Sun 'n Fun IX: The Medusa Laughs Again, Or Avoiding the Curse of the Ninth...we hope

Packets by USF edited by Ahmad Ragab

Round 10

Tossups:

1. [AR]The author of this work suggests that the title concept must exist, because it can talk while "all the arts are dumb." Beginning with a "Polemical Introduction" and ending with a "Tentative Conclusion," it is divided into four essays offering "an interconnected group of suggestions" each dealing with a different trope of the title concept. The second essay discusses the ethical form of the title subject and deals with "theories of symbols." The author of this book also wrote an analysis of the symbolism and mysticism of William Blake's poetry in *Fearful Symmetry*. For 10 points, name this 1957 seminal work with a biologically inspired title written by literary critic Northrop Frye.

ANSWER: Anatomy of Criticism

2.[AR]Application of this reaction allows the synthesis of stereochemically pure crystalline 19-norprogesterone from Estranes, a class of oral contraceptives. This reaction is important in the process of coal liquefaction, as a cyclic olefin known as isotetralin, an efficient converter of coal into THF solubles, can only be created feasibly by performing this reaction on naphthalene. Lithium or potassium can sometimes be used instead of sodium in this reaction and this reaction mechanism provides an alternative to catalytic hydrogenation, which usually reduces all the way to cyclohexane. Using sodium and an alcohol in a solution of liquid ammonia, for 10 points, name this reaction that reduces aromatic rings to 1,4-cyclohexadienes reported by its eponymous Australian chemist.

ANSWER: Birch Reduction

3.[AR] It was partially triggered by a Senator's commitment to having the terminus of the Transcontinental Railroad placed in Chicago. One of the last outbreaks of violence was the Marias des Cynges massacre before John Geary could establish rule. Previously, Augustus C. Dodge submitted a bill to that Senator's Committee of the Territories, forcing a compromise that would contravene an earlier one made in 1820. This event was spurred on by the antiabolitionist rhetoric of David Atchison coupled with Eli Thayer's organization of the Emigrant Aid Company and rifles known as "Beecher's Bibles" being sent to the area. The passage of the "Bogus Laws" and the movement of the territorial pro-slavery capital to Lecompton resulted in the Pottawatomie Massacre led by John Brown during this event. Coined by Horace Greely, for 10 points, name this series of violent events between Free Staters of the eponymous territory and the pro-slavery Border ruffians.

ANSWER: <u>Bleeding Kansas</u> [or <u>Bloody Kansas</u> or <u>Kansas-Missouri Border</u> War prompt on Border War]

4. [AR] This man did much of his doctoral work under Helmholtz and in the field of contact deformation his namesake cone describes the impact pattern from the force of a projectile propagating through certain types of solid material. Wihlem Hallwachs in 1888 helped to clarify an experiment performed by this man the previous year, which eventually led to the discovery and theory behind the photoelectric effect. In his most famous experiment, using a Rumikoff-spark induction coil to generate electromagnetic radiation and constructed a "receiver" made of a copper wire bent into the shape of a circle and small brass sphere, he was able to detect and measure transverse free space electromagnetic waves, examples of which include radio waves. For 10 points, name this German Engineer and physicist who lends his name to the SI unit for frequency.

ANSWER: Heinrich Hertz

5.[AR]He won the 1991 Homer Award for a short-story titled after an insidious baseball rule and how a softball player's position can have consequences for humanity in "Designated Hitter." Another story based on the Khazar Polemic, "Islands in the Sea," has the Bulgars deciding between Christianity and Islam. Both of those appear in the

collection, *Departures*. The novels *How Few Remain* and *The Guns of the South* make up the first two volumes of his *Timeline-191* series and his *Woldwar* series considers the consequences if aliens had invaded during WWII. For 10 points, name this Science Fiction & Fantasy author known as the "Master of the Alternative History." ANSWER: Harry **Turtledove**

