positive integer that can be written as " $a \cdot x$ plus $b \cdot y$ ", according to Bezout's identity. Performing this operation on two integers is equivalent to performing it on the smaller of the two integers and the (*) difference between them. That fact is the basis for the Euclidean algorithm, which computes this quantity more efficiently than first computing the prime factorization of both inputs. For a natural number n and zero, this value is n , while for two relatively prime numbers, this value is one. For 10 points, name this value which is the largest positive integer that divides two given numbers.

ANSWER: greatest common divisor [or GCD; or greatest common factor; or highest common factor; or GCF; or HCF]

19. A traditional style of painting from this country was revitalized in the 20th century with help from the critic Ernest Fenollosa. An artist from this country depicted travelers on a bridge caught in a sudden rain in a series depicting "One Hundred Famous Views" of that man's hometown. Some artwork from this country was discovered being used as packing material by Felix Bracquemond, starting a craze in 1860s France for this country's art, notable examples of which include a series of depictions of (*) post stations along its major roads and a famous picture in which several fishing boats struggle against a breaking ocean wave. This country is the origin of a genre whose name translates as "pictures of the floating world". For 10 points, name this home country of the *ukiyo-e* artists Hiroshige and Hokusai, who created the series 36 *Views of Mount Fuji*.

ANSWER: Japan [or Nihon; or Nippon; accept japonisme]

20. This author wrote a publicly-released letter expressing anger at Lord Chesterfield's failures as a patron for his most famous project. He asked "On what Foundation stands the Warrior's Pride?" before outlining the career of Charles XII in a poem written as an imitation of Juvenal's tenth *Satire*. He took only a week to churn out a long story in which Nekayah and Imlac accompany the title (*) Abyssinian prince on a brief escape from Happy Valley. This author of "The Vanity of Human Wishes" expanded his *Life of Savage* into the critical-biographical collection *Lives of the Poets*. For 10 points, name this author of *Rasselas* and an early *Dictionary of the English Language*, the subject of a massive biography by James Boswell.

ANSWER: Samuel Johnson [or Dr. Johnson]

21. Hereditary buildup of this element in the liver is found in a disease known by shorthand as HHC. At standard pressure, this element has allotropes labeled alpha through delta, the gamma allotrope of which is face-centered cubic and is called austenite. Mossbauer spectrometry is often conducted on the 57 isotope of this element, which is the (*) heaviest that can be produced via the silicon-burning process in a star. It is the most common element by mass in the Earth, and its ores include limonite, goethite, magnetite, and hematite. For 10 points, name this metallic element that is strengthened by carbon to form steels

ANSWER: iron [or Fe]

Bonuses

1. An 1880 “restoration” of this painting ended up chopping huge amounts off its top and bottom, leaving a blue-clad John the Baptist gesticulating emphatically at nothing at all. For 10 points each:

[10] Identify this 1614 painting, in which groups of cherubs and naked souls writhe around in front of yellow- and green-colored cloth in anticipation of the title event.

ANSWER: *The **Opening of the Fifth Seal** of the Apocalypse* [or *The Opening of the **Fifth Seal of the Apocalypse***; prompt on “*The Vision of St. John*”]

[10] *The Opening of the Fifth Seal* was one of the last major works of this Cretan-born artist of *The Burial of Count Orgaz*.

ANSWER: **El Greco** [or **the Greek**; or Domenikos **Theotokopoulos**]

[10] In El Greco’s *El Espolio*, Christ is about to be divested of a robe of this color. A maid bends over a bowl of fruit in an Henri Matisse painting known variously as *The Dessert* and *Harmony in this color*, which also dominates the upper walls in Van Gogh’s *The Night Cafe*.

ANSWER: **red** [accept equivalents, like “maroon” or “crimson” or “carmine”]

2. These structures can be resolved on the basis of syn-apomorphies. For 10 points each:

[10] Name these structures that represent the relationships between various taxa based on shared derived characteristics. Their tips represent extant species, whereas nodes represent common ancestors.

