Brookwood Invitational Scholars' Bowl

Round 6

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Tossups

- 1. This thinker compared a working-class person to an Indian prince at the head of "1000 naked savages." This man's namesake problem is to reconcile his virtue ethics with his political philosophy. This man contrasted value-in-use and value-in-exchange to explain why diamonds are more expensive than water. He dismantled Colbert's [COLE-bears] (*) mercantilism in a book which argues that, by attempting to further his own needs, a man improves society as a whole because of an "invisible hand." He used a pin factory to argue for division of labor in that proto-capitalist text. For 10 points, name this Scottish author of *The Wealth of Nations*. ANSWER: Adam Smith
- 2. A dead moth sits next to one of these objects in a painting titled for one "at the moment of first explosion." In another 1954 painting, a fish swims at one of these objects, underwater, surrounded by prisms formed by the disintegration of matter. These objects were inspired by the sight of Camembert cheese in the sun. One of these objects hangs on a dead olive tree (*) branch. Another of these objects lays atop a deformed, dying animal with long eyelashes. An orange one is covered in ants. They appear in a desert in front of yellow cliffs in a 1931 surrealist painting. For 10 points, name these objects painted by Salvador Dali in *The Persistence of Memory*. ANSWER: melting watches from *The Persistence of Memory* [or melting clocks; or timepieces]
- 3. John Cage wrote a mesostic titled, "Walking through" this other poem. 44 consecutive lines of this poem begin with the word "who." This poem's first appearance at the Six Gallery Reading is recounted in *The Dharma Bums*. This poem recounts people who were dragged through the negro streets at dawn, (*) "starving hysterical naked." Its third section repeatedly exclaims, "I'm with you in Rockland." Sale of this poem at the City Lights bookstore prompted an obscenity trial. This poem repeatedly invokes Moloch and begins by describing the "best minds of my generation, destroyed by madness." For 10 points, name this epic Beat poem by Allen Ginsberg. ANSWER: "How!"
- 4. Lysis buffer is a mix of S-D-S and this compound. White liquor, used in pulping paper, consists of this compound and sodium sulfide. It is produced along with hydrogen and chlorine in the chlor-alkali process, and it turns bauxite into alumina in the Bayer process. In industry, this compound is just called "caustic." This compound is sold in small (*) pellets which dissolve in water, releasing a lot of heat, and generating lye. Stocks of this compound are often made to titrate weak acids, and it reacts with HCl [H-C-L] to make water and table salt. For 10 points, name this strong base used in drain cleaner, which has formula NaOH. ANSWER: sodium hydroxide [or NaOH until it is read; or caustic until it is read; prompt on partial answer]
- 5. This city had a race riot in 1517 called the "Evil May Day." George Monck marched on this city in 1660. Robert Latham edited a primary account of this city's incompetent mayor Thomas Bloodworth. This city's Savoy Palace was destroyed in a revolt inspired by John Ball. This city experienced bubonic plague in 1665, and, as (*) documented by Samuel Pepys, suffered a devastating fire a year later that began at Pudding Lane. Wat Tyler's Peasants' Revolt levelled this city. Twenty miles west of this city lies Runnymede meadow, where the Magna Carta was signed. For 10 points, name this city where Lady Jane Grey was hanged in a tower on the Thames. ANSWER: London, England [or Southwark]
- 6. The appendix to this novel provides sentences like "This dog is free of lice" and divides language into A, B, and C vocabulary. This novel introduced the idea of holding two contradictory ideas simultaneously, and accepting both as true. This novel's protagonist receives a note that reads "dayorder doubleplusungood refs unpersons rewrite fullwise", and is later told that (*) two and two make five. Words like Ingsoc, Miniplenty, and crimethink are used excessively in this novel's Newspeak dialect. Its protagonist avoids telescreens and hopes that proles will bring down Oceania and Big Brother. For 10 points, name this George Orwell dystopian novel. ANSWER: Nineteen Eighty-Four

7. Quail Creek State Park and Goblin Valley State Park are located in this state. This state's capital contains the Seagull Monument, honoring birds that saved the region's crops from an invasion of crickets in 1848. Its Park City is home to the US Ski Team. The Sundance Film Festival is hosted here. World land-speed records are often set at (*) Bonneville Salt Flats in this state. The Arches and Zion National Parks are in this state. This state's capital, which hosted the last US Olympics, lies near the largest saltwater lake in the Western Hemisphere. For 10 points, name this state with a majority Mormon population.

