

TOSSUPS – BLIND #1 CENTER OF THE KNOWN UNIVERSE OPEN 2002 -- UT-CHATTANOOGA
Questions by Northwestern with a few from UM-Rolla and Seth Teitler of Cal

1. The full original work was comprised of 23 movements, written for a small theatre orchestra and chorus. Later, its composer extracted 8 of these, including "Anitra's Dance," "Ase's Death," and "Morning Mood," and re-orchestrated them for full orchestra in two sites. Native folk tales were the basis of the 1875 Henrik Ibsen play, for which this was incidental music. FTP name the play and you'll also name these orchestral suites by Edvard Grieg, whose most familiar movement is "In the Hall of the Mountain King."

Answer: **Peer Gynt**

2. Serbia was granted autonomy by the conditions of this. Russia received access to the mouths of the Danube and some territory along the Black Sea. Russia was also allowed to occupy Moldova and Wallachia until the payment of a large Turkish indemnity. The Dardanelles would be open to all commercial shipping. These are some of the terms of, FTP, this treaty, signed at the site of a 378 battle, that ended the 1828-1829 Russo-Turkish War and promised independence to the Greeks.

Answer: Treaty of **Adrianople** or Treaty of **Edirne**

3. Hosting about 17,000 visitors a year, most of whom are there to camp and hike, this 850 square mile national park is significantly closer to Ontario than to Michigan, but the town of Houghton on the Upper Peninsula is home to the park's official address. Comprising 400 islands in Lake Superior, this is, FTP, what national park, whose eponymous main island is the largest island in the Great Lakes?

Answer: **Isle Royale National Park**

4. Defined to be the derivative of Helmholtz free energy with respect to number of particles at constant temperature and volume, this quantity dictates which way particles will flow in systems in thermal and diffusive contact. It is especially, as it reflects both intrinsic potential and the potential energy. FTP what is this quantity from thermodynamics abbreviated μ ?

Answer: **Chemical Potential** (prompt on potential)

5. In his latest novel, *Fury*, he tells of Malik Solanka, a dollmaker and historian of ideas who leaves his family to come to terms with his uncontrollable rage, finding a new life in New York and unwittingly providing propaganda for a nascent revolution in the island nation of Lilliput-Blefuscu. His first novel came in 1975 only after he had another rejected by publishers and he abandoned two others. FTP name the author who started with *Grimus*, eventually becoming subject to a *fatwa* by Muslim clerics for his satirical writing.

Answer: **Salman Rushdie**

6. His theorem with Stolper was an important qualitative result in international economics, holding that owners of abundant resources benefit from international trade and that the owners of scarce ones are generally made worse off. However, he has influenced much more in the field of economics, with 1947's *Foundations of Economic Analysis* and numerous other contributions. FTP name the man most responsible for Neoclassical economics, who won the Nobel Prize in 1970.

Answer: **Paul Samuelson**

7. The trajectory of this band's career was forever changed one day in 1964 when, showing the bass player how to hop parking meters, the drummer slipped and broke his arm. The guitarists hired Guy Patterson to sit in for the Mercyhurst College Talent Show, and Guy's decision to quadruple their song's tempo – initially against guitarist James Mattingly's wishes – rocketed the band to stardom. FTP name this Erie, Pennsylvania band, whose only hit was "That Thing You Do."

Answer: **The Wonders**

Born in El Paso, Texas, in 1930, she grew up on her family's 200,000 acre cattle ranch in Arizona. She majored in economics at Stanford, and continued to law school. In 1973, she was the first woman to serve as the majority leader of the Senate. She served as a trial judge in Maricopa County, and was later appointed to the court of appeals. FTP, who was this justice appointed by Ronald Reagan, the first woman appointed to the U.S. Supreme Court.