ANSWER: **phylogenetic trees** [accept **phylogenies**; prompt on **trees** or **dendrograms**]

[10] One way of rooting a phylogenetic tree is to introduce one of these taxa, which is known to be less related to the taxa of interest than they are to each other.

ANSWER: **outgroups**

[10] A time scale can be generated for a phylogenetic tree if this value for the taxa is known. This value is symbolized μ , and it is generally different for transversion and transition changes.

ANSWER: **mutation rates** [accept word forms]

3. One composer from this country invented a type of microtonality called “the thirteenth sound” that he used to compose his *Prelude to Columbus*. For 10 points each:

[10] Name this home country of Julián Carrillo and the composer of the *Sinfonia India*, Carlos Chávez.

ANSWER: **Mexico** [or United **Mexican** States; Estados Unidos **Mexicanos**]

[10] Naturalized Mexican composer Conlon Nancarrow is most famous for his studies for this keyboard instrument, which replaces a human performer with perforated paper rolls.

ANSWER: **player piano** [prompt on partial answer; accept **pianola** or **autopiano**]

[10] Carlos Chávez briefly spelled this Italian composer as conductor of the NBC Symphony Orchestra. This conductor rose to fame as the lead conductor at the Milan opera house La Scala.

ANSWER: Arturo **Toscanini**

4. This battle resulted in the resignation of Luigi Cadorna. For 10 points each:

[10] Name this late 1917 World War I battle in which the Central Powers annihilated the Italians, killing 10,000 and taking over 260,000 prisoners. Its name was used to designate a terrible defeat in Italian lore for years to come.

ANSWER: Battle of **Caporetto** [or **Twelfth** Battle of the **Isonzo** or Battle of **Karfreit**]

[10] This German junior officer won an award for his exploits at Caporetto. He was more renowned in World War II when, as the “Desert Fox,” he led the *Afrikakorps*.

ANSWER: Erwin Johannes Eugen **Rommel**

[10] German success at Caporetto was keyed by the use of poison gas. The Germans first used poison gas on a large scale in this spring 1915 battle, the second fought at the namesake Flemish town. The third battle fought here is also known as Passchendaele.

ANSWER: Second Battle of **Ypres** [“ee-pray”]

5. This writer and producer of the satirical sitcom *Basi and Company* collected his war diaries in the volume *On a Darkling Plain*. For 10 points each:

[10] Identify this man who was targeted and killed due to his actions protesting Royal Dutch Shell. His best-known literary accomplishment is a novel in “rotten English” called *Sozaboy*.

ANSWER: Ken Saro-Wiwa [or Kenule Beeson Saro-Wiwa]

[10] Saro-Wiwa was executed by a military tribunal under Sani Abacha, a dictator of this African country. Other authors from this country include the unpopular John Pepper Clark-Bekederemo and the more popular Chinua Achebe.

ANSWER: Federal Republic of Nigeria [or Jamhuriyar Taraiyar Nijeriya; or Ohanjiko Ohaneze Naijiriya; or Orile-edo Olominira Apapo ile Naijiria]

[10] Obi Okonkwo arranges an abortion for his love interest Clara and struggles to repay his debt to the Umuofia Progressive Union in this Achebe novel, the sequel to *Things Fall Apart*.

ANSWER: No Longer At Ease

6. This superhero became an alcoholic in the *Demon in a Bottle* storyline. For 10 points each:

[10] Name this Marvel superhero who wears a super suit filled with gadgets. His real name is Tony Stark and he has been played on film by Robert Downey Jr.

ANSWER: Iron Man

[10] In the comics and films, Iron Man has a hazy relationship with this fictional national security agency led for the most part by Nick Fury. In the Marvel films, one of its agents is the beloved Phil Coulson.

ANSWER: S.H.I.E.L.D. [or Supreme Headquarters, International Espionage, Law-Enforcement Division, or Strategic Hazard Intervention Espionage Logistics Directorate, or Strategic Homeland Intervention, Enforcement and Logistics Division]

[10] Fury was ousted as head of S.H.I.E.L.D. in a recent storyline. This man, Fury’s villainous successor, transformed S.H.I.E.L.D. into a new organization called H.A.M.M.E.R. that was only loyal to him. Much earlier in the Marvel universe, he threw Gwen Stacy off the George Washington Bridge.