6.[AR]Deng Wenyi's biography of this man suggests that he was responsible for assassinating the leader of the Restoration Society, Tao Chengzhang, inside Guangci Hospital on the orders of Chen Qimei. He returned to China after hearing of the Wuchang Uprising after his time at Zhenwu Military Academy in Japan. After the death of the leader of the organization, this man is most associated with, he engaged in a noted polemic with his eventually ostracized rival Wang Jingwei, who established Japanese collaborationist government at Nanjing. He met with Churchill and Roosevelt in 1943, and helped to draft the Cairo Declaration. Earlier, after encircling the Communists at Jiangxi he allowed Mao Zedong to escape via the Long March to Shaanxi. Eventually forced to escape to Taiwan in 1949 by the Communists, for 10 points, name this General of the Republic of China who took over control of the Kuomintang after the death of Sun Yat-Sen in 1925.

ANSWER: Chiang Kai-Shek [accept Jiang Jieshi]

7.[AR]Two festivals were held in 1960 and 1985, called the Hamefarin Festivals that celebrated the return of émigrés to this island group. Initally colonized by Norwegians sailing west it is composed of 100 or so islands in a characteristic "jigsaw" arrangement, its highest point Ronas Hill is about 1475 feet above sea level, some of the named islands include Fetlar, Bressay and Whalsay. In the 1970's oil was discovered in an inlet near an old RAF base called Sullom Voe. Co-latitudinal with Cape Desolation, the largest island is known simply as the "Mainland" and Lerwick is its main port and only burgh lying 210 miles from Aberdeen. For 10 points, name this archipelago of islands belonging to Scotland northeast of the Orkneys known for a breed of thick-coated ponies.

ANSWER: Shetland Islands

8.[AR]The author claims that the *Iliad's* lack of interiority versus the *Odyssey's* depiction of deceit and the focus on the *phrenes*, and the *thumos* are indicative of the title occurence. In the final section, he discusses the historical question for authorization in the science as suggestive to his thesis that is described as profoundly Nietzschean. In this work, archaeological evidence is utilized in the analysis of cuneiform lamentations marking the sudden silence of God such as in the nam-shub of Enki. Modern vestiges of the second title concept include phenomena of verbal hallucinations in schizophrenic patients, and the rhythmic nature of poetry and Glossolalia. Stating that ancient gods were the organizations of the central nervous system, for 10 points, name this work, which concludes that, the origins of the title concept began with the integration of the two hemispheres of the brain written by Julian Jaynes.

ANSWER: The Origins of Consciousness in the Breakdown of the Bicameral Mind

9.[AR] Ronald Jones constructed a magnification effect for prices as a generalization of a theorem that is a result of this model. That theorem, suggests that there is a inverse proportionality between the cost of capital-intensive goods and labor wages and is known as the Stopler-Samuleson theorem. Modified by Vanek, it differs from earlier models in that it assumes there are no production technology differences between various countries. More generically known as the Factory Proportions model, it models the pattern of international trade due to the relevant resources differences between exporting nations. Based on the work of Ricardo's theory of comparative advantage, for 10 points, name this doubly eponymous economic equilibrium model developed at the Stockholm School of Economics

ANSWER: **Heckscher-Ohlin** Model

10.[AR]In 1995, a film about the making of this film was released, *Kabloonak*. The director of this film co-wrote *Tabu* with F.W. Murnau and the title character whose actual name was Allakariallak was apparently not married to Nyla. This documentary was funded by the Revillon Freres, a French fur trading company and it would eventually be included in the tradition of salvage ethnography, despite criticism that the director staged several sequences such as requiring the use of spears instead of the available guns for the walrus and seal hunts. Shot on location near Inukjuak, Quebec and depicting such typical activities as igloo building, for 10 points, name this silent documentary made in 1922 by Robert J. Flaherty about the title Inuit hunter.