Answer: **Sandra Day O'Connor**

9. Although the search for this phenomenon has thus far been fruitless and theory indicates that it may well not exist, it is still sought after, as a single one in the entire universe would explain why electric charge is quantized. It would also mean that the quantity $\nabla \cdot \mathbf{B}$ is not zero everywhere. For ten points, what would finally give the Maxwell equations symmetry with respect to electricity and magnetism?

Answer: **Magnetic Monopole**

10. The protagonist of this poem is the son of Ecgtheow and was taken by Hrethel or Hrothgar, the king of the Geats, when he was seven years old. He succeeds the king and rules for fifty years, until his death at the hands of the Fire dragon. A man of extraordinary abilities, he has the strength of thirty men and is an exceptional swimmer, which are useful in his battles with Grendel and Grendel's mother. For 10 points, name this warrior whose exploits are described in the oldest surviving epic of British literature.

Answer: **Beowulf**

11. Signed in 1840, this agreement between the British Crown and Maori established British law in New Zealand and guaranteed Maori authority over their land and culture. However, many of the rights guaranteed to the Maori have been ignored and translations of the English and Maori versions differ. For 10 points, this is considered New Zealand's founding document.

Answer: **Treaty of Waitangi**

12. Well-known for her role in the Trojan War when her champion led the Trojans against the Greeks, her name means "foam born," as she was born of the severed member of Uranus in sea foam. One of the most unfaithful of the Olympians, she cheated on her immortal husband all the time. Known as the Lady of Kypros (or Cyprus), for 10 points name the goddess whose domain was love and rapture.

Answer: **Aphrodite**

13. And speaking of Aphrodite... Named after one of the sons of Ares and Aphrodite, of the moons in our solar system, it is the moon closest to its primary. Discovered by the American astronomer Asaph Hall in 1877, it is the fourth smallest moon in the solar system. It is also the only moon doomed to break up because of its orbit. For 10 points, name the moon of Mars whose name is the Greek word for fear.

Answer: **Phobos**

14. Just as Jerry West did for the NBA, this man is anonymously immortalized as the model for the silhouetted batter on the Major League Baseball logo. The choice of this slugger as model stemmed from his prodigious power numbers, such as in 1969 when he hit an American League-leading 49 home runs and had 140 runs batted in, stats that would lead to his selection as A.L. MVP that year. His 573 home runs have dropped two slots on the all-time home run list in the past two seasons, from fifth to seventh. For ten points, name this Hall of Famer of the Washington Senators and Minnesota Twins.

Answer: **Harmon Killebrew**

15. Scholars believe the inspiration to write this work came from the author's experience of spending a night in jail. Had it been written today, it would undoubtedly be branded as libertarian, and perhaps unpatriotic. While it is at heart a philosophical treatise on ethics, it includes poetry and uses examples culled from United States politics, particularly the issues of slavery and the Mexican-American War. Heavily influenced by the writings of Ralph Waldo Emerson, FTP name this transcendentalist work by Henry David Thoreau.

Answer: **Civil Disobedience**

16. The son of a Methodist minister, he served in the Korean War and earned his law degree in 1956. He directed Orville Freeman's 1958 re-election campaign and used that political power in a successful bid for his state's Attorney General. Later a senator, his major accomplishment was the passing of the Open Housing Law of 1968. For ten points, name this Minnesota senator, the recipient of the second most overwhelming defeat in a 20th century presidential election, and Vice-President under Jimmy Carter.

Answer: **Walter F. Mondale**

17. Efforts to accurately determine its structure were hampered when X-ray diffraction pictures were misread, from when they were first made in 1953 all the way into the 1960s. Using sodium salts of this substance did not undo the secondary structure, making it appear to have four strands, while lithium salts at lower humidity yielded an accurate primary structure but did not accurately mimic *in vivo* conditions. For ten points, Watson and Crick didn't deserve a Nobel Prize for their unoriginal work on the structure of what substance?

