

Iowa State Invitational, 1994

University of Illinois, Team B

October 13, 1994

Toss-Ups

1. This law of hydrology, often expressed $Q \text{ sub } d \text{ equals } PIA$, equates the discharge of water, $Q \text{ sub } d$, to the product of the coefficient of permeability, I is the hydraulic gradient, and A is the cross-sectional area through which the discharge occurs. For 10 points, name this law, discovered in 1856 by the French engineer whose name it bears.

Darcy's law

2. For ten points, identify the German novel authored by Thomas Mann which shows the decline of a German merchant family through four generations.

Buddenbrooks

3. This is the title of a book first published in 1948, containing chapters such as "Newtonian and Bergsonian Time" and "Computing Machines and the Nervous System." For ten points, give the name of this book written by Norbert Wiener, which became the name for a modern branch of science.

Cybernetics

4. Often, when cities are renamed, the old names are forgotten—but not in the case of this city. Seven bridges in this city lent themselves to the famous problem of how to cross all of them without crossing any of them twice—a problem solved by Leonhard Euler in 1735. For ten points, give either the old name or the modern name of this city in western Russia, whose old name means "King's Mountain" in German.

Königsberg or Kaliningrad

5. Adolf Hitler took power in Germany in 1933. For ten points, name the last chancellor before Hitler, whose stay in office lasted less than two months.

Kurt von Schleicher

6. According to legend, he was asked to judge a musical contest between Apollo and Marsyas. After deciding in favor of Marsyas, Apollo changed his ears to those of an ass. For ten points, name this legendary king, whose touch, according to another legend, would turn things to gold.

Midas

7. Some materials become superconductors when cooled below a certain temperature. When this happens inside a magnetic field, all or part of the field is expelled from the interior of the material. For ten points, give the name applied to this effect.

Meissner effect

8. This endocrine gland is also known as the suprarenal gland. It is either of two small and virtually identical triangular glands located at the upper end of each kidney. For ten points, what is the name of this stimulating gland?

The adrenal gland

9. This theorem is to voting what Murphy's Law is to life in general. Basically, it states that under a certain number of reasonable conditions, it is impossible to guarantee that a ranking of societal preferences will correspond to the individual preferences of voters. For ten points, name this theorem which bears the name of 1972 Nobel Laureate Kenneth Arrow.

Arrow's Impossibility Theorem

10. Born in 1886 in Riga, Latvia, this chess master never won a world championship, but managed to become more famous than several who have, publishing the book *My System* in 1925. For ten points, name this man, arguably the most famous of the hypermodern school of chess.

Aron Nimzovich (or Nimzowitsch)

11. This English graphic artist's abiding interest was illustration. His work frequently appeared in *Punch*; he was the illustrator of many classic children's books. Name this artist who is better known today as the namesake of the most prestigious award given annually for expertise in the world of children's book illustrations.

Randolph Caldecott

12. Seven of the nine oldest American universities belong to the Ivy League. For ten points, name either of the two who don't.

College of William and Mary OR Rutgers, the State University of New Jersey.

13. For ten points, name the law passed in 1973 which says that the President of the United States has to inform Congress within 48 hours of putting American troops in a position where they might be involved in a conflict, and which also says that the President had to bring the troops home within 90 days unless both houses of Congress approve.

War Powers Act

14. Identify the classic French drama by Corneille which revolves around the conflict between love and duty. It is the story of Rodrigo, who kills the father of the girl he loves to avenge an insult to his own father.

The Cid (or Le Cid)

15. They are ivory carvings and a group of about 10 illuminated manuscripts dating from the latter part of the eighth century. They are the earliest examples of the art of the Court School of Charlemagne, and were commissioned by Charlemagne's supposed half-sister. For ten points, what are these objects of art collectively known as?

The Ada group

16. For years, the British ruled the seas, but in the War of 1812 the first defeat in history of a British naval squadron was brought about by an American naval officer and his crew. For ten points, name this officer.

