



HSAPQ

High School Academic Pyramid Questions

2008-2009
NSC-Format Set #1

Round 10

Related Tossups &
Bonuses

1. A physiological state associated with this part of the brain during slow-wave sleep is known as large irregular activity. The dentate gyrus is often considered part of this structure, which borders the choroid fissure of the lateral ventricle, and forms the medial margin of the cortical mantle. Consisting mainly of gray matter, this part of the limbic system is involved in motivation and emotion. For 10 points, name this brain structure that plays a central role in memory processes, and has the shape in cross section of a sea horse.

ANSWER: **hippocampus**

For black holes, this value is proportional to its area, and inversely proportional to the Planck length squared. For 10 points each:

[10] Name this thermodynamic quantity symbolized S that is a measure of disorder.

ANSWER: **entropy**

[10] This theorem states that mass, electric charge, and angular momentum are the only quantities associated with the area outside the horizon of a black hole.

ANSWER: **no hair** theorem

2. Francisco Lopes Suasso lent two million guilders to one army involved in this event, which was triggered in part by the removal of Henry Compton. In addition to featuring that member of the Immortal Seven, this event saw the Battle of Aughrim while the death of Claverhouse ended Scottish unrest during it. This event saw the Battle of the Boyne and it resulted in the passage of the Act of Toleration. For 10 points, name this supposedly bloodless 1688 revolt leading to the ascension of William of Orange.

ANSWER: the **Glorious Revolution** [prompt on descriptive answers such as “the accession of William and Mary to the English throne”]

The Treaty of Moscow that ended this conflict gave the Soviet Union control of parts of Karelia and the Rybachi Peninsula, which they had occupied during the Battle of Petsamo. For 10 points each:

[10] Name this war between the USSR and Finland that mostly occurred during its namesake season.

ANSWER: **Winter** War

[10] Much of the fighting during the Winter War took place along this line of fortifications stretching from the Gulf of Finland to Lake Ladoga named after a Finnish leader.

ANSWER: **Mannerheim** Line

3. In one of this author's novels, Gloria's prophecies about the coming apocalypse cause Orianna to obsessively control the inhabitants of the Halloran mansion. This author of *The Sundial* fictionalized her agoraphobia in her novel about Constance and Merricat Blackwood, *We Have Always Lived in the Castle*. She wrote about a ritual performed by Mr. Summers which results in the death of Tessie Hutchison in a story that caused a huge outcry after being published in *The New Yorker*. For 10 points, name this author of *The Haunting of Hill House* and "The Lottery."

ANSWER: Shirley **Jackson**

The play *Lost in the Stars* by Maxwell Anderson was based on a work of this man, who wrote a short story collection entitled *Tales from a Troubled Land*. For 10 points each:

[10] Name this author who set his novels *Too Late the Phalarope* and *Cry, the Beloved Country* in his home country of South Africa.

ANSWER: Alan **Paton**

[10] This woman, also an author from South Africa, won the 1991 Nobel Prize for Literature, and is the author of the novels *Burgher's Daughter* and *July's People*.

ANSWER: Nadine **Gordimer**

4. This battle saw Benjamin Lincoln take control of Benedict Arnold's command, and its conclusion led to the creation of a "Convention Army." The loser, who was hoping for the arrival of Henry Clinton from New York City, was finally defeated at Bemis Heights a month after his defeat at Freeman Farm. Horatio Gates' defeat of John Burgoyne in this battle reinforced French confidence in the American cause. For 10 points, name this 1777 battle in New York, often called the turning point of the American Revolution.

ANSWER: Battle of **Saratoga**

His domination of southern Africa resulted in the Mfecane, or Crushing, that caused chaos to the traditional clan structure. For 10 points each:

[10] Name this leader of the Zulu who created the impi system of military organization and who went crazy after the 1827 death of his mother Nandi.

ANSWER: **Shaka** [or **Chaka**]

[10] Shaka Zulu was murdered by this half brother in 1828. This man's massacre of six hundred Boer immigrants in 1838 led to his later defeat at the Battle of Blood River.

ANSWER: **Dingane** [or **Dingaan**]

5. Feathers and a wooden spoon are used to clear out olive-shaped items by candlelight prior to it, and its Islamic analog is celebrated on the 10th of Muharram. The Chol HaMoed refers to its intervening days, and historically, care was taken as to not break the bones of a certain animal. That animal was sacrificed in a namesake Korban, eaten on the 15th of Nisan, along with maror and matzo. All food items not kosher for it are known as chametz, and the Seder is eaten on the first two of its nights. For 10 points, name this holiday celebrating God's sparing of the Jews.

