



HSAPQ

High School Academic Pyramid Questions

Fall 2008
NSC-Format Set

Round 12

Related Tossups &
Bonuses

1. In one of his works, Dianello loves Aurelio Costa, and her father Flaminio tries to starve Sicilian workers by shutting down a mine. In another work of his, the title character hears his wife has identified him as dead so he takes the name Adriano Meis. In addition to *The Old and the Young* and *The Late Mattia Pascal*, this man created Madame Pace, who is introduced during a rehearsal of *Mixing it Up*, and an insane man who loves Matilda and believes he is a German king. For 10 points, name this author of *Henry the Fourth*, the creator of a living fictional family in *Six Characters in Search of an Author*.

ANSWER: Luigi **Pirandello**

In this play, Rebecca Kroll leads Beata to suicide by lying that she is with child. For 10 points each:

[10] Name this play about the former clergyman Johannes, who becomes a freethinker and commits suicide himself in response to Rebecca's suicide.

ANSWER: **Rosmersholm**

[10] This author wrote *Rosmersholm*, as well as a play about the wife of George Tessman who burns her suitor Eilert Lovborg's manuscript before shooting herself, *Hedda Gabler*.

ANSWER: Henrik **Ibsen**

2. Vlasov's equation is a special case of an equation named after this man in which collisions are neglected, while another equation named after this man describes "almost rigid motion." An equation inscribed on his tombstone reads " $S = k \log W$ ", where k is his namesake constant. A law stating that the energy radiated by a black body is proportional to the fourth power of temperature is named for Stefan and this man. For 10 points, name this Austrian scientist, one of the founders of statistical mechanics.

ANSWER: Ludwig **Boltzmann**

It is often used for genomic libraries as it contains no introns. For 10 points each:

[10] Name this type of DNA that is transcribed from mRNA.

ANSWER: **cDNA** [or **complementary** DNA]

[10] cDNA libraries are often made using this enzyme, which synthesizes a complementary strand of DNA from an RNA molecule.

ANSWER: **reverse transcriptase**

3. A fleet of twenty-one ships under Jacob Binckes installed Anthony Colve as governor of this entity six years after its dissolution, and Peter Plochoy founded a utopian community here. First led by Cornelius May, the idea for this entity may have been originated by William Usselincx and it was ruled by the Council of Twelve Men. Victors over the Wappani in Kieft's War, this entity was given to England through the Treaty of Breda in 1667. For 10 points, name this entity with leaders including Peter Minuit and Peter Stuyvesant, a Dutch colony in America whose capital was New Amsterdam.

ANSWER: **New Netherland**

Following the assassination of Jean-Jacques Dessalines, this was divided into two parts ruled by Alexandre Pétion and Henry Christophe. For 10 points each:

[10] Name this country, which was later ruled by the dictators "Papa Doc" and "Baby Doc" Duvalier.

ANSWER: **Haiti**

[10] Dessalines, Pétion, and Christophe had all risen to power under this leader of the Haitian independence movement, who ruled until Charles Leclerc's invasion in 1802.

ANSWER: François Dominique **Toussaint** Louverture

4. A green door can be seen in a back room in this painting, and to the left a man in a white hat talks to woman in a blue dress and red shawl. A bunch of white flowers in a vase stands next to bottles on a yellow-green bar, and near the center stands a white-haired man wearing a cream suit. The clock hanging on one of the red walls places the time at a quarter past midnight, and the center is dominated by a billiard table. For 10 points, name this painting featuring three glowing orange lamps and a yellow floor, an Impressionist take on an eatery by Vincent van Gogh.

ANSWER: *The **Night Café***

Giacomo Balla was a member of this movement, whose manifesto was written by the poet Filippo Marinetti. For 10 points each:

[10] Name this Italian movement of around 1910, whose common themes include speed, technology, industry, and youth.

ANSWER: **Futurism**

[10] This member of the Futurism movement is responsible for the painting *The City Rises* and the sculpture *Unique Forms of Continuity in Space*.

ANSWER: Umberto **Boccioni**

5. The tutor Jacques Bossuet was influential in the policies of this man, whose reign saw the visit of Shen Fuzong as well as the signing of the Truce of Ratisbon. Michel le Tellier and Nicolas Fouquet both served as advisors to this ruler, whose foreign wars were ended by the treaties of Ryswick, the Pyrenees and Utrecht. Through the Edict of Fontainebleau, this man revoked the Edict of Nantes, and his ministers included Jean-Baptiste Colbert and Cardinal Mazarin. For 10 points, identify this French monarch from 1643 to 1715, known as the Sun King.