ANSWER: Norman Osborn [accept either part, accept the Green Goblin]

7. Answer the following about African dictators during the Cold War for 10 points each.

[10] Ronald Reagan claimed this man, the dictator of Libya from 1969 to 2011, was a Soviet puppet. The “Brother Leader” of Libya, this dictator was overthrown and killed in October 2011.

ANSWER: Muammar Gaddafi [or Muammar Muhammad Abu Minyar al-Gaddafi]

[10] This president of the Democratic Republic of the Congo from 1965 to 1997 is called “the archetypal African dictator” on Wikipedia. He changed the name of the Congo to Zaire and led a corrupt government labeled as a “kleptocracy.”

ANSWER: Mobutu Sese Seko Kuku Ngbendu wa Za Banga [or Joseph-Desire Mobutu]

[10] This African country was led by Siad Barre from 1969 to 1991. Barre, who promoted “scientific socialism,” lost Soviet support after leading his country into the Ogaden War.

ANSWER: Somalia [accept Somali Democratic Republic]

8. In this process, a condenser is attached vertically to a boiling flask, and cold water is run from the bottom to the top of the condenser. For 10 points each:

[10] Name this organic chemistry technique in which the reactants are boiled but immediately fall back to the flask. This procedure’s namesake “ring” differentiates between the condenser’s upper dry and lower wet regions.

ANSWER: refluxing

[10] Condensers are also used in this technique, which is used to separate contents of a solution based on their volatility. When the volatilities are similar, its “fractional” version, which uses two condensers, is used.

ANSWER: distillation [accept word forms; accept fractional distillation]

[10] The efficiency of a distillation column can be described as a number of “theoretical” instances of these entities. The number of them is proportional to the number of vaporization-condensation cycle the reactants experience.

ANSWER: theoretical plates

9. Answer the following about everyone's favorite German-American international relations theorist, Alexander Wendt, for 10 points each.

[10] As a social constructivist IR theorist, Wendt is opposed to the theories of this IR school that assumes an anarchical world system. This school's notable theorists include John Mearsheimer and Stephen Walt.

ANSWER: neorealism [accept word forms; accept realism or word forms]

[10] From 1999 to 2004, Wendt taught alongside Mearsheimer at this Midwestern university, whose department of economics once employed Milton Friedman.

ANSWER: University of Chicago

[10] Wendt's 1999 *Social Theory of International Politics* responded to the foundational neorealist text *Theory of International Politics* by this author of *Man, the State, and War*.

ANSWER: Kenneth Neal Waltz

10. The title story of this collection is set at a Keith Jarrett concert, where the sadistic young lawyer Sick Puppy's punk rock girlfriend Gimlet becomes obsessed with the title figure while on LSD. For 10 points each:

[10] Identify this collection that also includes the meta-metafictional novella *Westward the Course of Empire Takes Its Way* and "Little Expressionless Animals", which centers on a long *Jeopardy!* winning streak.

ANSWER: *Girl With Curious Hair*

[10] This sprawling novel by the same author is set primarily at the Enfield Tennis Academy and the Ennet House near Boston, and it features many members of the Incandenza family, as well as over 380 endnotes.

ANSWER: *Infinite Jest*

[10] This author of *Brief Interviews with Hideous Men*, who committed suicide in 2008, wrote *Girl with Curious Hair* and *Infinite Jest*.

ANSWER: David Foster Wallace

11. Identify the following mythical Romans, for 10 points each.

[10] This man claimed he saw six vultures before his brother saw twelve, giving him the right to choose the location of a new city. Unfortunately, he was killed after mocking the walls built by that brother, Romulus, who then founded Rome without him.

ANSWER: Remus

[10] Augustine claimed that Romulus initiated the worship of this deity, who defended the abductors of the Sabine women with a hot spring. This god of doorways and beginnings turned Carna into the hinge goddess Cardea.