ANSWER: Utah

Moderator note: In the fourth sentence of this tossup, the word is "formication". With an M. Not an N.

8. Jean Lhermitte's [LURE-mit's] "peduncular" disease mostly manifests with this symptom. This symptom is experienced by blind people with Charlie Bonnet syndrome. The somatic form of this symptom is one of Schneider's first-rank symptoms. Formication, an example of this symptom, is common in delirium tremens patients. Sensory (*) deprivation results in this symptom in the Ganzfeld effect. Psilocin [SEAL-oh-kin] and psilocybin [SEAL-oh-sigh-bin] induce euphoria and this symptom by binding to serotonin neurons. The auditory form of these events are common in schizophrenics, and are colloquially referred to as "hearing voices." For 10 points, name these events induced by LSD.

ANSWER: <u>hallucination</u> [or word forms; or specific types of hallucinations; do not accept or prompt on "delusions"]

9. This material is extensively described by Jiao Yu's *Huolongjing* [ho-LONG-jing]. The *tanegashima*, introduced by the Portuguese to Japan, required heavy use of this substance. Abigail Adams' "Remember the ladies" letter also includes a promise to mine and produce this substance. English ribauldequins [rib-AWL-duh-kins], which required this substance, were used to great effect at the (*) Battle of Crecy. The Ottoman, Safavid, and Mughal Empires are collectively named for this material, which joined paper, printing, and the compass as the Four Great Inventions of China. For 10 points, name this substance composed of saltpeter, which names a "plot" carried out against James I by Guy Fawkes.

ANSWER: **gunpowder** [or **saltpeter** until it is read; or **potassium nitrate**; or **black powder** or **firing powder** or similar answers]

- 10. Impedance mismatch occurs due to the conflict between dealing with these things and with relational databases. The language produced by a compiler is named for these things. A design pattern called the factory method can be used to create these things, rather than using constructors. The keyword new is used to (*) create them. A superclass named for these things is the top of the hierarchy tree in Java. Encapsulation conceals their information. These things are instances of classes and have their own attributes. A paradigm named for them relies on inheritance and polymorphism. For 10 points, name these things around which Java is "oriented". ANSWER: objects [or object-oriented programming]
- 11. This composer possibly mis-transcribed a D as a D-flat in a berceuse containing a well-known bassoon solo. This composer used a chord composed of two major triads, a tritone apart, every time a puppet appears on stage. The second act of one of his ballets begins with two virgins walking in circles. The hero of a ballet by this composer smashes an egg containing (*) Kashchei's soul. This composer wrote two acts titled "The Adoration of the Earth" and "The Sacrifice" for a ballet that begins with a bassoon playing way too high for its own good. For 10 points, name this composer of *The Firebird*, and a piece that induced riots on premiere, *The Rite of Spring*. ANSWER: Igor Stravinsky
- 12. This subject of the atrocious 2014 film *United Passions* once interrupted a moment of silence for Nelson Mandela after eleven seconds. Lee Nelson threw fake money at this man in a 2015 press conference. A Trinidadian *subordinate* of this man tried to clear his name using an article from *The Onion*. He advocated the "Say No To (*) Racism" campaign. David Gill refused a vice presidency in protest of this man defeating Prince Ali bin Hussein to win a 2015 election. Jack Warner's arrest led this man to maybe resign after charges of corruption against CONCACAF. For 10 points, name this embattled, suspended, Swiss president of FIFA. ANSWER: Josef "Sepp" <u>Blatter</u>

