## **Prison Bowl VII**

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## **Round 09 – Tossups**

- 1. One of these molecules is synthesized by the addition of two phenols to an acid anhydride that is produced using a vanadium catalyst. A similar one has the highest known value of Kreft's index and is used in gel electrophoresis. They include many triarylmethane dyes, including one whose several forms have an isosbestic point at around 515 nanometers, as well as anthocyanins. A "universal" one is typically a mix of many of them with different transition ranges. Cresol purple is the precursor to another one, bromocresol green. For 10 points, name these compounds that change color depending on the pH of a solution, including phenolphthalein and litmus.

  ANSWER: pH indicator [prompt on dye before "universal"] <SH>
- 2. This language often features tense-lax neutralization before intervocalic r. The diaeresis mark is increasingly being replaced with hyphens or dropped entirely for non-loanwords in this language, which marks unusually stressed past-tense suffixes with a grave diacritic in poetry. It formerly included the ligatures ethel and ash, and the letter thorn. The Chancery Standard developed during the 15th century for use by royal clerks, and it borrowed many French words and structures after the Norman conquest. It is subject to the caught-cot merger. For 10 points, name this language commonly spoken in the Bahamas, Australia, and the United States.

  ANSWER: English <SH>
- 3. This poem uses the Petrarchan sonnet form in a nontraditional ababa cdcdc efef rhyme scheme. A figure in this poem who "stamped on these lifeless things... passions read" is referenced as "the hand that mocked them and the hand that fed". Its final lines depicts its subject "boundless and bare" as "lone and level sands stretch far away". This poem is framed as the story of "a traveler from an antique land" who describes a "half sunk" and "shattered visage" near "two vast and trunkless legs of stone". For 10 points, name this Percy Bysshe Shelley poem about the "colossal wreck" of a "king of kings" who ironically commands, "look on my Works, ye Mighty, and despair!".

  ANSWER: "Ozymandias" < KX/MZ>
- 4. One commander at this battle said, "tell him if it costs 10,000 men he must go now," after one of his generals failed to capture a key objective. Allan Pinkerton fed one general's belief that the attackers were outnumbered by "at least 25%." The attacking commander refused to commit his reserves to this attack on Bloody Lane. This battle began with an attempt by I Corps to seize the Dunker Church against entrenched Confederates, leading to heavy losses on both sides. Known in the South as the Battle of Sharpsburg, it was the bloodiest single-day battle in US history. For 10 points, name this Civil War battle after which Lincoln issued the Emancipation Proclamation. ANSWER: Battle of Antietam [accept Battle of Sharpsburg before mention] <JL/RN>
- 5. In Republic X, Socrates describes an ancient quarrel between philosophy and this field, a counterfeit imitation that spreads false role models. Socrates then concludes that it must be banished from the Republic. The Apollonian and Dionysian aspects of this field are detailed in a work by Nietzsche that describes its birth from the spirit of music. A work on this field describes its use of hamartia, or tragic flaws. Aristotle constructed a hierarchy of its six parts, where mythos and ethos are valued over opsis, or spectacle. That work, *Poetics*, also posits that this form of art purges emotions through catharsis. For 10 points, name this art form performed by actors. ANSWER: drama [or tragedy; accept poetry until "Poetics"; prompt on theater] <MZ>

6. In a story by Jhumpa Lahiri, two characters undertake this action in search of "unaccustomed earth". After marrying her second husband, Suyuan engages in this action, which is retraced when her daughter Jing-Mei finds her half-sisters in *The Joy Luck Club*. A sonnet dedicated to people undertaking this action describes "sea-washed, sunset gates" where the "Mother of Exiles" cries, "Give me your tired, your poor, / your huddled masses yearning to be free". For 10 points, name this journey in which newcomers encounter Emma Lazarus's "The New Colossus", a poem engraved on the base of the Statue of Liberty.

