

**1. Math - Computer Science Engineering**

TOSSUP While waiting on line at the bank, Don Wetzel had the vision for this device. Teaming with engineers from Docutel, they built one, the first was deployed in 1969 at Rockville Centre, New York. Given nicknames such as Harvey Wallbanker or Tillie, today there are nearly half-a-million of -- for 10 points -- what devices, networked by NYCE, HONOR, and PULSE that rely on plastic cards?

Answer: Automatic (or Automated) Teller Machines (accept: ATM)

BONUS On December 23, 1947, two Bell Labs scientists invited their managers to witness the amplification of an electrical signal using a sliver of the semiconducting material Germanium. Answer these questions relating to that event for 10 points each:

A. Devised by Ferdinand Braun, the crystal detector used in early radio sets contain this device. It lets current through easily one way, but hinders it the other, and is formed by a single metal wire, dubbed a cat's whisker, touching a semi-conducting crystal.

Answer: Rectifying Diode (prompt on Diode)

B. Modifying the cat's whisker of the rectifying diode by placing two fine metal wires together on a germanium crystal, turning it from a diode into a triode, what type of transistor did John Bardeen and Walter Brittain create.

Answer: Point-Contact Transistor

C. Their group's leader, William Shockley, not wanting to be left out, within a month devised this type of transistor, which left the point-contact type in the dust. He put a grid into the semiconductor diode using the junction between p-type and n-type semiconducting materials as diodes.

Answer: Bipolar Transistor

**2. History US**

TOSSUP It contained a clause granting the United States Supreme Court the right to issue writs of mandamus. Passed in 1789, it established a Supreme Court of six judges, provided 13 district courts and 3 circuit courts. For 10 points – name this law declared unconstitutional by *Marbury v. Madison*.

Answer: Judiciary Act

BONUS Identify this American 30-20-10

A. (30) At the 1786 Annapolis Convention he drafted the report leading to the 1787 Constitutional Convention.

B. (20) He founded the Bank of New York and the New York Post.

C. (10) With the rank of Lieutenant Colonel he served as George Washington's private secretary and later served in his cabinet as Treasury Secretary.

Answer: Alexander Hamilton

**3. Art/Architecture/Photography**

TOSSUP Designed by Edmund Beckett, 1st Baron of Grimthorpe, the name originally referred to a 13-ton bell named for the Commissioner of Works at the time. For 10 points--name this famous piece of machinery housed in a namesake tower at the eastern end of the Houses of Parliament in London.

Answer: Big Ben

BONUS Who painted the following 19th century impressionist works (10 points apiece):

A. Luncheon on the Grass

Answer: Eduard Manet

B. The Boating Party

Answer: Mary Cassatt

C. Luncheon of the Boating Party

Answer: Pierre Auguste Renoir

**4. Miscellaneous 1**

TOSSUP The superintendent of Concord schools from 1859, this transcendental idealist founded the Utopian community of Fruitlands in 1840. For 10 points -- name this educator, perhaps best known as the father of the author of *Little Women*.

Answer: Amos Bronson Alcott

BONUS American Literature Grab Bag, for the stated number of points:

A. (5,5) Frank Norris projected three works in his Epic of Wheat Cycle, but "*The Wolf*" was never written. Name the other two.

Answer: The Octopus, The Pit

B. (5,5) What two men used the pseudonym Ellery Queen?

Answer: Frederick Dannay, Manfred Lee

C. (5,5) In what two Thomas Wolfe novels is the character Eugene Gant the central character?

Answer: Look Homeward Angel and Of Time and The River

**5. History Europe**

TOSSUP They were divided into four classes: knights, sergeants, chaplains, and servants, but only the knights wore the white surcoat marked with a red cross. Founded by eight French knights, led by Hugues de Payens in 1120 in a house near Jerusalem, its mission was to guide and protect pilgrims, and later to defend the Crusader lands. Peaking with 20,000 knights, they became enemies of the Knights Hospitalers. For 10 points – name this group lasting until 1314, when Philip IV of France disbanded them.

Answer: Knights Templar (Poor Knights of Christ and of The Temple of Solomon)

BONUS Identify these French Kings, for 10 points each:

A. He was known as the Spider King.

Answer: Louis XI

B. He caused the building of the Palace at Versailles and said "I am the State".

Answer: Louis XIV

C. He said, "After me, the deluge."

Answer: Louis XV

**6. History World /Ancient**

TOSSUP In the Roman calendar, they fell on the 13th of most months. A famous warning given to Julius Caesar however did not refer to the 13<sup>th</sup>. For 10 points -- what famous day falls on the 15<sup>th</sup> of May, July, October, and of course March?

