

2001 UCI Open / Mad City Masters
Tossups by Chutney! (Roger Bhan and Raj Dhuwalia)

1. It premiered on the composer's birthday in the city of Kuybyshev, to which the composer was eventually evacuated. Written in C major, its first movement is a repetitive march played by a brass choir modeled after Ravel's *Bolero*, building into a climax. The woodwind chorale and string choir arioso of the third movement seem overly positive considering the dire straits under which this piece, the composer's opus 1991, was written. For 10 points--identify this seventh symphony of Shostakovich, named for a city besieged by the Germans in 1941.

ans: Leningrad Symphony (accept Shostakovich's Symphony No. 7 or equivalent on early buzz)

2. The parents tell stories to their children of the title character's ability to cure rheumatism through devil worship. He first comes to the village because he was falsely accused of stealing by members of his religious sect in Lantern Yard. His money is later stolen by Dunstan Cass, who blackmails his brother Godfrey because of his secret marriage to Molly. After Molly dies in the snow, her daughter wanders into the title character's cottage. He eventually changes his dour ways and grows to love the little girl Eppie. For 10 points--identify this 1861 novel about the title weaver of Raveloe, written by George Eliot.

ans: Silas Marner, or The Weaver of Raveloe

3. They can be formed by treating an alkene with chlorine or bromine in water to form a halohydrin, which undergoes internal nucleophilic substitution to form a ring structure. The most common method of synthesis for this group of organic compounds results from oxidizing alkenes with peroxyacids. Industrially prepared by passing a mixture of ethylene and oxygen over a silver catalyst, they are useful in forming resins that serve as incredibly powerful adhesives. For 10 points--identify this class of organic compounds that consists of a three-membered ring containing an oxygen atom.

ans: epoxides

4. He was made a lieutenant colonel near the beginning of the American Revolution after convincing the colonial government to send aid to Kentucky settlers. He led an expedition of 175 men against the British, capturing the forts at Kaskaskia and Cahokia in Illinois, and Vincennes in Indiana during the summer of 1778. He overwhelmed the Shawnee at Chillicothe, which allowed the U.S. to develop the area that became the Northwest Territory. For 10 points--identify this commander of western forces during the American Revolution, the brother of a famous explorer.

ans: George Rogers Clark

5. It begins with a single-note riff based on E minor pentatonic utilizing unison high E's. It was first covered by The Leaves in 1965 and then by Tim Rose the following year before becoming the first U.K. hit for a more famous trio in late 1966. Originally written by Billy Roberts, the title character commits a crime of passion and then decides to retire to Mexico where he "can be free." For 10 points--identify this song most famously covered by the Jimi Hendrix Experience that asks, "Where you goin' with that gun in yo' hand?"

ans: Hey Joe

6. A major event in this novel occurs when the main character consumes lit candles in order to recreate true passion and enter a luminous tunnel to the afterlife to join her husband. The main character's sister Gertrudis runs off with a revolutionary soldier while she remains to live under the tyranny of her mother, Mama Elena. Each chapter is preceded by a recipe for a dish that serves as the chapter's focus. Both Pedro Muzquiz and Dr. John Brown vie for the love of the main character, Tita De La Garza. For 10 points--identify this work of magical realism written by Laura Esquivel.

ans: Like Water for Chocolate or Como agua para chocolate

7. Because of their size and constituency, they are thought to be escaped introns found in mitochondrial and ribosomal RNA genes, which in some cases are self-splicing. They are the only known autonomously replicating entities that do not specify at least one subunit of their replicating enzymes. Isolated by Theodore Diener, they were first discovered as the causative agent of the potato spindle tuber disease. Composed entirely of RNA and lacking a nucleocapsid coating--for 10 points--identify this class of disease-causing agents similar to viruses.

ans: viroids

8. His mother was Deidamea, daughter of the king of Scyros. He was eventually killed by Orestes after he tried to steal Hermione, the daughter of Helen. During the Trojan War in addition to retrieving the Palladium and the bow and arrows of Herakles, it was prophesied that his arrival would allow the Greeks to capture Troy. He killed