Answer: **DNA**

18. After being excommunicated in 1656, he made his living teaching and grinding lenses. His first published work, *The Principles of Descartes's Philosophy*, was a geometric presentation of the philosophy of *Descartes*. *A Theologico-Political Treatise*, published in 1670, criticized the militant Protestantism practiced by Holland's ruling House of Orange. His most famous work is the 5 volume *Ethics*, published posthumously. For 10 points, name this Dutch Jewish philosopher who is regarded as the first modern pantheist.

Answer: Benedict (Baruch) **Spinoza**

19. Past winners include Lee Yuan Kew, Deepak Chopra and Jacques Chirac, but the September 2002 festivities honored a four-legged periodic table, the sex life of ostriches, the composition of belly button lint, a washing machine for dogs and cats, and a dog-to-dog translation guide. For ten points, name this award given by former laureates at Harvard for the lesser and misguided additions to the fields of science, literature, and economics.

Answer: **Ig Nobel Prize**

20. Sought now for nearly two centuries by anthropologists, professors and literate minds across the world, this fabled marvel of antiquity has yet to be discovered. It depicts pipers, lovers, cows, seashores, rivers and a mountain village. Should it ever be found, it will be the only known piece of pottery that speaks, and it will undoubtedly deliver poetic thoughts concerning beauty and truth, or maybe the other way around. For ten points, name this "leaf-fringed" container, the subject of a famous Keats ode.

Answer: the **Grecian urn**

21. Its first declaration of independence came on July 7, 1976, but it was not until a 1999 referendum that this country was finally able to become an independent nation. Following the referendum, Indonesian militias ravaged the region, helping to make it one of the world's poorest countries, as well as the newest. FTP identify this nation, finally independent on May 20, 2002.

Answer: **East Timor**

22. Varying voices move in contrary motion and syncopated rhythms to give it the distinctive polyphonic style it is known for. The initial appearance of its theme uses the tonic, and the subsequent statement is typically in the dominant. The use of pedal points to provide harmonic intensity is a common feature of this musical form that came into popularity in the late seventeenth century. FTP identify this contrapuntal style of Baroque music, highlighted in a collection of organ compositions written by Johann Sebastian Bach.

Answer: **Fugue**

23. When this work was first shown in 1881, it received mixed reviews, and it was called ugly. Some went so far as to call the head and face grotesque, and they compared her to a little monkey. The piece included a real cloth skirt, a real silk bodice, a real wig of hair, and pink slippers. FTP identify this sculpture, the only work ever exhibited by Degas.

