## TOSSUPS -- TENNESSEE

## MOON PIE CLASSIC 2003 -- UTC

(Questions by Carol Guthrie, with an assist from Markus Iturriaga Woeffel)

1. A "historical autopsy" performed on him by the Clinico-Pathologic Conference in 2002 announced that he died as a result of Fournier's gangrene. This diagnosis is consistent with the details of his death as recorded by Flavius Josephus, describing such symptoms as intense itching, intestinal pain, shortness of breath, convulsions, and gangrene of the genitalia. This would seem to be a fitting death for the man who, according to the Gospel of Matthew, ordered the deaths of all male children two years old and younger in Bethlehem and its surrounding districts. FTP, name this King of Judea who ordered the Massacre of the Innocents in a bid to wipe out the just-born Jesus.

Answer: Herod the Great

At age 23, he served as first violinist in the orchestra conducted by Jacques Offenbach during his tour of America in 1877. He wrote several comic operettas, among them ElCapitán (1896), The Bride Elect (1898), The Free Lance (1906), and The Glass Blowers (1913). In 1880, he was appointed to head the Marine Band at the White House, which spurred him to write such works as "Hands Across the Sea" and "Semper Fidelis." FTP, who is this "king of the march," famous for "The Washington Post March" and "The Stars and Stripes Forever"

Answer: John Philip Sousa

3. Its fibers are based on poly-paraphenylene terephthalamide, a rigid molecule that makes it easier to realize a fully extended, or straight, chain configuration, and they have a density of 1.4 grams per cubic centimeter. Made from organic polymers based on light elements, such as carbon and nitrogen, rather than heavy elements, such as iron, this organic fiber in the aromatic polyamide family was discovered by chemists at DuPont in 1965. FTP, identify this material which is five times stronger than steel on an equal weight basis and which can resist temperatures up to 800 degrees Fahrenheit.

Answer: Kevlar

4. The Swedish presenter who read this writer's Nobel acceptance speech deleted the last line as being too political...the line was "So let none at this festive table forget that political prisoners are on hunger strike this very day in defense of the rights that have been curtailed or trampled under foot." He was not in attendance to personally receive his prize, but heard the speech while listening to a radio in the dacha of his friend, the cellist Mstislav Rostropovich. Expelled from the Soviet Union in 1794, he indicted Soviet repression in a number of his works. FTP, name this author of Cancer Ward and The Gulag Archipelago.

Answer: Alexander Solzhenitsyn

- 5. The fighting was limited mainly to Allahabad, Lucknow, Meerut, and other places in the Ganges Valley, although there were also skirmishes in Madras, Bombay, and the Punjab. British commander Colin Campbell was successful in squashing this effort by natives hoping to restore the Mogul emperor, Bahadur Shah II, to power. It was triggered by a rumor that a new type of paper cartridge was greased with animal fat, which was religiously offensive to Indian soldiers in the British armed forces. The cartridges had to be bitten before use, so grease from cattle would violate religious restrictions of the Hindus, and grease from swine, that of the Muslims. FTP, by what name is this Indian Mutiny of 1857-58 known?

  Answer: Sepoy Mutiny or Rebellion (ask for more info on early buzz w/Indian Mutiny)
- 6. Researchers are taking advantage of these to develop clever nanotechnology applications in medical imaging and drug delivery, as well as new approaches to building electronic devices. Specifically, researchers hope to use its capsid, or protein coat, minus its nucleic acid to develop these new technologies. FTP, what are these sub-microscopic, obligate intracellular parasites with a noncellular structure composed mainly of nucleic acid within a protein coat, whose members include the Epstein-Barr variety.

Answer: Viruses or viral systems

Victor's

- 7. In his Lives of the Artists, Vasari said of this man: "While we may term other works paintings, those of "blank" are living things; the flesh palpitates, the breath comes and goes, every organ lives, life pulsates everywhere." This artist received his earliest training from his father, who later sent him to study under Pietro Perugino. His early works include the five predella scenes, Agony in the Garden, St. Anthony of Padua, St. Francis, Procession to Calvary, and The Three Graces. FTP, name this gifted painter of the High Renaissance, noted for his many renderings of the Virgin Mary.