- 13. An author from this country wrote a poem whose first and last stanzas describe a river that "goes roundabout, arriving forever." Gabriel García Marquez wrote his novels while living here. A nun from this modern-day country wrote the long poem "The Dream", for which she got the nickname "The Tenth Muse." Its ambassador to India described a "mask of self-denial" in a 1950 (*) essay collection. A Boom author from this country described a corrupt tycoon on his deathbed, remembering this country's revolution. For 10 points, name this country celebrated in "The Labyrinth of Solitude", by Octavio Paz, whose immigrants write Chicano literature. ANSWER: Mexico [or the United Mexican States]
- 14. The J term in the Fock operator is named for this law. The method of images is used if this law cannot be directly applied. It gives the potential used to solve the Schrödinger equation for the hydrogen atom. This law was discovered by the inventor of the torsion balance. Its constant is one over four pi times the permittivity of free space, or, in base SI units, is about 9 times ten to the (*) ninth. This law has a similar form as universal gravitation, with a negative-second power dependence on distance. For 10 points, name this law giving the force between two charges, whose French namesake also lent his name to the SI unit of charge.

 ANSWER: Coulomb's Law
- 15. This politician once told New York City to "drop dead." This president is the only one to declare the state of the Union was "not good". Donald Rumsfeld served as his Chief of Staff. This man urged Americans to wear buttons reading "Whip Inflation Now!" Two assassination attempts were made on this president in Sacramento. This member of the (*) Warren Commission and longtime Michigan representative promised an "end to our long national nightmare" in his August inauguration. He appointed Nelson Rockefeller as Vice President but lost his re-election bid against Jimmy Carter. For 10 points, name this successor of Richard Nixon. ANSWER: Gerald Ford [or Leslie Lynch King, Jr.]
- 16. One of these objects mythically contains the tooth of St. Peter, the blood of St. Basil, and hair from St. Dennis. Another of these objects, cursed to cause three tragedies and the ultimate downfall of Svafrlami [SVAH-fur-law-me], is named for Tyr. After one of these objects is thrown into a lake, it is caught by a mysterious hand. Odin (*) breaks one of these objects owned by Sigmund. Beowulf borrows one of these objects from Grendel's mother, but it melts. Roland owns one named Durendal, and Beowulf owns one named Hrunting. For 10 points, name these weapons exemplified by Excalibur.

ANSWER: **sword**s [or **sheath**s; or **scabbard**s; prompt on **weapon**s]

- 17. This author called for the sound of a string in the sky snapping at the end of one play. This author's nephew Michael was the first exemplar of method acting. A man on vacation can't stop obsessing over a woman and her Pomeranian in a well-anthologized story by this author. This author said that, if a (*) gun is onstage in Act I, it needs to go off by the end of the play. An ex-servant buys his old estate in a play by this author that ends with the sound of an axe. After Nina refuses a gift of a dead bird, Trepilov shoots himself, in a play by this author. For 10 points, name this Russian author of *The Seagull* and *The Cherry Orchard*. ANSWER: Anton Chekhov
- 18. One of this composer's songs uses the text of Sir Walter Scott's "Hymn to the Virgin" and invokes a "maiden mild" who can "save amidst despair." He wrote a song in which the female speaker declares "My peace is gone, my heart is heavy," as Faust has left her. This composer's "Ellen's Third Song" is better-known as his "Ave Maria." This composer of (*) "Gretchen at the Spinning Wheel" used Wilhelm Müller's poetry for his song cycle *Winterreise*. Only 30 measures of the third movement his eighth symphony were sketched prior to his death. For 10 points, name this Austrian composer of many *lieder* and an "Unfinished Symphony." ANSWER: Franz Schubert
- 19. The US conducted syphilis experiments similar to Tuskegee in this country in the 40s. Its ex-military dictator Efraín Ríos Montt is on trial for crimes against humanity. Operation PBSUCCESS installed US-backed dictator Carlos Castillo Armas in this country in 1954, toppling Jacobo Árbenz Guzmán. The pre-Colombian sites of El Mirador and Tikal are in this country. This nation's (*) 36-year civil war, which ended in 1996, was protested by the K'iche' woman Rigoberta Menchú. Its postal service was once run by the United Fruit Company. For 10 points, name this Central American country, where the Mayas lived south of Mexico. ANSWER: Republic of Guatemala