Polyxena, Priam, and Astyanax, and had a son Molossus by his concubine Andromache. For 10 points--identify this savage warrior and son of Achilles.

ans: Neoptolemus or Pyrrhus

9. 110 of the 240 officials indicted were found guilty. The scandal resulted from the allegation that the illegal abatement of taxes had been used for Republican Party campaign funds. Though later acquitted, private secretary to the president Orville Babcock was indicted after secret investigators gathered information under the direction of treasury secretary Benjamin Bristow. Resulting from a desire to defraud the government of excessively high taxes on spirits--for 10 points--identify this distillery scandal that occurred during Grant's administration.

ans: Whiskey Ring

10. He twice flew to America aboard the R100 airship, which he helped design. He later started a company to make conventional airplanes, and helped design top-secret weapons for the Allies during World War II. He was already writing novels during this period, including *The Mysterious Aviator*, *Ordeal*, and *Most Secret*. His later and most famous novels are all set in his adopted country of Australia. For 10 points--name this author of the autobiography *Slide Rule* and the novels *A Town Like Alice* and *On the Beach*.

ans: Nevil Shute (or Nevil Shute Norway)

11. It is most commonly induced by inhibiting cyclic GMP phosphodiesterase, which causes the amount of cyclic GMP to increase and activates protein kinase G and caspases. Normally controlled by the regulators p53, Bcl2 and Bax, it plays a vital role in the final "sculpting" of organs from embryonic tissues, and cancer is the suppression of this pathway. For 10 points--identify this term that describes the natural process of cell death.

ans: apoptosis (prompt on "cell death")

12. Though the background of the featured room is sparsely furnished, the floor is littered with scrolls and papers. A framed map adorns the wall at the rear, while an armoire holds several books and a globe. A curtain in the foreground partially obscures the window to the left from which a great deal of sunlight issues, illuminating the title figure. He stands in blue robes, compass in hand, over a map, staring out of the window. For 10 points--identify this 1668 work of art by Jan Vermeer titled after the main figure's cartographic profession.

ans: The Geographer

13. She wrote two novels in her late 20s, *The Glory of the Conquered* and *The Visioning*, and followed these with a series of plays such as *Trifles* and *The Verge*, notable for their feminism. Her best-known play, based on the family of Emily Dickinson, won her the 1931 Pulitzer Prize. She may be best known for her work with husband George Cook, in establishing a theatre group which produced the works of several great American playwrights, particularly Eugene O'Neill. For 10 points--name this woman, playwright of *Alison's House* and co-founder of the Provincetown Players.

ans: Susan Glaspell

14. The obscure third guy in the Scott Servais for Rick Wilkins trade in 1995, a terribly unbalanced trade sent him to his current team in exchange for Karim Garcia. He never hit more than 15 homers until he turned 30, and he never hit over .300 until the season in which he had a 30-game hitting streak. Once an obscure outfielder with the Astros, Cubs, and Tigers, this 195-pounder has developed an awesome power stroke, hitting 20 home runs in the first 40 games of the 2001 season. For 10 points--name this late-blooming left fielder for the Arizona Diamondbacks.

ans: Luis Gonzalez

15. The second one ended in 1754 with a British victory after Joseph François Dupleix was recalled to France despite his skillful political maneuvering in a series of native alliances. The first saw the French capture Madras, but it was returned to the British by the same treaty that ended the War of Austrian Succession. The third and final one coincided with the Seven Years' War and ended French dominion in India when their capital at Pondicherry fell. Fought by Robert Clive on behalf of the British East India Company--for 10 points--identify the common name for these three Anglo-French wars named after a southern region of India.

ans: Carnatic Wars

16. Prometheus was the oldest until it was killed in 1964, leaving Methusaleh as the oldest known. Used in the 1950s to calibrate carbon dating via dendrochronology, its trunk may grow as little as 0.01 inches per year, and it usually has a gnarled, twisted appearance. Few pests or predators affect them in the harsh, high altitude climates

where they thrive, such as in the White Mountains of California. For 10 points--name this type of tree, also known as *Pinus aristata* or *Pinus longaeva*, the oldest of which is over 4,700 years old.

