## Iowa State University

The Beautiful and Damned
October 25-26, 1996 - Ames, Iowa

## Round Four

## Toss-ups

(Philosophy: Concepts)

1. Turgenev defined one as "a man who does not bow down before any authority; who does not take any principle on faith, whatever reverence that principle may be enshrined in." FTP, what new philosophical doctrine was he presenting which, drawing its name from the Latin for "nothing," came to include anyone who attacked objective truths?

Nihilist (nihilism)
(Literature: American, pre990)
2. He was a participant in the writing of The Salmagundi Papers, a parody of Manhattan residents. His first independent work was $A$ History of New York which he published under the pseudonym "Diedrich Knickerbocker." FTP, name this man, the first American writer to win international fame as an writer, the author of Bracebridge Hall and The Sketch Book.

Washington Irving

## (Architecture: Works) <br> 3. Two parallel tiers of offices face each other across a narrow court, linked at one end by a mannerist loggia. It was designed by Giorgio Vasari for the governmental use of the Grand Dukes of Tuscany, but came to house a famed collection of Dutch and Flemish paintings and the art collection of the Medicis. FTP, what is this famous Florentine palace?

the Uffizi Palace [oof-FEET-see]

## Bonuses

## (Physics: Newtonian)

1. A particular one-dimensional force has a potential given by $\mathrm{kx}^{4}$ where k is a constant. Answer the following questions for fifteen points each
A. What is the expression for the force associated with this potential? $-4 k x^{3}$
B. If a particle is acted on only by this force, what is its Hamiltonian? $1 / 2 m v^{2}+k x^{4}$
(History: France)
2. Given the woman, identify the ruler of France who made her his queen for ten points apiece.
A. Anne of Austria

Louis XIII Bourbon
B. Catherine de Medicis

Henry II Valois
C. Mary, Queen of Scots

Francis II Valois

## (Modern Culture: Literature)

3. Name the author from titles of works, 30-20-10.

30: The Gernsback Continuum
20: Mona Lisa Overdrive
10: Neuromancer
William Gibson

## (Engineering)

4. Robert Hooke directed this blacksmith's attention to the problem of draining water from English tin mines. He improved on the ideas of Thomas Savery by designing the first working piston. FTP, who is this British inventor who created the first practical steam engine in 1712, but was eventually outdone by the creativity of James Watt?

Thomas Newcomen (1663-1729)

## (Sports: Baseball)

5. His six tips for staying young included, "Don't look back. Something might be gaining on you." Forced to play major leaguers only in exhibitions due to the color barrier, he defeated 30-game winner Dizzy Dean in a game after the 1934 season. FTP, name this great Negro League pitcher who sparked the Cleveland Indians to a pennant in 1948 when he joined them at the age of 42 .

Leroy Robert "Satchel" Paige (Page)

## (History: China/Japan/Korea)

6. During this dynasty block printing was invented, Ch'ang-an became a great cultural center, and trade routes were opened to the Middle East. It began with a struggle for power by Li Yuan and ended with a peasant rebellion led by Huang Ch'ao. FTP, what was this dynasty which included Empress Wu between the Sui and the Sung dynasties which is called the "golden age" of Chinese civilization, but not because they drank a similarly named golden drink?

T'ang Dynasty (618-907)

## (Life Science: Evolutionary Biology)

7. Early sons of Florida scrub jay breeding pairs often forego mating and instead help raise the later children of their parents. This apparently non-Darwinian altruism is explained by seeing the problem as a set of genes helping a set of closely-related genes. FTP, what name is given to this phenomenon in evolutionary biology?
kin selection

## (Current Events: America)

4. New York City has experienced an unprecedented drop in crime rates this year. Answer the following questions concerning it.
A. For ten points each, what two men, the mayor and and police commissioner of New York City, appear to deserve the credit for the drop?

Rudolph Giuliani and William Bratton
B. What two-word terms names the theory of criminologists James Q. Wilson and George L. Kelling which has guided Bratton and states that minor violations create a disorderly environment that encourages serious crime?
"Broken Windows" theory
(Geography: South America-Argentina)
5. VISUAL BONUS. The moderator will provide you with a map of Argentina and

Chile. Answer the following questions for ten points apiece.
A. Which two letters are closest to Santiago and Buenos Aires respectively?
$\underline{\mathrm{C}}$ and $\underline{\mathrm{K}}$
B. Which letter is closest to Mount Aconcagua?

C
C. Which letter is inside the Gran Chaco?