20. HIF [hiff] transcription factors are activated by low concentrations of this element. The Warburg [VARburg] effect explains how low concentrations of it make tumor cells acidic. VEGF [vedge-F], secreted by tumor cells when this element is sparse, stimulates vasculo-genesis. Low concentrations of this element stimulate the reduction of (*) pyruvate, rather than the formation of oxaloacetate. This element is "evolved" during the light-dependent reactions. It is the final acceptor in the electron transport chain. Lack of this element favors formation of lactate in anaerobic fermentation. For 10 points, name this element required for cellular respiration, which is absorbed in the lungs.

ANSWER: **oxygen** [or **O**]

TB: The formation of these objects often results in accumulation of flysch [FLISH] and molasse [MOE-lass]. Guyots [GYE-ohs] are examples of these objects that form underwater. These objects are formed either through delamination, or through subduction to form folds. The fault-block type of these features, such as horsts, often form near rift valleys. These features are formed when the (*) lithosphere is crumpled upwards during an orogeny. The lee side of these objects are often dry because they lie in a rain-shadow. They create continental divides in North America. For 10 points, name these landforms that can be volcanic, examples of which include the Appalachians.

ANSWER: <u>mountain</u>s [or <u>mountain range</u>s; prompt on <u>volcano</u>es]

Bonuses

1. The so-called "father of photojournalism" was from this country. For 10 points each:

[10] Name this country where daguerrotyping was invented. Nadar, a photographer from this country, offered his studio for the first Impressionist exhibition.

ANSWER: France

[10] This photojournalist characterized the Great Depression in her photo *Migrant Mother* and also implicitly criticized Japanese internment at Manzanar in a series for the WRA.

ANSWER: Dorothea Lange

[10] In a more recent example of photojournalism, Kevin Carter took an award-winning photograph of a Sudanese child being watched by one of these animals.

ANSWER: a **vulture** [prompt on **bird**s]

2. Description acceptable. This poem ends by mentioning that, "if you with patient ears attend/What here shall miss, our toil shall strive to mend." For 10 points each:

[10] Name this sonnet which describes a place where "civil blood makes civil hands unclean," and mentions that, "from forth the fatal loins of these two foes/A pair of star-crossed lovers take their life."

ANSWER: the <u>prologue</u> to <u>Romeo and Juliet</u> [accept any answer that describes the poem that comes before <u>Romeo and Juliet</u>, such as **preface** or **introduction**]

[10] The prologue, like any classical Shakespearean sonnet, has this many lines.

ANSWER: 14

[10] Awkwardly, Shakespearean's 99th sonnet actually has 15 lines, and sonnet 126 has 12. Both of those poems are addressed to this unnamed person, the designee of most of the sonnets.

ANSWER: the **Fair Youth** [or the **Fair Lord**]

3. This man was paralyzed in his right arm after an assassination attempt in 1981. For 10 points each:

[10] Name this cleric who, since 1989, has served as Supreme Leader of Iran.

ANSWER: Ayatollah Ali Hosseini <u>Khamenei</u> [do not accept or prompt Ayatollah "Khomeini" and ask the players to spell it if necessary]

[10] Khamenei frequently feuded with this president of Iran in the early 2000s, for example, over nuclear weapons, corruption, and this man's anti-Israel stumping. He was succeeded by Hassan Rouhani in 2013.

ANSWER: Mahmoud Ahmadinejad

[10] Khamenei himself is against nuclear weapons, and has issued one of these declarations opposing their use. Ayatollah Khomeini famously issued one urging Muslims to kill Salman Rushdie.

ANSWER: fatwa

4. Subunits of a fractal possess this property with respect to the entire pattern. For 10 points each:

[10] Name this property possessed by figures with the same shape but different sizes.

ANSWER: similar ity

[10] Dilations produce similar figures. As a result, the dilation of a three-dimensional figure by a factor of 2 results in a new figure of the same shape, but with an overall volume multiplied by this factor.

