BASK 2015

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Packet 14

Tossups

1. One object orbiting this body is home to Swift Crater, while another's namesake "monolith" is a large boulder over 85 meters across located near Stickney Crater. This object's Cydonia region is home to a famous formation photographed by the Viking Orbiter, known as this planet's namesake "face". This planet contains the volcanic Tharsis plateau, east of which lies the massive (*) Valles Marineris canyon system. The largest volcano in the solar system, Olympus Mons, is located on this planet. This planet is periodically covered by global dust storms, and at its poles lie ice sheets of frozen carbon dioxide. Phobos and Deimos orbit, for 10 points, what planet colored rust red by iron oxide and named for the Roman god of war.

ANSWER: Mars

< RN >

- 2. The 20th chapter of this work, The Flower of Eden, opens by revealing the Judge's death with two pictures of him before and after death. In this work, the Judge dies while sitting in the same chair that his ancestor did 30 years ago. Matthew Maule hypnotized Alice before the events of this work, eventually leading to her death. The taker of the aforementioned pictures, the daguerreotypist (*) Holgrave, falls in love with Phoebe. This books ends with the discovery of a deed to some land in Maine behind the Colonel's portrait. For 10 points, name this novel focusing on the Pyncheon family and set in the title structure, written by Nathaniel Hawthorne. ANSWER: <u>The House of the Seven Gables</u>
 <AB>
- 3. Francis Millen was used by Edward Jenkinson, a minister of this ruler to draw out violent elements by organizing the Jubilee Plot against this ruler. John Conroy, the lover of this ruler's mother the Duchess of Kent, raised this ruler under the tyrannical Kensington system. During this ruler's reign, the "civis romanus sum" speech was delivered in response to the Don Pacifico affair by (*) Lord Palmerston. This ruler's political partnership with Benjamin Disraeli led to such conflicts as the Anglo-Zulu War. This ruler was the first of her country to have a Diamond Jubilee after surviving her husband, Prince Albert. For 10 points, name this Queen of England, the only Empress of India.

ANSWER: Queen Victoria

<AB>

4. A type of this shape tangent to two sides of a triangle is named for Kiepert. This shape names a set of partial differential equations that includes the heat equation. The length of this shape's latus rectum is four times the distance from the latus rectum to the vertex. (*) Simpson's rule uses these shapes to approximate integrals. The distance of any point on this shape from the focus is equal to the distance of that point from the directrix. This shape is a conic section with eccentricity one. For 10 points, name this shape generated by the quadratic equation y equals x squared.

ANSWER: parabola

 $\langle SAM \rangle$

5. An author from this country wrote about Mary and Martin Doul, who realize that they are disgusted by each other when their blindness is cured in his work *The Well of the Saints*. That author wrote a work in which Old Mahon is revealed to still be alive, causing Pegeen to lose her respect for Christy. Another author from this country opened a poem with "turning and turning in the widening (*) gyre" and ended that poem by asking "what rough beast [...] slouches towards Bethlehem to be born?" For 10 points, name this home country of *The Playboy of the Western World*, John Synge, W. B. Yeats, and the author of *The Plough and the Stars*, Sean O'Casey.

ANSWER: Ireland

<AB>

6. In this nation, a political party ended its "rath yaga" chariot journey in Ayodhya, where soon after a mob destroyed the Babri Masjid. This nation, home to the Malabar Jews, has separate churches for Catholic Dalits in its state of Goa. This nation is home to the world's largest Parsi population, which practices Zoroastrianism. The final (*) Tirthankara, Mahavira, founded Jainism in this country. B.R. Ambedkar converted to Buddhism in this country, prompting many "untouchables" to follow suit. For 10 points, name this country, home to the world's largest Hindu population.

ANSWER: India

<CD>

- 7. In general relativity, this quantity, energy, and momentum are the components of a four by four matrix tensor, which generalizes a three by three matrix tensor named for Cauchy. Although this quantity is not unitless, a nonzero value of it produces the Poisson effect. This quantity is on the Y axis of a curve that contains an elastic region and a plastic region. The (*) "shear" type of this quantity acts parallel to the cross-sectional surface. For an elastic material, Young's modulus is equal to this quantity divided by the strain. For 10 points, name this quantity measured in Pascals that describes the internal force acting on a deformed object. ANSWER: stress [prompt on "pressure"]
- 8. The forces of this city besieged Autaritus in a canyon during the Battle of the Saw. That battle occurred during this city's Mercenary War. The *corvus* boarding device was used to overcome this city's dominant sea power. A member of this city's Magonid dynasty was defeated by Gelo, the tyrant of Sicily, in the Battle of Himera. Marcus Livius defeated this city's forces at the Metaurus River, killing (*) Hasdrubal. This city double enveloped Roman forces led by Varro at the Battle of Cannae. A commander of this city crossed the Alps with his war elephants. For 10 points, name this city, the home of Hannibal, that fought Rome in the Punic wars.