ANSWER: **Passover** [or **Pesach**; or **Pesah**; or **Pesakh**; or **Peysekh**]

He argued that the aims of philosophy had gone off course in *What is Philosophy?* For 10 points each:
[10] Name this German philosopher who discussed the fundamental mode of human consciousness, which he termed *dasein*, in his 1929 magnum opus, *Being and Time*.

ANSWER: Martin **Heidegger**

[10] Heidegger was initially influenced by the ideas of phenomenology presented by this philosopher, who developed the method of bracketing, and wrote *Logical Investigations*.

ANSWER: Edmund **Husserl**

6. While working with Simon Kuznets at the National Bureau of Economic Research, this man made the finding that the barrier to entry into the medical profession led to artificially high incomes for doctors. This advocate of the negative income tax, wrote the article "Why Not a Volunteer Army" for the *New Individualist Review*. He described the permanent income hypothesis in *A Theory of the Consumption Function*, and he wrote *Free to Choose* with his wife Rose. For 10 points, name this economist associated with the Chicago School and monetarism.

ANSWER: Milton **Friedman**

O.H. Mowrer developed a stimulus-response theory of it, while William James defined it as an idiopathic reaction to situations that may or may not contain real danger. For 10 points each:

[10] Name this most common affective disorder, differentiated from fear by the fact that fear responds to a directly perceived object, while this responds to a vaguely defined situation.

ANSWER: **anxiety** (or **anxiety disorder**)

[10] This is an intense, often irrational fear or anxiety over a certain object or situation, such as heights, open spaces, or the number thirteen.

ANSWER: **phobia**

7. R.R. Shoring reconstructed the destroyed manuscript for this man's symphonic poem *Fate*, and he wrote a suite in G for strings entitled "Mozartiana." This composer wrote the "Characteristic Dances," which he used in the opera "The Voyevod." Another work by this composer includes a "Spanish Dance" and a "Waltz of the Flowers," while an overture of his that quotes the French national anthem uses cannons. For 10 points, name this Russian composer of the *Symphony Pathetique*, the *1812 Overture*, and *The Nutcracker*.

ANSWER: Peter Ilyich **Tchaikovsky**

At the end of this opera featuring "Rose of Heaven, Light of the World," the title character turns back as he returns from the underworld, only to see his lover vanish. For 10 points each:

[10] Identify this 1607 opera, the first to be performed regularly.

ANSWER: *L'Orfeo*

[10] *L'Orfeo* is a masterpiece by this Italian composer of several books of madrigals and the operas *The Return of Ulysses* and *The Coronation of Poppea*.

ANSWER: Claudio **Monteverdi**

8. Bertil Lindblad presented a “dilemma” presented by these objects that the SSPSF model and the Lin-Shu density wave theory both proclaim to solve. Their axes of rotation line up along cosmic voids in the “beads on a string” model. These objects make up both “forks” of the Hubble Tuning Fork diagram, and one variant is the “barred” type. For 10 points, name this type of galaxy characterized by a central bulge and arms, typified by the Milky Way.

ANSWER: **spiral galaxy** [prompt on “galaxy”; accept **barred spiral** before mentioned]

This congenital defect stems from the FMR1 gene. For 10 points each:

[10] Name this syndrome that results from a CGG tri-nucleotide repeat on the namesake sex chromosome.

ANSWER: **Fragile X** Syndrome [accept **Martin-Bell** Syndrome]

[10] A webbed neck is a common symptom of this syndrome that occurs when an individual has a single X chromosome.

ANSWER: Ullrich-**Turner** Syndrome



HSAPQ
High School Academic Pyramid Questions

2008-2009
NSC-Format Set #1

Round 10

Category Quiz
Bonus Choices

Arts
Current Events
Geography
History
Literature
Math Calculation
Mythology
Social Science

Arts
Current Events
Geography
History
Literature
Math Calculation
Mythology
Social Science



HSAPQ

High School Academic Pyramid Questions

2008-2009
NSC-Format Set #1

Round 10

Category Quiz Tossups

9. A remnant of the Tyrrell Sea, the cities of Rankin Inlet and Arviat lie on its shores. Tukarak, Wiegand, and Snape islands make up its Belcher archipelago, and this body of water is connected by its namesake strait to Ungava Bay. Its southern portion receives the La Grande and Nottaway rivers, while its main portion receives the Winisk and Severn Rivers. James Bay is the southern extension of, for 10 points, which large inland body of water in northern Canada that is named after the captain of the *Discovery*, whose crew mutinied against him in 1611.

