



HSAPQ

High School Academic Pyramid Questions

Fall 2008
ACF-Format Set #1

Round 8

Tossups

1. This nation's early history is described in the *Landnamabok*, and the end of the Middle Ages in this nation is generally marked by the 1550 beheading of Bishop Jon Arason. Known during parts of its history as Thule, the United States took defensive responsibility of this country in 1941 following the German occupation of Denmark. For 10 points, name this nation, whose Althing is the oldest legislative body in Europe and whose first recorded settler, Ingolfr Arnarson, named his homestead Reykjavik.

ANSWER: Iceland

2. A stepwise change in current potential curves of nanometer size objects is named for this man, while crystals with particles of same charge occurring in plasmas are also named for him. The type of friction associated with the contact of two surfaces was first developed by him, and he also names the repulsion associated with two objects of like charges. For 10 points, name this Frenchman whose namesake law states that the force between two charges is proportional to the product of their charges and the inverse square of the distance between them.

ANSWER: Charles Augustin de Coulomb

3. From 1953 to 1986, this city was led by Gaston Defferre, and this city's Panier district and Old Port were dynamited by its German occupiers during World War II due to its resistance activity. This city was the center of the French Connection heroine smuggling scheme, and during the French Revolution, volunteers from this city sang the "War Song of the Rhine Valley," which was renamed for this city. For 10 points, identify this French port city, the namesake of the French national anthem.

ANSWER: Marseilles [do not accept or prompt on "Marseillaise"]

4. Atmospheric chemistry follows a given volume of air rising upward and its corresponding temperature change, defining a dry and moist lapse rate given this adjective, and adequately gradual perturbations do not take a system out of its original eigenstate according to a theorem called this formulated by Fock and Born. In a reversible one of these processes, the product of pressure with volume raised to gamma is held constant. For 10 points, give this adjective that describes all thermodynamic processes that do not involve a transfer of heat.

ANSWER: adiabatic [accept adiabatic lapse rate before "this adjective" is read]

5. In 1806, this man served as counsel for Aaron Burr, and he was a member of the Ghent commission that negotiated peace with Britain. He fought a duel with John Randolph in which neither man was wounded, and he helped solve the nullification crisis with his support of the Tariff of 1833. Nicknamed the Great Pacificator for his shepherding the Missouri Compromise, for 10 points, name this Kentucky statesman who was known for his American System of economic development.

ANSWER: Henry Clay

6. In one of his verse plays, Puritans and Cavaliers attempt to assassinate the title Lord Protector of England, *Cromwell*. Another of his plays focuses on the suitors of Dona Sol, which include Don Carlos and his brother, the title figure. In addition to *Hernani*, one of his novels is partially set in the Revolt of 1840, and involves the lover of Marius and daughter of Fantine, Cosette, who is cared for by a bread thief chased by Javert. The creator of Jean Valjean, as well as Quasimodo, for 10 points, name this author of *Les Miserables* and *The Hunchback of Notre Dame*.

ANSWER: Victor-Marie **Hugo**

7. The partial derivative of this quantity with respect to mass gives the chemical potential of a system. Dividing it by the product of the Universal Gas Constant and Temperature gives the logarithm of the equilibrium constant for a reaction. This quantity is equal to the negative product of temperature and the change entropy plus the change in enthalpy, and a reaction is spontaneous if the change in this quantity is negative. For 10 points, identify this quantity represented as G.

ANSWER: **Gibbs Free Energy**

8. This man shaved his mustache after receiving \$10,000 from Remington, and threw a game-losing interception in the first Monday Night Football game. His last season saw him play in just three games for the L.A. Rams, while recently he has gained notoriety for drunkenly slurring "I want to kiss you" to Suzy Kolber during an ESPN broadcast. The only Hall of Fame quarterback to play primarily for the franchise that Brett Favre just joined, for 10 points, name guarantor of victory over the Colts in Super Bowl III, a legendary Jets quarterback.

ANSWER: Joe **Namath**

9. One author of this last name argued that the educational reforms advocated by 1960s student protesters ruined the special character of universities in *The Closing of the American Mind*. Another person of this last name said that writers must overthrow their predecessors in *The Anxiety of Influence* and gave essential reading lists in *The Western Canon*. In a novel, a woman by this name has an affair with Blazes Boylan, and a man of this name journeys through a June day in Dublin. For 10 points, give this last name of Molly and Leopold in James Joyce's *Ulysses*.

