

Prison Bowl VI

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Round 04 – Tossups

1. The negotiations of Edward Thorton played an important role in the leadup to this conflict, and an initial offensive by one side stalled following a defeat at Yatai. The other side spent several months retraining under the leadership of Marshal Caxias. Venancio Flores rose to power with the support of Brazil, overthrowing the government of Atanasio Aguirre in Uruguay prior to the start of this conflict. The tide turned in this war after Pedro Meza's defeat at Riachuelo, and Bartolome Mitre refused to grant passage for the forces of one leader at the outset. For 10 points, name this conflict that saw the death of dictator Francisco Solano Lopez and the destruction of Paraguay.

ANSWER: War of the Triple Alliance <ZZ>

2. The Grotthuss mechanism explains proton diffusion through a network of these entities, whose strongest form, in which a proton is perfectly centered between two atoms, can be found in formic acid or the bifluoride ion. These interactions with a “symmetric” variety are responsible for the secondary structure of proteins and the high boiling point of hydrogen fluoride. These interactions require very electronegative atoms like fluorine, nitrogen and oxygen, and they are responsible for the decreased density of ice. For 10 points, name these strong dipole-dipole interactions present between water molecules, named for the lightest element.

ANSWER: hydrogen bonds [or h-bonds] <WR>

3. “My decomposed love” is the addressee of a poem in this work, “A Carcass”. This work, which describes a place of “luxury, peace, and pleasure” in one section, repeats the line “have pity on my long despair!” in “The Litanies of Satan”. This collection describes a “weak and gauche” creature that droops its “great white wings” in “The Albatross”. Including such sections as “Wine”, “Death”, and “Spleen and Ideal”, this collection describes boredom as the worst of evils, which lurks inside the “hypocrite reader, you, my twin, my brother!”. For 10 points, name this vaguely scandalous poetry collection penned by Charles Baudelaire.

ANSWER: *Les Fleurs du mal* [or *The Flowers of Evil*] <MZ>

4. The *Kebra Nagast*, *The Promise Key*, and the *Holy Piby* are all important works of this religion. Observers of this religion follow a diet called ital, and consumption of alcohol is discouraged. Eviston Matafale is regarded as a prophet in this religion, as is Marcus Garvey. The use of the pronoun “I” can refer to their chief deity, Jah. Grounation Day celebrates a visit by the former emperor of Ethiopia, Haile Selassie I, who is regarded as an incarnation of God in this religion. For 10 points, name this religion popular in Jamaica, associated with marijuana, reggae music, and Bob Marley.

ANSWER: Rastafarianism [or Rastafari Movement] <PS>

5. In this city, poor residents who live near Mokattam Hill collect and recycle trash for a living in Garbage City, or live within mausoleums in the City of the Dead. This city’s “old” section contains remnants of its predecessor, Fustat, as well as The Hanging Church, which is the seat of the Coptic Pope. This “city of a thousand minarets” also contains Tahrir Square and has a metropolitan area which includes the location of the Great Sphinx and the Great Pyramids. Located north of Giza and just south of the Nile Delta, for 10 points, name this largest city in Africa and capital of Egypt.

ANSWER: Cairo [or al-Qahira] <WR>

6. In applying this color to his altarpieces, Fra Angelico used both the “a mordente” and the “a guazzo” techniques, as seen in the tapestry behind the Virgin and the wings of the angel in his *Annunciation of Cortona*. This is the color of the armored knight in the *Beethoven Frieze* and, with black, this color titles a painting of a falling rocket as part of James Whistler’s *Nocturne* series. This color is also featured in the background and clothing of Gustav Klimt’s *The Kiss*. For 10 points, name this color often applied by gilding, which uses thin sheets of its namesake precious metal.

ANSWER: gold [prompt on “yellow”] <WR>

7. One type of these cells interacts with the pontine nuclei using mossy fibers. Those cells, created in the subgranular zone, interact with a type of these cells which exhibit complex spikes or simple spikes, named for Purkinje. They are often found near oligodendrocytes or Schwann cells, examples of glial cells. These cells are often classified by the excitatory or inhibitory chemicals they release, including GABA and serotonin. They typically contain a soma, a myelin sheath which covers the axon, and multiple dendrites, which receive chemical and electrical signals through synapses. For 10 points, name these cells of the nervous system.