G

## (Modern Culture: Music)

6. AUDIO BONUS. For ten points each, name these related songs.
A. Son of a Preacher Man
B. Counting Flowers on the Wall
C. Girl You'll Be a Woman Soon

## (History: England)

7. Answer the following questions about Sir Robert Peel for ten points each.
A. What issue caused him to leave the government of George Canning and almost fight a duel with Daniel O'Connell?

Roman Catholic suffrage (Accept: Equivalents)
B. What major addition to the London executive did he create?

London police force (Accept: Bobbies)
C. What political party did he found and head in 1830 ?

## (Geography: South America)

8. One peak is crowned with a figure of Christ, another with a cross, a third with a shining white convent; these peaks and the touristy Monserrate surround a city which features The Gold Museum and the Plaza Bolivar. FTP, what is this Andean city, capital of New Granada until 1821 when it became the capital of Colombia?

Bogotá

## (Literature: Shakespeare)

9. Probably written around 1591-92, the body count includes:

Bassianus and Saturninus (sons of the late emperor); Alarbus,
Demitrius, Chiron, and their mother; Quintus, Martius, Mutius,
Lavinia, and their father, the title character, who gets his revenge on
Tamara by baking her sons in a pie and serving it to her. FTP, identify this revenge play by Shakespeare, his bloodiest.

## Titus Andronicus

## (Physics: Thermodynamics)

10. If you set the derivative of the Planck distribution to zero and solve it numerically, you'll find that the temperature divided by the frequency is constant. FTP, what law of thermodynamics have you derived which states that the wavelength of maximum energy radiation varies inversely with temperature?

Wien's Displacement Law

## Conservative party

(Social Science: Economics)
8. Given the type of income, identify the percent of government revenue which comes from it within $5 \%$ for ten points apiece. Statistics are from the 1994 fiscal year. The moderator will not give answers until the end.
A. Individual income taxes

44\% (Accept: 39\%-49\%)
B. Corporate income taxes

10\% (Accept: 5\%-15\%)
C. Tariffs and customs
$\underline{2 \%}$ (Accept: -3\%-7\%)
(History: American, pre-WWII)
9. Answer the following questions about Tecumseh for ten points apiece.
A. Of what tribe was he a member?

Shawnee
B. What November, 1811 battle followed a condemnation by Tecumseh of a treaty

William Henry Harrison made with the Indians?
Battle of Tippecanoe
C. Who was Tecumseh's brother, known as the Shawnee Prophet, who traveled with him and helped unite tribes against the settlers?

Tenskwatawa

## (Miscellaneous)

10. Only three recipients have more than one Nobel prize in the same field. For ten points each, name them.

Frederick Sanger, John Bardeen, and the International Red Cross

## HALFTIME

## (History: American, post-WWII)

11. He charged that his 1950 opponent did not realize the threat of Communism, thereby gaining Helen Gahagan Douglas' Senate seat. The existence of a "secret slush fund" which was actually legitimate, nearly killed his chances for the 1952 vice presidential nomination. FTP, who is this man, notable for hounding Alger Hiss and using his dog Checkers to regain the favor of the nation and Eisenhower in 1952?

Richard Milhous Nixon

## (Mathematics: Algebra)

12. Finite strings of letters under concatenation. Matrices under multiplication. The positive integers under multiplication. The positive even integers under addition. These are all examples of semigroups with an identity element. FTP, what algebraic term denotes such a structure?
monoid

## (Social Science: Political Philosophy)

13. It compares Christianity, 20th century nationalism, Islam, Communism, and other mass movements and describes the personalities of their leaders and followers. FTP, what is this 1951 work of political philosophy by Eric Hoffer which takes its name from a two-word phrase for a fanatic of any doctrine?

The True Believer

## (Literature: English)

11. Identify these Joseph Conrad novels €TP each.
A. Mr. Verloc, an anarchist is ordered to plant a bomb by a foreign embassy. He dispatches his brother-in-law Stevie with the bomb, but Stevie trips and blows himself to pieces.

The Secret Agent
B. The title character flees the sinking ship Patna, but when it fails to capsize, he feels his cowardice and devotes himself to doing good, ending up on Patusan. A second crisis occurs when a group of white men murder a friend. Rather than running away, he submits to native justice and is executed.

## Lord Jim

C. Set in Sulaco, the chief port of Costaguana, Giovanni Fidanza hordes six month's silver production from the San Tomé silver mine during a rebellion led against Charles Gould, owner of the mine. Finally his corruption overtakes Fidanza and he is shot by the father of a girl he pledged to marry.