ANSWER: Hudson Bay

10. MEKP, one of these, is a common catalyst for some polymerizations, and the combustion of sodium forms another one. Beta amyloid catalyzes their decomposition when bound to heme. Acids related to these compounds, such as MCPBA, commonly react through a butterfly mechanism to form epoxides. Isopropyl ether, in storage for a few months, will form dangerous levels of them. For 10 points, identify these compounds, which contain two oxygen atoms with formal charge of -1.

ANSWER: peroxides

11. Emir Abdelkader and Lalla Fatma N'Soumer, known as the Joan of Arc of its Kabylie region, resisted colonial powers in this nation in the 19th century, although it achieved independence under Ahmed Ben Bella. The invasion of this nation was ordered by Charles X and continued under Louis Phillipe, while occupation did not end until the MNA and FLN negotiated for independence with Charles de Gaulle. For 10 points, name this North African country which fought a guerilla war from 1954 to 1962 with France.

ANSWER: People's Democratic Republic of Algeria

12. Richard Wright spent his final years writing over four thousand works in this form. Many works in this form were created by Bosun and Issa, and one particular work in this form depicts a frog jumping into an ancient pond. This form is most associated with the author of *Records of a Travel-Worn Satchel* and *Narrow Road to the Deep North*, Matsuo Basho. For 10 points, name this poetic form consisting of seventeen sound units broken into three lines of five, seven, and five syllables.

ANSWER: haiku

13. This man's article "The Montage of Attractions" advocated bombarding the audience with emotionally shocking scenes. The massacre of striking workers is intercut with shots of cows being slaughtered in this man's film *Strike*, and Upton Sinclair helped finance this man's *Que Viva Mexico!*. His film *October* is an adaptation of *Ten Days That Shook the World*, and one of his films features a scene in which a baby carriage falls down the Odessa Steps. For 10 points identify this Russian film director of *Alexandr Nevsky* and *Battleship Potemkin*.

ANSWER: Sergei Eisenstein

14. A handheld prequel to this game features the tapping of shrinking green circles in order to perform interrogations and is subtitled as the main character's *Chronicles*. The end of this game reveals that Abstergo Industries is seeking the Pieces of Eden because the company is a front for the Knights Templar. The protagonist is really Desmond Miles, but is recalling the memories of his ancestor, Altair, who worked during the Third Crusade. For 10 points, name this 2007 game titled for a member of a medieval Islamic order that performed political killings.

ANSWER: **Assassin's Creed**



HSAPQ

High School Academic Pyramid Questions

2008-2009
NSC-Format Set #1

Round 10

Related Tossups &
Bonuses

Arts

His choral works include the motets *Os Justi* and *Locus iste* as well as a "Study Symphony." For 15 points, name this Austrian, a fan of Richard Wagner who composed the *Romantic Symphony*, and extensively revised his other symphonies throughout his life.

ANSWER: Anton Bruckner

Current Events

Foreign Minister between the two terms of Nobutaka Machimura, this man has served two terms as Secretary-General of the Liberal Democratic Party. For 15 points, name this man who became the Prime Minister of Japan following Yasuo Fukuda's resignation in 2008.

ANSWER: Taro Aso

Geography

With its highest point at La Marmora in the Gennargentu range, this island's largest cities include Nuoro and Sassari. For 15 points, name this Italian island with capital at Cagliari that is separated from Corsica by the Strait of Bonifacio.

ANSWER: Sardinia

History

Originally called the *Winnili*, they attained a better known name by possessing large amounts of unkempt hair. For 15 points, name this group ruled by men such as Cleph and Alboin, who founded the Kingdom of Italy and later principalities and duchies such as Capua and Amalfi.

ANSWER: Lombards

Literature

In this work, Seymour Glass talks to a girl named Sybil on the beach before returning to his hotel room and shooting himself. For 15 points, name this short story by J.D. Salinger.

ANSWER: "A Perfect Day for Bananafish"

Math Calculation

For 15 points, what is result of taking "4 to the power of the base 64 logarithm of 27"?

ANSWER: 3 [$4^{(\log_{64} 27)} = 27^{(\log_{64} 4)} = 27^{(1/3)}$]

Mythology

The female goddess of the same function as this deity is known as Seshat, and he was sometimes known to the Greeks as Trismegistus. For 15 points, name this ibis-headed Egyptian god of wisdom.

ANSWER: **Thoth**

Social Science

It was performed in 1961 by the author of *Adolescent Aggression*. For 15 points, name this experiment in which Albert Bandura attempted to show the effects of the viewing of violence by children with a namesake doll.