Answer: Ides

BONUS In Hispano-America several terms have been used to denote an individual's racial composition. What term applies to:

A. Persons of pure European descent born in Latin America.

Answer: Creole

B. Persons of mixed blood, Indian and European.

Answer: Mestizo

C. Persons of Spanish birth living in Latin America.

Answer: Peninsulares

**7. Literature English Language**

TOSSUP The first version of this novel was in epistolary form, and it was called "Elinor and Marianne". For 10 points -- name this novel about the Dashwood family written in 1797 by Jane Austen.

Answer: Sense and Sensibility

BONUS Identify the following authors on a 10-5 basis.

- A. (10) He wrote "Journal of a Tour to Corsica"  
 (5) He was good friends with Dr. Johnson

Answer: James Boswell

- B. (10) In 1743 he wrote "The Life of Mr. Jonathan Wild the Great"  
 (5) He wrote "Journal of a Voyage to Lisbon".

Answer: Henry Fielding

- C. (10) In 1725 he wrote "The True and Genuine Account of the Life and Actions of the Late Jonathan Wild"  
 (5) He wrote "Journal of the Plague Year" and Moll Flanders

Answer: Daniel Defoe

**8. Miscellaneous 2**

TOSSUP Apply a force of 1 Newton through a distance of 1 meter in the direction of the force. Then for 10 points -- you get what SI unit of work or energy named after an English physicist living between 1818 and 1889.

Answer: One Joule

BONUS Given the thing being measured, give the SI name for that measurement

A. inductance

Answer: henry

B. potential

Answer: volt

C. power

Answer: watt

**9. History Recent**

TOSSUP The longest reigning leader of the world-wide conservative reaction of the early 1980's, this former Prime Minister stressed Private Enterprise, and attacked Socialism and the Welfare State. For 10 points -- name the grocer's daughter who has been dubbed The "Iron Maiden".

Answer: Margaret Thatcher

BONUS The Korean War was a defining moment in the Cold War. For ten points each answer these question about that conflict:

A. After he said "There is no substitute for victory" in a letter to Joseph Martin, he was fired and replaced by Lt. Gen. Matthew Ridgway.

Answer: Gen. Douglas MacArthur

B. Name "Operation Chromite" better known as?

Answer: Inchon landing

C. Where in August 1950 were North Korean troops stopped from advancing?

Answer: Pusan Perimeter

**10. Literature US**

TOSSUP Theodore. Dreiser's first novel, it was published in 1900, but was not made publically available until 1912 because of its frankness and "immorality". It tells the story of an innocent country girl who is exposed to the cruelty of Chicago in the 1890s. For 10 points -- who is rescued by travelling salesman Charles Drouet, and then eventually maker her way (with the assistance of George Hurstwood) to the New York stage where she becomes successful, but remains unhappy.

Answer: Sister Carrie

BONUS Answer these questions about Theodore Dreiser's works:

A. Theodore Dreiser wrote a pair of books about midwestern artist Eugene Witla, who becomes an art editor. What are these two works?

Answer: The Genius, and The Bulwark

B. About the celebrated murder of whom by whom was the Theodore Dreiser work An American Tragedy written?

Answer: Chester Gillette's murder of Grace Brown

**11. Music/Dance Film/Stage**

TOSSUP This American composer styled himself a Zen philosopher and social anarchist. From 1988-89 he held the Charles Eliot Norton professorship of poetry at Harvard. He is best known for a piece of music which is in fact silent. For 10 points -- who is this composer of "Imaginary Landscape No. 4" and "Four Minutes 33 Seconds"?

Answer: John Cage

BONUS: Answer these musical questions for 10 points each:

A. Which extraordinary family in the history of music from Thuringia, Germany produced over 100 musicians between 1650 and 1850.

Answer: Bach

B. Who composed "The Well Tempered Clavier" and "Fugue in C Minor"?

Answer: Johann Sebastian Bach

C. Who was the Berlin and Hamburg member of the Bach family, third son of J.S. Bach?

Answer: Carl Philipp Emmanuel Bach

**12. Literature Foreign**

TOSSUP Ayatollah Khomeini's Fatwa did not destroy this man's career, though it certainly put a damper on his social life. Since then he has written *East, West* a collection of stories for adults, and *Haroun and the Sea of Stories* for children. For 10 points -- name this author of *The Moor's Last Sigh* - recently controversial in Bombay, *Midnight's Children*, winner of the Booker Prize, and *The Satanic Verses* which engendered the Fatwa in the first place.