## Nostromo

## (Life Science: Cellular)

12. Answer the following questions about bacteria reproduction for ten points each.
A. What name is given to the process when one bacterium divides into two identical daughter cells?
binary fission [Prompt: asexual reproduction]
B. What name is given to the exchange of DNA by two bacteria through a temporary tube?

## Conjugation

C. What name is given to the bacterium which, during conjugation, supplies the DNA to be transferred?

Male

## (Computer Science)

13. Given the following description of a language of strings, identify the least powerful of [READ LIST SLOWLY] deterministic finite automata, push-down automata, and Turing machines which can recognize the language in a finite amount of time. "None" is a possible answer.
A. Strings which are binary representations of numbers divisible by 3 .
deterministic finite automata (dfa)
B. Strings which are binary representations of their own length.
deterministic finite automata (dfa)
C. Strings which are palindromes.

Turing machines

## (History: American, pre-WWII)

18. For a few years after the war he served as president of an insurance company and wrote the Rise and Fall of the Confederate Government. Before the war he had become the son-in-law of Zachary Taylor and Secretary of War under Franklin Pierce. FTP, identify this man who on February 18,1861 was inaugurated as president of the Confederate States of America.

Jefferson Davis

## (Miscellaneous)

19. One of this country's kings, Dom Luis III, is believed to have had the shortest reign of any monarch in history--in 1908, his father was assassinated and he was mortally wounded at the same time, but lived for another 20 minutes. Its flag is one-third green and two-thirds red with the coat of arms. FTP, name this country which shares the Iberian peninsula with Spain.

Republic of Portugal

## (Classical Music: People)

20. He has been criticized for making his concerts too flamboyant and showy, yet is still considered one of America's leading conductors. Specializing in late romantic and early modern music, he conducted the Montreal and Los Angeles Symphony Orchestras before becoming musical director of the New York Philharmonic in 1978. He may have gained his greatest fame by appearing with the "Three Tenors." FTP, name this Indian-American conductor.

Zubin Mehta
(Classical Music: Recognition-AUDIO)
17. The moderator will play three excerpts from ballets. Identify the ballets for ten points each.
A. Romeo and Juliet
B. Appalachian Spring
C. Gayane

## (Chemistry: People)

19. Name each of the following Nobel prize winners in chemistry from the reason each won for ten points apiece.
A. He won for discovering that alpha rays break down atoms.

Ernest Rutherford
B. He won for discovering a method of radiocarbon dating.

Willard Libby
C. These two men won for developing a method of synthesizing dienes. Name either. Otto Diels or Kurt Alder
(Philosophy: Concepts, 1700-1900)
20. Answer the following questions on the philosophy of Georg Hegel for ten points apiece.
A. What name did he give to his thesis-antithesis-synthesis method of discovering the truth?

Dialectic [Wrong: dialectical materialism]
B. He begins his exposition of truth with the thesis that "The Absolute is pure being" and antithesis of "The Absolute is nothing." What synthesis arises?
the Absolute is becoming
C. What wacky Hegel work details the evolution of all human culture from that of the Pure Being in China to that of the Absolute Idea in Prussia?

The Philosophy of History

END OF ROUND

## (History: Arab World and Israel)

14. It is a rocky, narrow gorge on the west bank of the Nile at Thebes. It is full of corridors and chambers covered with hieroglyphic texts and religious depictions of rulers in the hereafter. FTP, what is this Egyptian valley where Seti I, Tutankhamon, Thutmose III, Ramses II, and 58 other pharaohs are buried?

Valley of the Tombs of the Kings

## (Painting: People)

15. After failing at his apprenticeship in an uncle's art shop in The Hague and being rejected from theological school, he became an unordained minister at the Borinage, a poor coal-mining district. There he began to draw. We see most of his life through his letters to his brother Theo and his paintings like The Postman Roulin, The Night Café, and The Potato Eaters. FTP, who was this monolobed epileptic?

## Vincent Van Gogh

## (Modern Culture: TV)

16. Vanity, Dreamy, Grandfather, Handy, Tracker, Clumsy, Baker, Hefty, and Brainy were all, FTP, what kind of blue-skinned Belgian midget?
smurfs

## (Literature: American, post-1900)

17. The source for this novel was a 1931 trip from Vera Cruz to Bremerhaven, though the novel wasn't finished until 1962. Set aboard the Vera, characters include Jenny Brown, Wilhelm Freytag, and La Condesa, a political exile from Cuba. FTP, identify this allegorical novel by Katherine Anne Porter.