ANSWER: neurons [or nerve cells before “nervous system”] <SH>

8. One holder of this position was killed by the explosion of the Peacemaker gun, while another committed suicide by jumping out of a 16th floor window. The first official holder of this position was Benjamin Stoddert, and George Bancroft established a school using this position. Oil fields transferred by one holder of this position to Albert Fall were then leased to two businessmen in the Teapot Dome scandal, and Gideon Wells implemented the Anaconda plan from this office. For 10 points, identify this former cabinet position incorporated into the Defense Department following the tenure of James Forrestal, in charge of American forces in the seas.

ANSWER: Secretary of the Navy [accept Secretary of State, valet to John Tyler, or Chief of the Bureau of Construction prior to “suicide”] <ZZ>

9. In a work by this writer, Forest Head watches as Ogun and Eshuoro fight over the Half-Child, who is returned to the Dead Woman by Demoke. The Gathering of the Tribes opens that play, *A Dance of the Forests*. In the preface of another work, he emphasized its threnodic essence and cautioned against reducing the work to a culture clash. That work ends with Iyaloja’s advice to “turn your mind only to the unborn”. In that play, Amusa is scared by the sight of Simon Pilkings in an Egungun mask and later warns Pilkings about Elesin’s attempt to commit ritual suicide. For 10 points, name this Nigerian playwright of *The Lion and the Jewel* and *Death and the King’s Horseman*.

ANSWER: Wole Soyinka <MZ>

10. Two sisters from this city were turned into a swallow and a nightingale. One of those sisters had her tongue cut off and wove a tapestry to tell of her rape by Tereus. Another figure from this city received a casket from a Thracian woman who transformed into an almond tree, Phyllis. In addition to Procne, Philomela, and Demophon, this city is also home to a figure who buried his sandals, shield, and sword under a rock for his son to recover. Kings of this city include Aegeus and the lover of Ariadne and slayer of the Minotaur, Theseus. For 10 points, name this city that rejected a saltwater spring from Poseidon in favor of an olive tree from its namesake goddess of wisdom.

ANSWER: Athens <MZ>

11. One of these pieces involves musicians playing in helicopters and was written by Karlheinz Stockhausen. Alban Berg dedicated one of these works to Alexander Von Zemlinsky, his *Lyric Suite*. Six “Erdody” ones as well as a set of these works nicknamed “Sun” were composed by Joseph Haydn. While in Spillville, Iowa, Antonin Dvorak wrote one of these pieces dubbed “American”. The second movement of that work features pizzicato accompaniment from the cello supporting the harmony played by the viola. For 10 points, name this type of musical composition written for four instruments from the violin family.

ANSWER: string quartet [prompt on partial] <WR>

12. This man supported the first Vietnamese Emperor in his war for independence, and gained the colonies of Tobago and Senegal after one war. His Foreign Minister, the Comte de Vergennes, negotiated the formation of the League of Armed Neutrality, and the Duke of Brunswick issued a manifesto in response to this man’s imprisonment. His de facto Finance Minister Jacques Necker published fake statistics in a *Compte rendu* which hid the cost of funding French participation in the American Revolution, and he unsuccessfully attempted to escape to Montmedy. Despite convening the Estates General, he was unable to placate widespread discontent or solve France’s financial issues. For 10 points, name this monarch executed as a result of the French Revolution, the husband of Marie Antoinette.

ANSWER: Louis XVI [prompt on “Louis”] <AM>

13. In the first chapter of this novel, a woman warns the narrator that it is the eve of St. George's Day, but the narrator rides into Borgo Pass anyways, where he sees mysterious blue flames. Another character in this novel is a Texan who is mortally wounded while attempting to open a box of earth defended by gypsies. That man, Quincey Morris, has his marriage proposal rejected by Lucy Westenra, and teams up with the narrator Jonathan Harker and Abraham Van Helsing to kill the title character. For 10 points, name this novel about the title vampire by Bram Stoker.