ANSWER: 8 [or eight]

[10] These other linear transformations produce non-similar images. This type of transformation stretches each point relative to its distance from a line, and would turn a square into a parallelogram.

ANSWER: **shear** transformation [or **shear** mapping; or **shear**ing]

5. Answer the following about the economics of buying questions for quizbowl tournaments, for 10 points each:

[10] If the market senses that quizbowl is going to become very popular next year, then this positively-sloped curve will shift up, as more people write question sets. This curve intersects the demand curve at the equilibrium point. ANSWER: **supply** curve

[10] Quizbowl is this type of market, in which producers have independent pricing schemes and strong product differentiation--for example, unlike other question sets, this tournament is filled with many funny jokes.

ANSWER: monopolistic competition [prompt on competition; do not accept or prompt on "monopoly"]

[10] You're enjoying the jokes in this tournament so much, in fact, that you'd pay more to get the same number of questions--indicating that the set has a low value for this property, which is zero for a vertical demand curve.

ANSWER: price elasticity of demand [or \mathbf{E}]

6. Name some authors that wrote about shipwrecks, for 10 points each:

[10] The Abraham Lincoln wrecks after being attacked by Captain Nemo's submarine in this author's tale 20,000 Leagues Under the Sea.

ANSWER: Jules Verne

[10] Paul Pokriefke is born the day of a shipwreck in this author's 2002 novella *Crabwalk*. This German author described his days in the SS in the memoir *Peeling the Onion* and also wrote a trilogy named for the city of Danzig. ANSWER: Günter **Grass**

[10] A nobleman washes up on an island passing through the International Date Line in a novel by this author. Jorge of Burgos poisons the pages of a book by Aristotle, killing three men, in a mystery by this author.

ANSWER Umberto Eco

7. Answer the following about a long-misunderstood protist--the dinoflagellate. For 10 points each:

[10] Dinoflagellates are probably best known for causing "tides" of this color which kill marine organisms. Agar is derived from algae of this color.

ANSWER: red

[10] Dinoflagellates move with the help of flagella, unlike other protozoans, such as *Paramecium*, which moves with the help of these small hair-like projections.

ANSWER: **cilia** [or **cilium**; or **ciliate**s]

[10] Some dinoflagellates possess this enzyme, which allows them to glow blue at night in response to mechanical shearing. This common reporter enzyme, often extracted from fireflies, uses a ton of ATP to produce luminescence.

ANSWER: <u>luciferase</u> [do not accept or prompt on "luciferin"]

8. Name some musical acts from the 1960s that weren't The Beatles, for 10 points each:

[10] This California group behind "Good Vibrations" led by the brothers Wilson put out surf rock hits like "Surfin' USA" and "Little Deuce Coupe."

ANSWER: The Beach Boys

[10] This group explored psychedelia on their 1967 debut album *The Piper at the Gates of Dawn*. They became better-known in the 1970s after Roger Waters became the lyricist and penned songs like "Money."

ANSWER: Pink Flovd

[10] This artist penned the 1960s protest hit "For What It's Worth" while a member of Buffalo Springfield. He is the 'S' in the folk super-group CSNY.

ANSWER: Stephen Stills

9. This activity ends with a drawn-out *teruah gedolah* [tay-ROO-ah guh-DOLE-ah], which can last for minutes. For 10 points each:

[10] Name this activity which occurs during the Rosh Hashanah morning service and the Yom Kippur afternoon service, and involves saying *tekiah* [tay-KEE-ah] a lot.

ANSWER: blowing the **shofar** [or the **shofar** service; or blowing a ram's **horn**]

[10] A shofar is also blown during the conquest of Jericho, as related in this book of the Bible, which comes right after Deuteronomy. The namesake of this book leads the Israelites into Canaan since Moses cannot.

ANSWER: Book of Joshua

[10] A shofar was used to mark this once-every-fifty-years celebration in the Bible, during which all slaves are freed and all debts forgiven.

ANSWER: Jubilee year

10. Fritigern led these people against Rome at the Battle of Adrianople. For 10 points each:

[10] Name this Germanic people who split into two branches prefixed "Visi" and "Ostro". They sacked Rome in 410 AD.

