Bulldog High School Academic Tournament 2016 (XXV): "Pencil and paper ready…"
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Packet 2 Tossups

1. **In a preface, this poet claimed that "your very flesh shall be a great poem" if you "love the earth and the sun and the animals." He compared his soul standing "in measureless oceans of space" to a creature that "launch'd forth filament, filament, filament out of itself." This poet mourned "with ever-returning spring" a "great (*)** star" that "early drooped." He wrote that "our fearful trip is done" and mourned a man "fallen cold and dead" in a memorial for Abraham Lincoln. For 10 points, name this American poet who collected "A Noiseless Patient Spider," "When Lilacs Last in the Dooryard Bloom'd," and "O Captain! My Captain!" in *Leaves of Grass*.
ANSWER: Walt **Whitman** [Walter Whitman] <CW/JR>

2. **A war named for William Kieft was started after one of these events. One of these events inspired Mochi to become a warrior. James Forsyth was removed from command after one of these events occurred at Pine Ridge. Another of these events was led by John Mason and took place near the (*)** Mystic River during the Pequot War. John Chivington carried out one at Sand Creek. Spotted Elk, the leader of the Ghost Dance movement, died during one of these events at Wounded Knee. For 10 points, name these events typically perpetrated by U.S. soldiers, in which large numbers of Native Americans were killed.
ANSWER: **massacre**s of Native Americans <AF>

3. **A process for which this condition holds at all times is termed a quasistatic process. In thermodynamics, state functions are only defined in systems with this property. Under the IAU definition, if a body is subjected to gravitational and pressure gradient forces, then it must attain the hydrostatic type of this condition to be a planet. The (*)** thermal type of this condition holds transitively, according to the zeroth law of thermodynamics. This condition arises at an extremum of potential energy, with maxima and minima corresponding to its stable and unstable types, respectively. For 10 points, name this motionless condition in which all the forces on an object sum to zero.
ANSWER: mechanical **equilibrium** <SE>

4. **Daniel Bernoulli's resolution to the St. Petersburg Paradox involved introducing this quantity, and exponential models of this concept assume risk is constant. Kahneman and Tversky developed prospect theory to improve on theories based on the (*)** "expected" form of this concept. This quantity is constant along an indifference curve, since individuals display no preference between two goods. Rational choice theory assumes that consumers want to maximize this quantity. For 10 points, name this quantity, which measures an individual's satisfaction.
ANSWER: **utility** <AF>

5. **A 1913 artwork of this kind was titled for the Trans-Siberian express and was a collaboration between Sonia Delaunay and Blaise Cendrars. In 1964, Yoko Ono created one of them called *Grapefruit*. Near the end of his life, Henri Matisse produced one of these artworks called *Jazz*. An early one of these artworks was mostly produced by the Limbourg Brothers and named for the Duc de (*)** Berry. A famous one of them was produced by the Abbey of Kells. They often contained "rubrics" and were made of vellum. In the Middle Ages, miniature painters "illuminated" these objects. For 10 points, what kind of objects often contain illustrated Bibles?
ANSWER: **book**s [accept illuminated **manuscript**s; accept **codices** or **codex**] <JR>

6. **One of these figures gave birth to three children in the Iron Wood, including a goddess whose skin is half blue and half flesh-colored. Another of these figures bet that his horse, Gullfaxi, could outrun Sleipnir. One of these beings turned into an eagle to pursue Loki, but he was killed after his feathers caught fire and he fell. That individual, Thiazi, carried off (*)** Idunn. One of these beings, Thrym, demanded Freyja as his bride in return for returning the stolen Mjolnir. Beings of this type from Muspelheim will break Bifrost to set off Ragnarok. Ymir is one of these beings. For 10 points, name these beings who dwell in Jotunnheim that are very large.
ANSWER: **giant**s [or **jotun**n; accept more specific varieties] <CX>

7. **A war between these two nations ended with the destruction of one side's Sixth Army at the Battle of Khalkhin Gol. The U.K. almost entered a war between these two countries after the Dogger Bank incident. These two nations are currently disputing the Kuril Islands. A war between these two countries began after a surprise attack on ships like the *Pallada* in Port (*)** Arthur, and ended with them sharing control of Sakhalin Island. That war between these two countries ended after Teddy Roosevelt negotiated the Treaty of Portsmouth, after the lopsided Battle of Tsushima Straits. For 10 points, name these two nations that fought while being led by the Meiji Emperor and Tsar Nicholas II.
ANSWER: **Japan** and **Russia** [accept in either order; accept **Russo-Japanese** War; Accept **Nihon** or **Nippon** instead of **Japan**; before the words "Dogger Bank" are read, accept **U.S.S.R., Soviet Union, Union of Soviet Socialist Republics**, or **C.C.C.P.** instead of "**Russia**"] <AF>