ANSWER: Nanook of the North

11.[EO] It was adapted to English by Basil Wood, becoming popular in London in June 1907, two years after it premiered in German. The plot was later turned into a ballet by Robert Helpmann with John Lanchbery and Alan Abbot adapting the music. In the first act, Baron Zeta pressures the titular character into marrying another Pontevedrian; meanwhile his wife, Valencienne wants Hanna to be wed to Count Camille, the man she has been flirting with. In the second act, while Hanna entertains with the famous "Vilja Song", Camille and Valencienne get into a debacle with the fan and Hanna, to get them out of trouble, announces her plan to marry Camille. This infuriates Hanna's former lover, Danilo, and Hanna realizes he loves her, much to her joy. For ten points, name this operetta by Franz Lehar about a woman who loses the fortune of her late husband if she remarries and is most famous for a waltz of the same name.

ANSWER: The Merry Widow

12.[RF] Formerly a studio mate of the fetish artist Eric Stanton, his last mainstream creation was Squirrel Girl. He was increasingly influenced by Objectivism and the writings of Ayn Rand, an influence on display in his characters Mr. A and The Question. Known for a detailed, idiosyncratic style which highlighted anxiety and fear, his surreal and psychedelic mystical landscapes made popular the character of magician Dr. Strange. Reportedly he left his most famous work due to a conflict over the identity of a mysterious villain, work which was noted for teenage angst and odd antagonists like the aforementioned The Green Goblin. For 10 points, name the artist who with writer Stan Lee created the Marvel Comics hero Spider-Man.

ANSWER: Steve **Ditko**

13.[RF] A private investigator named Kaiser Lupowitz tracks down the title character in his story "The Whore of Mensa" and a City College humanities professor has a fling with Madame Bovary in his "The Kugelmass Episode". His stage works include *God: A Comedy in One Act, Don't Drink the Water,* and *Play it Again, Sam,* and his prose is collected in the volumes *Getting Even, Side Effects,* and *Without Feathers.* His best known writings are for the screen, where versions of himself wrestle with existential dilemmas and relationships with women played by the likes of real-life significant others like Louise Lasser, Diane Keaton, and Mia Farrow. For 10 points, name this actor and director responsible for *Hannah and Her Sisters, Crimes and Misdemeanors, Manhattan,* and *Annie Hall.*

ANSWER: Woody Allen

14.[AR]A number of institutions of higher learning were established during this dynasty including the Zahiriya in Aleppo and the Madrasa Al-Sahiba sponsored by the founder's sister Rabia Khatun. Remnants of this dynasty ruled Hamah until the mid-14th century; however, ot was seriously destabilized a century earlier under the invasion of the Mongol Horde's and its last sultan in Egypt, al-Malik al-Ashraf was overthrown by the Mamluk Sultanate in 1250. It was begun when its founder, along with his uncle Shirkuh, occupied Egypt on behalf of the Zenigid King Nur-ad Din and declared the Fatimid Dynasty to be at an end in 1171. For 10 points, name this 12 and 13th century Muslim dynasty of Kurdish origins founded by Salah ad-Din.

ANSWER: Avvubid Dynasty

15.[RF] The title is an ironic allusion to "Requiem" by Robert Louis Stevenson. It compares the misery man hands on to man to a deepening coastal shelf and ends with a plea to "Get out as early as you can" and avoid the cycle lamented in the poem. "Fools in old-style hats and coats" were responsible for the wrongs done to those who have wronged the addressee, who have added "some extra, just for you." "Don't have any kids yourself" concludes this work on the cycle of wrongs committed by parents to children, which famously opens "They fuck you up, your mum and dad". For 10 points, name this most famous verse by Philip Larkin.