ANSWER: **Goth**s [or **Gothic** people]

[10] The Goths then joined with Rome to beat back this ruler at the Battle of Chalons [sha-LONE], in Gaul, in 451. This man claimed the Western Roman Empire after receiving a plea from Valentinian III's sister Honoria.

ANSWER: **Attila** [the Hun]

[10] After the Ostrogoths fought a bloody sixth century war with the Byzantine Empire, this German tribe marched into Italy and easily conquered it. A league named for these people opposed Hohen staufen control of Italy.

ANSWER: Lombards

- 11. The three sections of this novel are titled "Fear", "Flight", and "Fate." For 10 points each:
- [10] Name this novel whose protagonist, Bigger Thomas, accidentally smothers a white girl, then flees from the police.

ANSWER: Native Son

[10] Richard Wright also wrote a short story collection titled for this character's children. This character, who was created by Harriet Beecher Stowe, is often criticized for his docility toward slave-masters.

ANSWER: Uncle **Tom** [or **Uncle Tom's Cabin**]

[10] In his essay collection *Notes of a Native Son*, this author critiqued both Stowe and Wright. This author wrote about a gay man named David in a novel titled for an Italian bartender.

ANSWER: James **Baldwin** [that book is *Giovanni's Room*]

- 12. Andrea del Sarto, the "faultless" painter, was a member of this movement, which emerged at the end of the Renaissance. For 10 points each:
- [10] Name this school of painting, which often emphasized unnaturally elongated body parts, such as those shown in the paintings of Bronzino or Parmigianino [parm-uh-JOHN-ee-no].

ANSWER: Mannerism [or Mannerist]

[10] This Mannerist painter loved painting tall, elongated figures in his religious epics like *The Burial of the Count of Orgaz*. This Spanish painter was born on Crete.

ANSWER: El Greco [or Domenikos Theotokopoulos]

[10] This Mannerist painting by Tintoretto presents a very bright halo around Jesus in an otherwise dark room. Ghostly angels fly above the central scene of this painting, which unusually has a diagonal vantage point.

ANSWER: The Last Supper

- 13. This organization met in the Round Table talks with the Soviet government in 1980. For 10 points each:
- [10] Name this trade union, the first independent union to be founded in a Soviet bloc country.

ANSWER: Solidarity [or Solidarnosc]

- [10] The USSR's bland response to Solidarity is used as proof of the decline of this Soviet policy. This doctrine, which called for Soviet military force to intervene in Communist countries, justified the invasion of Czechoslovakia. ANSWER: **Brezhnev** Doctrine
- [10] The final nail in the coffin for Communism was the fall of this structure that divided East and West Germany in

ANSWER: **Berlin Wall** [prompt on partial answer]

- 14. Part D of this program, introduced in 2003, covers prescription drugs. For 10 points each:
- [10] Name this entitlement program which constitutes 23 percent of mandatory spending out of the budget. It covers health insurance for the elderly.

ANSWER: Medicare

- [10] Both Canada and Australia have health insurance programs called Medicare, but those programs are examples of this system, in which the government covers all health care expenses, with no private health insurance companies. ANSWER: single-payer health care
- [10] In April 2015, Congress renewed this program for another two years. It covers part of the cost of health insurance for children in families that are too wealthy to fall under Medicaid's umbrella.

ANSWER: <u>Children's Health Insurance Program</u> [or <u>CHIP</u>; or <u>State Children's Health Insurance Program</u>; or <u>SCHIP</u>]

- 15. Name some ways you could determine the molar mass of a compound, for 10 points each:
- [10] A common method is to dissolve the compound in water, then measure how much this quantity for the water decreases. The amount that this quantity decreases is proportional to the molality of the solution.

ANSWER: **freezing point** [or **melting point**]

[10] For a gas, you can calculate the molar mass by using a pneumatic trough and applying this chemist's law of partial pressures. This man invented atomic theory, and the unit of atomic mass is named for him.