8. **One of these locations inspired the recurring line "black milk of daybreak" in a "Fugue" poem by Paul Celan ("suh-LAHN"). In a novel, the Brooklyn novelist Stingo is told about one of these places by Nathan's lover. Another novel set in one of these locations includes a paragraph where each sentence begins (*)** "Never shall I forget." One of these places was the setting of *The Truce* and *If This Is a Man* by Primo Levi. A description of one of these places occupies the second part of Art Spiegelman's *Maus*, as well as the bulk of William Styron's *Sophie's Choice*. For 10 points, Elie Wiesel's *Night* is set at what kind of location in Auschwitz?
ANSWER: **concentration camp**s [or **death camp**s; or **extermination camp**s; or **Konzentrationslager**; accept **Auschwitz**, **Birkenau**, and **Buchenwald**; prompt on just "camps"] <JR>

9. **One of these locations was extensively photographed by Hans Namuth. In the center of a painting of this kind of location, a white cat plays with a pile of clothing, while a young boy looks up at the central figure. In another of these locations, many films were shot featuring so-called "superstars," who were, according to the owner of that one of these locations, given (*)** "fifteen minutes of fame." A painting titled for one of these places depicts Proudhon and Baudelaire looking at an unfinished landscape. One of these locations named The Factory was owned by Andy Warhol. For 10 points, name these places dedicated to working on pieces of art.
ANSWER: **studio**s [accept *In the **Studio***, *The **Artist's Studio***, or *The **Painter's Studio***] <AF>

10. **Reacting this compound with alkenes or alkynes will break the carbon-carbon bond through a "one-three dipolar cycloaddition" mechanism first described by Rudolf Criegee. That reaction explains why this compound causes cracking in rubber. It's not sulfur dioxide, but the concentration of this compound can be measured in (*)** Dobson units. The formation of a chlorine atom via UV light leads to the depletion of this molecule; due to that reaction, CFCs are banned under the Montréal protocol. For 10 points, give this triatomic form of oxygen that forms a protective layer in the atmosphere
ANSWER: **ozone** [accept **O3**; accept **ozonolysis**; do not accept or prompt on "O2" or "oxygen"] <AF>

11. **In one of this author's plays, a character declares, "you will only be everybody's servant instead of somebody's servant" to Nicola, who dreams of opening a shop in Sofia. In that play by this author, Raina elopes with her "Chocolate Cream Soldier," Captain Bluntschli. In his most famous play, Clara declares, "I find the new small (*)** talk delightful and quite innocent," and another character attempts to call a cab near Covent Garden. That play is about the attempts of phonetics professor Henry Higgins to change the cockney accent of Eliza Doolittle. For 10 points, name this British author of *Arms and the Man* and *Pygmalion*.
ANSWER: George Bernard **Shaw** <LL>

12. **This country had a major defeat at Kunersdorf, but was saved a few years later by the death of Empress Elizabeth. This country relinquished control of Saxony in the Treaty of Hubertusburg. A ruler of this nation was famed for tactical victories like Leuthen and Mollwitz, and broke the Pragmatic Sanction by invading Silesia. This country became famous for its (*)** militarism during the reign of its "Great Elector." This country grew from territories in Brandenburg. It switched allegiances from France to Britain in the Diplomatic Revolution. For 10 points, name this nation led by Frederick the Great, the precursor to modern Germany.
ANSWER: Kingdom of **Prussia** [or Königreich **Preussen**] <JR>

13. **A really fast, dissonant, D-minor piece in this genre, which imitates guitars with a lot of difficult repeated notes in the right hand, has been *nicknamed* "toccata." Thirty of these pieces published as "*Essercizii*" ("eh-sehr-CHEE-tzee") form the first thirty entries in the Kirkpatrick catalogue. Many Baroque composers wrote pieces for two violins and bass called "Trio [this]." This genre gives its name to a form with an (*)** exposition, development, and recapitulation. Domenico Scarlatti wrote 555 harpsichord pieces in this genre. A Mozart piece in this genre ends with a "rondo alla turca." For 10 points, name this instrumental genre which Beethoven used in pieces nicknamed "Waldstein" and "Moonlight."
ANSWER: **sonata**s [accept more specific kinds of sonata, like **piano sonata**s or "**Moonlight Sonata**"] <JR>