ANSWER: Dracula <WR>

14. Charlie Nash is shot in the back by his own men and his body is thrown down a waterfall in this series, leading his best friend to seek revenge by defeating the wielder of the Psycho Power. After fourteen blocked hits, a narcissistic character in this series will lose his claw, which he requires to perform the Flying Barcelona Attack. In this video game franchise, the main character's master is the "master of nothingness" and is presumed dead after a battle with his younger brother. That brother, Akuma, can use the quarter-circle-forward technique to launch a fireball, a move also used by Ken. For 10 points, name this series of arcade fighting games developed by Capcom, whose protagonist Ryu's special move is the Hadouken.

ANSWER: Street Fighter [or Sutorito Faita; accept all incarnations] <WR>

15. This particle is produced along with a muon, and antimuon by the collision of an electron and a positron in the Bjorken process. This particle's decay into two tau leptons has not yet been observed, casting doubt on its postulated spin of zero. This elementary particle was initially hypothesized to explain, through spontaneous symmetry breaking, why the W and Z bosons are massive, and we now know that its namesake field is what imparts mass to matter. It is a target of the Large Hadron Collider. For 10 points, name this no-longer-hypothetical boson discovered in 2012, nicknamed the "God particle".

ANSWER: Higgs boson [prompt on "God particle" before mention] <BM>

16. This type of action occurred after the end of the siege of Santiago de Querato despite the personal wishes of Benito Juarez, and included the generals Miramón and Mejía. This action was carried out against the leader of the pro-Nazi party in Norway during World War II, Vidkun Quisling, and Ronnie Lee Gardner was the last person to have experienced this action in the United States. Marshal Ney was allowed to count off during one instance of this action, another of which occurred in Cerro de las Campanas. A wax or blank cartridge is often used to diffuse responsibility among members performing this type of action. For 10 points, name this type of action used to end the rule of Maximilian I of Mexico, usually involving a group of soldiers.

ANSWER: execution by firing squad [accept word forms; prompt on "shot", "shot at dawn" or "execution"] <ZZ>

17. Singing the aria "Je dis que rien ne m'épouvante", Micaëla tries to bring her fiancé home to his dying mother. The female lead sings a seguidilla in the first act after Zuniga orders the lead male to restrain her for attacking another woman with a knife. Singing his signature song, "Votre toast, je peux vous le rendre", Escamillo introduces himself to the titular character by announcing that he is a bullfighter. She had earlier entered in act one singing her "Habanera". For 10 points, name this opera about the fiery titular gypsy who leads Don José to his ruin and her own death by George Bizet.

ANSWER: Carmen <WH>

18. John Braithwaite argues that disintegrative shaming reinforces this behavior, which comes after humiliation according to Jack Katz's *The Seductions of [this concept]*. The innovator is most susceptible to it according to Robert Merton's strain theory, while Steven Pinker linked it to abortion rates. Segregation of the lower-class by this action prevents rebellions according to Michel Foucault. Coming in *malum in se* and *malum prohibitum* forms, it was compensated for "eye for eye" in the Code of Hammurabi. An international tribunal in The Hague tries those who commit these actions against humanity. For 10 points, name this law-breaking behavior.

ANSWER: crime <MZ>

19. In one of this writer's short stories, Peter and Wendy sacrifice their parents to some simulated lions in the Nursery, and in another, two men construct a haunted house and kill book-burners in homage to various works of fiction. This author of "The Veldt" included "Usher II" in a collection about the colonization of the Red Planet, *The Martian Chronicles*. He created a character who is compared to an English professor and is hit by a speeding car. In that novel, Mildred refuses to call in sick after the protagonist vomits from the smell of kerosene, and Captain Beatty orders Guy Montag to burn his house down. For 10 points, name this science fiction author of *Fahrenheit 451*.