ANSWER: **Bloom**

10. In this painting, a man with curly grey hair covered by a red cloak stares to the left, in front of a man holding his head in his hands. A hatchet lies in the foreground of this painting, which depicts a pyramid of bodies to the right of a single billowing sail. Its most dramatic figure may be a shirtless man standing on a barrel waving a shirt at a distant ship. For 10 points, name this painting of the survivors of a shipwreck, by Theodore Gericault.

ANSWER: *The* **Raft of the Medusa**

11. The Japanese Shichi Fujikin gods live in one of these, and the Celtic Manannan mac Lir has one that responds to spoken commands. Skidbladnir is one which Freyr can collapse into his pocket, while Naglfar is one made entirely of fingernails. Another one of these, which could talk because it was built in Dodona, lent its name to a group of people including Telamon, Atalanta, Orpheus, and Heracles, who sought the Golden Fleece under the leadership of Jason. For 10 points, name these conveyances, whose mythical examples included the *Argo*.

ANSWER: **ships** [accept **boats** or other common names for watercraft]

12. An amusement park named Playland once existed in this city's Bitter Lake neighborhood, and part of state route 99 through this city is known as the Alaskan Way Viaduct. A former utilities plant gives its name to this city's Gas Works Park, and neighborhoods in this city include Green Lake and Rainier Beach. This city's namesake "Center" includes the Experience Music Project and a tower built for the 1962 World's Fair. Located on Puget Sound, for 10 points, name this large Washington city which includes the Space Needle.

ANSWER: Seattle

13. In 1938, the publication of over three hundred pages of letters written by Dorothea Lieven to this man confirmed suspicions that he had used Lieven to spy on his Russian and British counterparts. A leader of the Holy Alliance, the murder of August von Kotzebue led this man to call a congress which resulted in university restriction, newspaper censorship, and other Carlsbad Decrees, and he was forced to flee to England following the Revolutions of 1848. For 10 points, name this Austrian prince and conservative who hosted the Congress of Vienna.

ANSWER: Klemens Wenzel von Metternich

14. One group in this movement publishes such periodicals as *Issues* and *Mishpochah Message* and was founded by Martin Rosen. Some of these sects trace their lineage to a community led by James in the 30s CE, and many groups of this type advance a doctrine of "completion" through accepting a figure they usually call "Yeshua." They are not permitted to use the Law of Return to claim Israeli citizenship, and no rabbinical group in the U.S. considers them Jewish. For 10 points, name this religious movement which combines Jewish rituals with acceptance of Christ.

ANSWER: Messianic Judaism [or Jews for Jesus; accept word forms; prompt on Jewish Christians or similar answers]

15. In one of this composer's operas, the noisy singer Aminta marries Sir Morosus, who cannot stand any sound. In addition to *The Silent Woman*, he wrote an opera about Matteo's efforts to woo Arabella, as well as *The Egyptian Helen* and *Elektra*. In another of his operas, Baron Ochs sends Octavian to present a silver rose to Sophie. The title character of another of his operas performs the Dance of the Seven Veils for Herodias while carrying John the Baptist's head on a platter. For 10 points, name this composer of *Der Rosenkavalier*, *Salome*, and *Also Sprach Zarathustra*.

ANSWER: Richard Strauss

16. In this novel, Don Crespi unsuccessfully introduces the cinema. One character in this novel spends his time crafting intricate golden fish, while another character perishes because of too much loneliness. Pilar Ternera is an intimate acquaintance of many of the men in this novel, and it opens by mentioning one character's execution by a firing squad. This novel is set in Macondo and features characters from the Buendia family like Jose Arcadio and Aureliano. For 10 points, identify this novel by Gabriel Garcia Marquez.

ANSWER: One Hundred Years of Solitude [or Cien Años de Soledad]

17. Members of this field include Pitirim Sorokin, Georg Simmel, and the author of *Gemeinschaft and Gesellschaft*, Ferdinand Tonnies. Its major theories are symbolic interactionism and structural functionalism, and an early member of this field developed the term "anomie" in his study *Suicide*. Another member of this field studied "ideal types" in works like *The Protestant Ethic and the "Spirit" of Capitalism*. Associated with Emile Durkheim and Max Weber, its name was coined by Auguste Comte. For 10 points, name this discipline that studies society.