## Ship of Fools

## (Literature: European)

14. Answer the following questions on romances FTP.
A. Arranged in 1508 by Garcia Rogriguez de Montalvo, this Spanish romance of chivalry was the source of parodyegf Don Quixote.

Amadis de Gaula or Amadis of Gaul
B. A mysterious knight challenges King Arthur. One of Arthur's knights accepts the challege which states that he may strike one blow if he is willing to receive a similar blow a year later.

Sit, Gawaine and the Green Knight
C. Written by Ludovico Ariosto, this poem tells of a knight's mad pursuit of his love: Angelica, princess of Cathay.

Orlando Furioso
(Sports: Miscellaneous)
15. How much do you know about professional athletic teams outside of the four major American professional leagues? I'll give you a city and a league. You'llthen supply me with the nickname of the team in that league based in that city FTP. For instance, if I were to say, "Green Bay, NFL," you'd say, "Packers."
A. Kansas City, MLS

Wiz
B. Barcelona, WLAF

Dragons
C. New Orleans, American Association

Zephyrs

## (Fine Arts: Painting)

16. VISUAL BONUS. The moderator will show you three cubist paintings. For five points each, identify the artist and title of each piece.
A. Pablo Picasso, Three Musicians
B. Marcel Duchamp, Nude Descending a Staircase
C. Georges Braque, Houses at L'Estaque
(Sports: Hockey)
17 Let's see how much you know about National Hockey League goaltenders. I'll name a goalie, you give me the team for which he plays as of October 10, 1996: A. (5) Ed Belfour

Chicago Blackhawks (accept either Chicago or Blackhawks)
B. (10) Chris Osgood

Detroit Red Wings (accept either Detroit or Red Wings)
C. (15) Stephane Fiset
(Literature: Miscellaneous)
(EI. They are eight lines long with the fourth and eighth lines having four syllables accented on the first and last while the remaining lines are double dactyls. The second line is name of the subject of the poem and extra credit is given for single-word double-dactyls like "ultraconservative" or "schistosomiasis." FTP, what is this type of recreational verse whose characteristic first line is nonsense? higgledy-piggledy

## (Literature: Russian)

E2. Born a member of the Ukrainian gentry, this author became famous for his satires of Russian life gleaned from the standpoint of an outsider. He helped launch the naturalist school of Russian writing with such works as the short story "The Overcoat." FTP identify this author of the play The Inspector General.

Nikolay Gogol
(History: America)
E1. Given the disease, identify the president who suffered from it for ten points apiece.
A. Marfan's Syndrome

Abraham Lincoln
B. Addison's Disease

John F. Kennedy
C. Bright's Disease

Chester Alan Arthur
(Classical Music: Opera)
E2. Identify the following Gian Carlo Menotti operas from descriptions for ten points apiece.
A. Magda Sorel searches relentlessly for the title character to ask for a visa to the country where her husband lives.

The Consul
B. The title character kills his girlfriend who objects to his devotion to his passionate, mystical sister.

The Saint of Bleecker Street
C. Serial music is gently ridiculed in this children's opera about aliens vulnerable only to tonal music.

Help, Help, the Globolinks
(Literature: American: post-WWII)
E4. After she observed her young husband in a homosexual tryst, he killed himself leaving her scarred for life. She became notorious for her sluttish behavior at the Flamingo and for never appearing in good lighting to hide her age. Eventually she moved in with her sister Stella and her husband Stanley at which point Tennessee William's play began. FTP, who is this pitiable woman from A Streetcar Named Desire?

Blanche DuBois
(Literature: Ancient Greek)
E5. Zeus never appears, but he is portrayed as cruel and villainous.
All of the action takes place on a desolate crag in the Caucasus where Might and Violence have helped Hephaestus imprison a traitor. The traitor's crime was to befriend mankind, including making man a present of the sacred fire. FTP, what is this Aeschylus play named for the traitorous titan?

Prometheus Bound
(History: American, pre-WWII)
E6 He was appointed Secretary of the Treasury for the sole purpose of withdrawing Federal deposits in the United States Bank, but the Senate would not confirm him. The Senate also refused his appointment as an associate justice in 1835. In 1836, the Senate changed hands and this man who was to preside over the Dred Scot case became Chief Justice. FTP, who is this Maryland jurist appointed by Andrew Jackson?

Roger Brooke Taney [TAW-nee] (1777-1864)