ANSWER: Carthage

<AB>

9. The boy Thialfi became a servant to Thor after he accidentally broke one of these objects, thus making Thor's goats lame. In Greek myth, the stone age of man arose after Deucalion and Pyrrha were told to throw some of these objects belonging to their mother over their shoulder. In Aztec myth, Quetzalcoatl created the current race of men after he sprinkled his blood on some of these objects. Prometheus was punished after he tricked Zeus into accepting a sacrifice consisting of these objects wrapped in (*) fat. For 10 points, name these body parts, one of which had to be replaced with ivory because Demeter ate the shoulder blade of Pelops.

ANSWER: bones

 $\langle BZ \rangle$

10. The earliest example of these pieces is one named for "Nostre Dame" by Guillaume Machaut. The "brevis" variety can sometimes contain only two of the five sections in a "longa" version of these pieces. The second most mensuration canons found in one of these pieces was written by Josquin Des Prez in one that uses "L'homme Arme" as a cantus firmus. The Council of Trent was meeting when one commemorating the death of (*) Pope Marcellus was written by Giovanni Palestrina. Their "ordinary" includes settings of the Agnus Dei, Sanctus, Kyrie, Gloria and the entire Nicene Creed. For 10 points, name these musical settings of the ceremony that Catholics are required to attend on Sunday.

ANSWER: masses

<CD>

11. Tullgren names a variety of these objects used to catch arthropods present in soil samples. One type of this object commonly used in liquid liquid extractions has a stopcock at its base to decant immiscible fluids, that is its "separatory" type. Vacuum filtration relies on one type of these objects lined with filter paper placed in the neck of a thick walled Erlenmeyer flask, that type is named for (*) Buchner. A weather phenomenon spawned from supercells forms when a cloud named after these objects touches the ground. For 10 points, name these pieces of laboratory equipment that share their name with a kitchen utensil used for pouring liquids through small openings.

ANSWER: funnel

 $\langle RN \rangle$

12. One poet who wrote in this language said "You have stolen the orchards of my ancestors" in his poem "Identity Card." One person writing in this language wrote "The Desert" as well as the three-volume "Kitab" and is named Adunis. One author who wrote in this language wrote Cities of Salt, about the discovery of an oil reserve. A trilogy written in this language which includes the novels (*) Sugar Street, Palace Walk, and Palace of Desire follows the family of el-Sayyed Ahmed Abdel Gawad. For 10 points, name this native language of Abdelrahman Munif, Mahmoud Darwish, and Naguib Mahfouz, who wrote The Cairo Trilogy.

ANSWER: Arabic

<CD>

13. This man painted a Victorian mansion with blue roof and red chimneys, with a red-colored railroad in front of it, entitled *House by the Railroad*. He painted a green fire hydrant and a barber pole casting a long shadow in from of a red brick building with green storefronts entitled (*) *Early Sunday Morning*. This artist painted two men in suits and a woman being served in a restaurant adorned by a sign reading "Only 5 cents" beneath an image of a cigar from the "Phillies" company. For 10 points, name this painter of denizens of a diner in *Nighthawks*.

ANSWER: Edward Hopper

<CD>

14. Individuals with a faulty ryanodine receptor in cells of this tissue can experience malignant hyperthermia during anesthesia. Action potentials travel down transverse tubules in these cells after acetylcholine crosses a junction between these cells and neurons. In cells of this tissue, the protein troponin changes its conformation after binding with calcium ions released by the (*) sarcoplasmic reticulum. This tissue can come in striated, smooth, and cardiac varieties. For 10 points, identify this tissue, whose cells consist of myofibrils containing actin and myosin, and which includes the hamstring and bicep.