ANSWER: Ray **Bradbury** <WD>

20. This statement holds for exponent p in an irregular pair if the pair satisfies Vandiver's Criteria. Jean-Pierre Serre asserted the non-modularity of the Frey curve to show that proving the semistable Taniyama-Shimura Conjecture also implies this statement. This theorem only needed to be proven for odd prime powers after its namesake proved it for the special case of $n = 4$, and it was finally proven by Andrew Wiles. For 10 points, name this theorem named for a French mathematician which states that, if n is greater than 2, there are no integer solutions to the equation " a to the n plus b to the n equals c to the n ".

ANSWER: **Fermat's last** theorem [prompt on just "Fermat's theorem"] <BH>

TB. The campaign that culminated in this battle began with a large cavalry engagement at Brandy Station, and early on in this battle, John Reynolds was killed while leading the Iron Brigade. The charge of the 1st Minnesota Regiment bought time for one side to rescue Sickles's beleaguered III Corps, and battle was met despite the absence of one side's main cavalry. Armistead's division made the farthest significant advance north during this battle's third day. The charge of the 20th Maine led by Joshua Chamberlain was crucial in maintaining the Union position at Little Round Top here. For 10 points, identify this Union victory in Pennsylvania that featured Pickett's failed charge up Cemetery Ridge.

ANSWER: Battle of **Gettysburg** <ZZ>

Round 04 – Bonuses

1. For 10 points each, name the following things about a philosophical concept.

[10] This concept states that there is no absolute truth or validity, but that truth should be viewed within the reference frame of a language or culture. The “moral” type of this concept is particularly contentious.

ANSWER: **relativism**

[10] This Greek sophist was an early relativist. His teachings are described in *Theaetetus* and his namesake Platonic dialogue, where he discussed if virtue can be taught. He famously stated “man is the measure of all things”.

ANSWER: **Protagoras**

[10] The second chapter of the Chinese relativist work Zhuangzi is entitled “Zhuangzi dreamed he was” this animal. He does not know if he were this insect dreaming he was Zhuangzi, or Zhuangzi dreaming he was this insect.

ANSWER: **butterfly** <SH>

2. It was largely designed by Daniel Burnham and Frederick Law Olmstead. For 10 points each:

[10] Identify this event marking the 400th anniversary of Columbus’s arrival in America, for which a large White City was constructed along with numerous exhibition halls.

ANSWER: **Chicago World’s Fair** [or World’s **Columbian Exposition** of 1893]

[10] This prominent attraction was designed for the fair by its namesake and was later moved to St. Louis. It had 36 cars, each capable of holding up to 60 people, and was 264 feet high.

ANSWER: **Ferris Wheel**

[10] Electricity in the form of alternating current was provided at the fair by this man’s company, which was able to outbid its rival General Electric thanks to the work of Nikola Tesla. His company also created two time capsules for World’s Fairs held in New York.

ANSWER: George **Westinghouse** <ZZ>

3. For 10 points each, name some Surrealist paintings and painters.

[10] This iconic Surrealist painting by Salvador Dali features three melting clocks, an ambiguous sleeping creature, and an orange clock swarmed by ants.

ANSWER: *The **Persistence of Memory*** [or *La **persistencia de la memoria***]

[10] This German Surrealist drew upon Dada collage to create unexpected scenes in *The Elephant Celebes*, *Murdering Airplane* and *Two Children Are Threatened by a Nightingale*.

ANSWER: Max **Ernst**

[10] This Surrealist precursor depicted bright orange landscapes characterized by skewed perspective and ominous shadows in works like *Nostalgia of the Infinite* and *Mystery and Melancholy of a Street*.

ANSWER: Giorgio **de Chirico** <MZ>

4. The central objects of this poem were “delicious / so sweet / and so cold”. For 10 points each:

[10] Identify this poem whose speaker regretfully informs the reader that he has “eaten / the plums / that were in / the icebox”.

ANSWER: “**This is Just to Say**”

[10] This modernist poet of “Asphodel, That Greeny Flower” wrote “This is Just to Say”. He is better known for his philosophy of “no ideas but in things” and the epic poem *Paterson*.

ANSWER: William Carlos **Williams**

[10] Williams also wrote this poem about the title rain-glazed object, upon which “so much depends”.