  Answer: Raphael Santi or Sanzio
- 8. Some of the abandoned titles for this novel included *Under the Red White and Blue*, *The High Bouncing Lover*, and *Among the Ash Heaps*. A late-draft version of the novel was published in 2000 under another rejected title, which was the name of a character from Petronius's *Satyricon*, who, appropriately enough, was a rich and vulgar social climber who enjoyed playing host to an endless supply of partygoers and parasites. The character's name and 200 edition was "Trimalchio." Ultimately, the author's editor, Max Perkins, and wife, Zelda, managed to convince him to adopt this title. FTP, identify this novel featuring Nick Carraway and Daisy Buchanan.

  Answer: The **Great Gatsby**
- 9. His obituary in the August 26, 1900 New York Times stated he "died...of apoplexy." Other quotes from that obituary include: "Of Slavonic ancestry [he] was born in 1844 in the village of Rocken, on the historic battlefield of Lutzen. He lost his parents early in life, but received a fine education at the Latin School at Pforta, concluding his studies at Bonn and Leipsic". FTP, identify this philosopher and author of "The Old Faith and the New," "The Overman," "The Dawn of Day," and "Twilight of the Gods." Answer: Friedrich Wilhelm Nietzsche
- 10. The son of a petty salt merchant and his "second wife," or concubine, he joined the Methodist Church in 1931 and created the New Life Movement. When revolts broke out in China in October, 1911, he resigned from the Japanese Army, returned to the Chinese mainland and took the field against the Manchu forces. A capable commander, he led a successful attack on Hangchow and later held military positions in the Shanghai area. During World War II, his forces fought both the Japanese and the Communist insurgents led by Mao. FTP, name this Chinese leader forced to retreat to Taiwan in 1949. Answer: Chiang Kai-shek
- 11. This was originally the name given by the Greeks to a special marble found in Asia Minor used in caskets because it was believed to have the property of destroying the entire body, except for the teeth, within a few weeks. Many Greek and Etruscan ones were made in the shape of a couch, while under the rule of the Roman emperors they were elaborately decorated with mythological scenes carved on the sides and statues of the deceased on the lid. From the Greek for "flesh eater", FTP, what are these elaborate burial casket not sunk underground?

Answer: sarcophagus or sarcophagi

12. Its author wrote a parody of this poem in a 1925 letter, which goes: "Rouen is the rainiest place getting/ Inside all impermeables, wetting/ Damp marrow in drenched bones./ Midwinter soused us coming over Le Mans / Our inn at Niort was the Grape of Burgundy/ But the winepress of the Lord thundered over that/ grape of Burgundy/ And we left in a hurgundy./ (Hurry up, Joyce, it's time!). . . ." Divided into five sections, this poem's first section, "Burial of the Dead," begins with the line "April is the cruelest month." FTP, name this famous poem by T.S. Eliot.

Answer: The Wasteland

- 13. His grandfather, a graduate of Virginia Military Institute, became a colonel in the Confederate Army and was killed in action at the battle of Cedar Creek. He was born on the family ranch at San Gabriel, Calif., and in 1913 he went to France to study French saber methods, and on his return was made Master of the Sword at the Mounted Service School, Fort Riley, Kansas. He accompanied Gen. John J. Pershing as his aide on the expedition into Mexico after Pancho Villa in 1916. In 1914, he saw action at the battle of Cambrai, where the British first used tanks on a large scale. FTP, name this American military hero who commanded a corps in North Africa, the 7th Army in Sicily, and the 3<sup>rd</sup> Army during World War II. Answer: George Smith **Patton**, Jr.
- 14. He had a pet pelican named Parsifal and his grave, on the banks of the Ogooue River, is marked by a cross he made himself. Born at Kaystersberg, Haute Alsace in 1875, at age 18 he entered the University of Strasbourg as a student in theology, philosophy and musical theory, while contemporaneously studying the organ in Paris under the legendary Charles Marie Widor. In his most controversial work, published in 1910, he depicted Jesus as a child of his times who shared the eschatological ideas of late Judaism and who looked for an immediate end of the world. FTP, name this noted humanitarian, author of *The Quest for the Historical Jesus*, who won the 1952 Nobel Peace Prize for work at his hospital at Lambarene, Gabon. Answer: Albert Schweitzer
- 15. Jean Perrin made a quantitative experimental study of the dependence of this on temperature and particle size, thus providing verification for Einstein's mathematical formulation for it. The first satisfactory theoretical treatment of it was made by Albert Einstein in 1905. Observed in all types of colloidal suspensions, it can be described as the zigzag, irregular motion exhibited by minute particles of matter when suspended in a fluid. FTP, what is this phenomenon named for the botanist who first observed it while examining the movement of plant spores floating in water.