ANSWER: <u>muscle</u> tissue [accept striated <u>muscle</u> or <u>cardiac</u> muscle; do not accept "smooth muscle"] <BZ>

15. This man proclaimed the end of art in his *Lectures on Aesthetics*. The "young" followers of this man applied his philosophy to criticize religious institutions. This man wrote that history proceeds through

sublation to become rational unity. This man argued that history continuously proceeds toward increasing freedom in his (*) *Elements of the Philosophy of Right*. This man described a synthesis between a thesis and an antithesis and demonstrated the lack of full self-consciousness in the master-slave relationship with his namesake dialectic. For 10 points, name this German philosopher who wrote *The Phenomenology of Spirit*.

ANSWER: Georg Friedrich Wilhelm <u>Hegel</u>

<SAM>

16. The Tutinama, or Tales of a Parrot, was produced by this empire. Hemu's false retreat failed to defeat the forces of this empire commanded by Bairam Khan. That battle occurred at a site where, 30 years earlier, Ibrahim Lodi was defeated, marking the start of this empire. One ruler of this empire created the Din-i-Ilahi syncretic religion, and that emperor was victorious at the (*) Second Battle of Panipat. This empire was collapsing by the time they were defeated by Nader Shah, who took the Koh-i-Noor and the Peacock Throne, which was commissioned by Shah Jahan. For 10 points, name this Indian Muslim empire that reached its zenith under Akbar the Great?

ANSWER: Mughal Empire

 $\langle AB \rangle$

17. One of these structures passes through the middle of the Maeklong Market in Bangkok, forcing vendors to close their stalls four times a day. Another one of these structures lies on top of the Landwasser Viaduct in Switzerland. One of these structures used by Eurostar passes through the Chunnel. The (*) Seikan Tunnel was built for another one of these structures that is heavily used by *shinkansen*. One of these structures passes through cities such as Chelyabinsk and Novosibirsk on its way to Vladivostok. For 10 points, name these structures exemplified by the Trans-Siberian one that stretches across Russia.

ANSWER: <u>train</u>s [or <u>rail</u>roads; or <u>rail</u>ways; or <u>locomotive</u>s; accept anything related to rail transport] <JD>

18. This song was the lead single for the album *Peace Is The Mission* by a band whose members include Jillionaire and Walshy Fire and whose music is released by the *Mad Decent* record label. This song was cowritten by Thomas Pentz, and its lyrics say "we would only hold on to let go." The listener is asked "Do you recall, not long ago / We would walk on the sidewalk?" "Blow a kiss, fire a gun" are sung by its Danish vocalist, before saying (*) "We all need somebody" with whom we can perform the title action. For 10 points, name this 2015 collaboration between MØ, DJ Snake, and Diplo's band Major Lazer.

ANSWER: Lean On

<CD>

19. In one work by this man, Nyukhin gives a talk on the harmful effects of tobacco. In another story, Dmitiri Gurov falls in love with Anna, who he meets during his vacation to Yalta. This man wrote a play in which one character gives her lover a medallion with the inscription "if you ever need my life, come take it;" in that play, Nina causes the main character to shoot himself after revealing that she loves (*) Trigorin. In addition to the Lady with a Dog, this man wrote about how the servant Firs dies on a sofa while locked up in the title estate, which Lopakhin buys from Madame Ranevskaya. For 10 points, name this Russian playwright of The Seagull and The Cherry Orchard.

ANSWER: Anton (Pavlovich) Chekhov

 $\langle SS \rangle$

20. One person with this last name became Governor of New York by replacing Daniel Tompkins after losing a primary to James Madison. Two people with this name were investigated by Kenneth Starr in the Whitewater Scandal, and Starr later headed a committee that investigated one of those people with this last

name who was under suit by (*) Paula Jones. That man with this last name had earlier claimed that he "did not inhale" when trying marijuana in college, and claimed that he "did not have sexual relations with that woman." For 10 points, give this last name, held by a former president, Bill, and his wife, a former secretary of state, Hillary. ANSWER: Clinton

<AB>

Bonuses

1. One character in this play thinks that the world will explode since the moon appears to be coming closer. For ten points each:

[10] Name this play in which the hymn "Blessed Be the Tie that Binds" is sang three times and which follows the love story between George Gibbs and Emily Webb.

ANSWER: Our Town

[10] This playwright of Our Town also wrote about the Bridge of San Luis Rey collapsing and a family that escapes an Ice Age by the skin of their teeth.

ANSWER: Thornton Wilder

[10] This country is the setting of the Bridge of San Luis Rey. The fictional Pedro Camacho wrote scripts for radio soap operas in this country.

