T1. In 1933, he was the first person to prepare heavy water. He suggested that covalent bonding consisted of the sharing of valence-electron pairs. His theory of acids and bases involved seeing acids as substances which are able to accept electron pairs from bases which are electron-pair donating species. FTP, name that American chemist.

A: Gilbert Newton LEWIS

T2. The western part of this lake is divided roughly in half by the Bodan (bowdone) mountain range, and the mild climate along its shores makes it a popular resort area in central Europe. FTP, name this lake forming part of the course of the Rhine River and the borders of Switzerland, Austria, and Germany.

A: Lake **CONSTANCE** (accept BODENSEE)

3. His 1927 Aspects of the Novel was an influential critical work. After he died, when it was discovered he was gay, critics decided he couldn't write good love scenes. FTP, name this author loved by Merchant Ivory Productions who wrote Maurice, Where Angels Fear to Thread, Howard's End and A Room with a View.

A: E.M. FORSTER

T4. This seven letter word when used currently would seem to be totally ass backwards, but when you understand its historical context the word makes perfect sense. FTP, give the word that prior to the 1940's identified a coming attraction that was screened AFTER the feature film presentation.

A: TRAILER

T5. It began near Delhi in May 1857 and spread over northern India. Years of British domination culminated when cartriges greased with the fat of cows and pigs were issued to Hindi troops. The resulting revolt wasn't suppressed until March 1858. FTP, name this rebellion also known as the Indian Mutiny.

A: <u>SEPOY</u> REBELLION (prompt on early buzz with "Indian Mutiny")

T6. Influenced by Ruth Saint Denis, Ted Shawn, and Isadora Duncan; she made her solo concert debut in 1926. She choreographed over 100 works including 1958's *Clytemnestra*. FTP, identify this dancer who proposed the title *Appalachian Spring* for a work Aaron Copland had named "For Martha."

A: Martha GRAHAM

T7. Argueably the best contact hitting shortstop of all time, this man finished his career with a lifetime .310 average, 2 batting titles, and the highest 20th century single season average by a shortstop--.388 in 1936. FTP, name this lifetime White Sox, nicknamed "Old Aches and Pains", who hit over .300 every year he played from 1933 to 1949.

A: Luke APPLING

- T8. This key political figure of 18th century Europe has been called "the most human of the Hapsburgs." FTP, name this administrative and fiscal reformer who was the mother of Marie Antoinette and the primary reason for a Pragmatic Sanction and the War of the Austrian Sucession.

 A: MARIA THERESA
- T9. His story has inspired both Faulkner and Dryden. FTP name this third son of King David who died while trying to topple his father from the throne of Israel. A: ABSALOM
- T10. Despite his pasta gut and his wild ways, this skier zoomed into the spotlight with medals in the 1988 and 1992 offering one of them to Katarina Witt. FTP name the Italian La Bomba.

A:Alberto TOMBA

T11. Born in 1722, this man was a major propagandist opposing British officials, policies, and taxation. An organizer of the Boston Tea Party, he later was a Continental Congress delegate, Declaration of Independence signer and governor of Massachusetts from 1794-1797. FTP, name this "brewer, patriot" whose traditions are still carried on by James Kock (COOK).

A: SAMUEL ADAMS

T12. It began its public life as comet 1973F but soon gained such epithets as the Fiery Chariot of the Apocalypse. Thought to be a harbinger of death and destruction, it soon turned out to be little more than a dim spot in the night sky. FQTP name this comet which was one of the biggest flops of 1973.

A: the comet KOHOUTEK

T13. French Guyana, Guyana, Suriname. FTP, when looking at a Mercator projection of South America, which of these is the furthest east?

A: FRENCH GUYANA

T14. Originally described by James Herrick in 1912, this medical occurance was given the name "coronary thrombosis". Although arteriosclerosis is its most common cause, the manifestations are actually the result of an infarction. FTP, give the name by which a myocardial infarction is more commonly known.

A: HEART ATTACK

15. In Texas, Davy Crockett and Earl Campbell are officially recognized as this; William Tell is an example of one, and so is the story of King Arthur. FTP, what is this six-letter word which gives definition to map symbols, as well as having Washington Irving write anout one in Sleepy Hollow?

A: LEGEND

16. This town produced urban geographer Lewis Mumford as well as poet Jack Kerouc and artist David Whistler. FTP name this Massachusetts mill town.