ans: bristlecone pine (accept early pinus aristata or pinus longaeva)

17. In the late 1980s its king declared a "national culture principle," which led to an exodus of refugees. Its northern section reaches altitudes of 7,300 meters, and in the far south lies the subtropical Duars Plain. Its second-largest indigenous group, the Sharchops, live in the east, and about 35% of its population is ethnic Nepalese. For 10 points--name this tiny monarchy, ruled since 1972 by King Jigme Singye Wangchuk, with capital at Thimphu.

ans: Bhutan or Druknyul Kingdom

18. At one point, the U.S. Government considered her "the most dangerous woman in America" because of her pacifist views. A leading sociologist of her day, her works include 1902's *Democracy and Social Ethics* and 1907's *New Ideals of Peace*. She sought to combine scientific research methods with ethical and moral values, and her applied sociological methods helped shape the Chicago School. For 10 points--name this woman, a leader of the settlement house movement, whose other writings include *Twenty Years at Hull House*.

ans: Jane Addams

19. Neutral silver atoms were heated in an oven, sent through a collimator, and directed through an inhomogeneous magnetic field toward a collector plate. The experimenters expected to see a single line, but instead there were two lines. This 1922 experiment was meant to measure space quantization of the magnetic moments of silver atoms, but it was also the first direct observation of electron spin. For 10 points--identify this experiment named for two German physicists, one of whom shared the 1943 Nobel Prize for Physics.

ans: Stern-Gerlach experiment

20. The theologian Raval is caught trying to steal the bracelet of a plague victim, years after convincing the knight to join the Crusades. The knight and his squire meet a troupe of performers, including a couple named Joseph and Mary with a small child. Throughout the film, the knight plays chess against Death, and eventually he gives his life to save the couple, joining the macabre parade of Death on the horizon in the famous final scene. For 10 points--name this 1957 film starring Max von Sydow and directed by Ingmar Bergman.

ans: The Seventh Seal (or Det Sjunde inseglet)

21. Commissioned in July 1791, it premiered on September 6th of that year. Based on a 1734 play by Pietro Metastasio, its female lead sings the aria "Non piu di fiori," and its lone historical character is the title character. It was commissioned as part of the celebrations in Prague for the coronation of Leopold II as King of Bohemia, and Leopold had been likened to the title character while he was Grand Duke of Tuscany. For 10 points--name this Mozart opera whose characters include Berenice, Sesto, Vitellia, and a short-reigned emperor of Rome.

ans: La Clemenza di Tito (or The Clemency of Titus)

22. The setting of J. T. Shorthouse's *John Inglesant*, it is located in the Huntingdonshire countryside. It has attracted pilgrims for several centuries, and Charles I found refuge here before his arrest. Its founder, inspired by both Catholic and Protestant teachings, tried to create an isolated community where the two could exist in harmony. Founded in 1636 by Nicholas Ferrar, it received new attention in this century because of a 1943 poem. For 10 points--name this English religious community, whose name T. S. Eliot used for the final part of *Four Quartets*.

ans: Little Gidding

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Bonuses by Chutney! (Roger Bhan and Raj Dhuwalia)

1. Name the track and field event, given athletes who have won multiple Olympic golds in the event.

A. For 5 points--Carl Lewis won four consecutive golds, from 1984-96, in this event.

ans: long jump

B. For 5 points--Jackie Joyner-Kersey won this event in 1988 and 1992.

ans: heptathlon

C. For 10 points--Al Oerter won four consecutive golds in this event.

ans: discus throw

D. For 10 points--Marie-Jose Perec won this women's event in 1992 and 1996.

ans: women's 400 meter run (prompt on just "400")

2. Identify the following concerning magnetism, for 10 points each:

A. This phenomenon results when the magnetic flux density is plotted against the applied magnetic field within a ferromagnetic substance. It is a phenomenon in which two physical quantities are related such that one increases or decreases in relation to the other.