ANSWER: “The **Red Wheelbarrow**” <MZ>

5. Light can do lots of different things. For 10 points each:

[10] When an electromagnetic wave passes between the boundary of two mediums, this effect may change the direction of the wave, if the two mediums have different indices of this phenomenon.

ANSWER: **refraction**

[10] The intensity of a beam of light is related to this quantity for a light wave. Equal to the constant that multiplies the sinusoidal function, this quantity measures the maximum displacement a point on a standing wave moves.

ANSWER: **amplitude**

[10] This Frenchman names the equations which govern the behavior of light passing through mediums with different indices of refraction. His namesake drag was an aether theory apparently confirmed in the 1851 Fizeau experiment.

ANSWER: Augustin-Jean **Fresnel** <WR>

6. Name some things about psychosexual development for 10 points each.

[10] This psychologist postulated the existence of the mind as an id, ego, and superego in his *Beyond the Pleasure Principle*.

ANSWER: Sigmund **Freud** [or Sigismund Schlomo **Freud**]

[10] Freud proposed that fixations with this second stage in psychosexual development would cause either a destructive and messy personality or a rigid and compulsive personality.

ANSWER: **anal** stage

[10] Freud claimed that this sex drive is the component of the id that encompasses sexuality.

ANSWER: **libido** <WH>

7. Following Hirohito's ascension to the throne, Japan engaged in several aggressive maneuvers into China. For 10 points each:

[10] Name this northeast Chinese province that was under Russian influence until the Russo-Japanese War, after which it was ceded away. A group of people from this area established the Qing dynasty.

ANSWER: **Manchuria**

[10] The Japanese seized Manchuria and declared the state of Manchukuo following this staged 1931 incident in which Chinese nationalists were accused of planting explosives on a Japanese railway track near a certain city.

ANSWER: **Mukden Incident** [prompt on "Manchurian Incident"]

[10] This last Chinese emperor was declared Emperor of Manchukuo following the Mukden Incident. He served as a Japanese puppet until the end of World War II.

ANSWER: Emperor **Puyi** <JL>

8. Answer these questions about trickster gods, for 10 points each.

[10] This Native American trickster god stole fire from the gods by dancing around it with reeds on his head, and running away before the gods stopped laughing.

ANSWER: **Coyote**

[10] This spider from African folklore tried to hoard all the world's knowledge in a pot, but dropped it out of annoyance at being bested by his son.

ANSWER: **Anansi**

[10] Anansi became a folk hero for the southern blacks in America along with this bunny trickster, who once fought and got stuck to a tar baby. He befriended Old Man Tarrypin, a turtle whose pond was once set on fire.

ANSWER: **Brer Rabbit** <WD>

9. For 10 points each, name the following about Greek tragedy.

[10] This masked group in the orchestra enters after the prologue to perform the parade. They provide narration or commentary on the action of the play through song and dance.

ANSWER: **chorus**

[10] As opposed to ethos and logos, this term describes a quality that evokes pity in the audience. It comes from the Greek word for suffering.

ANSWER: **pathos**

[10] This function of tragedy refers to both purification and the purging of the audience's negative emotions that are evoked by pathos. As described by Aristotle, it leads to rhaumaston or wonder.

ANSWER: **catharsis** <MZ>

10. In 2013, it was used to store the “I Have a Dream” speech. For 10 points each:

[10] Name this polymer which emits a blue color when stained with DAPI. The semiconservative model of this molecule was confirmed by the Meselson-Stahl experiment.

ANSWER: Deoxyribonucleic Acid

[10] DNA is usually found in this central eukaryotic organelle which also houses heterochromatin and spherical sub-organelles formed by coilin called Cajal (“cuh-HAL”) bodies.

ANSWER: nucleus [do not accept “nucleolus”]

[10] Colchicine and Giemsa staining are used in this technique, which can help test for Down syndrome. This test generates a microscope photograph that compares the number, size, and banding patterns of chromosomes.

ANSWER: karyotyping [accept karyotype or karyogram] <WH>

11. One of his songs for piano and soprano, inspired by a visit to Central Park Zoo, contains a chord that spells out the word “CAGED”. For 10 points each:

[10] Identify this American composer who experimented with atonality in his *Universe Symphony* and *Three Places in New England*, which incorporates folk music like Yankee Doodle.