ANSWER: **Louis XIV** of France

The Ridolfi Plot, the Babington Plot, and the Throckmorton Plot were attempts to kill this ruler in order to put Mary, Queen of Scots on the throne. For 10 points each:

[10] Name this monarch who died a natural death and was followed by James I.

ANSWER: **Elizabeth I** [prompt on "Elizabeth"]

[10] William Watson attempted to kidnap this monarch in the Bye Plot, and William Ruthven led a namesake raid that was successful in capturing this monarch in 1582.

ANSWER: **James I** of England [or **James VI** of Scotland; prompt on "James"]

6. One process that occurs in this structure is divided into O-linked and N-linked varieties. The chaperone BiP is localized to this structure's lumen, and in liver cells, it detoxifies hydrophobic chemicals. Other functions of this organelle include the breakdown of glycogen, lipid synthesis, and disulfide bond formation. It consists of a network of vesicles and channels, which are sometimes covered by ribosomes. For 10 points, name this cell organelle that comes in smooth and rough varieties.

ANSWER: **endoplasmic reticulum** [or **ER**]

For bubble sort, it is n-squared, as for straight insertion. For 10 points each:

[10] Name this term for the estimate of the number of operations needed to perform a certain algorithm.

ANSWER: **order** (or big **O**; or **running time**)

[10] The quicksort method often makes use of these two operations. One of them suspends operations and moves to a new task; the other closes those operations and returns to the next highest level.

ANSWER: **push** and **pop**

This figure cut off the head of an individual for some actions involving a copper fishhook, and subsequently Hathor had to help him with some gazelle milk after his eyes got gouged out. This figure goes blind during the new moon since his eyes represent the moon and sun. He put plaster around a boat of wood to win a contest for control of Egypt, and he fights a war to avenge the murder of his father. For 10 points, name this son of Osiris and Isis, an Egyptian god depicted with a falcon's head.

ANSWER: **Horus** [accept **Haru**]

During the Isra, he rode on a steed known as Buraq, and during the Mi'raj, is taken to the heavens. For 10 points each:

[10] Name this prophet whose wives included Khadijah and Aisha.

ANSWER: **Muhammad** ibn 'Abdullāh

[10] The Five Pillars of Islam are found mentioned in the Koran, but in this collection of commentaries on the life and actions of Muhammad.

ANSWER: **Hadith**

8. Philip Nelson classified these entities into search, experience, and credence types. Demerit ones are considered intrinsically bad by an external authority, and public ones are non-excludable and non-rivalrous. For the normal type of these entities, demand increases when income increases, unlike the inferior or Giffen types of them. Substitute ones, such as coal and oil, can be used in place of one another. For 10 points, name these economic entities which people buy to satisfy a want or need.

ANSWER: **goods**

He proposed the absolute income hypothesis, and represented the United Kingdom at the Bretton Woods Conference. For 10 points each:

[10] Name this economist who argued for government intervention in the economy, and wrote *The General Theory of Employment, Interest, and Money*.

ANSWER: John Maynard **Keynes**

[10] This Austrian economist was a longtime opponent of Keynes and wrote *The Road to Serfdom*. He was a co-winner of the 1974 Nobel with Gunnar Myrdal.

ANSWER: Friedrich August von **Hayek**



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2008-2009
NSC-Format Set #1

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Category Quiz
Bonus Choices

Arts
Current Events
Geography
History
Literature
Math Calculation
Religion
Social Science

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Category Quiz Tossups

9. The kinin system was discovered upon realization that injection of it leads to low blood pressure, and the surface tension of it is measured in the Hay test. One disease affecting it in infants is a result of a mutation in the BCKDHA gene, prevents the breakdown of leucine, isoleucine, and valine, and results in it smelling like maple syrup. Albumen is found in it in sufferers of Bright's disease, and it normally contains hippuric acid, creatinine, urea, and other nitrogenous compounds. For 10 points, name this liquid waste product that is excreted by the kidneys, stored in the bladder, and discharged through the urethra.