ans: hysteresis

B. This is defined as the ratio between the maximum torque exerted on a magnet, current-carrying coil, or moving charge situated in a magnetic field and the strength of that field. Thus, it is a measure of the strength of a magnet or current-carrying coil.

ans: magnetic moment

C. A ferromagnetic substance becomes paramagnetic if the temperature is raised above this point.

ans: Curie point or temperature

3. Name these really cold seas, for 10 points each:

A. Located east of the Antarctic Peninsula, this large sea touches the Ronne and Filchner Ice Shelves.

ans: Weddell Sea

B. The Lena River empties into this shallow arm of the Arctic between the Taymyr peninsula and the New Siberian Islands.

ans: Laptev Sea

C. Frozen much of the year, it is separated from the Barents Sea by Novaya Zemlya, and the Gulf of Ob is connected to it.

ans: Kara Sea

4. Name these English metaphysical poets:

A. For 10 points--later scorned by Addison for exercises in "false wit," the bulk of his poetry is contained in *The Temple*, including "The Church Porch" and "The Altar."

ans: George Herbert

B. For 5 points--the best-known of the group, his works include "The Good-Morrow," "The Flea," and the *Holy Sonnets*.

ans: John Donne

C. For 15 points--the last of the group, his only poem published during his century was "Thanksgivings"; his manuscripts were discovered in 1897, including the poems "Innocence," "Desire," and "The Recovery."

ans: Thomas Traherne

5. Name these D. W. Griffith films:

A. For 5 points--the second half of this 1915 film was widely criticized for glorifying the Ku Klux Klan.

ans: Birth of a Nation

B. For 10 points--featuring Erich von Stroheim, this 1916 film whose parts are set in different historical eras, and is sometimes considered Griffith's greatest film.

ans: Intolerance

C. For 15 points--this 1919 feature starred Lillian Gish as Lucy, daughter of brutal prizefighter Battling Burrows. A strong influence on Fellini's *La Strada*, it is sometimes said to have the first interracial love story in film.

ans: Broken Blossoms

6. Identify these interesting terms from American political history:

A. For 5 points--during the Civil War and Reconstruction, this was the term given to Northern Democrats that favored compromise with the South instead of war. Their most prominent member was Clement Vallandigham.

ans: Copperheads

B. For 5 points--from an Algonquian word meaning "a chief," this term designated dissident members of the Republican Party who refused to support James G. Blaine in the election of 1884, and instead supported Democratic nominee Grover Cleveland.

ans: Mugwump

C. For 10 points--this faction of Democrats from New York, along with some antislavery Whigs, formed the 1848 Free-Soil Party. Led by Salmon P. Chase, they chose Martin Van Buren as their presidential candidate.

ans: Barnburners

D. For 10 points--this Democratic faction split from the New York party in 1835 over the issue of the national bank. The name comes from an incident in which the faction continued to work by match and candle in a hall that had gone dark.

ans: Locofocos

7. Name these British architects:

A. For 5 points--known for the elegance of his designs, he designed 53 London churches, including St. Mary-le-Bow.

ans: Christopher Wren

B. For 10 points--influenced by Palladio, his works from the English Renaissance period include Greenwich Palace at Kent, and the royal banqueting hall at Whitehall Palace.

ans: Inigo Jones

C. For 15 points--his buildings from the early 18th century include Blenheim Palace at Oxfordshire, in the English baroque style, and the Queen's Theatre in the Haymarket.

ans: Sir John Vanbrugh

8. Identify these characters from Henry James' *The Turn of the Screw*, for 10 points each:

A. The deceased valet of the governess' employer, it is implied that this man either sexually molested the boy Miles or otherwise gave him information about sex.

ans: Peter Quint (accept either name)

B. Miles' sister, she is the orphaned eight-year-old niece of the governess' employer. Her beauty charms the governess greatly.

ans: Flora

C. It is implied that Peter Quint had an affair with this former governess of the children Miles and Flora, and that she possibly became pregnant with his child. The governess sees her ghost while wandering the grounds at Bly.