ANSWER: immigrating to America [or immigrating to the United States; prompt on immigrating] <MZ>

- 7. It's not anacardic acid, but this compound enhances the chemopreventive properties of lunasin. Intravenous immunoglobulin and high doses of this drug is the standard course of treatment for Kawasaki disease. This drug irreversibly blocks COX-1 and modifies COX-2, inhibiting the synthesis of prostaglandins and thromboxanes, which bind platelets together. As a result, this salicylic acid derivative is often prescribed long-term in daily 81 milligram doses as a blood thinner. The use of this NSAID by children with viral infections may cause Reye's syndrome. For 10 points, name this drug first synthesized at Bayer and used to counter inflammation, fever, or pain. ANSWER: aspirin [or acetylsalicylic acid before "salicylic acid"] <MZ>
- 8. During the presidency of Julio Turbay, this state saw the M-19 movement seize a Dominican embassy before peacefully returning the hostages for 1 million dollars. This country rejected the United States-proposed Hay-Herrán Treaty, and Gustavos Rojas Pinilla led a coup here. Following the Vargas Swamp Fight, a battle which took place in this country saw the British legion help win the Battle of Boyaca. The assassination of Liberal Party candidate Jorge Gaitan sparked La Violencia in this nation. FARC is active in this country from which Panama seceded in 1903. For 10 points, name this South American country with a capital at Bogota. ANSWER: Colombia <JL>
- 9. This composer's only surviving oratorio, commissioned by the Pietà, is about a Jewish widow who beheads the leader of an Assyrian army. This composer of *Juditha triumphans* wrote a collection of twelve violin concerti later reworked by Bach, his *L'Estro Armonico*. One section of a violin concerto this composer included in his *The Contest Between Harmony and Invention* depicts thunder and lightning while another concerto depicts birds chirping during spring. For 10 points, name this Baroque Venetian composer known as the "Red Priest" who composed *The Four Seasons*.

ANSWER: Antonio Lucio Vivaldi <BM>

10. This man suggested writing a book on the head of a pin by directly manipulating individual atoms in his talk "There's Plenty of Room at the Bottom". His eponymous ratchet violates the second law of thermodynamics. He devised the path integral formulation, which he called a "sum over histories," that helped him with Schwinger and Tomonaga renormalize quantum electrodynamics. Using another formalism named for him, one can illustrate the interactions of charged particles using force-carrying photons. For 10 points, name this American physicist known for his lectures on physics and his namesake diagrams.

ANSWER: Richard Feynman <BM>

- 11. Speaker of the House Champ Clark was initially the Democratic frontrunner of this election, but negotiated votes to the winner. At the Democratic Party convention in this election, many Southerners supported Oscar Underwood, who was later offered a vice-presidential nomination by its winner. John Schrank failed to assassinate one candidate in this election. Louis Brandeis advised the winner, who proposed a "New Freedom" against his opponent's "New Nationalism". The Bull Moose Party was formed by Theodore Roosevelt, in this election where the incumbent, William Taft, finished third. For 10 points, name this US presidential election won by Woodrow Wilson. ANSWER: Election of 1912 <JL>
- 12. One character in this novel can transition from a male to a female by dipping themselves in water. Its protagonist catches his mother cheating on his father by hiding in a car trunk and watching her kiss an apple. A doctor falls in love with his future wife by examining different parts of her through a perforated sheet in this novel. That doctor's grandson, the narrator, loses his memory because of a silver spittoon, and loses his special ability after undergoing sinus surgery. In this novel, the strong-kneed Shiva was switched at birth with the telepathic Saleem Sinai. For 10 points, name this novel about children born with magical powers during India's independence, by Salman Rushdie. ANSWER: *Midnight's Children* <PS>

13. The B-mode polarization of this phenomenon originates from gravitational lensing of E-modes or gravity waves from inflation. The discovery of this phenomenon confirmed the nucleosynthesis model of Alpher, Bethe, and Gamow. It originated during a 300,000-year period called the Dark Ages, and it was discovered by Wilson and Penzias. Seeming to emit from the Surface of Last Scattering, its anisotropy was observed by the COBE ("CO"-"bee"), WMAP ("W"-"map"), and Planck satellites. It appears to echo the Big Bang in a namesake low frequency band. For 10 points, name this ubiquitous 2.7 Kelvin radiation source.