Answer: Salmon Rushdie

BONUS Identify these Arab authors for 10 points each:

A. In *Orientalism* he examines Western stereotypes about the East, specifically the Islamic world, and argues that Orientalist scholarship is based on Western imperialism.

Answer: Edward Said

B. His *Cairo Trilogy* depict the lives of three generations of different families in Cairo from World War I until after the 1952 military coup that overthrew King Farouk.

Answer: Naguib Mahfouz

C. This Lebanese-American's *The Prophet* was a favorite of General Norman Schwarzkopf during the Gulf War.

Answer: Khalil Gibran

**13. Science - Biology/Anthropology/Paleontology**

TOSSUP In a great clash, Bishop Samuel Wilberforce debated Thomas Henry Huxley in 1860 at Oxford. The theory they debated describes the process of development in which an organ or organism becomes increasingly complex by the differentiation of its parts. For 10 points -  
- what theory says there is a continuous and progressive change according to certain laws and by means of resident forces.

Answer: Evolution (prompt on Darwinism)

BONUS An ordered mind will lead to 30 points, for 10 points each name the orders containing:

A. Egg laying mammals                      Answer: Monotremata (accept Monotreme)

B. pouched mammals                      Answer: Marsupialia

C. man    Answer: Primates

**14. Economics/Business/Government/Political Science**

TOSSUP A common problem in insurance, called moral hazard, finds the insured party knowing his own health better than the insurer. This was generalized by James Mirrlees and William Vickrey into – for 10 points – what kinds of studies of transactions where some of the parties know more than others

Answer: asymmetric information

BONUS Name these stock market things for 15 points each:

A. This is a contract that gives the holder an option to sell shares to the other party at a fixed price, even if the market has declined.

Answer: Put

B. This is a contract that gives the holder an option to buy shares from the other party at a fixed price, even if the market has risen.

Answer: Call

**15. Science - Geology/Astronomy/Meteorology/Archeology**

TOSSUP It ventured within 42,000 kilometers of Jupiter's cloud tops and discovered a new ring around Saturn. Now after cruising for 22 years and 6.6 billion kilometers, it is now losing power. NASA has stopped daily communication, and instead will only listen once every 2 to 4 weeks. For 10 points -- name this spacecraft that fell silent in 1996?

Answer: Pioneer 11

BONUS Answer these questions about Uranus

A. For five points apiece name five first known moons of Uranus

Answer: Titania, Umbriel, Ariel, Miranda, Oberon

B. For an additional five points who discovered Uranus?

Answer: Sir William Herschel

**16. Psychology/Sociology/Linguistics**

TOSSUP It stresses the impulsive and spiritual character of youth, promoting self-awareness by free play, rather than the rigid formalism of adults. Originating in ideas of Robert Owen in Great Britain, J.H. Pestalozzi in Switzerland and his pupil Friedrich Froebel in Germany, who coined the term, and Maria Montessori in Italy. For 10 points -- name this early education school for 4 to 6 year olds?

Answer: Kindergarten

BONUS Give the more common words given the education jargon, for 5 points each, 10 for all four.

A. Knowledge Base Possessor

Answer: a student who knows the answer (accept equivalent)

B. learning facilitator

Answer: teacher

C. negative attention getting

Answer: trouble-making

D. deficiency at grading period

Answer: poor performance, failing

**17. Popular Culture Sports**

TOSSUP From the Greek for polished white agate, in 1560 Pieter Brughel the Elder depicted children playing this game. It was first played in about 3000 BC in Egypt, and was played continuously through the present, with noted fans including Emperor Augustus. For 10 points -- name this game featuring small round glass like balls.

Answer: Marbles

BONUS Name these products developed by the 3M Company for 10 points each:

A. Today, enough is made each day to circle the earth three times. It was developed by engineer Richard Drew to seal Cellophane, which he coated with an adhesive.

Answer: Scotch tape

B. Devised by Art Fry as a bookmark that would lightly attach and detach, it has since become one of the world's most important messaging systems. Today it comes in over 18 colors, 27 sizes, and 56 shapes, and some with flavorings, though most are small and yellow.

Answer: Post-It Notes

C. The company announced it is phasing out of the perfluorooctanyl chemistry used to produce certain repellents and surfactant products such as this system of fibre protection, used across a wide range of products

Answer: Scotch Gard

**18. Geography**

TOSSUP The name of the city's main river is derived from the Finnish word for mud, yet Peter the Great thought this bleak spot the ideal location for a new capital. For 10 points -- name this Russian city whose main street, Nevsky Prospekt, is subject to the Neva's floods.