ANSWER: sociology

18. This poet wrote that "electrons deify one razorblade into a mountain range" in "Pity this Busy Monster, Manunkind," while he remembered a pacifist who had entered army training with him in "I Sing of Olaf, Glad and Big." He also wrote of a place "with up so floating many bells down" where the title character "danced his did" in the poem "Anyone lived in a pretty how town," and about a prison in his novel based on *Pilgrim's Progress*, *The Enormous Room*. For 10 points, name this American author who used creative capitalization in his poems.

ANSWER: Edward Estlin **Cummings**

19. One composer from this nation is the namesake of a pizzicato where the string is snapped. One composer from this country depicted a Viennese Musical clock and Napoleon in *Hary Janos*, while another wrote the 6 volume piano collection *Mikrokosmos* and the operas *The Miraculous Mandarin* and *Duke Bluebeard's Castle*. A group of works named for this country include the Racoczy march and were based on gypsy melodies. For 10 points, name this home nation of Zoltan Kodaly (ko-DIE) and Bela Bartok, the namesake of rhapsodies by Liszt.

ANSWER: **Hungary** [or **Magyarország**; accept word forms, such as **Hungarian**]

20. Its NCp7 protein acts as a chaperone for RNA molecules. A fusin co-receptor is usually present on the surface of cells infected by it, and the infection is initiated by the binding of gp120 to CD4 proteins on certain cells. Patients infected with it can die of a rare cancer named Kaposi's sarcoma, and symptoms for it include swelling of lymph nodes. Classified as lentivirus, it uses reverse transcriptase to integrate its genome into the host cell. For 10 points, identify this virus that causes AIDS.

ANSWER: **HIV** [or **H**uman **I**mmunodeficiency **V**irus]

21. One man tries to find out the truth about an affair in this play by pretending to be Mr. Brook, and shortly thereafter a man is stuffed into a laundry basket and thrown into the river. A plan to embarrass a man by dressing him as Herne the Hunter is launched by the mother of the woman who loves Fenton, but is betrothed to Dr. Caius. This play includes the scheming Mistress Quickly, and it opens with love letters to Mistress Ford and Mistress Page. For 10 points, name this Shakespearean comedy depicting the comeuppance of Falstaff.

ANSWER: *The* **Merry Wives of Windsor**

22. A recent study has suggested that this object contains four magnetic poles, and much earlier, Iosif Shklovsky proposed that a colorful region of this object was attributable to synchrotron radiation. It contains knotty filaments, an indicator of its accelerated expansion from the time of its creation, which was observed by the Chinese in 1054. It contains an object first confirmed in 1968, a namesake pulsar spinning at 30 cycles per second. Located in Taurus, for 10 points, name this cloudy entity which resembles a certain animal, the first of the Messier objects.

ANSWER: **Crab** Nebula [or **NGC 1952**; accept **M1** before "Messier" is read; prompt on **Taurus A**; prompt on **Taurus X-1**]



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Bonuses

1. It can be carried out a secco, in which case a binding medium like tempera is needed, a technique popular for using the color blue. For 10 points each:

[10] Identify this painting style which relies upon the use of either wet or dry plaster.

ANSWER: fresco

[10] This artist made major strides in the use of perspective and *chiaroscuro* in his fresco *The Tribute Money*. He also painted *The Holy Trinity* and *Expulsion from the Garden of Eden*.

ANSWER: Masaccio [or Tommaso Cassai]

[10] This student of Cimabue also advanced the development of perspective, and painted a series of frescoes about the life of Christ for the Arena Chapel.

ANSWER: Giotto

2. Identify the following British prime ministers, for 10 points each.

[10] This Whig served in the Tower of London after being convicted of corruption and successfully handled the South Sea Bubble. He is considered the first British prime minister.

ANSWER: Robert Walpole

[10] He passed the 1844 Bank Charter Act and repealed the Corn Laws. He is the founder of the London police force, and the nickname of "Bobbies" refers to him.