  Answer: Brownian movement or motion
- 16. He astonished Charles Dickens by revealing the identity of the murderer in Barnaby Ridge while that book was still in serialization. The son of acting parents who died by the time he was age 3, he was taken into the home of his godfather, John Allan. From 1838 to 1844, he lived in Philadelphia, where he edited Burton's Gentleman's Magazine and Graham's Magazine. Earlier, in 1827, he published his first book, Tamerlane and Other Poems, which was followed, in 1838, by The Narrative of Arthur Gordon Pym. FTP, name this noted writer whose magazine stories were collected as Tales of the Grotesque and Arabesque.

Answer: Edgar Allan Poe

17. In the 7<sup>th</sup> and 8<sup>th</sup> centuries, this civilization resembled the ancient Greece of Athens vs. Sparta, with small states lining up behind two superpower city states: Calakmul and Dos Pilas. According to recently discovered hieroglyphics, Calakmul conquered dos Pilas, taking its king prisoner then restoring him as a puppet ruler. He then initiated a 10-year war against the king of Tikal, his own brother, who was ultimately sacrificed. FTP, identify this ancient civilization., which at one time had as many as twenty states existing on the Yucatan Peninsula.

Answer: Mayan or the Mayas

18. They are said to have Hausdorff-Besicovitch dimension. Julia sets of them are created by entering a complex number into a recursive function. Another model is Serpinski's gasket. Their name was taken from the Latin for "to break" and "fragmented" by their discoverer, Benoit Mandelbrot. FTP, what are these extremely irregular curves or shapes, whose natural examples include clouds, coastlines, and lightning?

Answer: Fractals

- 19. While in Argentina, he was bitten by the Benchuca bug, "the great black bug of the Pampas", which is now known to carry the Chagas' blood parasite in its feces. This may explain why he suffered from flatulence, vomiting, weakness and fatigue throughout his life. Despite these troubles, he transformed his home at Down House into a self-contained biological field station, where he, among other things, raised 57 different kinds of gooseberries. FTP, name this scientist whose revolutionary theories were championed by Thomas Huxley, and which he developed after his 5 year voyage on the *H.M.S. Beagle*. Answer: Charles **Darwin**
- 20. He explained his get-rich scheme in an 1885 letter to his mother thusly: "Several thousand rifles are on their way to me from Europe. I am going to set up a caravan, and carry this merchandise to Menelik, the

king of Shoa [Abyssinia]." This twenty-something vagabond had already been a tutor, beggar, docker, factory worker, soldier, thief, and coffee trader, before taking up gun running in Ethiopia; all of this occurring after his infamous relationship and breakup with French poet Paul Verlaine. FTP, identify this French poet of A Season in Hell.

Answer: Arthur Rimbaud

- 21. Dr. Gustav Adolf Lehmann of the University of Göttingen and Dr. Franz Starke of Tübingen have argued that this was a place that the Hittites called Wilusa. Two other professors at the University of Tübingen, Dr. Manfred Korfmann and Dr. Frank Kolb, are locked in a bitter public battle over its supposed size. Korfmann supports his theory by noting that its position at the Dardanelles would have made it a strategic point in shipping during the Late Bronze Age. Despite these professionals, it was actually an amateur who made the initial discovery that this city was actually a real place. FTP, identify this ancient city first excavated by Heinrich Schliemann, whose siege was the stuff of legends.

  Answer: Troy
- 23. In the 16<sup>th</sup> century it was cleaned with some type of fresh vegetable oil. This fact led two Russian scientists in April 2002 to announce that it was 1,300 years older than the 1988 carbon-dating study had estimated. However, two different Russian scientists announced in November 2002 that their compatriots made a calculation error by not accounting for different ratios between the carbon 14 and carbon 12 in the vegetable oil. First brought to Europe by a 14<sup>th</sup> century crusader, it has been enshrined in Italy since 1578. FTP, name this controversial object which bears the reverse image of a crucified man with hollowed eyes who is wearing a crown of thorns.