14. **A first-person account of this man's reign, the *Res Gestae*, is inscribed on a temple in Ancyra. This man exiled his daughter by Scribonia to Pandateria, and he was the dedicatee of the *Architecture* of Vitruvius. This man called out to Quinctilius Varus to "give back my legions!" after the latter's defeat at the Battle of the (*)** Teutoburg Forest. This friend of Agrippa survived his young nephew, Marcellus, and was succeeded by Tiberius. He gained power after expelling Lepidus from the Second Triumvirate and winning the Battle of Actium over Marc Antony. For 10 points, name this first emperor of Rome.
ANSWER: **Augustus** [or **Octavian**; full names: Imperator Caesar Divi Filius Augustus, and Gaius Julius Caesar Octavianus] <CW>

15. **A novel material of this color is made of vertically aligned nanotubes and is known as "vanta"-*this color*. Every path from a node to its leaves has the same number of nodes of *this color* in a type of tree named for it and an alphabetically-*later* color. This color names an object that emits radiative power proportional to the fourth power of (*)** temperature, according to the Stefan–Boltzmann law. This type of "body" absorbs incident radiation of all frequencies. In computer science, a device whose internal workings are unknown is called a "box" of this color. For 10 points, identify this color corresponding to the absence of light.
ANSWER: **black** [accept **vantablack**, **red-black** trees, **black body**, or **black box**] <SE>

16. **In one song, this artist sings "There is so much space between us. Maybe we're already defeated." In another song, this singer tells you "my heart is a valley. It's so shallow and man-made." In a song from the same album, this artist sings "I wanted you to be my keeper, but not if you were so reckless" and (*)** "Let me photograph you in this light in case it is the last time that we might be exactly like we were." In another recent song, she sings "It's so typical of me to talk about myself. I'm sorry" and "It's me...I was wondering if after all these years you'd like to meet." For 10 points, name this singer, who featured the tracks "When We Were Young" and "Hello" on her 2015 album *25*.
ANSWER: **Adele** (Laurie Blue Adkins) <BS>

17. **This man delivers the message "Turn! Turn from your evil ways! Why will you die, house of Israel?" This man is repeatedly addressed as "son of man." This man baked his bread on human feces while he lay on his side for four hundred and thirty days. In his namesake book, he describes the destruction of (*)** Gog and Magog. He saw the faces of a man, lion, eagle, and an ox next to "wheels within wheels" on God's chariot. This major prophet was a contemporary of Jeremiah, whose books precede his. For 10 points, name this visionary Biblical prophet who saw a "valley of dry bones."
ANSWER: **Ezekiel** [or **Y'khez'kel**] <MK>

18. **When asked to describe himself, this man said he was "a person who is not looking for problems in any way. Any way." He earlier said that he had "a fleet of submarines, airplanes, trucks and boats" before his interviewer described a fart in hilariously excessive detail. That interviewer had earlier met up with Kate Del Castillo, to whom he had earlier sent flowers after a tweet saying she trusted *this* man more than the government of (*)** Enrique Peña Nieto. This man used a mini-motorcycle to escape Federal Social Readaptation Center No. 1 in July 2015. Sean Penn met—for 10 points—what Mexican drug kingpin, who headed the Sinaloa Cartel?
ANSWER: El **Chapo** [or Joaquín Archivaldo **Guzmán** Loera; accept **Shorty Guzman**] <IKD>

19. **These cells can fail to mature as a result of atrophic gastritis. These cells proliferate in polycythemia, and they are created from reticulocytes. Formation of these cells is inhibited by low amounts of vitamins B9 and B12. These cells are affected by the E-6-V mutation of glutamic acid to valine. Breakdown of them creates (*)** biliverdin and bilirubin. These cells catalyze the production of a carbonic-acid buffer. These cells unusually lack nuclei. They are produced via erythropoiesis in the bone marrow and are afflicted in sickle-cell anemia. For 10 points, name these hemoglobin-containing cells that transport oxygen through the circulatory system.
ANSWER: **red blood** cells [or **erythrocyte**s; prompt on just "blood cells"] <JR>