ANSWER: urine [or pee; or other synonyms]

10. His fourth string quartet's fourth movement is entirely pizzicato and uses "hora lunga" rhythms in the third movement. Tibor Serly helped complete his viola concerto, and his 153 solo piano works are collected in *Mikrokosmos*. This composer of the five-movement *Concerto for Orchestra* also wrote *Music for Strings, Percussion, and Celesta*. For 10 points, name this composer of the opera *Duke Bluebeard's Castle*, a composer who often used folk tunes and songs from his native Hungary.

ANSWER: Bela Bartok

11. In this novel, a duel takes place in which Settembrini refuses to fire at a Jesuit who was converted from Judaism, thus leading the character Naphta to shoot himself. The Dutch planter Mynheer Peepkorn comes to the title location after working in Java, and he loves Clavdia Cauchat. Joachim Ziemssen is the cousin of the main character, who visits for three weeks and discovers that he has tuberculosis, before going skiing against doctor's orders. For 10 points, name this Thomas Mann novel about Hans Castorp's stay in a Swiss sanatorium.

ANSWER: *The Magic Mountain* [or *Der Zauberberg*]

12. In the Senate, he was responsible for the Civil Aeronautics Act, and he led the Special Committee Investigating National Defense, which exposed graft in arms production. While as a judge, he gained a reputation for honesty despite his association with the Pendergast political machine. The subject of a biography by David McCullough, this man issued Executive Order 9981 to desegregate the military, and his Fair Deal program was largely voted down. For 10 points, name this president from Missouri who defeated John Dewey in the 1948 election.

ANSWER: Harry Truman

13. Prince of Wales is the largest of its Alexander Islands, whose eastern shores contain part of the Inside Passage. Other mountain ranges include the Wrangell Mountains and the Brooks Range, and its Malaspina Glacier extends from Mount St. Elias to its namesake Gulf. Its islands of Kiska and Attu were occupied by Japan during World War II, and Unimak is the easternmost of those Aleutian Islands. For 10 points, name this U.S. state whose cities include Ketchikan, Sitka, Nome, Fairbanks, Anchorage, and the capital, Juneau.

ANSWER: **Alaska**

14. This video's creator has also made a video that includes a song about eugenics and leaving a body in a landfill entitled "Ferrets." The sequel to this video features a character claiming "tonight we dine on turtles" in Spanish while talking to a giant letter Z, and ends with the title character becoming the Banana King. The original has the title character being informed he is on a bridge after being shown the way by a "magical leopleuridon." For 10 points, name this video about a trip to Candy Mountain by a mythical horned creature.

ANSWER: **Charlie the Unicorn**



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Category Quiz
Bonuses

Arts

This man painted a Jesus-like image of himself in the *Self-Portrait in a Furred Coat*; his later copper engravings include *Melancholia I* and *St. Jerome in His Study*. For 15 points, name this German Renaissance artist of the woodcut *The Four Horsemen of the Apocalypse*.

ANSWER: Albrecht Dürer

Current Events

This man's brother Ari is alleged to have inspired the main character of the TV show *Entourage*. For 15 points, name this Illinois Congressman, the son of an Israeli immigrant, who was named Barack Obama's White House Chief of Staff.

ANSWER: Rahm Emanuel

Geography

Beginning in the Kachin state, tributaries of this river include the Mali Hka and N'Mai Hka rivers, and it flows through the cities of Myitkyina and Bhamo. For 15 points, name this river on which Mandalay lies, the largest in Myanmar.

ANSWER: Irrawaddy River [or Ayeyarwady River]

History

It saw the introduction of Mahayana Buddhism, and it is traditionally divided into the Kofun and Asuka periods. For 15 points, name this period of Japanese history that preceded a period named for Nara, and is best known for Prince Shotoku's reforms.

ANSWER: Yamato period [or Yamato-jidai]

Literature

In this novel, the title character stays with Lucas Asphalter, who gave mouth-to-mouth to his pet monkey. For 15 points, name this Saul Bellow novel about a man who writes letters to people like his dead mother and Dwight Eisenhower.

ANSWER: Herzog

Math Calculation

For 15 points, what is the period of the function $f(t) = \cos^2(t) - \sin^2(t)$?

ANSWER: π

Religion

It takes its name from the “supreme being” of Taoism, and it counts Victor Hugo and Jesus Christ among its saints. For 15 points, name this syncretic religion based in Vietnam.

ANSWER: **Cao Dai** [or **High Tower**]

Social Science

It posited that one of the basic functions of mind is to detect patterns and regularities in the world around us. For 15 points, identify this school of psychology known for postulating the phi phenomenon, founded by Koffka and Wertheimer.