ANSWER: "This Be the Verse"

16.[AR] At a recent talk given at Rollins College, this thinker berated the moderator referring to him as the source of phallocentric oppressiveness. He discusses the subversive core of Christianity in *The Puppet and the Dwarf* and suggests that it is too precious to leave to the fundamentalists in *The Fragile Absolute*. He offers five essays on September 11th and other transformative dates in *Welcome to the Desert of the Real*. Integrating late Marxian theory with neo-Lacanian psychoanalysis, this thinker suggests that what is tickling the *Ticklish Subject*, one of his earlier works of pure theory is answered in his latest *The Parallax View*. A former candidate for the Presidency of Slovenia, for 10 points, name this rockstar philosopher and cultural theorist author of *The Sublime Object of Ideology* and *How to Read Lacan*.

ANSWER: Slavoj Zizek

17.[AR]One member of this group constructed a silver hand for his brother, Nuada, after he lost it in battle. He slew his son Miach out of professional jealousy since Miach had managed to replace Dian Cecht's silver hand with Nuada's actual hand. They were eventually driven into the underworld by the Milesians, where they fight with lances of blue flame and shields of white as invisible beings known as the Aes sidhe. Arriving in their most associated region on a cloud, in the Second Battle of Mag Turieadh they conquered the Fomorians and gave them the province of Connacht. In the first battle of that name this race of gods dealt more harshly with the Firbolg. For 10 points, name this race of Irish gods, named after the fact that they were founded by the goddess Danu.

ANSWER: Tuatha De Danaan

18.[AR]While trying to solve transient problems in cable telegraphy and telephony this man developed the operator method for solving linear differential equations which were later validated by Bromwich. Along with Kennelly this scientist lends his name to a layer of the ionsphere that reflects medium frequency radio-waves also known as the E layer. This man along with Gibbs developed, simultaneously and independently, modern vector analysis. Reformulating Maxwell's field Equations in terms of magnetic and electric fields and energy flux, for 10 points, name this eccentric English mathematician and physicist who has a namesake step function.

ANSWER: Oliver Heaviside

19.[AR] Even ha-Shoham, by Joseph ibn Sayah of Damascus was written regarding the practice of Hitbonenut, or Meditation on the mystery of these in 1538. It was first coined by the author of its eponymous Yezirah who gave it its original mathematical interpretation. At the end of all the shemittot, all the apprehensible and outgoing ones are reabsorbed into the Binah, an event called the Great Jubilee. The first three are called "the mother of worlds," from which the rest emanate. It is suggested that these reorganized reveal the Divine Name or Tetragrammaton. The pictographic representation is organized into three pillars of Mercy, Mildness and Severity. Representing the various aspects of God in, for 10 points, the Jewish mystical tradition of Kabala-name these symbols the understanding of which can reveal the unfolding of the universe.

ANSWER: Ten Sephirot

20.[AR]In a related problem, the utilization of the Hadamard transformation in solving Simon's problems operates analogously to the use of a version of the Fourier transform in this algorithm. Instead of attacking the problem directly, this algorithm finds find the order of A modulo N, defined to be the smallest positive integer r such that A to the r equals 1. Its elucidation might represent the strongest evidence for showing that BQP may contain problems outside of BPP. It represents an improvement over the best classical algorithm that takes roughly 2 to the log N to the one-third steps to accomplish its task. Significantly reducing the presumed difficulty underlying the encryption scheme RSA and discovered in 1994 by its American namesake, for 10 points, name this polynomial time integer-factorization algorithm for a quantum-computer.

ANSWER: Shor's Algorithm

TB. [JR] For thousands of years, it was home to the nomadic Sahtú Dene people, who hunted and fished along its shores. Located in the Fort Smith and Inuvik regions of the Northwest territories, after the 1930 discovery of radium here by Gilbert LaBine, a company called Eldorado opened a mine to extract uranium. The company hired the Sahtú Dene to work as "coolies" carrying cloth bags of radioactive ore. It drains west via its namesake river which then flows into the Mackenzie. For 10 points, name this site where the U.S. government ordered thousands of tons of uranium for military research for World War II, a 12 thousand square-mile body of water, the fourth largest lake in North America that is also the largest lake entirely within Canada.