ANSWER: <u>Cosmic Microwave Background</u> Radiation [accept <u>CMB</u>R or <u>CMR</u>; also accept any answer that includes the words <u>cosmic</u> and <u>radiation</u>, and either <u>microwave</u> or <u>background</u>] <ZP>

14. In the first scene of this opera, a female character announces her love for the title character in the aria "If only I were already united with thee." In another scene, prisoners sing the chorus "Farewell, warm sunshine" as they are being returned to their cells. Notable musical works in this opera include the Canon quartet and the Gravedigging Duet. In the final scene of this opera, the title character saves her husband Florestan from being killed by threatening to shoot Don Pizarro. Originally, overtures for this opera were titled Leonore. For 10 points, name this only opera by Ludwig van Beethoven.

ANSWER: *Fidelio* <MH>

- 15. An extreme close-up of the mechanical and violent chopping of a water wheel appears in this film, which ends with the line, "there is nothing to forgive". A crane shot in this film rises to reveal a peaceful Capitol Hill as a man screams for help. No soundtrack plays during a sequence that alternates between a scene of children playing in the background and a shot of toes scrabbling in mud. After that scene, the protagonist of this film is forced to leave Ford's estate. Epps forces its protagonist to beat Patsey, played by Lupita Nyong'o. For 10 points, name this Steve McQueen film starring Chiwetel Ejiofor as Solomon Northup, a free man forced into the peculiar institution. ANSWER: 12 Years a Slave <MZ>
- 16. The first pomegranate tree grew from this deity's blood after he was torn apart as a baby. His followers were imprisoned by King Lycurgus, which prompted this deity to take refuge with Thetis. He made King Lycurgus chop up his own son under the belief that his son was ivy. This god's kidnappers were turned into dolphins after failing to bind him with rope. Hestia gave up her throne on Olympus for this god, whose his mother died when she is tricked into looking upon the full glory of his father. As a result, his father Zeus sews him into his thigh until his birth. For 10 points, name this Greek god of wine and ecstasy.

ANSWER: Dionysus [accept Zagreus; do not accept "Bacchus"] <PS>

- 17. This character warns guests from sleeping in a certain room, and a character who disobeys is visited by the perversely sensual Weird Sisters. When one character cuts himself while shaving, this character is seized by a sudden fury and hurls away "a foul bauble of man's vanity". Renfield worships him in return for flies and rats. In the body of a wolf, this character leaps through a window and frightens a woman to death before attacking Lucy Westenra. This character ultimately dies when his throat is cut and heart is stabbed simultaneously by Quincey Morris and Jonathan Harker. For 10 points, name this character created by Bram Stoker, a Transylvanian vampire. ANSWER: Count **Dracula** <AM>
- 18. Sculptures of these creatures are depicted with up to 13 lumps to represent rank, and rows of them line the Marco Polo Bridge. Twelve of these creatures support an alabaster fountain in a courtyard whose four axes lead to *muqarna* arches; that courtyard is part of the Alhambra. In China, male ones are depicted facing left with a *xiuqiu*, or ball, while female ones are depicted facing right with a cub. Heinrich Schliemann excavated a structure that depicts two of these flanking a pillar in the palace of Mycenae. For 10 points, name these animals whose sculptural depictions often flank entrances to temples and government buildings as guardian animals.

ANSWER: **lion**s [accept *shi* or **fu dogs**] <MZ>

19. During the War of the Spanish Succession, James Francis Stuart attempted this action but was thwarted by Admiral Sir George Byng. After one of these events, Edward II was forced to abdicate and Isabella installed her lover Roger Mortimer as regent. After the initiation of this action at Torbay, James II abdicated in favour of William of Orange. Julius Caesar successfully accomplished this at Kent though land was not gained until its second instance in 43 CE. The most recent attempt at this failed after the RAF maintained air superiority and Hitler cancelled Operation Sea Lion in World War II. For 10 points, name this military action that involves forcibly crossing a certain Channel.

ANSWER: <u>invasion</u>s of <u>England</u> [or <u>invasion</u>s of <u>Great Britain</u>; accept <u>failed</u> or <u>attempted invasions of England</u> before "Edward"; prompt on <u>conflict with England</u>; prompt on <u>war with England</u>] <JL>

20. A major commuter rail system in and around this city is the RER. Its current mayor is Bertrand Delanoe, and it is the only city to host both the Olympics and the World Cup twice. Due to height restrictions, the main core of this city is actually outside the city limits, in the La Defense neighborhood. Leading from that neighborhood through the center of this city is the "Grand Axis," on which is situated a monument to commemorate the Battle of Austerlitz. That structure, the Arc de Triomphe, lies at the western end of the Champs-Elysees. For 10 points, name this capital of France.