ans: Miss Jessel

9. Identify the following concerning aldehydes and ketones, for 10 points each:

A. Used in its namesake test, or silver-mirror test, this reagent is made from silver nitrate and sodium hydroxide and leaves a silver deposit in the presence of aldehydes.

ans: Tollens reagent

B. This reagent consists of a fuschin dye that has been decolorized by sulfur dioxide. Aliphatic aldehydes restore pink immediately, while aromatic ketones have no effect on the reagent. Aliphatic ketones and aromatic aldehydes restore color slowly.

ans: Schiff's reagent

C. This histochemical test allows observation of the distribution of DNA in chromosomes of dividing nuclei. Relying on Schiff's reagent, it involves the aldehyde groups of deoxyribose and forms a magenta-colored compound.

ans: Feulgen's test

10. Identify these terms from Islam all beginning with the same letter, for 10 points each:

A. One of the Five Pillars of Islam states that one must make this pilgrimage to Mecca at a specific time during the year.

ans: hajj

B. This term refers to one of the beautiful maidens who dwell in paradise and reward true believers with sensual pleasure in the afterlife.

ans: houri

C. This is the term for the seclusion of women commanded by the Qur'an. It also refers to the practice of modest dress among women of Islam.

ans: hijab

11. Name these extra crispy guys:

A. For 5 points--less than a year after leading a massive "burning of the vanities" in the Piazza della Signoria, this Florentine prior was burned at the stake for heresy at the same location.

ans: Girolamo Savonarola

B. For 10 points--after seven years of imprisonment, this philosopher was burned at the stake on February 17, 1600, for supporting heliocentrism and other such heresies.

ans: Giordano Bruno

C. For 15 points--this Italian humanist was judged guilty of magic and atheism in Toulouse; on February 9, 1619, his tongue was cut out, and he was strangled at the stake and burned.

ans: Lucilio Varini

12. Identify these Eastern European composers, for 10 points each:

A. This composer first gained acclaim with music for his mime play *The Wooden Prince*. His later works for piano include the set called *Mikrokosmos*.

ans: Béla Bartók

B. Along with Bartók, he compiled many Hungarian folk songs for his music and helped pioneer the discipline of ethnomusicography. The most famous works of this Hungarian include *Psalmus Hungaricus*, and the *Háry János*

Suite.

ans: Zoltán Kodály

C. This Czech is famous for his operas, which include *The Cunning Little Vixen* and *From the House of the Dead*, but his best known work is probably *Jenufa*.

ans: Leos Janáček

13. Identify these works of Chinua Achebe that aren't *Things Fall Apart*, for 10 points each:

A. In this novel, Ezeulu, the chief priest of an Ibo village, deals with his loss of power as both his people and British colonialists turn against him.

ans: Arrow of God

B. The narrator of this work is Odili, a schoolteacher at odds with M. A. Nanga, a member of Parliament and Odili's former teacher.

ans: A Man of the People

C. This Booker Prize-winning novel is set in the fictional nation of Kangan. It centers on the newspaper editor Ikem, his friend Chris, and the civil servant Beatrice.

ans: Anthills of the Savannah

14. Identify the following about the Seven Against Thebes, for 10 points each:

A. All or nothing, identify both the leader of the Seven Against Thebes and his younger brother who usurped the throne of Thebes from him.

ans: Polynices and Eteocles

B. This man was the only surviving member of the Seven Against Thebes. He was the king of Argos and father-in-law to Polynices.

ans: Adrastus

C. Ten years after the failure of the Seven Against Thebes, this group of warriors, the sons of the ill-fated Seven, marched against the city and finally overtook it.

ans: Epigoni

15. Identify the following about a 13th-century prince, for 10 points each:

A. On July 15, 1240, this prince of Novgorod defeated the Swedes.

ans: Alexander Nevsky or Alexander of Novgorod

B. Name the April 5, 1242 battle at which Alexander Nevsky's army defeated the Teutonic Knights.

ans: Battle of Lake Peipus

C. The Teutonic invasion resulted from this Roman pontiff's insistence that the Baltic States be "Christianized." He was pope from 1227 to 1241.

ans: Gregory IX

16. 30-20-10. Name the city.