ANSWER: Great Bear Lake

TB. [AR]In one story, Tiernon while keeping watch, saved a foal from a mysterious beast and simultaneously rescued this man's son. In another myth this man encountered a pack of white hounds with red ears that belonged to the king of the underworld. He attacked those hounds with his own and was chastised and subsequently punished by Arawn who demanded that he spend one year and a day in Annwnn after which he would defeat Arawn's enemy, Hafgan. Arawn became friends with this man after it was discovered that he had managed not to sleep with the king's wife. This man after meeting his future wife, the daughter of Hefeydd the Old, sent his fastest horsemen after her but they could not catch up. Three days later, it was revealed that she wanted to marry this man and not her espoused husband Gwawl. For 10 points, name this lord of Dyfed, father of Pryderi and husband of Rhiannon.

ANSWER: Pwvll

Bonuses:

[AR]His real name was Kinnosuke and was a important novelist of the Meiji Restoration in Japan, for 10 points:

[10]Name this Japanese author of such novels and Botchan and the unfinished Light and Darkness

ANSWER: Natsume Soseki

[10] This comic masterpiece by Soseki tells of a fellow with no name, who has never caught a mouse, and is useless except for watching other human beings in action.

ANSWER: *I Am a Cat* [or Wagahai wa neko de aru]

[10] This novel describes the relationship the student-narrator has with his teacher, a lonely and reclusive intellectual; its title means something like the "heart of things"

ANSWER: Kokoro

[RF]Identify these works by Thomas Eakins which are not *The Gross Clinic*, for 10 points each:

[10]Eakins' other famous medical painting is this depiction of the title University of Pennsylvania doctor supervising a mastectomy.

ANSWER: The Agnew Clinic

[10]Eakins' penchant for painting the nude got him in trouble. One of his more memorable and provocative works is

this depiction of a group of male nudes outdoors at the title location.

ANSWER: *The Swimming Hole*

[10]A key early work by Eakins is this depiction of his friend, the title champion oarsman, in a small boat on the Schuylkill River.

ANSWER: Max Schmitt in a Single Scull

[JB] For 10 each, answer the following questions about a memorable multiple interview from the February, 1964 issue of *Playboy* magazine.

[10] Nine panelists were assembled before Nat Hentoff for 1964's revealing "Jazz Summit Meeting" to discuss the declining economy of jazz music, and the concept of the "third stream". This jazz pianist and composer of "Blue Rondo a la Turk" starts off the discussion.

ANSWER: Dave **Brubeck** [Editor's Note: Not a Robot]

[10] This prominent bassist, and author of *Beneath the Underdog*, laments the power of the booking agent and muses on the prospect of state-sponsored community arts in the United States. His studio output include 1963's quintuply eponymous LP for Impulse! Records, and 1956's *Pithecanthropus Erectus*.

ANSWER: Charlie Mingus

[10] When questioned by Hentoff about the rise of the Dadaist inspired "music of chance" of John Cage et al., this composer and theorist famously responded "well, the last refuge of the untalented is the avant-garde." His enduring contribution to music theory was 1953's *The Lydian Chromatic Concept of Tonal Organization*, and his concepts of modality were employed by Miles Davis, John Coltrane, and countless others.

ANSWER: George Russell

[RF] Identify these architecture awards, for 10 points each:

[10] Called "the Nobel Prize of architecture", this has been awarded by the Hyatt Foundation to a living architect ever since it was first presented to Philip Johnson in 1979. Most recently won by Jean Nouvel, other winners include Renzo Piano, Frank Gehry, and Oscar Niemeyer.

ANSWER: Pritzker Prize

[10] Beginning in 1977, this prize was awarded to buildings or projects in the Islamic world. It is named for its founder, the current Imam of the Ismaili branch of Islam.