20. **Although they do not know this language, Daniel Ladinsky and Coleman Barks are best-known as "interpreters" of its poetry. Poetry in this language inspired Goethe's last major collection. A poem in this language claims that "all thy tears" cannot "wash out a word" of what "the Moving Finger writes." A quatrain in this language ends "Oh, (*)** wilderness were paradise enough!" A poetry collection in this language was translated by Edward FitzGerald and includes the line "A jug of wine, a loaf of bread—and thou." Poets in this language included Hafez and Rumi. For 10 points, name this language used by Omar Khayyam to write the *Rubaiyyat*.
ANSWER: Classical **Persian** [or **Farsi**] <JR>

21. **One of this author's poems describes a "blameless" character who is "decent not to fail in offices of tenderness" and "centered in the sphere of common duties." The speaker of that poem by this author is "part of all that I have met," has "become a name," and will "drink life to the lees"; that speaker promises "to (*)** strive, to seek, to find, and not to yield," and leaves his "sceptre and…isle" to his son Telemachus. In another of this author's poems, there was no choice "but to do or die" for the "six hundred" who rode "into the valley of Death." For 10 points, name this nineteenth-century English poet, who wrote "Ulysses" and "The Charge of the Light Brigade."

ANSWER: Alfred, Lord **Tennyson** <JR>

Packet 2 Bonuses

1. A statue of this goddess made for Cnidus is also known as "[this goddess] *pudica*." For 10 points each:
[10] Name this Greco-Roman goddess. The Louvre is home to a statue of her from Milos or "de Milo."
ANSWER: **Aphrodite** [accept **Venus**]
[10] The Venus de Milo was once attributed to this ancient Greek sculptor, who created the now-lost original of the Aphrodite of Cnidus. He most likely sculpted *Hermes and the Infant Dionysus*.
ANSWER: **Praxiteles**
[10] Praxiteles also created a famous sculpture of this figure slaying a lizard, or *[This Figure] Sauroktonos*. Another Greek statue of this figure is usually named for Mantua.
ANSWER: **Apollo** [or **Apollon**; accept ***Apollo Sauroktonos***; accept ***Apollo of Mantua***] <JR>

2.You're sitting in a café in early twentieth-century Boston. Answer some questions about possible discussion topics, for 10 points each.
[10] Your leftist friend is drinking his coffee and mourning the execution of these *two* Italian anarchists, whose trial spanned the 1920s. *You* aren't so sad, since you think they were shady immigrants who had it coming to them.
ANSWER: Nicola **Sacco** and Bartolomeo **Vanzetti** [accept in either order]
[10] It's 1927 and this man is President, having succeeded Warren G. Harding. You toast him while your friend glares at you, since he's still mad at this man for firing Boston police officers during the Police Strike of 1919.
ANSWER: (John) Calvin **Coolidge** Jr.
[10] A wind blows through the café and you smell a hint of this substance, probably left over from a 1919 disaster when a tank of this substance burst in Boston, killing 21 people.
ANSWER: **molasses** <IKD>

3. This author depicted the spiritual awakening of Emil Sinclair in the novel *Demian*. For 10 points each:
[10] Name this twentieth-century German-language author of *Steppenwolf*, whose interest in Eastern thought led him to write about Buddhism in *Siddhartha*.
ANSWER: Hermann (Karl) **Hesse**
[10] Hesse stopped writing novels after *this* book about the "Magister Ludi" Joseph Knecht. In this novel, many students at Waldzell try to master the title activity, which involves synthesizing practically all of human scholarship.
ANSWER: *The **Glass Bead Game*** [or *Das **Glasperlenspiel***]
[10] Joseph Knecht is brought to Waldzell by *this* kind of person. The Thomas Mann protagonist Adrian Leverkühn has this profession.
ANSWER: **musician** [accept **music master**, **composer**, or **violinist**; prompt on "teacher"] <JR>

4. Generations of Greek and Roman heroes who sought entrance to the Underworld had to deal with this creature if they were still alive. For 10 points each:
[10] Name this three-headed dog, which Heracles carried off to Argos in his last labor.
ANSWER: **Cerberus**
[10] This woman passed Cerberus by feeding him a cake. Although she successfully acquired a box of Proserpina's beauty, per Venus's instructions, this woman is thrown into a dark sleep after she opens the box.
ANSWER: **Psyche**
[10] Psyche was aided in one of her tasks by these creatures, who separated a mixture of grains into distinct piles. In another tale, these insects were transformed into men to repopulate the island Aegina and became the Myrmidons.
ANSWER: **ant**s <CX>