ANSWER: Charles Ives

[10] This Ives “cosmic drama” uses an offstage string quartet to represent “the silence of the Druids”. The title five-note motif is written in nested triplets and repeated by the trumpet seven times throughout this piece.

ANSWER: *The Unanswered Question*

[10] In *The Unanswered Question*, the flute part is heavily based on this type of scale. Contrasted with diatonic, these scales contain twelve pitches, where each pitch is a half step away from the subsequent pitch.

ANSWER: chromatic scale [or chromaticism] <WR>

12. 2012 was not a good year for gun rights advocates. Name these events involving shootings for 10 points each.

[10] Obama attended an interfaith vigil held after this event. This mid-December shooting by Adam Lanza left 27 dead, including his own mother, who had initially purchased the guns illegally.

ANSWER: Sandy Hook Elementary school shooting [or Newtown shootings; or clear equivalents]

[10] This event started when a masked James Eagan Holmes threw tear gas canisters into a premier of *The Dark Knight* before shooting at the audience with a shotgun, a semiautomatic, and a handgun.

ANSWER: Aurora Theater Shooting [accept clear equivalents]

[10] This victim wore a hoodie and had low levels of THC in his system during a February 2012 shooting. The shooter, George Zimmerman, “stood his ground” while patrolling the neighborhood.

ANSWER: Trayvon Martin <WH>

13. Robert Barclay ordered the construction of several new ships prior to this engagement. For 10 points each:

[10] This naval battle saw the defeat of the British fleet at Put-in-bay after the *Detroit* and *Queen Charlotte* crashed into each other. An American defeat had seemed imminent following the British capture of the *Lawrence*.

ANSWER: Battle of Lake Erie [prompt on “Erie”]

[10] The winning commander at the Battle of Lake Erie was this man, who then issued the dispatch “We have met the enemy and they are ours”.

ANSWER: Oliver Hazard Perry [prompt on “Perry”]

[10] The British defeat at Lake Erie led to further setbacks on the land campaign. During the ensuing Battle of the Thames, this Indian ally of the British was killed. He was a Shawnee who had established an Indian Confederacy which broke up shortly thereafter.

ANSWER: Tecumseh <ZZ>

14. For 10 points each, name some things about our little corner of the universe, the Milky Way.

[10] This constellation contains its namesake A* (“A-star”), which is the center of the Milky Way. Eight bright stars in this constellation make up the “teapot” asterism, and it is represented by an archer.

ANSWER: Sagittarius

[10] Unlike open clusters, which are found in the disk of the Milky Way, these spherical clusters orbit around the galactic center in the halo. They contain extremely old Population II stars.

ANSWER: globular clusters

[10] These satellites of the Milky Way are a pair of irregular barred galaxies. The relationship between the period and luminosity of Cepheid variables was first established by observing the “small” one.

ANSWER: Magellanic Clouds [accept Large Magellanic Cloud or Small Magellanic Cloud] <MZ>

15. In this novel, Monsieur Homais convinces Charles to operate on Hippolyte's clubfoot. For 10 points each:

[10] The title character of this novel, Emma, embarks on affairs with Rodolphe Boulanger and Léon Dupuis, before falling into debt and committing suicide.

ANSWER: Madame Bovary

[10] This 19th century French author of *Memoirs of a Madman* and *Madame Bovary* wrote about Frederic Moreau's love for Madame Arnoux in *Sentimental Education*.

ANSWER: Gustave Flaubert

[10] This historical novel by Flaubert is set during the Mercenary Revolt in Carthage. In this novel, Matho steals the Zaimph, a sacred veil, and falls in love with the title priestess.

ANSWER: Salammbo <SH>

16. One of its dams is called the Elephant Butte Dam. For 10 points each:

[10] Name this river whose mouth is in Matamoros, a city in the state of Tamaulipas. It also serves as the southern border for Terrell and Maverick Counties.