ANSWER: Ianus [or Ianus]

[10] This possibly-mythical soldier proved his devotion to Rome by holding his right hand in a fire until it was burned off when he was caught attempting to assassinate the attacking king Lars Porsenna,

ANSWER: Gaius Mucius Scaevola

12. This vessel was designed by the Swedish inventor John Ericsson. For 10 points each:

[10] Name this ship, the first ironclad warship commissioned by the U.S. Navy during the Civil War. It fought a March 9, 1862, battle with the Confederate ironclad *Virginia*, which was formerly the frigate *Merrimack*.

ANSWER: USS Monitor

[10] This aforementioned battle at a Virginia location was the first naval engagement between ironclad vessels. While an inconclusive battle, with neither ship destroyed, it influenced many foreign powers to build ironclads.

ANSWER: Battle of Hampton Roads

[10] This earlier American vessel was one of the first submersibles used in combat. Built by David Bushnell in the Revolutionary War, it intended to be used to attach explosives to British Royal Navy ships.

ANSWER: the Turtle [or the American Turtle]

13. As a chemist, this scientist showed that paratartaric acid and tartaric acid rotate light differently because they are chiral compounds. For 10 points each:

[10] Name this scientist, better known as a microbiologist, who developed a vaccine for anthrax. Milk is subjected to this man's namesake process to make all pathogenic bacteria unviable.

ANSWER: Louis **Pasteur** [or **pasteurization**]

[10] Pasteur disproved this theory by boiling broth in swan-necked flasks and observing that it did not display any bacterial growth.

ANSWER: **spontaneous generation** [prompt on **abiogenesis**]

[10] Another scientist important to this history of medicine and microbiology was this German, who developed a set of postulates to determine whether a microbe causes a disease.

ANSWER: Robert **Koch** [or Heinrich Hermann Robert **Koch**]

14. Oliver Sacks's book *Awakenings* inspired a play by this man whose protagonist Deborah wakes from a thirty-year coma brought on by encephalitis. For 10 points each:

[10] Name this British Nobel laureate, the author of *A Kind of Alaska*. His more famous plays, characterized by Irving Wardle as "comedies of menace", include *The Birthday Party*, *The Caretaker*, and *The Dumb Waiter*.

ANSWER: Harold **Pinter**

[10] Pinter's most notable film role was as Sir Thomas Bertram, the owner of an Antiguan plantation, in an adaptation of this Jane Austen novel in which Fanny Brice is sent to live at the title estate.

ANSWER: **Mansfield Park**

[10] In his book *Culture and Imperialism*, this Palestinian-American author criticized *Mansfield Park* for including a plantation owner but failing to condemn slavery, thus supposedly legitimizing it.

ANSWER: Edward Wadie **Saïd**

15. One formulation of this law is that the divergence of electric field is equal to the electric charge density divided by the permittivity of free space. For 10 points each:

[10] Name this law which is more commonly formulated as the statement that the electric flux through a surface is equal to the enclosed charge divided by the permittivity of free space.

ANSWER: **Gauss's** law

[10] Gauss's law is one of this set of four equations from classical electrodynamics which come in integral and differential forms. They are named after a Scottish physicist, and also include laws named for Ampere and Faraday.

ANSWER: **Maxwell's** equations

[10] This law of electromagnetism allows the calculation of the magnetic field generated by an electric current by taking the line integral along a wire of the current times the differential wire element crossed with the displacement vector.

ANSWER: **Biot-Savart** law

16. This jazz composer released two 1950 albums "with strings" and laid down such tracks as "Ko-Ko" and "Now's the Time" during a legendary 1945 session with his namesake "Reboppers". For 10 points each:

[10] Name this pioneer of bebop who referenced his own nickname in the titles of songs like "Ornithology", "Yardbird Suite", and "Bird Gets the Worm".

ANSWER: Charlie "Bird" **Parker** [or Charles **Parker** Jr.; prompt on "Bird" or "Yardbird"]

[10] Charlie Parker played this instrument, which was also used by John Coltrane and Cannonball Adderley.

ANSWER: **saxophone** [alto or tenor]

[10] Parker played with this bassist on the album *Jazz at Massey Hall*. As a bandleader, he created the albums *Pithecanthropus Erectus* and *The Black Saint and the Sinner Lady*.