Oliver Hazard Perry

17. Named for the German physicist and chemist who first investigated this effect, this is the generation of a sideways force on a spinning cylindrical or spherical solid when there is relative motion between the spinning object and the fluid it's in. FTP, name this effect, related to Bernoulli's principle.

Magnus effect

18. For a quick ten points, which poet, known by the phrase "Poet of the American Revolution," penned *The British Prison-Ship* and *The Indian Burying Ground*?

Philip Freneau

19. For ten points, name the self-made businessman, reformer, and populist who, in the spring of 1894, led an army of 500 workers on a march from Massillon, Ohio to Washington, D.C. to publicize the plight of the poor.

Jacob Coxey

20. Dionysus has grown tired of the contemporary dramatists and decides to go fetch that "clever rogue" Euripides from the underworld. Eventually Dionysus finds both Euripides and Aeschylus in the underworld and must choose which one to bring back. These events take place in which play by Aristophanes?

The Frogs

21. Signed to a contract by the Detroit Tigers at the age of 19, he played in the outfield and at first base for Detroit until his retirement in 1974. For ten points, name this player, elected to the Hall of Fame in 1980.

Al Kaline

22. *The Musical Box, Broadway Melody of 1974, Dance on a Volcano, Undertow, Follow You Follow Me, Misunderstanding, Turn It on Again, Man on the Corner, No Reply at All, That's All, Invisible Touch, No Son of Mine, I Can't Dance* are all songs by what musical group?

Genesis

23. This branch of mathematics is usually considered a part of graph theory, although it has its roots in mathematical logic. One well-known problem in the field is to prove that in any group of six people, there are three of them who all know each other or have never met each other. Name this branch of mathematics, named for its founder, who died in 1930.

Ramsey theory

24. This law of chemistry, which is also known as Mariotte's law, states that the pressure of a gas varies inversely as its volume when the temperature is held constant. For ten points, give the more famous name of this law.

Boyle's law

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Bonuses

1. (30 points) Identify the Thomas Mann work from which each of the following characters are taken for ten points apiece.
 - (a) (10 points) Hans Castorp
The Magic Mountain
 - (b) (10 points) Jean; the Consul; and Frau Grunlich
Buddenbrooks
 - (c) (10 points) Fustave von Aschenbach and Tadzio
Death in Venice

2. (30 points) For 5 points each, name the metallic element found in each of the following ores:
 - (a) (5 points) Galena
Lead
 - (b) (5 points) Hematite
Iron
 - (c) (5 points) Bauxite
Aluminum
 - (d) (5 points) Cassiterite
Tin
 - (e) (5 points) Pitchblende
Uranium
 - (f) (5 points) Rutile
Titanium

3. (30 points) Not even Babe Ruth or Mickey Mantle were as good as Reggie Jackson...at striking out. Reggie's 2,597 strikeouts are an all-time record. Now, for 5 points apiece, name the top six players after Jackson in career strikeouts. Hint: all six played at least one game after 1970.

Willie Stargell, Mike Schmidt, Tony Perez, Dave Kingman, Bobby Bonds, Dale Murphy.

4. (30 points) For ten points each (and a total of thirty points for all three), name the three peoples who together defeated the Assyrian Empire in 612 BC.

Medes, Scythians, and Chaldeans

5. (25 points) Identify the author of each work whose title contains the word 'Death', for 5 points each.

- (a) (5 points) *A Death in the Family*

James Agee

- (b) (5 points) *Because I Could Not Stop for Death*

Emily Dickinson

- (c) (5 points) *Death in the Afternoon*

Ernest Hemingway

- (d) (5 points) *From Death to Morning*

Thomas Wolfe

- (e) (5 points) "Death of a Traveling Salesman"

Eudora Welty

6. (25 points) Identify this theme from economics, 25-10.

- (a) (25) This shows the relationship between marginal tax rates and the government's total tax revenue, with the idea that the reduction in marginal tax rates will increase the incentive to work and earn income.