ANSWER: Peru

 $\langle SS \rangle$

- 2. In September 2015, this group, lead by Abu Bakr al Baghdadi, destroyed the Temple of Bel For ten points each:
- [10] Name this militant group in the Middle East led by Sunnis which is causing a migration crisis throughout Europe.

ANSWER: Islamic State of Iraq and the Levant (or Islamic State of Iraq and Syria, or ISIL, or ISIL)

[10] One of the countries affected by the migration crisis is this nation bordering Syria led by Recep Tayyip Erdogan. Joe Biden has alleged this nation of colluding with ISIL.

ANSWER: Republic of **Turkey**

[10] Russia recently entered an agreement with this man's regime to begin performing airstrikes on the Islamic State. This president of Syria succeeded his father, Hafez, in 2000.

ANSWER: Bashar al-Assad

<MM>

- 3. Bonus: British forces at this battle were led by Codrington. For 10 points each:
- [10] Name this battle, the last major battle to be fought between sailing ships. It ended with the defeat of Ibrahim Pasha.

ANSWER: Battle of Navarino

[10] The Battle of Navarino won independence for this country from the Ottoman Empire. Its freedom fighters were led by Alexander Ypsilantis and it was later ruled by the Regime of the Colonels.

ANSWER: Greece

[10] This phrase was commonly used to refer to the Ottoman Empire in its last years. It was possibly coined by Nicholas I, who also called the Empire in "a state of decrepitude."

ANSWER: "sick man of Europe"

<AB>

- 4. This architect created a firm in Bloomfield, IL with his father and Robert Swanson while designing his Miller House in Indiana. For ten points each:
- [10] Name this architect of Washington-Dulles International Airport and the renowned St Louis Gateway Arch.

ANSWER:Eero Saarinen

[10] Saarinen designed a building topped with a thin concrete shell roof, nicknamed "the Oval," along with a glass chapel at this university.

ANSWER: MIT

[10] Saarinen's ethnic roots are within this country, home of salmiakki and the suomi people. Another famous architect from this country, Alvar Aalto, died in 1976 in its capital of Helsinki.

ANSWER: Finland

<MD>

- 5. The gospels of Mark and Matthew describe this man as a, "voice crying out in the wilderness," while Salome's mother pushed for his murder. For ten points each:
- [10] Name the man who famously baptised Jesus Christ.

ANSWER: John the Baptist

[10]John the Baptist's father was turned into a mute by this archangel and messenger of God. In Islam, God sends the teachings of the Quran to Muhammad through this angel.

ANSWER: Gabriel (accept Gibreel)

[10]Mormon doctrine dictates that the archangel Gabriel and this biblical figure are identical. After Ham sees this man naked, this figure curses Ham's son, Canaan.

ANSWER: Noah

<MD>

- 6. Problems solved via this type of method include Towers of Hanoi. FTPE:
- [10] Name this type of function that is defined using itself, examples of which include the Ackermann function.

ANSWER: recursive function [or recursion]

[10] B. This sequence is defined recursively by summing the previous two numbers of the sequence, and was apocryphally discovered after its namesake observed rabbits reproducing.

ANSWER: Fibonacci numbers/sequence

[10] C. This man's identity regarding Fibonacci numbers is a generalization of Cassini's identity. He also names a sequence of numbers used to count things such as the number of triangulations of a polygon.

ANSWER: Eugene Charles Catalan

<YW>

- 7. Bonus: This composer wrote the lyrics to a hymn describing God as a "defense and armory" which a later composer adapted into a cantata, and a later composer used it in his "Reformation" symphony. For 10 points each:
- [10] Name this composer and theologian who composed "Ein' feste Burg ist unser Gott," translated as "A Mighty Fortress is Our God." He also founded a denomination of Protestantism.

ANSWER: Martin Luther

[10] This devout Lutheran composer adapted *Ein' feste Burg* into a cantata. He also wrote the hymn "Jesu, Joy of Man's Desiring," and *The Brandenburg Concertos*.

ANSWER: Johann Sebastian Bach

[10] This composer used *Ein' feste Burg* in his "Reformation" Symphony, and he also wrote the *Hebrides Overture*. ANSWER: Felix <u>Mendelssohn</u>-Bartholdy

<CD>

- 8. In one work in which this character appears, he encounters an omniscient dragon who reveals the true nature of the shaper's powers to him. For ten points each:
- [10] Name this descendant of Cain who loses to a battle to Beowulf. After his mother's failed attempt at vengeance, Beowulf takes this monster's arm as a trophy.