5. Structures predicted by this model include trigonal planar and seesaw. For 10 points each:
[10] Name this theory that assigns molecular geometries based on the number of bonds and lone pairs surrounding the central atom of a simple molecule.
ANSWER: **VSEPR** ("vesper") theory [accept **valence-shell electron-pair repulsion** theory or **Gillespie-Nyholm** theory]
[10] VSEPR theory assigns structures based on Lewis diagrams, which use *these* symbols to depict electrons. In a Lewis structure, two of these symbols indicates a lone pair.
ANSWER: **dot**s
[10] According to VSEPR theory, *this* molecular geometry occurs in compounds where the central atom has four bonds and two lone pairs. Molecules with this geometry include xenon tetrafluoride.
ANSWER: **square planar** <CX>

6. This man was attacked for introducing the concept of "remanence." For 10 points each:
[10] Name this man who advocated disendowing the church, since it was in a state of sin. He was supported by John of Gaunt.
ANSWER: John **Wyclif**
[10] Wyclif's radical attacks on Catholic dogma are usually seen as presaging this event, in which Martin Luther and other theologians broke from the Catholic Church.
ANSWER: the Protestant **Reformation**
[10] Wyclif advocated the dissolution of these institutions, which was carried out by Henry VIII in the 1530s.
ANSWER: **monasteries** [accept **priories**, **convents**, or **friaries**] <JR>

7. The first act of this play is set in a Chinese Restaurant, and in Scene Three, a monologue is delivered to James Lingk. For 10 points each:
[10] Name this play in which Shelly Levene is arrested by Baylen and a purchase by the Nyborgs falls through.
ANSWER: *Glengarry Glen Ross*
[10] *Glengarry Glen Ross* was written by this American playwright. He also wrote *Race*, *Oleanna*, and *American Buffalo*.
ANSWER: David (Alan) **Mamet**
[10] *Glengarry Glen Ross* features people with this general profession. A 1949 Arthur Miller play is titled for the "Death" of one of these people.
ANSWER: **salesman** [accept *Death of a Salesman*; accept any reasonable equivalents involving **selling** things, like **salespeople**; accept more specific answers like "**real estate agents**"] <LL>

8. Let's see how much you know about everyone's favorite place—the Arctic. For 10 points each:
[10] First name this eighteen-island archipelago, which is known for its salmon fishing. It has been a self-governing country within Denmark since 1948, with capital at Tórshavn.
ANSWER: **Faroe** Islands [or **Føroyar**; or **Færøerne**]
[10] This other Arctic territory may gain independence in 2021, the three-hundredth anniversary of Danish rule. Kim Kielsen governs this largest island in the world from its capital of Nuuk.
ANSWER: **Greenland** [accept **Kalaallit Nunaat** or **Grønland**]
[10] This sea route links the Atlantic and Pacific Oceans through the Canadian Arctic Archipelago. Roald Amundsen first navigated this waterway in 1905 and '06.
ANSWER: Canadian **Northwest Passage**s <MK>

9. Answer some questions about gene sequencing, for 10 points each.
[10] This sequencing project, which ran from 1990 to 2003, was the largest single biological research project of all time. It completely sequenced the DNA of *Homo sapiens*, i.e. people.
ANSWER: the **Human Genome Project** [or **HGP**]
[10] Genes are sequenced by determining the order of *these* entities. They consist of a nitrogenous base, a five-carbon sugar, and one or more phosphates.
ANSWER: **nucleotide**s
[10] Students and researchers often use *this* algorithm to search known genomes for a given sequence. It was developed by the NCBI.
ANSWER: **BLAST** [**Basic Local Alignment Search Tools**] <JR>

10. Marcel Breuer designed two of these objects named "Cantilever" and "Wassily." For 10 points each:
[10] Name these objects. Charles and Ray Eames designed a ubiquitous example.
ANSWER: **chair**s [accept more specific kinds of chair like "**office chair**s" or "**lounge chair**s"]
[10] Marcel Breuer designed those chairs for this German art school of the early twentieth century. Its directors included Walter Gropius and Ludwig Mies van der Rohe.
ANSWER: Staatliches **Bauhaus** ("BOW-house")
[10] The Bauhaus also revolutionized typography by emphasizing the sans serif variety of these letter designs. Their size is measured in "points."
ANSWER: **font**s [accept **typeface**s; prompt on "type"] <JR>