ANSWER: Paris <SB>

TB. A system's Hamiltonian differentiated with respect to a generalized version of this quantity is equal to the time derivative of position. It is described in quantum mechanics by *i* times h-bar times the gradient operator, and its Planck unit is equal to h bar over the Planck length, and it is equal to Planck's constant divided by a particle's de Broglie wavelength. Via Noether's theorem, it results from translational invariance of laws of motion. Impulse describes its change in time, and force is its derivative. For 10 points, name this quantity conserved in elastic and inelastic collisions, the product of mass and velocity.

ANSWER: linear momentum [or translational momentum; do not accept "angular momentum"] <SH>

## Round 09 - Bonuses

- 1. Don't bother getting your pencil and paper ready, because these compass and straightedge proofs are impossible. For 10 points each:
- [10] Doubling one of these objects, or constructing the side of one of these with twice the volume of a given one, is impossible because two to the one third power is not constructible.

ANSWER: cubes

[10] Squaring the circle is impossible because the square root of pi is one of these numbers, which, unlike algebraic numbers, are not the roots of a nonzero polynomial with rational coefficients.

ANSWER: transcendental

[10] You can only construct a regular polygon if the number of its sides has a factor of a prime of the form one plus two to the n, named for this mathematician. He also names "little" and "last" theorems.

ANSWER: Pierre de Fermat <SH>

2. Back to basics: let's talk about the scientific method. For 10 points each:

[10] This statement is a proposed explanation for a phenomenon, along with the testable statements it entails.

ANSWER: hypothesis

[10] According to Karl Popper, a hypothesis must also have this property, which makes it disprovable. The statement that the Earth is supported by undetectable turtles all the way down lacks this property.

ANSWER: falsifiability

[10] This principle is used as a rule of thumb in the scientific method. It favors the simplest hypothesis that makes the fewest assumptions.

ANSWER: Occam's razor [or principle of parsimony; or lex parsimoniae] <MZ>

3. This sister of Stella cries, "I don't want realism. I want magic!" For 10 points each:

[10] Name this self-delusional Southern belle in *A Streetcar Named Desire* who desperately tries to find a suitor. She declares that she has "always depended upon the kindness of strangers".

ANSWER: **Blanche DuBois** [accept either]

[10] This American playwright created Blanche's "broken world" in *A Streetcar Named Desire*. He also created Laura Wingfield, whose unicorn is broken by Jim in *The Glass Menagerie*.

ANSWER: Tennessee Williams

[10] A Streetcar Named Desire opens and ends with this sound that "expresses the spirit of the life that goes on" in New Orleans. Opposing polka music, it crescendos when Stanley corners Blanche into the bedroom.

ANSWER: **blue piano** <MZ>

4. [Moderator: Do not reveal the alternate answer to part one.]

This ruler promulgated the Fourteen Rock Edicts, which focus on social conduct, rather than outright religious law or proselytization. For 10 points each:

[10] Name this Indian emperor, whose "wheel of righteousness" appears on the modern Indian flag.

ANSWER: Ashoka the Great [accept but otherwise do not reveal Ashoka Maurya]

[10] Ashoka converted to Buddhism after witnessing the conquest of this region of India, which his ancestor, Chandragupta, failed to conquer.

ANSWER: Kalinga [prompt on Odisha]

[10] Both Ashoka and Chandragupta belong to this Indian dynasty, which rapidly expanded following the retreat of Alexander the Great's armies.

ANSWER: Mauryan Dynasty <ZP>

- 5. The turn of the 20th century saw events marking breakdown of tonality in music. For 10 points, identify some important names during this period.
- [10] This leader of the Second Viennese School wrote the expressionist string sextet *Transfigured Night*. He is known for works such as *Harmonielehre* and his *Violin Concerto*, in which he explored atonality.

ANSWER: Arnold Schoenberg

[10] Schoenberg uses the "Sprechstimme" or "spoken voice" technique for the narrator in this atonal cycle of 21 poems by Albert Giraud, which also features a flute, clarinet, violin, cello, and piano.