Answer: Shroud of Turin

- 23. Bobby Darin's "Mack The Knife" mentions her by name, which is not surprising since the song was originally written for her. Born Karoline Wilhelmine Charlotte Blamauer in Austria-Hungary near the turn of the century, this singer and actress gained fame performing the songs of her composer husband. After emigrating to the US, she was nominated for an Oscar for her role in *The Roman Spring of Mrs. Stone* and won a Tony for her performance in *The Threepenny Opera*. For ten points, name this singer, famous for intoning her husband Kurt Weill's "Die Moritat von Mackie Messer" the original "Mack the Knife" who also starred as the evil Rosa Klebbin in *From Russia With Love*.

  Answer: Lotte Lenya
- 24. Born in Bradford, England in 1862 to German parents, he grew up in a musically cultured home and played both violin and piano proficiently before he reached his teens. In 1884 he persuaded his father to let him try his hand at cultivating oranges in Florida. His plantation, Solano Grove, and the spirituals of its black workers inspired his "Florida Suite". After returning to Europe to finish his musical education he composed several operas, including *Irmelin* and *Koanga*, orchestral works such as *Paa Viderne* and the symphonic poem *Life's Dance*. FTP, name this composer, best remembered for such works as the choral *Appalachia*, the orchestral *On hearing the first Cuckoo in Spring* and his operatic masterpiece *A Village Romeo and Juliet*.

Answer: Frederick (or Fritz) Delius

25. The world's shortest river, the 120 feet long D River, is in this state. It connects Devil's Lake directly to the Pacific Ocean near Lincoln City. Other rivers in this state include Deschutes, the John Day, Tualatin, and Willamette. FTP, identify this state whose mightiest river is the Columbia.

Answer: Oregon

## **BONI - TENNESSEE**

## **MOON PIE CLASSIC 2003 -- UTC**

(Questions by Carol Guthrie, with an assist from Markus Iturriaga Woeffel)

1. Answer these questions about "eponymous" numbers, FTPE:

a. In 1644 a French monk (incorrectly) stated that the numbers  $(2^n)$ -1 (read: two to the n quantity minus one) were prime for n = 2, 3, 5, 7, 13, 17, 19, 31, 67, 127 and 257 and composite for all n > 257. Even though he was wrong, prime numbers that can be generated by raising 2 to a prime number and then subtracting one are named after him. FTP, what are these numbers called?

Answer: Mersenne primes

b. Named for a professor of Communications at the University of Southern California, this term refers to a set of non-negative integers such that no two distinct pairs of numbers from the set have the same difference. FTP, name this type of set, useful in communications technology, a small example of which would be the set "1,4,9,11".

Answer: Optimal Golomb Rulers

c. If  $n^2$  (n squared) can be deviced into a left and right part such that the sum of the two parts equals n, then n is a number named for the Indian mathematician who presented them in 1980. An example is the number 703 since  $703^2 = 494209$  and 494+209 = 703. FTP, name these numbers:

Answer: Kaprekar numbers

- 2. FTPE, Answer the following related literary questions, about D.H. Lawrence's novel Lady Chatterly's Lover.
- a. What is the name of the estate game keeper with whom Lady Chatterly has an affair?

Answer: Oliver Mellors (accept either first or last name)

b. What is Lady Chatterly's first name, which is something she's not?

Answer: Constance

c. What poet, in his poem "Annus Mirabilis" made this reference to *Lady Chatterly's Lover*? "Sexual intercourse began/ In nineteen sixty-three/ (Which was rather late for me) -/ Between the end of the Chatterley ban/ And the Beatles' first LP ..."

Answer: Philip Larkin

- 3. Answer these questions about Mexican history, 5 points each, 30 for all 5 correct.
- a. In 1854, a coalition of Mexican liberals overthrew this dictator and established a republic.

Answer: General Antonio de Santa Ana

- b. In 1857, disputes over a new constitution led to a civil war and the establishment of rival governments. In 1859, the United States formally recognized the liberal administration of this man as the legitimate government of Mexico Answer: Benito Juárez
- c. When the Juáárez government suspended its debt payments in 1861, Spain, France, and Britain sent an expeditionary force to demand redress. Quarrels between the three European powers prompted Spain and Britain to withdraw, but this French leader reinforced French troops and dispatched them to the Mexican capital.

Answer: Napoleon III

d. In early 1864, Napoleon III established a puppet regime in Mexico under what archduke of Austria?

Answer: Maximilian

e. Unhappy with French meddling in Mexico, the U.S. government, in May, 1865, sent 50,000 soldiers, under the leadership of this man, to face down French troops across the Mexican border.