ANSWER: **Bobo** doll experiment



HSAPQ

High School Academic Pyramid Questions

2008-2009
NSC-Format Set #1

Round 10

Stretch Phase

15. In 2006, a Los Alamos team released a series of predictions of these objects' glitches, and a "millisecond" variety is believed to result from X-ray binaries. The first extra-solar planets were found orbiting one of them, and Franco Pacini helped Thomas Gold put forth the first definition of them. The radiation from these objects travels through the interstellar medium, and one form of them produces radiation purely from accretion. Also consisting of a "rotation-powered" variety and magnetars, for 10 points, name this class of quickly rotating neutron stars.

ANSWER: **pulsars** [or **pulsating stars**]

Elmire exposes the title character's true motives in this play. For 10 points each:

[10] Name this play in which Orgon is nearly duped by the title hypocrite.

ANSWER: **Tartuffe**

[10] This author who died onstage during a production of his own *The Imaginary Invalid* wrote *Tartuffe*.

ANSWER: **Moliere** [or Jean-Baptiste **Poquelin**]

[10] The title character, Alceste, lusts after Celimene, who also is courted by Oronte and Clitandre. Alceste runs away from society at the end of this other Moliere play.

ANSWER: *The **Misanthrope*** [accept *Le **Misanthrope**, ou l'Atrabilaire amoureux*]

16. One rebellion here was a reaction to Poynings' Law, while another was led by Jean Humbert and Theobald Tone. Pope Adrian IV's issuance of the Laudabiliter led to invasion here by Richard de Clare under Henry II. The origin of a document written on three hundred-forty vellum leaves, this region was also the site of a rebellion led by James Connolly and Patrick Pearse in 1916. For 10 points, name this island that was the origin of the Book of Kells and the site of the Easter Rising.

ANSWER: Republic of **Ireland**

Name some things that Jesus did that were miraculous, for 10 points each.

[10] According to John's Gospel, Jesus turned jugs of water into wine at this celebration.

ANSWER: the **Marriage at Cana** [accept **Wedding at Cana** or other equivalents]

[10] Jesus twice fed large crowds by multiplying loaves of bread and this type of meat.

ANSWER: **fishes** [accept obvious equivalents]

[10] Jesus also brought this man back to life after he had been dead for four days.

ANSWER: **Lazarus**

17. One of this author's short stories sees Schoner strangle the title Junker aristocrat, while another features Walter, who dies in a mine accident, and Elizabeth, who wears the title flowers. This author of "The Prussian Officer" and "The Odour of Chrysanthemums" wrote a novel in which Cipriano and Don Ramon reinstitute the Aztec religion, and another that features the Brangwens and Lenskys. This author of *The Plumed Serpent* and *The Rainbow* also wrote about the love interests of the Morel family. For 10 points, name this author of *Sons and Lovers*.

ANSWER: D.H. **Lawrence**

In this opera, the Commendatore is killed after his daughter Donna Anna is pursued by the titular employer of Leporello. For 10 points each:

[10] Name this opera where the title lover sings the "Catalogue Aria," and who is pursued by Donna Elvira before he is taken to hell by a statue.

ANSWER: **Don Giovanni**

[10] This man collaborated with the librettist Lorenzo da Ponte on the opera *Don Giovanni*.

ANSWER: Wolfgang Amadeus **Mozart**

[10] This other Mozart opera involves Fernando and Guglielmo disguising themselves as Albanians to meet with their lovers Fiordiligi and Dorabella, whose maid is Despina.

ANSWER: **Così fan Tutte** [or **Thus Do They All**]

18. One of their leaders died in the Battle of the Catalaunian Plains, and their downfall came with the victory of Clovis at the Battle of Vouille. Ultimately defeated by Muslim forces, Septimania was their last Gallic stronghold, and their chieftain Wallia died after their settlement of Aquitaine. Ataulphus led them into Spain, and Euric codified their laws. For 10 points name this Germanic group led by men such as Alaric and Theodoric I that separated from the Ostrogoths in the 4th century.

ANSWER: **Visigoths**

In this work, Brother Juniper interprets the story of each victim. For 10 points each:

[10] Name this work set in Peru in which five people die in the collapse of the title object.

ANSWER: *The* **Bridge of San Luis Rey**

[10] This author of *The Bridge of San Luis Rey* also wrote the drama *Our Town*, in which Emily Webb marries George Gibbs.

ANSWER: Thornton **Wilder**

[10] This play by Wilder is set in a New Jersey living room. The central couple, George and Maggie Antrobus, endure an ice age, flood, and seven-year-long war.