A: LOWELL

- 17. Marc Lescarbot, William Kirby, Mazo de la Roche, Hugh MacLennon, Thomas Raddall, Gabrielle Roy, Marie-Clair Blois, Irving Layton, E.J. Pratt, and Pierre Perrault are all writers--FTP--from what large but sparsely populated country?

 A: CANADA
- T18. The Economist reported in December 1995 that the cutting of Federal Reserve interest rates in December when unemployment is the lowest in America in 5 years further discredits the pundits of this curve, which states that the lower the unemployment rate, the higher the level of inflation. FTP, name this curve.

A: PHILLIPS Curve

T19. FAQTP, as of December 1995, what is the longest running sitcom on television that is still producing new episodes?

A: MARRIED...WITH CHILDREN

T20. It included a brief occupation of the US embassy in Saigon and involved a coordinated cluster of attacks against cities and bases in South Vietnam bu Vietcong and North Vietnamese forces. FTP, identify this assault that began on January 30, 1968 -- the first day of the New Year holiday.

A: TET OFFENSIVE

T21. She had three husbands, two thrones, and claim to another. Then, at the tender age of 26, she began the exile that would end only with her execution. FTP, name this mother of James VI of Scotland -- later James I of England.

A: MARY QUEEN OF SCOTS (Also accept "MARY STEWART")

22. This is the dominant feeding mode for many protists and a primary method used by white blood cells to remove foreign material from the body. FTP, name the biological process by which solid particles are engulfed by a cell.

A: PHAGOCYTOSIS

T23. He started out measuring the volume of people's heads. Eventually he opted for "psychological methods" and assigned to each of a series of tasks an age at which a child of normal intelligence should be able to complete it. He used this procedure to measure the mental age of children, but his test has forever since been used to measure intelligence. FTP, name this originator of the IQ test.

A: Alfred BINET

T24. Among the most influential of his later designs are some reinforced concrete apartements and the city of Chandigarh in India. FTP, name this architect who called a house "a machine for living", founded the International Style of the early 1930s, and was born in Switzerland.

A: LE <u>CORBUSIER</u> (accept Charles-Edouard JEANNERET)

T25. She originally tried to help support her family by writing poorly received gothic novels, but later found fame by writing about the family matters she was more familiar with. FTP name this author of *Little Men* and *Little Women*.

A: Louisa May ALCOTT

T26. This man served as amabassador to Yugoslavia from 1961-63 and received two Pulitzer Prizes, the first for 1956's Russia Leaves the War. FTP, name this U.S. diplomat who is most famous for being one the main authors of the post-war "containment" policy.

A: George KENNAN

T27. Her 1995 critically acclaimed book is a memoir detailing life in her addicted and alcoholic family. FTP, name the author of *Dreaming: Hard Luck and Good Times in America*, whose last name is the same as the word denoting the jurisdiction of a bishop.

A: Carolyn SEE

T28. Alfred Tarski wrote a famous 1936 paper on this concept. Completeness proofs demonstrate that derivability is equivalent to this. It is the name of the relation that holds between the conclusion and premises of a valid argument. FTP, what do logicians call it when one statement follows from another?

A: Logical CONSEQUENCE

T29. FAQTP, name the American playwright who won the Pulitzer Prize in 1953 for his work entitled *Picnic*.

A: William INGE

B1. A farm boy from Parkers Prairie, Minnesota, he was an influential Pop artist. His astonishingly lifelike sculptures of ordinary people won him international acclaim and included "Bowery Derelicts", "Self Portrait with Model," and "Cleaning Woman Pushing a Cart." For 25 points, name this artist who died at age 70 earlier this month.

A: Duane E. HANSON

B2. (20 POINT BONUS)

a) For the first time in history, the National Weather Service started naming a particular type of weather phenomena. FTP, name these phenomena, the largest of which, Gary, came in December of 1995.

A: **SNOWFALLS** (accept equivalents)

b) The 36 inches in 24 hours that Gary dumped on Buffalo, NY, is still 40 inches short of the US record for a 24 hour snowfall. For 10 more points, in which state did this occur in 1921?