ANSWER: *Pierrot Lunaire* [or *Moonstruck Pierrot*]

[10] Although *Pierrot Lunaire* is atonal, it does not employ this system later invented by Schoenberg. This technique includes tone rows that give all pitches equal importance.

ANSWER: **twelve-tone** system [or **dodecaphonic** system] <BM>

6. For 10 points each, answer the following about a solar-powered sea slug, the eastern emerald elysia.

[10] Elysia suck up algae by puncturing cell walls with this anatomical structure. Found in almost all molluscs, it functions like a tongue to scrape or cut food.

ANSWER: radula

[10] After ingesting algae, elysia incorporate these organelles from the algae into its own digestive lining. They are responsible for elysia's green color and allow elysia to survive by photosynthesis.

ANSWER: **chloroplasts** [prompt on **plastids**; do not accept "chlorophyll"]

[10] Photosynthesis-supporting genes were likely transferred from algae to elysia via this kind of gene transfer that does not involve sexual reproduction. Examples include conjugation and transformation.

ANSWER: <u>horizontal</u> gene transfer [or <u>lateral</u> gene transfer; or <u>HGT</u>; or <u>LGT</u>] <MZ>

- 7. Artists often paint fruit baskets to demonstrate their prowess at replicating everyday objects. For 10 fruity points each, name some things about artists who depicted them:
- [10] This artist of *The Card Players* included fruit in many of his still life compositions, such as his *The Basket of Apples*. Another of his still lifes features pears, peaches, and a lemon alongside a skull.

ANSWER: Paul Cezanne

[10] The title figure in this artist's *Boy with a Basket of Fruit* offers both himself and his basket to the viewer. His *The Calling of Saint Matthew* demonstrates his characteristic dramatic chiaroscuro.

ANSWER: Michelangelo Merisi o Amerighi da Caravaggio

[10] This Caravaggio work also features a fruit basket, which teeters on the edge of a table. The resurrected Jesus reveals himself to his disciples over said table and the seat closest to the viewer is left empty to beckon them.

ANSWER: *The Supper at Emmaus* <AT>

- 8. Protests originating in Tunisia against the rule of Ben Ali set this event in motion. For 10 points each:
- [10] Name this wave of demonstrations and protests that led to a change of government in Tunisia, Libya, Egypt, and Yemen.

ANSWER: Arab Spring

[10] Following the Libyan Civil War, an attack by radical Islamist militants on the US embassy in Benghazi led to the death of this US ambassador to Libya as well as subsequent protests against Libyan militia groups.

ANSWER: J. Christopher Stevens

[10] Following the popular coup d'état in Egypt against the Muslim Brotherhood, this Egyptian general was appointed as First Deputy Prime Minister. He garnered controversy with his crackdown on pro-Morsi protesters. ANSWER: Abdel Fattah el-**Sisi** <JL>

9. Mechanical energy is the sum of kinetic energy and this quantity. For 10 points each:

[10] Name this stored type of energy, frequently symbolized U. Its gravitational form equals mass times gravitational acceleration times height.

ANSWER: potential energy

[10] A minimum in the potential energy function describes this state, which will tend to be restored after small perturbations.

ANSWER: **stable equilibrium** [prompt on **equilibrium**]

[10] The negative change in potential energy is equal to the work done by these forces. These forces are path-independent.

ANSWER: **conservative** forces <SH>

10. Answer these questions about Alexander the Great's Middle Eastern conquests, for 10 points each.

[10] At this battle, Alexander surprised his opponents, including Memnon of Rhodes, by crossing a namesake river to attack immediately. Alexander was almost killed at this battle, but was saved by Cleitus the Black.

ANSWER: Battle of the **Granicus** 

[10] Later, Alexander conquered this Phoenician city by ordering the construction of a causeway to assault its island fortress. This city south of Beirut produced lots of purple dye at the time.

ANSWER: **Tyre** 

[10] The Battles of the Granicus and the Siege of Tyre, as well as the Battles of Issus and Gaugamela, were fought against this empire, led by Darius III of its Achaemenid dynasty.