Answer: **Dressed Ballet Dancer**

1. The British magazine *Sight and Sound* released its 2002 Critics' Top Ten Poll earlier this year. Identify the following films on their alltime top ten list for ten points each.
 1. After F.W. Murnau, the director of *Nosferatu*, left Germany for the U.S., he produced this 1927 silent film starring Janet Gaynor, heralded as "one of the last hurrahs of the silent period."
Answer: **Sunrise**
 2. Tied with *Sunrise* at #7 on the list, this Sergei Eisenstein film, which recreates a 1905 mutiny, had its famous "Odessa Steps" sequence borrowed by Brian DePalma's *The Untouchables*.
Answer: **The Battleship Potemkin**
 3. Guido, the main character of this movie as portrayed by Marcello Mastroianni, is an onscreen alter ego of the director, Federico Fellini; the title refers to the number of films Fellini had made to that point.
Answer: **8_ (Eight and a half) or 8.5 (Eight point five)**
2. Europe has plenty of really old countries. But given the history of a comparatively recently independent European nation, identify the country for ten points each.
 1. Part of the Holy Roman Empire under Charles V, it was united with Spain in 1555. Given to Austria in 1713, it was later annexed by France and then Holland before declaring independence in 1830.
Answer: **Belgium**
 2. Though it first achieved independence in 1963, this tiny grand duchy in Western Europe was held by Spain, France, Austria, and Holland over the years before regaining autonomy in 1848.
Answer: **Luxembourg**
 3. Ruled by Romans, Arabs, Sicilians, and the Knights of St. John, this small Mediterranean island nation was occupied by the British between 1799 and its independence in 1964.
Answer: **Malta**
3. Identify the following randomly chosen terms from geology, for ten points each.
 10. The principle that physical processes on Earth work the same way now as they did in the past.
Answer: **Uniformitarianism**
 10. The primary division of geologic time, including the Hadean, Archean, Proterozoic, and Phanerozoic.
Answer: **Eon**
 10. A hill worn by glaciers so that the blunt end points in the direction from which the ice moved.
Answer: **Drumlin**
4. FTPE identify these Thomas Hardy novels that read a lot like like Jerry Springer without the trailer park.
 1. Michael Henchard gets drunk at a festival and sells his wife and daughter in his stupor. After realizing what he has done, he sobers up, turns his life around and becomes the titular elected official. After he reaches high standing in the community, his daughter comes back as a grown woman. The sins of his past are revealed, and he returns to the bottle, and dies troubled and alone.
Answer: **The Mayor of Casterbridge**
 2. The title character is essentially raped by Alec Durbeyfield, a rich farmer. She flees far away, where she falls in love with Angel Clare, a rector's son. They fall in love and marry. On their wedding night, she confesses her tragic past, which causes the hypocritical Clare to flee for Brazil. She is then forced to return to Alec Durbeyfield and become his mistress.
Answer: **Tess of the D'Urbervilles**
 3. The title character married Arabella, and the marriage is a farce from the beginning. The marriage fails, and he falls in love with his cousin Sue, who married Phillotson in a fit of rage. That marriage also fails, both get divorces and move in together, although they never marry. His oldest child, Father Time kills all his siblings, then himself, which turns Sue into a religious fanatic and eventually kills the title character.
Answer: **Jude The Obscure**

It inspired Apollinaire to coin the term "surrealism" and benefited from the involvement of some of the most famous artists of the pre-war years. Answer these questions about the ballet *Parade*, FTPE.
Name its composer, father figure to Les Six and composer of *Les Gymnopédies* and *Desiccated Embryos*.

Answer: Erik **Satie**

Name the Russian ballet impresario whose troupe, including Nijinsky, performed *Parade*.

Answer: Serge(i) Pavlovich **Diaghilev**

J) This painter was convinced by Jean Cocteau to design the set; he would go on to found Cubism with Georges Braque.

Answer: Pablo Ruiz **Picasso**

6. Identify these famous men who shaped the history of Chile and Argentina, for ten points each.

1. He became known as the Knight of the Andes and assisted in overthrowing the Viceroyalty of Peru and trying to force Spain out of South America.

Answer: Jose de **San Martin**

2. After this man met with San Martin, they began to dislike each other, but his defeat of Spanish forces at Junin and Ayacucho helped to seal San Martin's success as well as to complete the liberation of Peru.

Answer: Simon **Bolivar**

3. This close friend of San Martin was also known for liberating Chile as Commander in Chief of the Army.

Answer: Bernardo **O' Higgins**

7. The Edwardian Age was an era that, as a response to the propriety of the Victorian Era, spearheaded new Modernist philosophies and styles of art. Answer the following about Edwardian novels FTPE:

1. The title character is only tangentially involved in the main plot and is given very few lines. His death at the end of the book is told in one page. Name this coming of age book written in stream of consciousness style by Virginia Woolf.

Answer: **Jacob's Room**

2. The action of this sci-fi classic is told chiefly through the point of view of the narrator, Mr. Hillyer. He does little else aside from listen to the adventures of his scientist acquaintance in this short work by H.G. Wells.

Answer: **The Time Machine**

2. Winner of the 1932 Nobel Prize for Literature, this author traced the transition of an upper-middle-class family from Victorian to Edwardian times in his multi-volume series *The Forsyte Saga*.

Answer: John **Galsworthy**

8. The drawing up of borders can lead to some quirks on the map. Identify the following examples FTPE:

1. Thanks to an oxbow on the Mississippi created by the New Madrid quakes of 1811-1812, the westernmost part of this state is surrounded on three sides by Missouri and can only be reached by land from Tennessee.