A: COLORADO

- B3. For the stated number of points compute each of the following integrals. (NOTE -- you can leave off the "plus c".
 - a) For 5 points, x squared plus 2 x.
 - A: X CUBED OVER 3 PLUS X SOUARED
 - b) For 10 points, the integral of the sine of x.
 - A: MINUS THE COSINE OF X or $-\cos(x)$
 - c) For 15 points, 2 to the x.
 - A: (1 OVER THE NATURAL LOG OF 2) TIMES 2 TO THE X (Host note: "LN" is the equivalent of "natural log")
- B4. (25 points possible) Also known as the etherophone, this unique electronic musical instrument is "played" by moving a hand or baton toward or away from an antenna on a box which contains radio tubes. For 25 points, name this instrument, invented in the 1920s by its Soviet namesake and also the focus of a recent documentary.

A: THEREMIN

B5. (20) This inventor was first interested in portrait painting, but quickly became involved in designing lock structures. For 20 points, name this man who, in conjunction with John and Henry Towne, founded the first cylinder lock manufacturing company in Stamford, CT, in 1868.

A: Linus YALE

- B6. For 10 points each, give the SI unit for each of the following quantities:
 - a) luminous intensity

A: CANDELA

b) amount of substance

A: MOLE

c) mass

A: KILOGRAM (Do not accept "gram")

Page 1, Penn Bowl VI

For college practices only. May not be sold, traded, or distributed without permission.

B7. (25 POINT BONUS)

For the stated number of points, answer these questions on Jackson Pollock.

(5) What movement was he recognized as the leading painter in?

A: ABSTRACT EXPRESSIONISM

(10) What appropriatley named large, wall-sized painting, painted in 1944 before he developed his "drip technique", is recognized as his "first major breakthrough into a totally personal style"?

A: MURAL

- (10) Jackson is his given middle name. What was his given first name?

 A: PAUL
- B8. 30-20-10, Name the woman.
- 30) She married William Godwin in 1797.
- 20) She wrote A Vindication of the Rights of Women in 1792.
- 10) She died giving birth to Mary Shelley.

A: Mary WOLLSTONECRAFT

B9.. For 5 points each and a 5 point bonus for all 5, name the 5 member tribes of the Iroquois League.

A: MOHAWK, ONEIDA, ONONDAGA, CAYUGA, and SENECA

B10. (30) Give the name of the American author of these post-1930 works for 5 points each. For an additional 5 points, give the decade in which the work was written.

a. Gravity's Rainbow

A: Thomas PYNCHON, 1970's

b. The Court of Last Resort

A: Erle Stanley GARDNER, 1950's

c. Plaza Suite

A: Neil SIMON, 1960's

- B11. (30) FTP apiece, name the following saints from a brief description.
- a) This member of the apostles was crucified on an X-shaped cross which now bears his name.

A: ANDREW

- b) He founded a famous order and is one of the prinicipal patron saints of Italy.

 A: FRANCIS OF ASSISI
- c) He was stoned to death and is considered to be "the first martyr" A: <u>STEPHEN</u>
- B12. This book traces the youthquake rocking Japan with tales of leather-wearing, cocaine-using, motorcyle riding young men and young women who working in respectable department stores by day, and prowl the clubs by night. For 25 points name this best seller by Karl Taro Greenfield.

A: SPEED TRIBES

- B13. (25) Unlike many of his teammates, Michael Jordan attended a college basketball powerhouse. For 5 points apiece plus 5 for all correct, name the alma maters of Scottie Pippen, Dennis Rodman, Ron Harper and Luc Longley. A: Central Arkansas; Southeast Oklahoma State; MIAMI of OHIO, NEW MEXICO
- B14. One wife disappears in the burning city he flees. He denies being married to the second wife, leaving her to kill herself after he deserts her. He battles and triumphs over a powerful local lord to win the hand of his third wife. For 25 points, name this surviving prince of Troy.

A: AENEAS

- B15. 30-20-10, Name the actress
- 30) In "Fast Times at Ridgemont High" this actress played the character about whom Jackson Browne sang "She's got be 'Somebody's Baby'."
- 20) She is the daughter of Vic Morrow, the actor who died during the making of "The Twilight Zone: The Movie."
- 10) She was recently nominated for a Golden Globe for her performance in the film "Georgia."

A: Jennifer Jason LEIGH

- B16. (30 points possible) For the stated number of points, answer the following questions about the famous novel Cry, the Beloved Country.
- (5) For 5 points, name its South African author.