ANSWER: Persian Empire <ZP/RN>

11. This medium was used by Frank Lloyd Wright to illuminate his Unity Chapel, and by Marc Chagall to create the Jerusalem and Peace windows. For 10 points each:

[10] Identify this material that diffuses and colors incoming light. It is commonly used to fill rose windows in cathedrals with representations of religious themes.

ANSWER: stained glass [prompt on glass]

[10] This American interior designer and jeweler emphasized nature in his stained glass lamps and windows. Breaking from traditional flat painted tesserae, he introduced iridescent Favrile glass, plating, and representational cames.

ANSWER: Louis Comfort **Tiffany** 

[10] After a 1195 fire, this double-spired French cathedral was rebuilt in the Gothic style with extensive flying buttresses, which allow for the massive size of its mostly blue stained glass windows.

ANSWER: <u>Chartres</u> Cathedral [or <u>Cathedral</u> of Our Lady of <u>Chartres</u>; or <u>Notre Dame d'Chartres</u>] <MZ>

12. This right is guaranteed in Article 19 of the Universal Declaration of Human Rights. For 10 points each:

[10] Name this right to express opinions and ideas without censorship. Abridging this right is forbidden by the First Amendment.

ANSWER:  $\underline{\text{freedom of speech}}$  [accept rearrangement of words; prompt on  $\underline{\text{freedom of expression}}$  or  $\underline{\text{freedom of the press}}$ ]

[10] During the English Civil War, this Protestant author of *Eikonoklastes* and tracts supporting a form of no-fault divorce also wrote *Areopagitica*, which attacked the Licensing Order of 1643 as a restriction of freedom of speech. ANSWER: John **Milton** 

[10] The Licensing Order was this type of restriction of freedom of speech that occurs before actual expression. Nixon tried to use the Espionage Act to justify this action taken to prevent the publication of the Pentagon Papers. ANSWER: **prior restraint** <SH>

13. This man almost sacrificed his son on Mount Horeb, though God provided a ram instead. For 10 points each:

[10] Name this patriarch of Islam, Christianity, and Judaism. He's the father of Ishmael and had a handmaiden named Hagar.

ANSWER: **Abraham** [or **Ibrahim**; or **Abram**]

[10] This woman laughed when an angel told her she would give birth to Isaac, since she was past the age of childbirth. She said that Abraham was her brother when brought before the Pharaoh.

ANSWER: Sarah [or Sarai]

[10] Abraham was the son of this man, an idolmaker. Abraham smashed idols in and chased customers from this man's shop, who responded by bringing Abraham before Nimrod.

ANSWER: <u>Terah</u> [or <u>Terach</u>] <PS>

14. Her father acts out the anecdote of the merchant and the mulberry tree in order to discourage her desire for marriage. For 10 points each:

[10] Name this Persian literary character who tells and breaks off narratives at their climax to stall her execution by the sultan.

ANSWER: Scheherezade [accept Sharazad or Sahrzad]

[10] Scheherazade's impending execution frames this Persian literary work that notably chronicles the adventures of Aladdin as well as Sinbad the Sailor.

ANSWER: <u>Arabian Nights</u> [or The Book of <u>One Thousand and One Nights</u>; or The <u>Arabian Nights'</u> Entertainment; or Kitab alf laylah wa-laylah]

[10] In his second voyage, Sinbad attaches himself to one of these giant birds of prey to steal diamonds from its nest. They later bombard Sinbad with giant boulders to avenge their eaten chick.

ANSWER: rocs <ZP/KX>

15. The establishment of Labour Day as a federal holiday was largely due to this strike. For 10 points each::

[10] Name this 1894 US strike which was crushed when President Cleveland sent in federal troops. It involved the boycott of a certain railway car company.

ANSWER: Pullman strike

[10] This leader of the Pullman strike would run for president five times, the last in 1920 when he ran while imprisoned for violation of the Espionage Act.

ANSWER: Eugene Debs

[10] Theodore Roosevelt intervened in a 1902 Pennsylvania strike of this industry, which led to higher wages and reduced hours without union recognition. John Mitchell led that union and accepted arbitrage by Elihu Root.

ANSWER: coal mining [or anthracite; prompt on mining] <JL/RN>

16. He was reluctant to publish his final novel about the homosexual relationship between Maurice Hall and Alec Scudder. For 10 points each:

[10] Name this author of A Passage to India who wrote about class differences in fin de siecle England in Howard's End.