11. In this city, one young "gallant" is given a stolen gold coin by another. For 10 points each:
[10] Name this city, in which a young boy fixates on Mangan's sister until a disillusioning trip to Araby market. Gabriel and Gretta Conroy attend a party in this city in the story "The Dead."
ANSWER: **Dublin** [accept ***Dubliners**]
[10] The first story in *Dubliners*, "The Sisters," centers on one of these men named Flynn. In *A Portrait of the Artist as a Young Man*, Stephen Dedalus goes to school with the help of one of these people named Conmee.
ANSWER: **priest**s [prompt on "father"]
[10] *Dubliners* and *A Portrait of the Artist as a Young Man* were both written by this twentieth-century novelist. He included lengthy stream-of-consciousness passages in his novel *Ulysses*.
ANSWER: James (Augustine Aloysius) **Joyce** <JR>

12. Answer the following about finding the roots of a polynomial equation, for 10 points each.
[10] The roots are the values of x at which the polynomial "f of x" evaluates to *this* number.
ANSWER: **zero**
[10] The fundamental theorem of algebra asserts that a polynomial of degree n has at least one solution over *this* field of numbers. Counting multiple roots, that polynomial in fact has a complete set of n roots in this field.
ANSWER: **complex** numbers
[10] If a polynomial has real coefficients and a complex root, then applying this operation to that root always gives another root. For a complex number "a plus b-i," this operation gives the number "a minus b-i."
ANSWER: complex **conjugate** <SE>

13. This man placed the ornate Koh-i-noor diamond in his Peacock Throne. For 10 points each:
[10] Name this Mughal emperor who built the Red Fort. The death of his wife Mumtaz Mahal sent him into a period of deep grief.
ANSWER: (Shahabuddin Muhammad) **Shah Jahan** [accept Prince **Khurram**]
[10] Shah Jahan built this mausoleum in Agra for his wife, Mumtaz. This complex includes a mosque made of white marble, with a reflecting pool and garden in front of it.
ANSWER: **Taj Mahal**
[10] Shah Jahan was succeeded by this emperor, who pushed the Mughal Empire to its greatest extent. He abandoned the Mughal policy of religious toleration and executed his brother Murad Baksh.
ANSWER: (Abul Muzaffar Muhi-ud-Din Muhammad) **Aurangzeb** [Accept **Alamgir**] <LL>

14. This man recently came back to WWE while filming *Ballers* in order to be sexist and make fun of the New Day. For 10 points each:
[10] Name this action movie star whose catchphrases included "Finally!" "Know your role and shut your mouth" and "Can you smell what [this man] is cooking?" He starred in *The Scorpion King* and *San Andreas*.
ANSWER: Dwayne "**The Rock**" **Johnson** [accept either underlined part]
[10] The Rock was famously cruel to Kevin Kelly, one of these people, saying "It doesn't matter what you think!" Tom Phillips and Renee Young currently serve as these people, and Mene Gene Okerlund is the most famous one.
ANSWER: Backstage **Interviewer**
[10] This man would shout in a rage "Listen here, MEEEEN GEEENE" and ask if "you know something, brother." He led a namesake "mania," is currently suing Gawker, and was recently recorded saying racist slurs.
ANSWER: **Hulk** **Hogan** [accept Terry Gene **Bollea**, **Hollywood Hogan**, **Hogan**] <IKD>

15. Answer some questions about Chopin's piano technique, for 10 points each.
[10] Chopin's first and last études both focus on *this* skill. The much easier first prelude in *The Well-Tempered Clavier* is played entirely with this technique, and was almost certainly the inspiration for Chopin's first étude.
ANSWER: playing **arpeggio**s [or **arpeggii**; accept "**arpeggiation**"; prompt on "broken chords"]
[10] Chopin's piano sound innovatively relied on using these mechanical devices to alter the sound and resonance of the piano. The modern piano has three of these devices, which are manipulated by the pianist's feet.
ANSWER: **pedal**s
[10] Chopin was famous for his ability to play "singing" lines, which meant using *this* kind of articulation. This articulation is applied to all notes under a slur.
ANSWER: *legato* <JR>