A: Alan PATON

(10) Give the full name of the Zulu pastor portrayed by James Earl Jones in the recent movie adaptation.

A: STEPHEN KUMALO

- (15) Give the full name of the white reformer killed by Absalom Kumalo. A: ARTHUR JARVIS
- B17. (30) For fifteen points apiece, given an album which appeared near the top of many critics' lists for the past year, name the musical artist.

a) To Bring You My Love

A: P.J. HARVEY

b) Everything is Wrong A: MOBY

B18. Active from 1422 to 1441, he was one of the first painter to work almost exclusively in oil paints and also one of the first to utilize atmospheric perspective. One of the great masters of the Flemish school, he also regularly signed his paintings making it easy to trace his development as an artist. For 20 points name this painter of The Ghent altar piece, Man in a red turban and the Wedding portrait commissioned by the Arnolfini family.

A: Jan VAN EYCK

B19. He caused many Anglo-Saxon poems to be written down and thus preserved. He kept the Danes from penetrating into East Mercia and his descendants managed to unite most of what is now England. For 25 points name this pre-Norman monarch

A: ALFRED THE GREAT

- B20. For 10 points each, identify the following Socratic dialogues.
- a) Socrates refuses to escape from prison despite his imminent execution.

 A: CRITO
- b) Socrates defense during his trial from charges of corrupting the youth.

 A: APOLOGY
- B21. 30-20-10
- 30) Carter's knowledge of this African capital earns him respect during his first trip to the OR on ER.
- 20) The country it is capital of was once known as the Congo Free State.
- 10) It's the capital of Zaire.

A: KINSHASA

- B22. (30 points possible) Given a substance, tell whether or not it is a rock or mineral; if a rock, also tell its general type; if a mineral, also tell what it is an ore of; 10 points for each correct pair of answers.
- a) Galena A: MINERAL LEAD
 b) Granite A: ROCK IGNEOUS

c) Cinnabar A: MINERAL - MERCURY

- 23. (30) FTP each, give the cities home to these Canadian Football League teams.
- a) Eskimos

A: EDMONTON

b) Blue Bombers

A: WINNIPEG

c) Tiger-Cats

A: HAMILTON

- B24. 30-20-10 Name that dude.
- 30) In 1879 he wrote his famous Begriffsschrift, and he later began philosophy of language.
- 20) His most famous paper is entitled "Sense and Reference."
- 10) He inspired the Vienna Circle of logical positivists and single handedly invented the logic of quantification.

A: Gottlob FREGE

- B25. (25 points possible) For 5 points each and a 10 point bonus for all correct, given the name of a B vitamin, tell its number.
- a) Riboflavin
 A: 2
 b) Thiamine
 C) Pantothenic Acid
 A: 3

Page 4, Penn Bowl VI

For college practices only. May not be sold, traded, or distributed without permission.

Minnesota B boni

B26. For 10 points each tell me who plays each of the following characters in the latest film from the genius that is Terry Gilliam.

a) His dad is a virologist.

A: Brad PITT

b) He gets shot in the leg in World War I.

A: Bruce WILLIS

c) She gets kidnapped.

A: Madeline **STOWE**

B27. (30 POINT BONUS)

Name the war, 30-20-10.

- (30) The war was instigated by claims that the two warring sides had broken the Thirty Years' Treaty.
- (20) Thucydides is credited with the major historical sources on the war.
- (10) The major combatants were Athens and Sparta.

A: PELOPONNESIAN War

28. (25) A Harvard sociologist caused quite a stir last year with "Bowling Alone: America's declining Social Capital", a short essay that got a fair amount of coverage in the mass media. While bowling is up in the last ten years, participation in bowling leagues has been greatly reduced. His most recent essay on this subject is entitled "The Strange Disappearance of Civic America." For twenty-five points, name him.

A: Robert PUTNAM

29. (20) Tom Cruise and Tom Arnold will soon be appearing in films in the roles of characters from famous TV shows. For ten points each, name the actors whose roles they are taking on.

A: Peter GRAVES in Mission Impossible; Jackie GLEASON in The Honeymooners

30. (25) A notable academic with both a Minnesota and Penn connection is this bioethicist for the masses. Currently, he is running the fledgling Center for Bioethics here at the University of Pennsylvania. He is especially critical of recent developments in medical technology. For twenty-five points, name him. A: Arthur CAPLAN