Answer: General Philip Sheridan

- 4. Identify these Russian cities from descriptions, 10 pts. each.
- a. Formerly Gorky or Gorki, city, it is the administrative center of the Volga district and is a major river port situated on the Volga and Oka rivers.

Answer: Nizhny Novgorod

b. Formerly Sverdlovsk, it is the administrative center of the Ural district, in the eastern foothills of the central Urals, on the Iset River. One of the largest cities of the Urals, Czar Nicholas and his family were imprisoned and shot by the Bolsheviks here in 1918.

Answer Yekaterinburg or Ekaterinburg

c, Capital of Maritime Territory (Primorsky Kray), Russian Far East, it is situated on a peninsula that extends between two bays of the Sea of Japan

Answer: Vladivostok

5. Answer these questions about cellular respiration, 5 pts. each.

a. 5 pts. each. Name the first stage of cellular respiration where glucose is converted and name the two-molecule by-product that is created?

Answer: glycolosis and pyruvic acid

b. Glycolosis occurs in this the *living* protoplasm part of a cell outside the nucleus that surrounds all other cell organelles outside the nucleus.

Answer:

cytoplasm

c. In aerobic respiration, pyruvic acid from the glycolysis stage diffuses into this cell organelle called

Answer: mitochondrion or its plural mitochondria

d. Part of the respiration process that occurs in the mitochondria of a cell under aerobic conditions, this a series of enzyme controlled reactions that create a net gain in ATP.

Answer:

Krebs Cycle or Citric Acid Cycle

e. The cytochrome or hydrogen carrier system, where reduced hydrogen carriers transport hydrogen atoms from the glycolysis and Kreb's cycle stages, take place on the tiny stalked particles found on the outer layer of mitochondria

Answer:

crista or its plural cristae

6. 30-20-10-5, provide this term

- (30) This was a title used for queens in ancient Ethiopia. One by this name made war (c.22 B.C.) on the Roman governor of Egypt, while another is mentioned in the Bible as the queen of the eunuch converted by Philip (Acts 8.27BB39).
- (20) This term is also the first name of the author, with the last name Robb, who has penned two ongoing mystery series featuring medieval sleuths, the Margaret Kerr Mysteries and the Owen Archer Mysteries.
- (10) This is also the first name of the actress who made her screen debut in the 1966 movie *The Group*, where she played a lesbian. She has also appeared in *Carnal Knowledge* and *Miss Congeniality*.

(5) This actress from the previous clue is best known for her the hit TV show Murphy Brown

Answer:

Candace

7. The wealthy, lecherous, old buffoon Fyodor Karamazov, in Dostoevski's *The Brothers Karamazov*, has three sons B the brothers in the title. Given a short, snappy description of one of the sons/brothers, name him, 10 points each. a. 27 year old womanizing spendthrift son

Answer:

Dmitry

b. the intellectual 23 year old

Answer:

Ivan

c. the gentle, religious 20-year-old

Answer:

Aleksei

- 8. Answer these questions about events which occurred on November 2, 5 pts. each.
- a. 1917, this British Foreign Secretary expressed support for a Jewish homeland in Palestine which became known by his name.

Answer:

Arthur Balfour Declaration

b. 1959, this man admitted to a House subcommittee that he had the questions and answers in advance of his appearances on the NBC-TV game show "Twenty-One

Answer:

Charles Van Doren

c. 1963, this South Vietnamese president was assassinated in a military coup

Answer:

Ngo Dihn Diem

d. 1889, these two states became the 39th and 40th states.

Answer:

North Dakota and South Dakota

e. 1947, Howard Hughes piloted this huge wooden airplane on its only flight, which lasted about a minute, over Long Beach Harbor in California.

Answer:

Spruce Goose

- 9. I'm sure you know of the different sects within Islam, especially the Sunni/Shiite split. Answer these related questions, 10 points each.
- a. The Shiite sect is descended from the followers of this man, who became caliph in A.D. 656.

Answer: Al

b. After Ali's ascent to the caliphate, this governor of Syria proclaimed himself caliph from Damascus and rebelled in the name of his murdered kinsman Uthman. After the ensuing civil war, his line of followers became the Sunni sect and he became the 1st Umayyad caliph.