16. One character created by this author wrote *The House on Eccles Street*, a retelling of *Ulysses* from Molly Bloom's perspective. For 10 points each:
[10] Identify this South African author of *Elizabeth Costello*. He also wrote of the Magistrate's torture at the hands of Colonel Joll in *Waiting for the Barbarians*.
ANSWER: J.M. **Coetzee** [John Maxwell Coetzee]
[10] Coetzee himself retold this Daniel Defoe novel from a female perspective in his novel *Foe*. In its original form, this novel's title castaway rescues and "civilizes" the cannibal Friday while living on an island.
ANSWER: *Robinson Crusoe*
[10] This woman describes her experiences on the island with Cruso and Friday to the author Daniel Foe in Coetzee's *Foe*. She comes to the island as a castaway while searching for her abducted daughter.
ANSWER: **Susan** **Barton** [accept either name] <GL>

17. Identify the following facts that might be useful when working with the spin of a particle, for 10 points each.
[10] Spin exists in discrete values and can thus only be understood in the framework of this twentieth-century branch of physics. This field is best-known for its probabilistic predictions about reality, "exemplified" by Schrödinger's cat.
ANSWER: **quantum** physics [or **quantum** mechanics]
[10] Spin is a quantity of *this* type, meaning that it has separate components in the x, y, and z directions. These quantities are contrasted with scalars.
ANSWER: **vector**s
[10] A particle with total spin of "h-bar times L" has *this* many allowed values for its magnetic quantum number, m. Give your answer in terms of the azimuthal quantum number, L.
ANSWER: $2L + 1$ <SE>

18. A famous English translation of and commentary on this text was titled *[this text] as It Is*. For 10 points each:
[10] Name this section of an epic poem, a dialogue in which a charioteer counsels an archer during the Kurukshetra War.
ANSWER: *Bhagavad **Gita*** [prompt on "*Mahabharata*"]
[10]The *Bhagavad Gita*, like the rest of the *Mahabharata* and other Hindu scriptures was written in this ancient Indian language.
ANSWER: **Sanskrit**
[10] The *Bhagavad Gita* is found in a section of the *Mahabharata* named for this first commander of the Kaurava forces. This warrior unwillingly vowed an oath of celibacy, and was allowed to choose when he wanted to die.
ANSWER: **Bhishma** <JR>

19. Answer some questions about Simone de Beauvoir's *The Second Sex*, for 10 points each.
[10] *The Second Sex* was a landmark in *this* philosophical and social movement, which attempts to establish equal rights for women.
ANSWER: (second-wave) **feminism**
[10] In *The Second Sex*, de Beauvoir claims that the male gaze turns women into *this* philosophical construct, as opposed to the Self. The philosophical use of this term was promoted by Emmanuel Lévinas.
ANSWER: the **Other** [or l'**Autre**]
[10] De Beauvoir also claimed that the man-woman relationship approaches the "master-slave" dialectic, which was developed by this earlier philosopher. This German Idealist wrote *Phenomenology of Spirit*.
ANSWER: Georg Wilhelm Friedrich **Hegel** <JR>

20. Years at this institution are called "promotions." For 10 points each:
[10] Name this Bruges-based postgraduate institution that specializes in international law and political science.
ANSWER: the **College of Europe** [or **Collège d'Europe**]
[10] Two promotions at the College of Europe were named after Jean Monnet and Robert Schuman, founders of this organization. This organization was a common market in Western Europe for its namesake two commodities.
ANSWER: **European Coal and Steel Community** [or **ECSC**]
[10] The European Coal and Steel Community helped pave the way for *this* common currency of Europe. This currency replaced the franc, lira, and mark in 2002.
ANSWER: the **Euro** [or **EUR**] <JR>

21. If the critical temperature of a liquid is known, this value for that liquid can be predicted by the Eötvös ("URT-vursh") rule. For 10 points each:

[10] Name this cohesive property exhibited at the boundary of many liquids. This property causes the formation of droplets and allows water striders to walk on water.

ANSWER: **surface tension**

[10] A common chemistry demonstration shows surface tension holding together a "beating heart" of this element. This element is liquid at room temperature and exhibits an unusual, convex meniscus.

ANSWER: **mercury** [or **Hg**]

[10] Surface tension is traditionally measured in CGS units rather than the more common SI system. Thus, values for surface tension are often reported in terms of *this* CGS unit of force, per centimeter.

ANSWER: **dyne**s <SE>