- (b) (10) This curve was mentioned by the economics teacher in the movie 'Ferris Bueller's Day Off.' [Moderator: Anyone? Anyone?]

The Laffer Curve

7. (30 points) Identify the following books by their characters for ten points apiece.

- (a) (10 points) George Tessman, Eilert Lovberg, Judge Brack, and Thea Elvsted.

Hedda Gabler

- (b) (10 points) Lambert Strether, Chadwick Newsome, Mr. Waymarsh, and James Pocock.

The Ambassadors

- (c) (10 points) Yevgeny Vassilyitch Bazarov, Arkady Kirsanov, Katya Loktiev, Anna Odintsov, and Fenitchka Savishna.

Fathers and Sons

8. (30 points) Most of you can name the six states which border Iowa, but, for 5 points each, can you name the six largest cities found in these states, *and* the state each city is in?

Chicago, Illinois; Milwaukee, Wisconsin; St. Louis, Missouri; Kansas City, Missouri; Minneapolis, Minnesota; and Omaha, Nebraska

9. (30 points) For 5 points apiece, give the year in which each event took place. Hint: these will be in chronological order, from earliest to latest.

- (a) (5 points) 1. Martin Luther's Reformation begins

1517

- (b) (5 points) 2. Francisco Pizarro begins conquest of Peru

1531

- (c) (5 points) 3. Thirty Years' war begins

1618

- (d) (5 points) 4. Louisiana Purchase completed

1803

- (e) (5 points) 5. Monroe Doctrine is adopted

1823

- (f) (5 points) 6. North Korean troops invade South Korea

1950

10. (30 points) Identify each economist from the description given for ten points each.

- (a) (10 points) His theory has been labeled the Iron Law of Wages.

David Ricardo

- (b) (10 points) His thesis states that population grows at a rate greater than the means to feed it and if unchecked the world's population will double every twenty-five years.

Thomas Malthus

- (c) (10 points) This half-man utopian stressed "the necessity of Work," which led to his conclusion that workers deserve society's greatest awards, and idlers deserve the least. His philosophical search led to his belief in the "brotherhood of man" which developed into a kind of industrial religion. Name this man, considered the founder of French Socialism.

Count Henri de Rouvroy de Saint-Simon

11. (30 points) Identify the following leaders of the scientific revolution, given their famous publications.

(a) (5 points) *Almagest* (150 AD)

Ptolemy

(b) (5 points) *On the Revolutions of the Heavenly Spheres* (1453)

Nicolaus Copernicus

(c) (5 points) *Novum Organum* (1620)

Francis Bacon

(d) (5 points) *Discourse on Method* (1637)

René Descartes

(e) (5 points) *On the Motion of Mars* (1609)

Johannes Kepler

(f) (5 points) *Dialogues on the Two Chief Systems of the World* (1632)

Galileo Galilei [Mod: Accept either name]

12. (30 points) Time for the obligatory O. J. Simpson question.

(a) (10 points) First, for 5 points each, in what year did he win the Heisman Award, and for which college was he playing?

1968 and University of Southern California (USC)

(b) (20 points) Next, with 10 points for one and 20 for two, name two of the three other Heisman Award winners from USC.

Mike Garrett (1965), Charles White (1979), and Marcus Allen (1981)

13. (30 points) Identify the book from the names of its characters, 30-20-10.

(a) (30) William Bee, Hyrum Graff, Carn Carby

(b) (20) Dink Meeker, Petra Arkanian, Peter Wiggin

(c) (10) Valentine Wiggin, Andrew 'Ender' Wiggin

Ender's Game (by Orson Scott Card)

14. (30 points) Name the language from the given clues; 30-20-10.

- (a) (30) Traces of this East Germanic language still existed as late as the 16th century in Crimea, as opposed to in Spain and Italy, where it had died out more than 800 years before that time.
- (b) (20) Most of the modern knowledge of this language is derived from what remains of a translation of the Bible done by Ulfilas in the 4th century.
- (c) (10) The name of the language lives on to describe both a style of architecture and a style of fiction.