Answer: Muawiyah or Muawiya or Moawiyah.

c. This is considered by some a sect and by others as a part of Islam itself. While it has been described in many different ways by scholars writing in English, they all agree on its essential character as being the inner, esoteric, mystical, or purely spiritual dimension of the religion of Islam.

Answer: Sufism or Sufi

- 10. Citizen Kane is generally regarded by many film critics and devotees to be the greatest film of all time, because of its stylistic daring and narrative wit. Answer these questions about that Orson Welles classic, for the stated number of points.
- a. Much of the stylistic success of the film was due to this innovative cameraman who shot the film using deep-focus shots and low-angled shots revealing ceilings. Name him for 10 pts.

Answer: Gregg Toland

b. William Randolph Hearst is generally considered the role model for the Charles Foster Kane character. For 5 pts., name the palatial estate built by Kane in the movie, which is modeled after Hearst's San Simeon, California ranch.

Answer: Xanadu

c. Susan Alexander, the Marion Davies analog in the film is pushed by Kane into what entertainment field, where she miserably flops? 5 pts.

Answer: Opera (accept equivalents)

d. According to the newsreel that opened the film, Charles Foster Kane died in what year, coincidentally, the same year that Citizen Kane was released? 5 pts.

Answer: 1941

e. For a final, and very cheap 5 pts., what exactly was Rosebud?

Answer: Kane's childhood sled

11. Amnesia, also called retrograde amnesia, is usually caused by degeneration of and/or damage in the frontal lobe. Sufferers, who tend to be found on daytime soap operas, have memory blanks when relating to past experiences in their life. FTP each, identify these other problems or conditions created by various forms of brain damage.

a. This is type of brain damage, usually to the frontal lobe area, which affects communication capabilities in humans.

Answer: Aphasia

b. This is where the information collated on one half of the brain is rejected and therefore the sufferer can only operate with one eye, because the part of the brain receiving visual information from the other eye is not functioning properly. In some cases, sufferers may only be able to paint half a painting or eat one half of a plate of food as they are unaware of the information about the other half of the environment.

Answer: Visual Neglect

c. This unusual sort of brain damage is where sufferers still have the complete ability to see around them (unlike visual neglect), though cannot relate their surroundings in a quantifiable way, i.e. they fail to recognize a familiar surrounding, person or object, due to a malfunction in recalling past events involving the surrounding.

Answer: Agnosia

- 12. The subject is Cold War Treaties between 1963 and 1991. For 5 points each, 30 for all 5, name the treaty given a description of its provisions and year it was signed.
- a.. 1991 Provided for a 25% reduction in both USSR and USA nuclear weapons and was signed by President Bush and President Yelstin

Answer: START TREATY or Strategic Arms Reduction Treaty

b. 1972 - Signed by President Nixon and Premier Brezhnev it limited for five years the deployment of strategic weapons systems

Answer: SALT 1 or First Strategic Arms Limitation Treaty

c. 1963 - Signed by President Kennedy and Premier Khrushchev it prohibited atmospheric, underwater and outer space nuclear testing

Answer: Limited Test Ban Treaty

- d. 1972 Signed by Nixon and Brezhnev it restricted US and Soviet testing and deployment of defensive systems
  Answer: ABM Treaty or Aniti-Ballistic Missile Treaty
- e. 1988 Signed by President Reagan and Premier Gorbachev and it committed the US and the USSR to withdrawal their intermediate-range nuclear missiles from Eastern and Western Europe and to destroy them.

Answer: INF Treaty or Intermediate-Range Nuclear Forces Treaty

- 13. Identify these works by Mark Twain, 10 pts each.
- a. First published in 1897, the first half of the book takes place in Australasia. The book also includes accounts of the Indian practice of suttee and the Thugs.

Answer: Following the Equator

b. First published in 1880, Twain undertook the project, an expedition to Europe, in order to escape from the growing harassment of business responsibilities and to collect material for this book. One of the more memorable sections includes his critique of the "awful German language" and his violent attack on Wagnerian opera.

Answer: Tramp Abroad

c. First published in 1872, this work romanticizes the West of Twain's youth. One famous anecdote tells of the coyote being pursued by a hound who vanishes with a "rushing sound, and the sudden splitting of a long crack in the atmosphere."

Answer: Roughing It

- 14. Identify the brother or sister of the following Greek mythological figures
- a. He went off looking for his sister Europa after Zeus carried her off, but got sidetracked founding a city.