ANSWER: **Gestalt** school



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Stretch Phase

15. Superatoms are considered to be “pseudo” varieties of them, and one compound consisting of two of them notably cleaves carbon-silicon bonds in organic reactions. The Tyrian purple dye features two of them at the ends of benzene rings, and a radioactive one was synthesized by barraging bismuth with alpha particles. Hypocalcaemia results from a spill of an acid of one, which is in both Freon and Teflon. Consisting of astatine, bromine, and the most electronegative element, for 10 points, name this chemical group also containing iodine and fluorine.

ANSWER: halogens

This novel begins with characters swearing an oath in a peach garden, and describes the Battle of Red Cliffs. For 10 points each:

[10] Name this 15th century novel about the conflict between the Wei, Shu, and Wu dynasties.

ANSWER: *Romance of the Three Kingdoms*

[10] This Asian country is the setting of *Romance of the Three Kingdoms*, and has produced four major classical novels, including *Dream of the Red Chamber*.

ANSWER: China

[10] This other classic Chinese novel describes one hundred and eight characters, who eventually are destroyed by the conniving official Gao Qiu.

ANSWER: *Outlaws of the Marsh* [or *Water Margin*; or *All Men Are Brothers*]

16. One of its chief supporters was the Prince of Hohenlohe, while one of its main opponents was Ludwig Windthorst. This term was coined by the scientist Rudolf Virchow, and it resulted in the rapid growth of the Centre Party. Its pinnacle came when civil marriages were made obligatory, and Adalbert Falk’s May Laws also exacerbated it. For 10 points identify this fight between the Roman Catholic Church and Otto von Bismarck over the church’s role in the state.

ANSWER: Kulturkampf

This man received an Academy Award nomination for playing the mutineer Fletcher Christian in 1935’s *Mutiny on the Bounty*. For 10 points each:

[10] Name this man, known as the “King of Hollywood”, whose final film, *The Misfits*, was also the final film for Marilyn Monroe.

ANSWER: Clark Gable

[10] Clark Gable is perhaps best known for portraying this Civil War blockade runner and love interest of Scarlet O’Hara in *Gone With the Wind*.

ANSWER: Rhett Butler [accept either name individually]

[10] One of Clark Gable’s most popular films is this 1934 movie in which Gable plays Peter Warne, an unemployed newspaper reporter who meets Ellie Andrews, an heiress whose father disapproves of her marriage to King Westley.

ANSWER: *It Happened One Night*

17. While in London, this architect worked with Maxwell Fry, and his first major work was a building with metal spandrels called the Fagus Factory. His works together with the Architects Collaborative include the U.S. Embassy in Athens, and part of the University of Baghdad. His work in Dessau was showcased as examples of the International Style, and in 1918, he became director of the Weimar School of Art, but reorganized it with a different name. Also known for creating flat-roof canopies for the Harvard Graduate Center, for 10 points, identify this architect who founded the Bauhaus.

ANSWER: Walter **Gropius**

This work was continued in the posthumous *American Hunger*. For 10 points each:

[10] Name this autobiography, which attacks not only racism but also narrow-minded family members, teachers, and clergymen who sought to silence the author.

ANSWER: **Black Boy: A Record of Childhood and Youth**

[10] This author of *Pagan Son*, *Savage Holiday*, and *Uncle Tom's Children* wrote about the first half of his life in *Black Boy*.

ANSWER: Richard **Wright**

[10] This protagonist of the Richard Wright novel *Native Son* kills Mary Dalton, and is defended in court by Boris Max.

ANSWER: **Bigger Thomas** [accept either]

18. He wrote about Gottfried Wolfgang, who studies at the Sorbonne during the Reign of Terror, in "Adventure of the German Student." Old Scratch meets a miser, who he tries to make a bargain with to reveal the place of Captain Kidd's treasure in his "The Devil and Tom Walker." For 10 points, name this author of *Tales of the Alhambra* who wrote about Brom Bones trying to scare off a teacher who loves Katrina von Tassel named Ichabod Crane in *The Legend of Sleepy Hollow*.

ANSWER: Washington **Irving** [or Jonathan **Oldstyle**; or Geoffrey **Crayon**]

This man's forces won the "war for Amphipolis" against a coalition led by Athens, and he allied with Thebes to destroy Phocis in the Third Sacred War. For 10 points each:

[10] Name this conqueror of Greece, who was notably opposed in some namesake speeches by Demosthenes, and was the father of Alexander the Great.