ANSWER: Rio Grande [or Rio Bravo del Norte]

[10] Mexico also features this long, narrow peninsula in its northwest. In this peninsula's north are the cities of Mexicali and Tijuana, while the Sierra de la Laguna range can be found in its south.

ANSWER: Baja California peninsula [or Lower California peninsula]

[10] This peninsula forms the border between the Gulf of Mexico and the Caribbean Sea. The home of vacation spots like Chichen Itza and Cancun, this peninsula contains the states of Quintana Roo and Campeche.

ANSWER: Yucatan Peninsula <SB>

17. Answer these questions about angels for 10 points each.

[10] This angel revealed the Qur'an to Muhammad over twenty-three years. In Mormonism, he and Noah are the same being. He is known for foretelling the birth of John the Baptist and Jesus Christ.

ANSWER: Gabriel

[10] This archangel and Gabriel are the only ones mentioned in the Qur'an. He is the patron saint of the military, police force, paramedics, and the city of Brussels. He leads God's army into battle against Satan in the Book of Revelation.

ANSWER: Michael

[10] This angel whose name translates to "God is my light" guards the gates of Eden with a sword of fire. He was the one who informed Noah of the upcoming flood. He also leads Enoch through the heavens and the underworld.

ANSWER: Uriel <PS>

18. For a 0.1 molar solution of sodium hydroxide, this value is 13. For 10 points each:

[10] Name this measure of hydrogen ion concentration which, for solutions that are neither acidic nor basic like de-ionized water, equals 7.

ANSWER: pH

[10] This doubly eponymous equation, commonly applied to buffer solutions, gives the pH of a solution as a function of acid concentration, ion concentration and the acid dissociation constant.

ANSWER: Henderson-Hasselbalch equation

[10] One term in the Henderson-Hasselbalch equation, pKa, is this function of the acid dissociation constant. pH is defined as this function of hydrogen ion concentration.

ANSWER: negative logarithm [prompt on "log" or "logarithm"] <WR>

19. This work's epigraph reads "Only connect..." For 10 points each:

[10] Name this novel in which Margaret and Helen Schlegel are driven apart by their respective love for the wealthy Henry Wilcox and the destitute Leonard Bast. In the end, they reunite at the title house.

ANSWER: Howards End

[10] This author of *Where Angels Fear to Tread* depicted the changing society of fin de siècle England such novels as *Howards End* and *A Room with a View*.

ANSWER: Edward Morgan Forster

[10] In this E. M. Forster novel, Dr. Aziz and Cyril Fielding are driven apart after Dr. Aziz is charged with raping Adela Quested in the Marabar Caves.

ANSWER: A Passage to India <MZ>

20. The Grand Alliance's efforts nearly led to a concession from Louis XIV, but the overly harsh terms it wanted to impose on France were rejected during this conflict. For 10 points each:

[10] Identify this conflict triggered by the death of Charles II which saw Philip V rise to power with the support of his grandfather.

ANSWER: War of Spanish Succession

[10] This general led the British forces for most of the war, and scored notable victories at Ramilles, Oudenarde, and Blenheim by combining his army with those of Prince Eugene of Savoy and Lord Overkirk.

ANSWER: John Churchill, 1st Duke of Marlborough

[10] Marlborough was eventually withdrawn from command as the British began negotiating, leading to this greatest victory of Marshal Villars that saw the destruction of several important bridges. It resulted in the capture of the Earl of Albemarle and the end of the Allied offensive into France.

ANSWER: Battle of Denain <ZZ>

TB. One of these named Taku is notable for advancing rather than retreating. For 10 points each:

[10] Name these massive accumulations of ice which may form icebergs in a process called calving, a form of ablation. They can also form eskers and drumlins.

ANSWER: glaciers

[10] A glacial advance into this type of landform causes plucking and abrasion, which often results in this landform becoming U-shaped. Tributary glaciers may create the "hanging" type of this landform.

ANSWER: glacial valleys [or glacial troughs]

[10] These long mounds of till are formed by the deposition of rock and gravel and are exposed after the glacier has retreated. Lateral types are found on either side of a glacier while terminal ones are found on a glacier's snout.

ANSWER: moraines <SH>