ANSWER: John **Dalton**

[10] Or, if you don't live in the nineteenth century, you can throw your sample into one of these devices, and pick out the rightmost peak on the spectrum. These devices fire electrons at a sample, causing it to ionize and fragment. ANSWER: **mass spectrometers** [or **mass spec** trometry; or **MS**]

- 16. One of these events happens immediately after Zeus and Hermes have dinner with Baucis and Philemon. For 10 points each:
- [10] Name these events. Three of them in Greek myth are named for Ogyges, Deucalion, and Dardanus respectively. ANSWER: **flood**s
- [10] Descendants of Dardanus eventually founded this city. The namesake founder of this city was given a pair of magical horses by Zeus in exchange for his son Ganymede.

ANSWER: Troy [or Tros]

[10] Deucalion was the son of this Titan, who enraged Zeus by showing man how to make fire. This Titan is the classic example of why you should never let an eagle anywhere near your liver.

ANSWER: Prometheus

17. Note to moderator: do not reveal the alternate answer-line to the first bonus part.

Soloist John Kirkpatrick performed this piece from memory at its premiere. For 10 points each:

[10] Name this solo work for piano which extensively quotes Beethoven's *Hammerklavier Sonata*. This piece also quotes hymn-tunes like "Missionary Child" and the Scottish folksong "Loch Lomond."

ANSWER: the *Concord Sonata* [or Charles **Ives' Piano Sonata** no. **2**; accept word forms]

[10] The *Concord Sonata* was written by this American composer, who quoted Stephen Foster's "Camptown Races" in his second symphony.

ANSWER: Charles Ives

[10] Part of Ives' first piano sonata is based on a recital piece for this instrument, for which he wrote the *Variations on "America"*. Bach's *Toccata and Fugue in D minor* is for this instrument, which is commonly used in churches.

ANSWER: pipe organ

- 18. This event released a "Declaration of Sentiments". For 10 points each:
- [10] Name this 1848 gathering in New York partly organized by Susan B. Anthony, the first major women's rights convention.

ANSWER: Seneca Falls Convention

[10] This feminist and co-leader of the Seneca Falls Convention authored the "Declaration of Sentiments." She also wrote *The Women's Bible* and a *History of Women's Suffrage*.

ANSWER: Elizabeth Cady Stanton

[10] The Seneca Falls Convention sought to change this family dynamic, which followed the idea of "separate spheres." This three-word phrase referred to the idea that women should unite in being pious, pure and submissive. ANSWER: the "cult of domesticity" [or the "cult of true womanhood"]

- 19. Answer the following about paralyzingly-boring fictional speeches that go on for pages and pages, for 10 points each:
- [10] John Galt gives a sleep-inducing speech for seventy pages in this Objectivist author's novel *Atlas Shrugged*. She also wrote *Anthem*.

ANSWER: Ayn **Rand** [or Alisa Zinov'yevna **Rosenbaum**]

[10] Somehow, Julian West manages to stay awake during a dreadfully long, insulting sermon in this novella, which describes a Utopian Communist society that Julian visits. Spoiler alert: the entire novel was *all a dream*.

ANSWER: Looking Backward: 2000 to 1887

[10] This novel ends with a painfully long speech in eight enormous run-on sentences, finally mercifully coming to an end with the phrase "yes I said yes I will Yes." That section is often called Molly Bloom's soliloquy.

ANSWER: Ulysses

- 20. Name some consequences and/or non-consequences of the Pauli exclusion principle, for 10 points each:
- [10] The principle explains why two electrons in the same orbital must have opposite values of this quantity, which is either plus one-half or negative one-half for electrons. It's a quantum analogue of angular momentum.

ANSWER: spin

[10] The exclusion principle explains the electron degeneracy pressure that supports these dense stars against gravitational collapse. They form as the remnants of main sequence stars that do not turn into neutron stars.

ANSWER: white dwarfs

[10] The principle does *not* apply to these systems, which are boson gases in which most of the particles belong to the same lowest-energy quantum state.

ANSWER: **Bose-Einstein condensate**s [or **BE-condensate**s; prompt on partial answer]