Answer: St. Petersburg (prompt on Leningrad, Petrograd)

BONUS "I'm a lumberjack and I'm okay". And now for something completely different, a few questions on British Columbia (for the stated number of points):

A. (5) Name the capital.

Answer: Victoria

B. (5) On what island is Victoria?

Answer: Vancouver

C. (5) What strait separates Vancouver Island from the city of Vancouver?

Answer: Strait of Georgia

D. (15) What four states border British Columbia (15, all or nothing)?

Answer: Alaska, Washington, Idaho, Montana

**19. Science - Physics Chemistry**

TOSSUP It is the combination of the deuterium atom with another deuterium or tritium atom. The combination releases enormous heat. For 10 points -- name this process used in a hydrogen bomb.

Answer: Fusion

BONUS Identify these compounds on a 15-5 basis:

A. (15) Making up approximately 0.03% of the atmosphere by weight, it is a colorless odorless gas at normal temperatures. It is consumed in photosynthesis and produced in respiration.

(5) name this compound comprising one atom of carbon and two of oxygen.

Answer: Carbon Dioxide (CO<sub>2</sub>)

B. (15) The principle source of this pollutant caused by incomplete combustion of carbon is the automobile. Its action on human health is a result of its tying up of hemoglobin.

(5) Name this gas consisting of one atom of carbon and one atom of oxygen.

Answer: Carbon Monoxide (CO)

**20. Religion/Mythology/Philosophy**

TOSSUP Lost as an infant, he was raised by coyotes before becoming an outlaw and then an Indian fighter. He dug the Rio Grande, invented the six-gun and the lasso and taught cowboys to ride broncos and rope and brand cattle. On a bet he rode an Oklahoma Cyclone bareback. For 10 points -- name the mythological figure that died from drinking whiskey laced with barbed wire and fish hooks.

Answer: Pecos Bill

BONUS Pecos Bill was not truly a God, more of a hero. Answer these questions about Pre-Columbian Mexican Deities (for 10 points each):

A. What Teotihuacan, Toltec and Aztec God was called The Plumed Serpent?

Answer: Quetzalcoatl

B. Xipe Totec [Zip-ee Toe-Tech] is God of what

Answer: Spring

C. Name the Spanish word for Spring

Answer: Primavera

**Emergency Tossup 7**

TOSSUP He believed that French agents were heating the floors of his house to burn his feet, and declared himself "Pregnant by an Elephant". Commander in chief of the army of Silesia in 1814 he defeated Napoleon at Laon and marched into Paris. For 10 points -- who led the Prussians at Waterloo

Answer: Field Marshal Gebhard Leberecht von Blücher, prince of Wahlstadt

TOSSUP An Easton Maryland born slave originally named Frederick Augustus Washington Bailey, in 1838 he escaped. An abolitionist he was mobbed and assaulted while working for the Massachusetts Antislavery Society. He established an abolitionist newspaper "The North Star" in Rochester NY after returning from hiding in Britain. For ten points -- name this escaped slave who in 1889 became United States Consul General to Haiti.

Answer: Frederick Douglass

TOSSUP A market with a single firm would have a value of 10,000, while one shared equally by 50 firms would have a value of 200. It is calculated by summing the squares of the percentage share of each firm in a market. The Federal Trade Commission considers a market concentrated when this index hits 1,800. For 10 points--name this index of market concentration important in antitrust policy

Answer: Herfindahl-Hirschman Index

**Emergency Bonus 7**

BONUS The sea of Japan of course separates Japan from the Soviet Union, but for 10 points each what Strait separates

A. Sakhalin from Siberia.

Answer: Tartar Strait

B. Sakhalin from Hokkaido.

Answer: La Perouse Strait

C. the island of Kyushu in Japan from the Korean peninsula.

Answer: The Korea Strait

BONUS John Greenleaf Whittier wrote the "Song of Labor" who wrote these other "Songs", for 10 points each

A. The Song of the Lark

Answer: Willa Cather

B. Song of the Chattahoochee

Answer: Sydney Lanier

C. Song of Myself

Answer: Walt Whitman

BONUS Biology and Medicine Grab Bag (For 5 points per answer)

A. Who were the first female medical doctors in the United States and in Italy

Answer: United States = Elizabeth Blackwell, Italy = Maria Montessori

B. Name the two means Eucaryotic microorganisms can have for propelling themselves.

Answer: flagella, cilia

C. What two organisms, using the process of mutualism, form lichen, which live in conditions harsher than either could stand alone.

Answer: fungi, algae