A. Bridges named for Corneille [kohr-NAY] and Joan of Arc span the local river, and one of the world's best collections of Théodore Géricault [ZHARE-ee-koh] works is located here.

B. A major tourist attraction is the Gros-Horloge, a giant clock from 1527, located 300 yards from the Seine; the fish-shaped Joan of Arc church is in this Norman city, as is a larger cathedral whose familiar facades were damaged in World War II.

C. Joan of Arc was burned at the stake here in 1341, and Claude Monet did a famous series of paintings of its cathedral.

ans: Rouen

17. Name these minor songs from the Beatles' *White Album*, for 10 points each:

A. Other than the title, the only other line in this song is "No one will be watching us."

ans: Why Don't We Do It in the Road?

B. This George Harrison tune includes the lines, "You know that what you eat you are / but what is sweet now turns so sour."

ans: Savoy Truffle

C. This song contains the unforgettable Ringo lyrics, "I'm sorry that I doubted you, I was so unfair / You were in a car crash and you lost your hair."

ans: Don't Pass Me By

18. Answer these questions about semiconductors:

A. For 5 points--what is the term for intentionally introducing impurities into intrinsic semiconductors?

ans: doping

B. A given p-type semiconductor consists of doped silicon. For 10 points--the introduced atoms are most generally from which group of the periodic table?

ans: Group IIIA or 13

C. For 15 points--what model, useful for analyzing semiconductor properties, treats the solid as a series of periodic finite square wells, allowing one to find ranges of allowed energies and band gaps?

ans: Kronig-Penney model

19. Identify the following concerning a certain political entity in American history, for 10 points each:

A. John Hancock gave this so-called "junto" [HOON-toh] its name around 1778. They were the leaders of the extreme nationalist wing of the Federalist Party in New England, and they took their name from the county from which most of them came in Massachusetts.

ans: Essex Junto

B. The Essex Junto vehemently opposed this 1807 act which prohibited U.S. vessels from trading with European nations during the Napoleonic Wars.

ans: Embargo Act

C. The Essex Junto was the major force behind the calling of this body, which opposed the War of 1812 and politically damaged the Federalists. Some of its key members included George Cabot, Timothy Pickens, and Theophilus Parsons.

ans: Hartford Convention

20. Identify the following from the history of economics, for 10 points each:

A. Leon Walras is generally considered an intellectual ancestor of this Nobel-winning economist, whose input-output economic models developed in the 1920s are a development of Walras' technical substitution equations.

ans: Wassily W. Leontief

B. Identify the university where Walras taught from 1870 to 1892, whose name would become synonymous with his approach to economics.

ans: University of Lausanne (accept Lausanne School)

C. Named for the successor to Walras's chair, this concept states that a society's resources are not best allocated as

long as it is possible to make at least one person better off while keeping others as well off as before.

ans: Pareto optimum or Pareto optimality (accept close variants)

21. Given a line, identify the T. S. Eliot poem.

A. For 5 points--"Do I dare / disturb the universe? / In a minute there is time for decisions and revisions / which a minute will reverse ..."

ans: The Love Song of J. Alfred Prufrock

B. For 10 points--"Between the idea / And the reality / Between the motion / And the act / Falls the Shadow."

ans: The Hollow Men

C. For 15 points--"Paint me a cavernous waste shore / Cast in the unstilled Cyclades, / Paint me the bold anfractuous rocks / Faced by the snarled and yelping seas."

ans: Sweeney Erect

22. Identify these techniques used in gene sequencing, for 15 points each:

A. This method of gene sequencing involves cleaving the DNA with a restriction enzyme and labeling each of the resulting fragments with phosphorus-32 at one end. The cleaved fragments are then subjected to electrophoresis, where the bases can be identified by how far each band travels.

ans: Maxam-Gilbert method

B. This method is also called the dideoxy method involves synthesizing a new DNA strand using single-stranded DNA as a template from the gene being sequenced. Autoradiography is then used to identify radiolabeled nucleotides. This method was named after the only two-time recipient of the Nobel Prize in chemistry.

ans: Sanger method