Answer: **Kentucky**

2. This state's Northwest Angle, including the town of Angle Inlet, is only accessible by land from the Canadian province of Manitoba.

Answer: **Minnesota**

3. A small part of this state can only be reached from Canada because of the 49th parallel, even though nearby Vancouver Island dips well below that line and is entirely Canadian.

Answer: **Washington**

9. FTPE, from stuff they actually did, name the scientist. If you need clues about the unit of measurement named after him, you'll receive 5 points each

a) 10: This versatile scientist was a success in chemistry as well as physics; he discovered and isolated benzene and set forth laws of electrochemistry.

5: Capacitance

Answer: Michael **Faraday**

b) 10: His day job was as a professor of philosophy at Princeton, but he was one of the first internationally recognized American scientists. He assisted in the design of the telegraph. He also once magnetized a needle with lightning.

5: Inductance

Answer: Joseph **Henry**

c) 10: Speaking of needles, in 1819 this man discovered that a magnetic needle is deflected at right angles to a conductor carrying a current.

5: Magnetic field strength

Answer: Hans **Oersted**

10. This being a World Cup year, it seems fitting to ask questions about the history of this fine tournament. FTPE:
1. Identify the German who is the all-time leading scorer in World Cup history.
Answer: **Gerd Muller**
 2. Identify the youngest player to score a goal in World Cup history, a Brazilian who scored against Wales in 1958, at the age of 17.
Answer: **Pele** (Edson Arantes do Nascimento)
 3. Name this German who received the Golden Ball at the 2002 World Cup, the award for most valuable player.
Answer: **Oliver Kahn**
11. Answer these questions about important events of the Korean War for ten points apiece.
1. Following the initial attack by North Korean forces, the South Korean army fled to the extreme southern tip of Korea, holding the external perimeter 35 miles north of this city until American forces arrived in support.
Answer: **Pusan**
 2. General Douglas MacArthur planned the daring amphibious assault of this town which cut off North Korean supply lines to the south and allowed American forces to move north along the peninsula.
Answer: **Inchon**
 3. Strictly speaking, the war hasn't ended, as the agreements concluded at and named for this city only officially instituted a truce and set a demilitarized zone.
Answer: **Panmunjon**
12. Identify the proteins used in each step of thymine dimer repair in DNA, for the stated number of points.
10. After the damage is recognized, this type of protein cuts the DNA backbone around the dimer.
Answer: **Nuclease**
 10. To remove the damaged section, this type of protein is used to unwind the DNA, allowing the damaged section to come out.
Answer: **Helicase**
 10. For five each, identify the type of protein that synthesizes the proper form of the strand that was removed, and the type protein that attaches the new strand to the backbone.
Answer: **DNA polymerase, Ligase**
13. Given some works by a Nobel laureate in literature from the 1970's, identify them, TPE. If you need the year and author's nationality, you'll get 5.
- a) 10: *Residence on Earth, Isla Negra, Twenty Love Poems and a Song of Despair*
5: 1971, Chile
Answer: **Pablo Neruda** [accept Neftali Ricardo **Reyes**]
 - b) 10: *Humboldt's Gift, The Adventures of Augie March*
5: 1976, US
Answer: **Saul Bellow**
 - c) 10: *Cancer Ward, The Gulag Archipelago*
5: 1970, Soviet Union (remember them?)
Answer: **Aleksandr Solzhenitsyn**
14. Name the Christian sect or denomination from founders for ten points each.
- a) Charles Taze Russell.
Answer: **Jehovah's Witnesses** (accept **Watchtower Bible & Tract Society**)
 - b) William Miller
Answer: **Seventh-Day Adventists**
 - c) Richard Allen
Answer: **African Methodist Episcopal or A.M.E.**

15. With Halloween rapidly approaching, it is important that we reflect upon the life of a great American actor whose birthday is October 31st. We are, of course, referring to Rob Schneider. Given the tagline of a Schneider movie, give its title FTPE.

a) He's not very good looking. But when the lights go out...he's still not very good looking.