ANSWER: Edward Morgan Forster

[10] In a Forster novel titled after one of these places with a View, the vicar Mr. Beebe bathes with other men in an Edenic forest. Truman Capote wrote about defying gender norms in Other Voices, Other these places.

ANSWER: **room**s

[10] This American author created David, who attempts to escape a "dirty" homosexual relationship by eloping with Hella in *Giovanni's Room*.

ANSWER: James **Baldwin** <MZ>

- 17. Before attending these institutions, members often learned the trivium. For 10 points each:
- [10] Name these educational institutions, evolved from earlier cathedral and monastic schools, whose Medieval curriculum was heavily influenced by Scholastic thought. They initially had no buildings for their scholars.

ANSWER: <u>universities</u> [grudgingly accept <u>college</u>s]

- [10] This oldest university in the English-speaking world was founded around 1096. Rhodes Scholars study here. ANSWER: University of **Oxford**
- [10] Universities began with this Pope, who issued a decree for cathedral schools to educate rising clergymen in 1079. He excommunicated Holy Roman Emperor Henry IV twice.

ANSWER: Pope Gregory VII <JL/RN>

- 18. In Norse mythology, Egill was a master of this weapon, and in Greek tradition, Hercules bequeathed his to the cripple Philoctetes. For 10 points each:
- [10] Name this weapon wielded by the Indian hero Arjuna. Another one of these weapons was part of a test to determine a worthy suitor for Penelope.

ANSWER: bow and arrow

- [10] The bow and arrow is a symbol of Artemis, who transformed this woman into a bear and shot her after she violated her vow of chastity with Zeus. After their deaths, she and her son Arcas became Ursa Major and Minor. ANSWER: <u>Callisto</u>
- [10] In Chinese mythology, the archer Houyi, husband of Chang'e, shot down all but one of these children of Di Jun.

ANSWER: sunbirds <SH>

- 19. Matthew Arnold identified fundamental qualities of Homeric poetry in his lectures on this process. For 10 points each:
- [10] Name this action performed by Pevear and Volokhonsky and Constance Garnett to make Russian works accessible to an English-speaking audience. Others known for this are the Muirs, Walter Kaufmann, and Edward Fitzgerald.

**ANSWER:** translation

[10] His discovery of the word "thole" spurred this poet of *Death of a Naturalist* to translate *Beowulf*, which he infused with Irish words like "bawn".

ANSWER: Seamus **Heaney** 

[10] There's been much fuss over translations of this sprawling series written by Marcel Proust. "For a long time, I went to bed early" is one translation of its opening line in Swann's Way.

ANSWER: In Search of Lost Time [or Remembrance of Things Past; or A la recherche de temps perdu] <MZ>

- 20. Ions migrate across a salt bridge in these devices. For 10 points each:
- [10] Name this type of electrochemical cell that converts chemical energy into electrical energy via a spontaneous redox reaction. One simple type uses zinc and copper electrodes.

ANSWER: **voltaic** cell [or **galvanic** cell]

[10] This equation can be used to find the reduction potential of a half-cell in an electrochemical cell. The Goldman equation is a generalization of this equation that considers all ions permeable across the membrane.

ANSWER: **Nernst** equation

[10] As its coefficient tends to one at low concentrations, concentration may be used instead of this value. When written for a half-cell, the Nernst equation includes a term with the negative log of the quotient of this value for the reductant and the oxidant.

ANSWER: chemical activity <SH>

TB. At one point, its protagonist believes that the ape-like Morlocks hid the title object in a sphinx statue. For 10 points each:

[10] Name this science fiction novella in which the main character travels to the year 802,701. In the future, the protagonist meets the Eloi and loses Weena in a forest fire.

ANSWER: The **Time Machine** 

[10] This English author of *The Time Machine* also wrote about the scientist Griffin in *The Invisible Man* and a Martian invasion of Earth in *The War of the Worlds*.

ANSWER: Herbert George Wells

[10] Wells prophesied World War I and the use of navigable balloons and heavy aircraft in this novel. In the novel, the Englishman Bert Smallways is brought aboard a German airship and witnesses the Battle of New York.

ANSWER: The War in the Air <BM>