ANSWER: Aga Khan Award for Architecture

[10] This medal has been given out intermittantly by the Museum of Finnish Architecture and the Finnish Association of Architects since it was first awarded in 1967 to its namesake, creator of buildings like Finlandia Hall and furniture like the Paimio Chair.

ANSWER: Alvar Aalto Medal

[AR]Answer the following about a French anthropologist and his influence, for 10 points:

[10] This author of *Tristes Tropiques* offered a structural analysis of family relations in *The Elementary Structures of Kinship*.

ANSWER: Claude **Levi-Strauss**

[10]Claude Levi-Strauss suggested this theory, which explains that the incest taboo drove individuals to establish exogamous relationships and establish the eponymous condition via marriages and the establishment of expanding systems of consanguinity

ANSWER: Alliance Theory

[10] Alliance theory along with Levi-Strauss' structuralist understanding influenced this important sociological and

anthropological work by Louis Dumont about the fundamental hierarchical nature of the caste system in India.

ANSWER: **Homo Heirarchicus**

[AR]In this reaction, direct acylations of alcohols is preferred over those with anhydrides, for 10 points:

[10]Name this eponymous reaction that creates its namesake product usually by refluxing a carboxylic acid with an alcohol in the presence of an acid catalyst

ANSWER: **Fischer**-Speier **Esterfication** [prompt on partial answer]

[10]One disadvantage of direct acylation is that it requires the continuous removal of water to maintain a favorable chemical equilibrium, such a removal can be performed by this doubly-eponymous laboratory device also known as a distilling trap.

ANSWER: **Dean-Stark** Appartus

[10]Using a modified Dean-Stark apparatus where the separation chamber contains a molecular sieve, one can in fact distill a mixture of two or more compounds that cannot normally separated through fractional distillation techniques.

ANSWER: azeotrope

[AR]The 11 men convicted in this scandal were all pardoned by H.W. Bush in the final days of his administration, for 10 points:

[10] Name this political scandal that occurred during the Reagan Presidency, in which Oliver North had a large hand in coordinating the sale of weapons to intermediaries and siphoning profits to fund an anti-Communist rebel group.

ANSWER: Iran-Contra Affair

[10]After the details of the Iran-Contra Affair were exposed, this three-person commission that included Brent Scowcroft and Ed Muskie was appointed by Regan and was tasked with determining the Executive Branch's awareness and involvement in the Affair.

ANSWER: Tower Comission

[10] The highest-ranking government official convicted and subsequently pardoned in the scandal was this Reagan Secretary of Defense, though he claimed to be against the sale of weapons to Iran initially.

ANSWER: Caspar "Cap" Weinberger

[AR]Along with Zamyatin, this Soviet writer of the first half of the 20th century wrote an influential dystopian novel, for 10 points:

[10]Name this Russian author of such works as *Chevengur*, *Happy Moscow*, and the collection of works *The Fierce and Beautiful World*

ANSWER: Andrei Platonov

[10]Platonov's most compelling work tells the story of a factory worker who on the "thirtieth anniversary of his private life" is fired because of the "increasing thoughtfulness affecting the tempo of his work."

ANSWER: *The Foundation Pit*

[10] This short story of Platonov relates the story of Nikita Firsov, a former Red Army Soldier who has been walking along the title body of water for two days.

ANSWER: "The Potudan River"

[AR]It is also known as the Hatch-Slack pathway, for 10 points:

[10]Name this method of carbon fixation in plants that is called so because of the nature of the first metabolite containing the added C-0-2

ANSWER: C4 Cycle

[10]The C4 cycle overcomes the tendency for this enzyme, the first major enzyme utilized in the Calvin cycle from participating in photorespiration, in part due to the particular anatomy of C4 plants

ANSWER: RuBisCO

[10] This anatomy, which restricts the photorespiration of RuBisCO is named after the wreath like structure that describes the vascular bundle sheath in C4 Leaves.