ANSWER: Charles **Mingus** Jr.

17. This man was the subject of an epic poem by Blind Harry. For 10 points each:

[10] Name this man who teamed with Andrew Moray to defeat a larger English army at the Battle of Stirling Bridge. In 1305, he was hanged, drawn and quartered, and castrated after being delivered into the hands of his nemesis, King Edward I.

ANSWER: William **Wallace** [prompt on **Braveheart**]

[10] Wallace was one of the main leaders in war of independence fought between England and this kingdom. This nation was also ruled by the House of Bruce and is currently part of the United Kingdom.

ANSWER: **Scotland** [accept word forms]

[10] This man was a Welsh ruler who led a long revolt against the English King Henry IV. Last seen in 1412, he is revered as one of the fathers of Welsh nationalism and was the last native Welshman to be Prince of Wales.

ANSWER: Owain **Glyndwr** [or Owen **Glendower**]

18. One section of this work distinguishes between “relations of ideas” and “matters of a fact”, while another provides three accounts of perceived causation. For 10 points each:

[10] Name this book of epistemology that improved upon the previous *A Treatise on Human Nature* and introduced the “Missing Shade of Blue” thought experiment.

ANSWER: An **Enquiry Concerning Human Understanding**

[10] This empiricist Scottish philosopher wrote both *A Treatise on Human Nature* and *An Enquiry Concerning Human Understanding*.

ANSWER: David **Hume** [or, if you’re really weird and want to mispronounce his earlier Scottish name, David **Home**]

[10] In his *Treatise*, Hume asserted that morality was irrational since it relied on input from these sorts of thoughts. In *Language, Truth, and Logic*, Ayer claimed that ethical statements were not propositions but statements of these thoughts.

ANSWER: **emotions** [or **passions**; or **feelings**]

19. In one scene in this play, the prostitute Yvette Pottier sings the “Fraternization Song”. For 10 points each:

[10] Identify this play set during the Thirty Years’ War, which centers on a Swedish canteen woman and aspiring war profiteer named Anna Fierling, who loses her children Katrin, Eilif, and Swiss Cheese.

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

[10] *Mother Courage and Her Children* was written by this German playwright, a pioneer of “epic theater” who collaborated with Kurt Weill on *Rise and Fall of the City of Mahagonny* and *The Threepenny Opera*.

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

[10] In *Mother Courage and Her Children*, Brecht displayed placards that summarized the plot of each scene before it happened and flooded the stage in bright light in order to enact this principle of epic theater, which is similar to an earlier concept introduced by Viktor Shklovsky.

ANSWER: the **distancing effect** [or **alienation effect**; or **estrangement effect**; or **distantiation**; or **V-effekt**; or **Verfremdungseffekt**]

20. Name these members of the Lesser Antilles, for 10 points each.

[10] This “A” in the Dutch ABC islands has its capital at Oranjestad. Former Orioles pitcher Sidney Ponson was born on this island.

ANSWER: **Aruba**

[10] This constituent country of the Netherlands has its capital at Willemstad and is the birthplace of baseball players Andruw Jones and Jurickson Profar.

ANSWER: Country of **Curacao**

[10] Angostura bitters are from this country off the coast of Venezuela, one of whose islands contains the world’s largest asphalt lake.

ANSWER: Republic of **Trinidad and Tobago**

21. One work about the use of this substance is divided into parts titled for the “Pleasure” and “Pain” of its use, and was written by the author of “On Murder Considered as One of the Fine Arts.” For 10 points each:

[10] Name this substance, whose tincture was called laudanum. Its notable users included Samuel Taylor Coleridge, who is said to have written “Kubla Khan” after having a dream induced by this substance.

ANSWER: **opium**

[10] This friend of Coleridge detailed his experiences with the drug in his *Confessions of an English Opium Eater*.

ANSWER: Thomas **de Quincey**

[10] Essays such as "The Palimpsest of the Human Brain" appear in a de Quincey collection whose title ends with these two words, which also name an essay written by Oscar Wilde while he was imprisoned.

ANSWER: **de Profundis** [or **Suspiria de Profundis**]