ANSWER: Grendel

[10] Beowulf was composed in this language. Another work in this language also found in the Nowell Codex is the poem Judith.

ANSWER: Old English (prompt on English)

[10] This man wrote about Beowulf in his work Beowulf: The Monsters and the Critics. More famously, he created a collection of novels centering around the exploits of a young hobbit by the name of Frodo Baggins.

ANSWER: John Ronald Reuel Tolkien

<MM>

- 9. Bonus: Crixus, Castus, and Gannicus helped to lead this man's namesake revolt. For 10 points each:
- [10] Name this Roman slave, the main leader of the rebel forces in the Third Servile War. He died at a battle near Petelia, and about 6000 of his followers were crucified.

ANSWER: Spartacus

[10] The crucified were placed along the Via Appia, one of these structures that the Romans were famous for building. Another one of these was ran from Europe to the far east, and was named for the silk it carried.

ANSWER: roads

[10] This man was tasked with putting down Spartacus's revolt. He is often cited as one of the richest men in history, and he failed to invade the Parthian,s losing the Battle of Carrhae.

ANSWER: Marcus Licinius Crassus

 $\langle AB \rangle$

- 10. The Ising model treats this property as a lattice of dipole moments. For 10 points each:
- [10] Name this property that causes a crackling noise in the Barkhausen effect. This property is conferred by the alignment of Weiss domains, which is permanently possible in four periodic table elements.

ANSWER: ferromagnetism

[10] Ferromagnets have a relative value of this quantity much greater than one. In SI units, a quantity with this name is defined by the force between two infinitely long conducting wires.

ANSWER: relative magnetic **permeability** [accept **permeability of free space**, prompt on "mu"]

[10] A scientist with this last name names the temperature at which ferromagnets become paramagnets. A female scientist with this last name discovered polonium and radium and coined the term radioactivity.

ANSWER: <u>Curie</u> [accept <u>Pierre Curie</u>, <u>Marie Curie</u>, <u>Curie point</u>, <u>Curie temperature</u>] <SAM>

- 11. This play's chorus is made up of the title figures, who hunt Orestes for murdering his mother. For 10 points each:
- [10] Name this third play in Aeschylus's Oresteia trilogy.

ANSWER: The **Eumenides**

[10] This mother of Orestes was murdered after she killed her husband Agamemnon and had an affair with Aegisthus. Her ghost rouses the Eumenides at the opening of the play.

ANSWER: Clytemnestra

[10] This goddess, the daughter of Zeus, casts the deciding vote to acquit Orestes. Her symbol is the owl, and she was a virginal goddess of wisdom.

ANSWER: Athena

<CD>

- 12. Answer some questions about a certain function in economics. For 10 points each:
- [10] Angus Deaton was awarded the most recent Nobel Memorial Prize in economics for his analysis of poverty, welfare, and this function, which expresses consumer spending in terms of parameters such as disposable income.

ANSWER: consumption function

[10] The absolute income hypothesis is an earlier theory of the consumption function formulated by this man, who wrote *The General Theory of Employment, Interest and Money*.

ANSWER: John Maynard Keynes

[10] A less quantitative analysis of consumption was given by this founder of institutional economics in *The Theory of the Leisure Class*, in which he introduced the term conspicuous consumption.

ANSWER: Thorstein Veblen

 $\langle RK \rangle$

- 13. Dr. Weil is a notable proponent of this form of medical treatment. For ten points each:
- [10] Name this great system of herbalism that advocates for prevention of disease, individualization of treatment, and the maintaining of balance between body, mind and spirit. It is Sanskrit for "the science of life"

ANSWER: Ayurvedic medicine

[10] Ayurvedic medicine originated in the northern part of this country. Satyendra-Nath Bose, who worked with Einstein on a namesake condensate, hailed from this nation.

ANSWER: Republic of India (accept Bharat or Hindustan)

[10] Brahmagupta, an ancient Indian mathematician, discovered this number. This is the value of the dot product of two perpendicular vectors, and is the standard electrode potential of hydrogen.

ANSWER: \underline{zero} (accept $\underline{0}$)

 $\langle SS \rangle$

- 14. This anime series follows Son Goku as he battles villains from outer space including Frieza and Majin Buu. For ten points each:
- [10] Name this anime series in which a wish-giving dragon is called forth whenever 7 of the titular entities are collected.