Answer: **Deuce Bigalow: Male Gigolo**

b) A rusty sub. A rebel commander. A renegade crew. When destiny called, they should have hung up.

Answer: **Down Periscope**

c). There is no substitute.

Answer: **Knock-Off**

16. FTPE name the French authors of the following. Titles are in English because that we can pronounce.

a) Gargantua and Pantagruel

Answer: Francois **Rabelais**

b) The Charterhouse of Parma and The Red and the Black

Answer: **Stendhal**, or for the compulsively overinformed, Marie-Henri **Beyle**

c) The Counterfeiters and The Immoralist

Answer: Andre **Gide** [ZHEED]

17. Not every important event happens under a well-remembered President. Given the event, identify who was President when it happened for ten points, five if you need the year.

1. 10. Kansas-Nebraska Act

5. 1854

Answer: Franklin **Pierce**

2. 10. Pendleton Civil Service Act

5. 1883

Answer: Chester Alan **Arthur**

3. 10. Kellogg-Briand Pact

5. 1928

Answer: (John) Calvin **Coolidge**

18. It's your Constitutional right as a person between the ages of 18-22 not to care about elections. However, answer these questions about the hotly contested races for control of the Senate this year for 10 points each.

1. Incumbent Tim Johnson and current Representative John Thune are squaring off in this state, which has two Democratic senators but had 60% of its votes go to Bush in 2000.

Answer: **South Dakota**

2. Former Senator Frank Lautenberg has replaced this embattled senator on the ballot in New Jersey after he dropped out of the race, having been reprimanded for ethics violations for accepting gifts.

Answer: Robert **Torricelli**

3. Bob Smith of New Hampshire was the first incumbent senator to lose a primary in a decade. For ten points, name the Congressman and son of a former White House Chief of Staff who beat him.

Answer: John E. **Sununu** (Jr.)

19. For 10 points each, identify these things related to Hinduism.

1. Derived from a word meaning "to divide, participate, and share," this path of Hinduism focuses on devotion and having an intimate relationship with a personal god.

Answer: **bhakti**

2. This Hindu goddess is often depicted with a sword, dripping with blood, and a garland of skulls. She represents the destruction and violence of the divine.

Answer: **Kali**

3. The release from the cycle of birth and rebirth, this state can be attained through devotion or good karma.

Answer: **Moksha**

20. Answer the following questions about chemical kinetics for ten points each.

1. What is the overall rate constant for two concurrent first-order reactions with rate constants k_1 and k_2 ?

Answer: **$k_1 + k_2$**

2. When an intermediate has a low concentration compared to reactants and products, what simplifying approximation can be used?

Answer: **stationary state**

3. What is the half-life of a first order reaction with rate constant k ?

Answer: **square root of two over k**

21. For ten points apiece, given a description, name the type of cloud.

a) Dark, low-level clouds accompanied by light to moderate precipitation, with bases generally below 6500 feet.

Answer: **Nimbostratus**

b) Consisting of pouch like structures formed by sinking clouds, and often ominous in appearance, they do not warn of a forming tornado as is often thought.

Answer: **Mammatus**

c) Usually formed by convection in an unstable layer, these mid-level clouds are often followed by thunderstorms.

Answer: **Altostratus**

22. Given the feeling that motivates people's actions in each type of society as defined by former Harvard sociologist David Riesman, name the type of society for ten points each.

1. Anxiety

Answer: **other-directed**

2. Guilt

Answer: **inner-directed**

3. Shame

Answer: **tradition-directed**

23. Given the abbreviated name of a public mass transit system, name the American city that system is in FTPE.

1. DART

Dallas (Dallas Area Rapid Transportation)

2. BART

San Francisco (Bay Area Rapid Transportation)

3. MARTA

Atlanta (Metro Atlanta Rapid Transit Authority)