ANSWER: Kranz Anatomy

[AR] Though it aired only once, during the NBC Monday Night Movie *David and Bathsheba*, it is one of most iconic and controversial culture-of-fear Presidential campaign advertisements, for 10 points:

[10]Name this advertisement that features a little girl picking flowers in a field, followed by a countdown and mushroom cloud explosion claiming at the end that we must love each other or die.

ANSWER: **Daisy** Girl Ad [or "Peace, Little Girl"]

[10] The ad was quickly pulled, but it did not alter the perhaps inevitable landslide victory Johnson enjoyed over this conservative senator from Arizona, further crucified in the media when another ad mentioned that 1,189 psychologists claimed he was unfit to be President.

ANSWER: Barry Goldwater

[10] The director of the ad had a flare for the dramatic, not only borrowing a scene from Truffaut's 400 Blows but using a slightly altered version of this poem by W.H. Auden for president Johnson to read over the image of an expanding nuclear explosion.

ANSWER: "September 1, 1939"

[AR]Derrida rocks my socks answer these items related to his work, for 10 points each:

[10] Split into two parts, the first of which is "Writing Before the Letter," this 1967 work challenges the commonly held notion that speech is properly *before* writing and thus closer to the logos or truth.

ANSWER: Of Grammatology

[10] This work, a play on a phrase by the titular author of Das Kapital, is a work of *hauntology* and suggests that the titular entity as neither being nor non-being is making an appearance somewhat ironically after the fall of the Berlin Wall.

ANSWER: Specters of Marx

[10] This title concept of an essay suggests that words never fully signify themselves and more relevantly that words never fully distinguish themselves from the milleu of linguistic associations.

ANSWER: **Differance**

[RF] Identify these related works of literature, for 10 points each.

[10] In this 1,212-line 14th century poem in octosyllabic stanzas, the narrator mourns his deceased child, the title character, and has a dialogue with her in the afterlife.

ANSWER: Pearl

[10] The unknown author of Pearl also wrote this more familiar story about a knight of Round Table meeting his match.

ANSWER: Sir Gawain and the Green Knight

[10] Both *Pearl* and *Sir Gawain and the Green Knight* were found on the Cotton Nero A.x. manuscript along with two other allegorical poems. Name either one.

ANSWER: Cleanness or Patience

[AR]Name these items related to an effect with important applications in quantum-mechanical devices, for 10 points each:

[10]Named after a Welch physicist who predicted its existence in 1962, an electrical current flows between two superconductors that are separated by a thin insulating barrier

ANSWER: **Josephson** Effect

[10] The Josephson Effect can occur partly because of this property that indicates that the electron wavefunction on one side of the barrier maintains a fixed relationship with the electron wavefunction on the other side.

ANSWER: **phase coherence** [prompt on coherence]

[10] These devices, which are very sensitive magnetometers are composed of a set of Josephson junctions

ANSWER: **SQUID**s [or **Superconducting Quantum Interference Devices**]

[RF] Identify the James Fenimore Cooper *Leatherstocking Tale* which isn't *The Last of the Mohicans*, for 10 points each.

[10] The last written, but the earliest chronologically for the title character, a young Natty Bumppo, who with Chingachgook must rescue two frontiersmen from the Iroquois.

ANSWER: The Deerslayer, or the First Warpath

[10] Natty Bumppo takes a wagon train west, helping them dodge Sioux raiders, fires, and buffalo stampedes. He dies peacefully in the title location.

ANSWER: *The Prairie*: A Tale

[10] Natty Bumppo's friend Oliver Edwards gains a wife in Elizabeth, the daughter of Judge Marmaduke Temple in this ecologically themed tale, but loses his old friend Chingachgook in a forest fire.

ANSWER: <u>The Pioneers</u>: The Sources of the Susquehanna: A Descriptive Tale

[AR]It was intended to stop the domino effect, for 10 points:

[10]Name this Cold War political and military strategy specifically directed at the Soviets advocated by George F. Kennan in such documents as the "Long Telegram" and "X articles."