ANSWER: Robert Peel

[10] Succeeded by John Major, this Prime Minister of the 1980s oversaw the privatization of British Gas and British Telecommunications, and she survived a 1984 IRA bombing in Brighton.

ANSWER: Margaret Thatcher

3. This man cleverly tied a piece of string to an ant in order to thread a complex sea shell. For 10 points each:

[10] Name this Greek inventor.

ANSWER: Daedalus

[10] This son of Daedalus escaped with the inventor using a pair of fabricated wings. Unfortunately, he flew too close to the sun, which melted the wax wings, and he fell into the sea.

ANSWER: Icarus

[10] Daedalus was banished from Athens because he killed this nephew of his, who shares his name with a bronze giant crafted by Hephaestus who guards Crete

ANSWER: Talos

4. Generally speaking, they are techniques for solving problems; frequently they operate by reducing a problem to subproblems. For 10 points each:

[10] Identify the term frequently used in computer science to refer to procedures like those used for sorting lists or pathfinding.

ANSWER: **algorithms**

[10] This kind of algorithm selects the best possible immediate outcome at every possible step.

ANSWER: **greedy**

[10] Another common abstract task for algorithms is traversing trees and graphs. This common greedy algorithm finds the shortest path from one graph vertex to another.

ANSWER: **Dijkstra**

5. Identify the following about the Hashemite Kingdom, for 10 points each.

[10] The Hashemite Kingdom is another name for what Middle Eastern nation that lost the West Bank during the 1967 Arab-Israeli War and ended its state of war with Israel in 1994

ANSWER: **Jordan**

[10] This moderate King of Jordan lost U.S. economic aid due to his support of Iraq during the 1991 Persian Gulf War, and he was succeeded by his son Abdullah following his 1999 death.

ANSWER: King **Hussein**

[10] A civil war of 1970 between Jordan and the PLO was given this name, after a month. This name was adopted by the terrorist group that carried out the 1972 Munich Olympic murders.

ANSWER: **Black September**

6. He used such allegorical characters as Crites and Eugenius in his critical work *Of Dramatic Poesie*.

For 10 points each:

[10] Name this author of *Marriage à la Mode* and the satire "MacFlecknoe," who wrote two allegorical narrative poems about the politics of Restoration England.

ANSWER: John **Dryden**

[10] Those allegories were *The Hind and the Panther* and this work, which casts the Earl of Shaftesbury and Duke of Monmouth as a son and soldier of David, respectively.

ANSWER: **Absalom and Achiophel**

[10] Dryden's play *All for Love* depicts the disintegrating relationship and eventual suicide by asp of this lover of Mark Antony.

ANSWER: **Cleopatra**

7. Aqua regia is able to dissolve this element. For 10 points each:

[10] Name this element that forms both aurous and auric compounds.

ANSWER: **gold**

[10] A gold foil target was used to show that atoms are mostly empty space in a famous 1909 experiment performed under the supervision of this New Zealand born scientist.

ANSWER: Ernest **Rutherford**

[10] Rutherford's experiment shot these particles at the gold foil target and observed that some of them were scattered at large angles.

ANSWER: **alpha** particles

8. Elizabeth Temple helps him escape from jail in *The Pioneers* after he is arrested for hunting deer out of season. For 10 points each:

[10] Name this character who dies in *The Prairie* after appearing in such guises as “the Deerslayer” and “Leatherstocking” in five novels.

ANSWER: Natty Bumpo [accept either or both names]

[10] The “Leatherstocking Tales” of Natty Bumpo were written by this author of *The Pilot* and *The Spy*.

ANSWER: James Fenimore **Cooper**

[10] Cora Munro falls in love with the title character, Uncas, in this Leatherstocking novel set during the French and Indian Wars, which features Natty Bumpo as Hawkeye.

ANSWER: *The **Last of the Mohicans***

9. Its types include lacunar and dissociative. For 10 points each:

[10] Name this condition often caused by a blow to the head, which generally refers to any loss of memory.

ANSWER: **amnesia**

[10] In anterograde amnesia, people are unable to store this type of memory. According to George Miller, it can hold seven plus or minus two pieces of information.

ANSWER: **short-term** memory

[10] This part of the limbic system plays a major role in storing short-term memories; damage to it is a major cause of Alzheimer's Disease.