ANSWER: *The* **Skin of Our Teeth**

19. One character in this novel has a broken leg and is married to the nagging Heloise, who becomes suspicious of the man who is called to treat Monseieur Roualt. Another character in this novel builds a machine to cure a clubfoot as part of a project of Homais's, and his reputation declines when the boy contracts gangrene. The title character moves from Tostes to Yonville, where the lawyer Leon Dupuis has an affair with her before moving to Paris, and later she takes Rodolphe Boulanger as a lover. For 10 points, name this novel about the wife of Dr. Charles, by Gustave Flaubert.

ANSWER: **Madame Bovary**

An editor of the periodical *One Hundred Eagles*, this man was the subject of the Rettig Report led by Patricio Aylwin. For 10 points each:

[10] Name this creator of the Caravan of Death, a man who led a coup against Salvadore Allende, and ruled as President of Chile from 1974 to 1990.

ANSWER: Augusto **Pinochet**

[10] Augusto Pinochet's Caravan of Death was a part of this larger campaign of political repression in South America that also included the Dirty War of Jorge Videla in Argentina.

ANSWER: Operation **Condor** [or Operación **Cóndor**]

[10] Another regime associated with Operation Condor is that of this Paraguayan president from 1954 to 1989 who was also known as Colonel Trunk.

ANSWER: Alfredo **Stroessner**

20. The moon is visible behind some black clouds while two small boats are tossed on the waves in this artist's *Fishermen at Sea*, while spectral figures can be seen in front of the prow of a ship in his *Ulysses Deriding Polyphemus*. A white arched bridge extends across the Thames toward a great conflagration in his depiction of *The Burning of the Houses of Lords and Commons*, while another work sees manacled hands extend out of the water while a typhoon is coming on. FTP, name this painter of *The Slave Ship* who depicted a locomotive in *Rain, Steam, and Speed*.

ANSWER: Joseph Mallord William **Turner**

They are named for their helical arrangement of a certain organelle. For 10 points each:

[10] Name this genus of filamentous green algae, commonly known as pond scum.

ANSWER: **Spirogyra**

[10] *Spirogyra* is so named for its helical arrangement of this green-colored organelle, the site of photosynthesis.

ANSWER: **chloroplasts**

[10] Chloroplasts contain these membrane-bound compartments, stacks of which are known as grana.

ANSWER: **thylakoids**

21. The *shaker* mutation, which results in shaking under anesthesia, causes a defect in these proteins. The S5 and S6 trans-membrane helices of this protein are homologous in both voltage-gated and non-voltage-gated types of this protein. The voltage-gated ones remain open as long as the membrane is depolarized, and hyper-polarization occurs because these channels also have a delayed closing. For 10 points, name these ion channels, which allow the efflux of a positive ion that is neither calcium nor sodium.

ANSWER: **potassium** ion channels [or **K⁺** ion channels]

This scandal involved the wife of the Secretary of War, who had been involved with John Timberlake. For 10 points each:

[10] Name this 1831 scandal that led to the resignation of both Samuel Ingham and John Branch, two members of the Kitchen Cabinet.

ANSWER: **Petticoat** Affair [or Peggy **Eaton** Affair]

[10] This man was president during the Petticoat Affair; he had earlier won the Battle of New Orleans, and would later pass the Indian Removal Act leading to the Trail of Tears.

ANSWER: Andrew **Jackson**

[10] This man's wife Floride led the opposition to Peggy Eaton. He was the VP at the time, and wrote the South Carolina Exposition and Protest, thus beginning the Nullification Crisis.

ANSWER: John Caldwell **Calhoun**

22. This figure forced another man to cut off his own son's nose and ears after he had to take refuge with Thetis due to being banished from Thrace by Lycurgus. He was raised by the nymphs of Nysa, and in one story he turned a bunch of pirates into dolphins. He forced Agave to tear apart her son Pentheus after Pentheus didn't recognize him as a god, and he was sewn up in the thigh of Zeus after his mother Semele burst into flames for seeing Zeus's true form. For 10 points, name this Greek god of madness, partying, and wine.

ANSWER: **Dionysus** [prompt on "Bacchus"]

Their terminating carbonyl groups make them particularly reactive, and Seliwanoff's test distinguishes sugars containing them from ketones. For 10 points each:

[10] Identify this functional group, which may be oxidized into carboxylic acids.

ANSWER: **aldehyde**

[10] If one exposes an aldehyde to a source of hydride ions, it will be reduced to this kind of compound, an example of which is phenol.

ANSWER: **alcohol**

[10] The carbon adjacent to a carbonyl group is denoted with this Greek letter.

ANSWER: **alpha**