Answer: Cadmus

b. She got hitched to Theseus after the ungrateful bastard dumped her sister Ariadne.

Answer: Phaedre

c. The brother of Circe, he was also the father of Medea and king of Colchis

Answer: Aeetes

- 15. Identify these types of chemical bonding, 5 points each, 30 for all 5.
- a. The sharing of one or more electron pairs between nuclei, this bonding usually occurs when the electronegativity difference between bonding species is less than 1.5.

Answer: Covalent

b. The transfer of one or more electrons from a metal to a nonmetal, the electron transfer usually occurs when the electronegativity difference between bonding species is 1.5 or more.

Anwer: Ionic

c. A chemical bond with "sausage roll" shape formed by the sideways overlap of two d orbitals

Answer: Delta

d. A bond formed by the sideways overlap of two parallel p orbitals, they result from the concentration of electron density above and below the bond axis and exhibit binodal planar symmetry. The second and third bonds formed are of this type.

Answer: P

e. The first covalent bond formed between two nuclei is always this type of bond, which exhibit cylindrical symmetry to the internuclear axis. They are formed when two s orbitals, one s and one p orbital, two p orbitals, or two d orbitals overlap.

Answer: Sigma

16. Identify these terms used in the world of art and painting, 10 pts. each.

a. Strictly speaking, this is the dried lumpy curd of skimmed milk. When mixed with water and dry pigments it makes an excellent paint. It was very popular for commercial illustration until acrylics became highly developed.

Answer: Casein

b. A form of painting done with beeswax. It dates back to the Egyptians and Greeks, (the word itself coming from the Greek word *encaustikos*, meaning "to burn in"). It is not used much today because of the difficulty of the process. The most famous of modern painters to work in this medium is probably Jasper Johns.

Answer: Encaustic

- c. A painting technique where the paint is thick enough to have actual form, the strokes themselves create some of the effect. Rembrandt employed this technique to great success.

  Answer: Impasto
- 17. Identify this Englishman on a 30-20-10 basis.
- a. 30: His famous "Begums speech" before the House of Commons in 1787, advocated the impeachment of Warren Hastings, governor-general of India. He spoke without notes for five and a half hours, with such skill and feeling that both sides of the House, reportedly for the first time in its history, jumped to their feet with cheering and applause. b. 20: Although he had not been an active playwright for many years, when the Drury Lane Theater burned down in 1809, this man was left destitute due to loss of income, and found himself imprisoned in "sponging houses" for unpaid debts.
- c. 10: His lasting fame today rests on his plays The School for Scandal and The Rivals.

Answer: Richard Brinsley Sheridan

- 18. Answer these related questions, for the stated number of points.
- a. 5 PT: Name the hypothetic body that completely absorbs all wavelengths of thermal radiation incident on it and which do not reflect light.

Answer: blackbody

b. 10 PT: Name the law which gives the total energy flux emitted from a blackbody at given temperature.

Answer: Stefan-Boltzmann Law

c. 15 PT: This classical law which approximately describes the intensity of radiation emitted by a blackbody, was derived by its namesakes from counting the number of standing wave modes in an enclosure.

Answer: Rayleigh-Jeans Law

19. Answer the following questions about an incident from early American history, for the stated number of points.
a. 5 PT: What is the name of the war fought among colonial settlers and native Americans in New England in 1675-76.

Answer: King Phillip's War

b. 5 PT EACH: Phillip was the name colonial settlers gave to this native American chief who led attacks on colonial villages and settlers. Give me his native American name and the name of his tribe.

Answer: Metacomet of the Wampanoag tribe

c. 5 PT: King Phillip, aka Metacomet, was the son of this Wampanoag chief, who ironically had fifty years earlier befriended and saved the original Plymouth Colony from starvation

Answer: Massasoit

d. 10 PT: When Massassoit died in 1661, he was succeeded by his eldest son, Metacomet's older brother. Give either the native American or colonial name of this man who died under mysterious circumstances after being taken captive by Plymouth colony officials in 1662.

Answer: Wamsutta or Alexander

- 20. Don't know if it'll be 4 o'clock when this question is read, but it's now your tea time. Answer the following tea related questions, 10 points each.
- a. This popular black tea was named for the second earl in his line, who was also prime minister to King William IV in the early 19th century.