ANSWER: **Dragon Ball Z** (prompt on Dragon Ball)

[10] Dragon Ball Z was created by this man. This man also created another series, Dr. Slump, and has worked on character design for several games in the Dragon Quest video game franchise.

ANSWER: Akira **Toriyama**

[10] A recent film in the Dragon Ball Z series is titled Battle of these entities. In Shinto mythology, these entities include Amaterasu and Susano'o.

ANSWER: gods

<MM>

- 15. Bonus: This man's official titles included "Conqueror of the British Empire, in Africa in General and" his country" in particular. For 10 points each:
- [10] Name this dictator accused of cannibalism, who also called himself the last king of Scotland.

ANSWER: Idi Amin Dada

[10] Amin ruled this country. More recently, it has been the home of Joseph Kony's Lord's Resistance Army, and it is one of the few countries that still bans homosexuality entirely.

ANSWER: Uganda

[10] One man from this family, Yonatan, was killed in the Entebbe Raid, a military action that intended to free hostages held in Uganda. Another man from this family, Yonatan's brother, is an Israeli PM from Likud.

ANSWER: Netanyahu

 $\langle AB \rangle$

- 16. Floppases and scramblases move around the constituents of this structure, outside of which lies the extracellular matrix. For ten points each:
- [10] Name this structure, composed of a phospholipid bilayer that separates a cell from the outside world.

ANSWER: cell membrane (accept plasma membrane)

[10] These proteins are only loosely attached to the membrane or embedded molecules, and are contrasted with integrins.

ANSWER: peripheral proteins

[10] This model of the cell membrane, proposed by Singer and Nicholson, views the cell membrane as semipermeable

ANSWER: fluid mosaic

< RN >

- 17. This novel was recently adapted into a film by Netflix. For ten points each:
- [10] Identify this novel about a young boy named Agu who is trained to be a child soldier in the rebel forces of the Commandant.

ANSWER: Beasts of No Nation

[10] Uzodinma Iweala, the author of *Beasts of No Nation*, based the book on his thesis while studying at this University based in Cambridge, Massachusetts.

ANSWER: Harvard

[10] Another Harvard graduate was this female Canadian author of a dystopian novel about Offred, who is a member of the Mayday movement and lives in the Republic of Gilead.

ANSWER: Margaret Atwood

<MM>

- 18. Charles Finney described the "burned-over districts" that resulted from one of these events. For 10 points each:
- [10] Name these religious revivals throughout American history. The "First" one of these time periods was led by prominent preachers such as George Whitefield and Jonathan Edwards.

ANSWER: Great Awakening [accept First Great Awakening or Second Great Awakening]

[10] This prophet of the Second Great Awakening was killed in Carthage, Illinois when an angry mob attacked his jailhouse. He claimed to have received divine revelation through the discovery of several golden plates at Cumorah.

ANSWER: Joseph Smith

[10] Ellen G. White founded this other religious movement which observes Saturday as the Sabbath. This movement is governed by a "General Conference" and believes in the imminent Second Coming of Jesus Christ.

ANSWER: Seventh-Day Adventists [or 7th-Day Adventist]

 $\langle EX \rangle$

- 19. Hard ones are represented by the magnesium cation, while the hydrochloric type is a Lewis one. For ten points each:
- [10] Name these substances that are electron pair acceptors and, contrary to popular belief, cannot perform magic.

ANSWER: Acids

According to this equation, the pKa plus the log of base over acid is equal to pH. When one rearranges the log of the dissociation constant, one obtains this equation.

ANSWER: Henderson-Hasselbalch equation

This ANION is crucial to the body's buffering system, as it maintains a pH of about 7 in the blood. When bonded to sodium, it can be used for pest control, paint removal, fire retardation, and most notably, as a leavening agent.

ANSWER: Bicarbonate ion

 $\langle SS \rangle$

- 20. Prior to Gaia and Uranus, the Earth, according to the Greeks, was a blob of elements called Chaos. For ten points each:
- [10] This first son of the union of Gaia and Uranus was a titan that personified the sea. The Greeks believed that this Titan was an infinite river circling Gaia.

ANSWER: Oceanus

[10] This deity personified the sun during both the Titans' and gods' reign, and had to witness the death of his son due to a grave mistake.

ANSWER: Helios

[10] Identify that son of Helios who nearly burned up the Earth when he was unable to control his father's horses. To save the Earth, Zeus killed this figure with a thunderbolt.

ANSWER: Phaeton

 $<\!\!MD\!\!>$