ANSWER: **hippocampus**

10. Konstantine Levin and Kitty Shtcherbatskaya marry at the end of this novel, contrasting with the sad fate of the central character. For 10 points each:

[10] Name this 1875 novel, which claims that “every unhappy family is unhappy in its own way” and depicts a Russian woman who has an affair with Vronsky before dying on the train tracks.

ANSWER: ***Anna Karenina***

[10] This author of *The Power of Darkness* and *War and Peace* wrote *Anna Karenina*.

ANSWER: Leo Nikolayevich **Tolstoy**

[10] A fall from a ladder and a mysterious internal disease cause the title event in this Tolstoy novella, which shows a man attended by Gerasim and softening to his wife Praskovya.

ANSWER: *The **Death of Ivan Ilyich*** [or ***Smert Ivana Ilich***]

11. Answer the following about Antarctic geography, for 10 points each.

[10] This bay of the Southern Ocean is claimed by Britain and New Zealand. It was the start point of Roald Amundsen's South Pole expedition and contains colossal squids.

ANSWER: **Ross Sea**

[10] The largest community of any sort in Antarctica is this American research center on the tip of Ross Island. It was named for the lieutenant of the HMS *Terror* who charted the area.

ANSWER: **McMurdo** Station

[10] This southernmost active volcano on Earth was named for a ship on Sir James Ross's expedition and was first ascended by Ernest Shackleton's party in 1908.

ANSWER: Mount **Erebus**

12. He was captured behind enemy lines and hanged as a spy, and he is supposed to have said that his only regret was that he had but one life to lose for his country. For 10 points each:

[10] Name this American patriotic figure.

ANSWER: Nathan **Hale**

[10] Hale was captured in 1776 prior to this New York battle, also known as Brooklyn Heights, in which George Washington's flank was attacked after a British landing at Gravesend Bay.

ANSWER: **Long Island**

[10] This man served as British commander in chief in North America from 1776 through 1778 and was responsible for the British victory at Long Island. His brother Richard was an admiral.

ANSWER: William **Howe**

13. Identify the following biologists associated with the theory of evolution, for 10 points each.

[10] He undertook a long voyage on the Beagle, during which he observed organisms like his namesake finches. He suggested the idea of natural selection and wrote *On the Origin of Species*.

ANSWER: Charles Robert **Darwin**

[10] Along with Niles Eldridge, this Harvard professor put forth the idea of punctuated equilibrium, which suggests that evolution occurs in bursts rather than at a uniform rate.

ANSWER: Stephen Jay **Gould**

[10] This man advanced the idea of peripatric speciation, and is best known for his magnum opus, *Systematics and Origin of Species*.

ANSWER: Ernst W. **Mayr**

14. This symphonic poem was never performed during its composer's lifetime, and didn't gain popularity until it was reorchestrated by Rimsky-Korsakov. For 10 points each:

[10] Name this symphonic poem depicting a Witches' Sabbath, which begins with a bunch of violin triplets playing A, G sharp, A, B flat, A, G sharp repeatedly.

ANSWER: *Saint John's* **Night on Bald Mountain** [or *Saint John's* **Night on the Bare Mountain** or *Ivanovna* **noch' na lisoj gore**]

[10] This composer wrote the original draft of *Night on Bald Mountain*. He also wrote a piano suite which represents paintings by Victor Hartmann, *Pictures at an Exhibition*.

ANSWER: Modest Petrovich **Mussorgsky**

[10] Mussorgsky was a part of *The Five*, which included Rimsky-Korsakov, Mily Balakirev, and Alexander Borodin, who were all natives of this country.

ANSWER: **Russia**

15. Name these German thinkers, for 10 points each.

[10] This author who wrote the *Groundwork of the Metaphysics of Morals* is more famous for his three Critiques, including the *Critique of Pure Reason*.

ANSWER: Immanuel **Kant**

[10] This pessimistic author of *Parerga and Paralipomena* wrote about Epistemology, Ontology, Aesthetics, and Ethics in his magnum opus, *The World as Will and Representation*.

ANSWER: Arthur **Schopenhauer**

[10] When he wasn't brandishing a fire poker against Karl Popper, this philosopher claimed that "the world is everything that is the case" in his *Tractatus Logico-Philosophicus*.