Answer: Earl Grey tea

b. An amalgamation of Indian and Sri Lankan teas, Earl Grey gets its elusive flavor from oil of what herb, which is also known by the names Scarlet Monarda, Oswego Tea, and Bee Balm?

Answer: bergamot

c. This tea is produced from leaves that are partially fermented, a process that creates teas with a flavor, color and aroma that falls between black tea and green tea. The best known variety is "formosa," from (surprisingly enough) Taiwan.

Answer: Oolong

21. Given an opening line from an Edgar Allan Poe short story, identify the story, FTSNP.

a. 5 PT: "TRUE!-NERVOUS--very, very dreadfully nervous I had been and am! but why will you say that I am mad?"

Answer: The Tell Tale Heart

b. 10 PT: "In the consideration of the faculties and impulses -- of the prima mobilia of the human soul, the phrenologists have failed to make room for a propensity which, although obviously existing as a radical, primitive, irreducible sentiment, has been equally overlooked by all the moralists who have preceded them."

Answer: The Imp of The Perverse

c. 10 PT: "At Paris, just after dark one gusty evening in the autumn of 18 -- , I was enjoying the twofold luxury of meditation and a meerschaum, in company with my friend, C. Auguste Dupin, in his little back library, or bookcloset, au troisièème, No. 33 Rue Dunôôt, Faubourg St. Germain."

Answer: The Purloined Letter

d. 5 PT: "The thousand injuries of Fortunato I had borne as I best could, but when he ventured upon insult I vowed revenge."

Answer: The Cask of Amontillado

- 22. Identify these important scholars from the field of Sociology, 10 points. each.
- a. In his classic work *Protestant Ethic and the Spirit of Capitalism*, he developed a thesis concerning the intimate connection between the ascetic ideal fostered by Calvinism and the rise of capitalist institutions

Answer: Max Weber

b. Along with Max Weber, this man is considered one of the chief founders of modern sociology.

He argued that collective mind of society was the source of religion and morality and that the common values developed in society, particularly in primitive societies, are the cohesive bonds of social order. In more complex societies, he suggested, the division of labor makes for cohesiveness, but the loss of commonly held values leads to social instability and disorientation of the individual, a thesis which led to his writing the work *Le Suicide* (1897).

Answer: Emile Durkheim

c. A professor of sociology at Columbia University since 1941, he is especially known for his contributions to the study of social structure, sociology of science, bureaucracy, and mass communications. In such writings as *Mass Persuasion* (1946), *Social Theory and Social Structure* (1957), and *The Sociology of Science* (1973), he developed such concepts as the "self-fulfilling prophecy," "deviant behavior," and focus groups.

Answer: Robert K. Merton

- 23. Identify these medieval rulers who played a significant role in the spread of Christianity on a 5-10-15 point basis
- a. 5 PT: He married a Catholic princess, Clotilda, and his subsequent conversion to Catholicism (instead of the Arianism other Germanic tribes followed) would establish the Frankish kingdom as a Catholic nation

Answer: Clovis

b. 10 PT: In 988 this Grand Duke of Kiev, grandson of St. Olga, wishing political association with Constantinople, requested of the Emperor the hand of his sister, which was granted upon the condition that he accept Christianity. He agreed, was baptized, and forced his people down to the Dnieper to be baptized.

Answer: Vladimir I or the Great

c. 15 PT: In 864, this Bulgarian leader was baptized in his palace at Pliska and did not hesitate in forcing his people to give up pagan rites and adopt Christianity. He went so far as to order the execution of fifty-two nobles who had remained Faithful to their pagandom.

Answer: Boris I

- 24. Given the degree and radian of an angle, tell me what its sine and cosine are, 5 pts. each.
- a. angle = 30 degrees; radian = pi over 6

Answer: sine = 2 and cosine = square root of 3 over 2

b. angle = 135 degrees; radian = 3 pi over 4

Answer: sine = 1 over square root of 2 and cosine = minus 1 over square root of 2

c. angle = 240 degrees; radian = 4 pi over 3

Answer: sine = negative square root of 3 over 2 and cosine = negative 2

25. You may know that Pete Sampras's victory at the 2002 U.S. Open gave him 14 Career Grand Slam titles. For 10 pts. each, name three of the four men behind him on that list, who have respectively, 12, 11, 11, and 10 titles. Answer: Roy Emerson (12), Bjorn Borg (11), Rod Laver (11), Bill Tilden (10)