ANSWER: **Philip II** [or **Philip of Macedon**; prompt on **Philip**]

[10] Philip and Alexander were both kings of this land to the north of Greece.

ANSWER: **Macedonia**

[10] In this 338 BCE battle, Philip, assisted by a teenaged Alexander, defeated the Sacred Band to end the resistance of Thebes.

ANSWER: **Chaeronea**

19. This book features the killing of the prophet Balaam and a war with the Midianites that results in their destruction. This book also includes a section in which a bronze snake known as Nehushtan is constructed. In this book, the Levites are given command of the Tabernacle, and Miriam is punished with leprosy after speaking out against Moses. For 10 points, name this fourth book of the Old Testament that opens with a census to discover how many men are able to serve in the military.

ANSWER: **Numbers**

Answer the following about plant anatomy, for 10 points each.

[10] These cluster of unspecialized cells come in two main types: lateral and apical, the later type of which is responsible for growth in the length of roots and stems.

ANSWER: **meristems**

[10] This plant tissue transports water and minerals from the roots.

ANSWER: **xylem**

[10] Located within the endodermis of plants is this single-layer of parenchyma cells that remains meristematic and produces new cells when needed.

ANSWER: **pericycle**

20. A novel written in this language contains ninety-nine "expendable" chapters, and can be read by jumping back and forth between chapters. This language was also used to write a poetry collection that begins with "Body of a Woman." In the 1960s and 70s, a "boom" of novels in this language were written, such as *Hopscotch* and *Aunt Julia and the Scriptwriter*. For 10 points, name this language used by Julio Cortázar and Mario Vargas Llosa, as well the author of *Twenty Love Poems and a Song of Despair*, Pablo Neruda.

ANSWER: **Spanish** [or **Espanol**]

She helped the man she loved outwit her father, King Aeëtes. For 10 points each:

[10] Name this woman who killed her own children after she was spurned by Jason.

ANSWER: **Medea**

[10] Out of jealousy over Jason's new love interest, Medea gave a poisoned dress to this priestess of Hecate.

ANSWER: **Glauce** [or **Creusa**]

[10] Medea, by demonstrating the rejuvenation of a ram through cutting it up and boiling the pieces, convinced the daughters of this man to do the same to him.

ANSWER: **Pelias**

21. Holes in these objects are known as anti-meatball, anti-spaghetti, or anti-lasagna, depending on density, and the upper bound to their mass is given by the Tolman-Oppenheimer-Volkov limit. Upon reaching a density of approximately 400 billion grams per cubic centimeter, white dwarfs may begin to turn into them. First discovered in standalone form by Jocelyn Bell, for 10 points, name these extremely dense stars often formed as a result of supernovae, which contain lots of the namesake neutrally-charged subatomic particle.

ANSWER: **neutron stars**

John Brooks Henderson was hired as special prosecutor to investigate it. For 10 points each:

[10] Name this scandal that was discovered by Treasury secretary Benjamin Bristow, and involved a group of Republican politicians stealing money from alcohol taxes.

ANSWER: **Whiskey Ring**

[10] The Whiskey Ring took place during this President's administration, which also saw a Black Friday caused by Jay Gould and James Fisk, in addition to the Panic of 1873.

ANSWER: Ulysses Simpson **Grant**

[10] Another scandal during the Grant administration saw this man, the Secretary of War, be implicated in a graft scandal.

ANSWER: William Worth **Belknap**

22. This king allied with the counts of Boulogne, Portugal, and Flanders, as well as Holy Roman Emperor Otto IV, in an attempt to defend the Angevin Empire against Philip Augustus of France that led to his total defeat at Bouvines. His refusal to accept Stephen Langton as Archbishop of Canterbury led Innocent III to lay an interdict on England. For 10 points, name this king who served in between Richard the Lion-Hearted and Henry III, and was noted for ending a civil war at Runnymede by signing the Magna Carta.

ANSWER: King John I [or John Lackland; or Jean Sans Terre]

Their stability is described by DLVO theory, and types of them include aerosols and foams. For 10 points each:

[10] Name these suspensions in which a solute-like phase is dispersed throughout a solvent-like phase.

ANSWER: colloids

[10] Milk is an example of this type of colloid, in which a liquid is dispersed in another liquid.

ANSWER: emulsion

[10] Colloids scatter incoming light, which results in this eponymous effect.

ANSWER: Tyndall effect