ANSWER: Containment

[10]Containment was also a strategy initially advocated for against Germany, this plan named after the then U.S. Treasury Secretary was designed to partition, de-industrialize and "pastoralize" the country.

ANSWER: Morgenthau Plan

[10] The Morgenthau Plan was heavily criticized and eventually abandoned. This speech by Secretary of State James Byrne given in the titular German city marked an official "Restatement of Policy on Germany."

ANSWER: Stuttgart Speech [or "Speech of Hope"]

[AR] Give these items to methods for solving matrices, for 10 points each:

[10]The light at the of the tunnel for every linear algebra student is to manipulate a matrix into this form in which all zero rows are below the non-zero roles and where the leading coefficient, which is hopefully 1, is strictly to the right of the leading coefficient of the row below.

ANSWER: reduced **row-echelon** form

[10] This doubly eponymous algorithm to reach the blessed row-echelon form, places zeros above and below each pivot element, one can use this method to find the inverse of matrix when it is augmented with an identity matrix of the same dimension

ANSWER: Gauss-Jordan Elimination

[10] This type of matrix decomposition is related to the Gaussian elimination method as it creates two types of the corresponding triangular matrix which can be multiplied together to give the original matrix

ANSWER: LU Decomposition

[AR]Its roots go back to the second ecumenical council, for 10 points:

[10] Name this 1054 event that saw the permanent splitting of the Eastern and Western versions of the Church, one centered at Constantinople, the other in Rome.

ANSWER: Great Schism

[10]In the second ecumenical council, the introduction of this clause into the Nicene Creed was a major theological difference in the Great Schism, its addition approved by Western churches suggested that the spirit proceeded from the *Father and the Son*.

ANSWER: filioque clause

[10] The final step in the initiation of the Schism was the mutual excommunication of Pope Leo IX and this Patriarch of Constantinople.

ANSWER: Michael I Cerulanius

[AR]Most of the hymns of the Rg Veda are devoted to this God, for 10 points:

[10] Name this major Vedic deity, the acceptor of sacrifices, messenger and God of Fire and the Sun

ANSWER: Agni

[10] This was the consort of Agni and the anthropomorphized representation of the offering made during a ritual.

ANSWER: Svaha

[10]Sometimes said to be son of Shiva, this is the son of Agni and Svaha, he is the powerful war-god in the Hindu pantheon.

ANSWER: **Kartikkeya** [or **Skanda**]

[AR]When it becomes a fully operational in 2011, it may end up displacing over 1.5 million people, for 10 points:

[10] Name this largest hydroelectric power station in the world situated on the Yang-tze.

ANSWER: Three Gorges Dam

[10] The Three Gorges Dam is in this central province of China, home to the ancient state of Chu, it also includes Mount Wudong, and the Yellow Crane Tower in its capital

ANSWER: Hubei Province

[10] This is the capital of Hubei province, home to almost 10 million people the massive floods that this city has been subject to will supposedly be controlled by the Three Gorges Damn.

ANSWER: Wuhan

[AR]Name these infamous alumni of the much less awesome Delta Chi fraternity, for 10 points each.

[10] This Senior Senator from Idaho with a notoriously wide stance, a Delta Chi from the University of Idaho, was arrested for lewd conduct in a bathroom and will not seek reelection this year

ANSWER: Larry Craig

[10] This Delta Chi from the University of Iowa did not complete his degree in biochemical engineering but did manage to "star" in such movies as *The Butterfly Effect*, and *Dude Where's My Car*, he is also married to noted cougar Demi Moore.

ANSWER: Ashton Kutcher

[10] This noted symbol of bigotry, according to Wikipedia this University of Alabama D-Chi, attempted to block integration of that university, while as governor of the state and ran as Independent candidate for President of United States.

ANSWER: George Wallace