Gothic

15. (25 points) The day just wouldn't be complete without a Babylonian Mythology bonus from hell, so here it is. You'll get five points for each god you identify correctly.

- (a) (5 points) Head of the gods, he reigned in the uppermost part of heaven and had an army of stars to destroy evildoers.

Anu

- (b) (5 points) A god of the waters, he was the benefactor to nature and men by virtue of his all-encompassing wisdom.

Ea

- (c) (5 points) One of the most popular Babylonian deities, she was the goddess of sexuality. She had numerous lovers, most of whom met with terrible fates, and she also sanctified temple prostitution.

Ishtar

- (d) (5 points) This god was a god of fertility, and was the principal deity of Babylon. He established himself over the other gods by killing the malevolent Tiamat and by creating the world out of his body.

Marduk

- (e) (5 points) He was the sun god, a dispenser of light and justice, and the god of prophecy.

Shamash

16. (20 points) In the early nineteenth century, four Barbary states sent out pirate ships to raid American vessels. For five points each, name them.

- (a) (5 points) Morocco, Algiers, Tunis, and Tripoli

B 5 10 15 Let's see how well you know your electronics. For the stated number of points, name the electronic component.

- (b) (5 points) For five points, this device is used to transfer electricity from one circuit to another, as well as either increasing or decreasing the voltage.

Transformer

- (c) (5 points) For ten points, this device is an electronic vacuum tube with three electrodes: a cathode, an anode, and a control grid, all inside an evacuated metal or glass container.

Triode

- (d) (5 points) For fifteen points, this device is a prototype of capacitors, and can be used to store static electricity. In its earliest form, it was a glass vial partially filled with water, with the opening of the vial covered by a cork pierced with a wire or nail that dipped into the water.

Leyden jar

17. (30 points) Name the chemical element from the given clues; 30-20-10.

- (a) (30) A rare element, it occurs in few minerals, one of them being greenockite (green-uh-kite), and is normally found in small quantities in zinc ores.
(b) (20) Its sulfide is used in high-grade paints because of its color stability, its resistance to sulfur and oxidation, and its bright yellow color.
(c) (10) Its atomic number is 48, and its atomic symbol is Cd.

Cadmium

18. (20 points) For five points each, identify the artist responsible for each work.

- (a) (5 points) St. George and the Dragon
Tintoretto or Raphael or Donatello, or probably others!
(b) (5 points) The Third Class Carriage
Honoré Daumier
(c) (5 points) Liberty Leading the People
Eugène Delacroix
(d) (5 points) Pope Innocent X
Diego Velasquez

19. (30 points) For five points each, identify the author of each of the following classical Greek works.

- (a) (5 points) *The Shearing of Glycera*
Meander
(b) (5 points) *Hecuba*

Euripides

- (c) (5 points) *Philoctetes*

Sophocles

- (d) (5 points) *Crito*

Plato

- (e) (5 points) *The Suppliants*

~~Aeschylus~~ Euripides

- (f) (5 points) *Peace*

Aristophanes

20. (30 points) Identify the authors of the following Russian works, for five points apiece.

- (a) (5 points) *Eugene Onegin*

Aleksandr Pushkin

- (b) (5 points) *The Gentleman from San Francisco*

Ivan Bunin

- (c) (5 points) *Mother*

Maxim Gorky

- (d) (5 points) *The Master and Margarita*

Mikhail Bulgakov

- (e) (5 points) *A Hero in Our Time*

Mikhail Lermontov

- (f) (5 points) *The Red Laugh*

Leonid Andreyev

21. (30 points) Identify the playwright from the given clues; 30-20-10.

- (a) (30) He was born in 1906 in Philadelphia, and died in 1963 in Hollywood, California.

- (b) (20) The Group Theatre became well known for producing his works.

- (c) (10) His works include *Waiting for Lefty*, which was a plea for labor unionism, as well as *Awake and Sing*, *Paradise Lost*, *Golden Boy*, and *Rocket to the Moon*.

Clifford Odets