ANSWER: Ludwig Josef Johann **Wittgenstein**

16. Shakespeare's *Richard III* was based on a history written by this man. For 10 points each:
[10] Name this onetime chancellor to Henry VIII who was executed for his staunch Catholicism, but not before he wrote about Raphael Hythloday's visit to the island of Utopia.

ANSWER: Thomas **More**

[10] This friend of Thomas More was a Dutch humanist. He made a new Latin translation of the New Testament and wrote *The Handbook of the Christian Knight* and *Julius Excluded*.

ANSWER: Desiderius **Erasmus**

[10] Erasmus also wrote a satirical encomium titled for the "praise of" this personification.

ANSWER: **folly**

17. Name these zones of the ocean, for 10 points each.

[10] As its name implies, this region is covered by water at high tide but exposed to air at low tide.

ANSWER: **intertidal** zone

[10] Containing or sometimes above the continental shelf, this shallowest 200 meters is home to a large amount of phytoplankton.

ANSWER: **neritic** zone

[10] This lowest zone is often part of the aphotic zone and contains the sea floor.

ANSWER: **benthic** zone

18. Name the following prominent families from European history, for 10 points each.

[10] Centered in Augsburg, this German merchant and banking family funded the wars of the Habsburgs.

ANSWER: **Fuggers**

[10] The wealth of this German banking family was laid by Mayer Amschel, agent for the Elector William I. The Nazis forced them to give up their Viennese bank in 1938.

ANSWER: **Rothschilds**

[10] This Spanish-Italian noble family rose to prominence after Alfonso was named Pope Calixtus III. Other prominent members include Rodrigo and his children, Cesare and Lucrezia.

ANSWER: **Borgias**

19. This painting is by Andrew Wyeth. For 10 points each:

[10] Name this painting of a woman, sitting on two shades of green grass, which shows her family's house and two other buildings in the background.

ANSWER: **Christina's World**

[10] This Welsh poet of "The Force That Through the Green Fuse Drives the Flower" exhorted readers to "Rage, rage, against the dying of the light" in "Do not go gentle into that good night."

ANSWER: Dylan **Thomas**

[10] In a flame test, this element burns green. It is a component of the Gillman Reagent, along with lithium.

ANSWER: **Copper**

20. It was rebuilt in 1925 after a fire, and is located in Spring Hill, Wisconsin. For 10 points each:
[10] Name this home and architecture school named for a figure from Welsh myth. Another structure that includes this name also built near Scottsdale, Arizona.

ANSWER: **Taliesin**

[10] This architect of the "Prairie Style" designed and lived in Taliesin. He also designed the Robie House and the Guggenheim Museum in New York.

ANSWER: Frank Lloyd **Wright**

[10] This house in Pennsylvania was designed by Frank Lloyd Wright. It includes natural boulders in the floor and is built with cantilevers over a stream.

ANSWER: **Fallingwater** [or the Edgar J. **Kaufman** House]

21. This man wrote all of his poetry before age nineteen, when his relationship with Paul Verlaine ended and he left France to become a gun trader in Africa. For 10 points each:

[10] Name this author of "The Drunken Boat," "Sonnet of the Vowels," and "A Season in Hell."

ANSWER: Arthur **Rimbaud**

[10] Guns were a common item in the writings of this creator of detective Philip Marlowe, who used that character in *Farewell My Lovely*, *The Big Sleep*, and *The Long Goodbye*.

ANSWER: Raymond **Chandler**

[10] "A&P," *The Witches of Eastwick*, the "Rabbit" novels, and "Ace in the Hole" are among the works of this author, who described Ben Trupp's Thanksgiving visit in "The Gun Shop."

ANSWER: John **Updike**

22. Identify these forms of mechanics, for 10 points each.

[10] This man's mechanics are based on his three laws of motion: namely, the property of inertia, F equals ma , and the equality of action and reaction.

ANSWER: **Newtonian** mechanics

[10] David Bohm's theory of quantum mechanics takes into account the wavefunction and position, and was based on the work of this formulator of the wave-particle duality idea.

ANSWER: Louis de **Broglie**

[10] The namesake quantity of this reformulation of classical mechanics is the difference between kinetic and potential energy and should be minimal when integrated over the trajectory.

ANSWER: **Lagrangian** mechanics