1. It was established on the site of 1902 gold strike and was named after Theodore Roosevelt's vice-president. The construction of the Alaska Railroad, major highways, and the northernmost airport in North America helped make it the transportation center of the Alaskan interior. For 10 points, identify this city located at the intersection of the Tanana and Chena rivers in central Alaska.

Answer: Fairbanks
2. He is known for his comprehensive economic and sociological analyses of a variety of issues, including population control in Nation and family; developing nations in Rich Lands and Poor, and political and economic problems in southern Asia in Asian Drama. An astute observer of the United States, he conducted a monumental study of America's racial problems in his best-known work An American Dilemma. For 10 points, who is this Swedish economist and winner of the 1974 Nobel Prize in Economics?

Answer: Gunnar Myrdal
3. In 1876, every Prussian bishop was in prison or exile, and about one third of the parishes had no priest. Pope Pius IX condemned this assault on the Church, and the struggle actually unified and strengthened the church. For 10 points, what was this attack by Bismarck in the late 19th century on the Catholic Church in Germany?

Answer: Kulturkampf
4. He lived the classic bohemian life: on the edge of starvation, pursuing their various arts, looking for an audience, haunting the cafes and beer gardens of Vienna. He was supported mainly by his friends, including Johann Vogl, who became the first lieder specialist singing this composer's "Der Erlkonig", or "The Erl King". For 10 points, who is this composer of incidental music to Rosamunde, Death and the Maiden, as well as the Unfinished symphony?

Answer: Franz Schubert
5. Its probable author was Turoldus, whose name is introduced toward the end of the poem. Its opening is set during the conquest of Spain at which time all but Saragossa has been conquered and ends with the execution of the traitorous Ganelon. For 10 points, what is this masterpiece of the chanson de geste which transforms the historical skirmish at Roncevalles into a heroic battle against the Saracens.

Answer: Chanson de Roland or The Song of Roland
6. Their name was suggested in 1891 by Irish physicist George Johnstone Stoney. They were shown by Jean Baptiste Perrin to be charged particles in 1896 and in 1897 were shown to be deflected by electic and magnetic fields by a British physicist who adopted Stoney's name. For 10 points, identify these first subatomic particles to be discovered.

Answer: electrons
7. Born Sean Aloysius O'Feeney, he received the Presidential medal of Freedom shortly before his 1973 death. For 10 points, name this first person to be given the American Film Institute's Lifetime Achievement Award, the winner of four Academy Awards for directing such films as The Quiet Man and The Grapes of Wrath.

Answer: John Ford
8. Between 1865 and 1869, it issued millions of food rations to both blacks and whites, treated 450,000 people in its hospitals, and helped establish the first free black schools. Created in 1865 under the War Department, what for 10 points, was this feederal agency established to aid former slaves and destitute whites after the Civil War.

Answer: Freedman's Bureau
9. He is named at the beginning of literary and sacred writings to ensure that the writer will encounter no obstacles. In some versions of the myth, he is the scribe of the Hindu epic the Mahabarata, which was dictated to him by the sage Vyasa. For 10 points, name this son of Shiva and Parvati whom you can often see in the Simpsons in Apu's shop.

Answer: Ganesa (or Ganesh or Ganapati)
10. Suffering from an eye condition that causes him to be almost blind in bright light, he can only write during certain times each day. A civil servant in the Ministry of Culture, he first got literary attention for his three-part novel The Trilogy. During the 1970s, he retired from the government; around this time, he began a weekly column that he still runs every Thursday in Cairo's main paper. For 10 points, identify this Egyptian author and winner of the 1988 Nobel Prize in Literature.

Answer: Naguib Mahfouz
11. It was being studied by a Dutch physician who was hoping to find the causative agent when in the course of his experiments, he discovered that the chickens he was using as models out in chicken polynueritis which resembled the human disease. This condition was shown to disappear when the chickens were switched off human rice to commercial chicken feed. For 10 points, identify this second deficiency disease to be discovered that is caused by a lack of Vitamin B1.

Answer: beriberi
12. Serving with the US Marines in WWI, he won the American Expeditionary Forces light-heavyweight championship in 1919. He won the American light-heavyweight crown in 1919. Although he lost the title that same year to Harry Greb - his only loss in 45 bouts as a pro - he regained the light-heavyweight belt and went on to defeat Jack Dempsey for the heavyweight crown in 1926. For 10 points, who is this boxer that defeated Dempsey in a rematch which set off the famed "long-count" controversy?

Answer: Gene Tunney
13. Most of its present-day inhabitants are descendents of Guarani Indians and while Spanish is the official language many residents speak Guarani as well. For 10 points, identify this nation dominated in the northwest by the Gran Chaco that is wedged between Brazil, Argentina, and Bolivia.

Answer: Paraguay
14. It was believed by its creator to be an injunction to be obeyed as a moral duty and he wrote "so act, that the moral of they doing shall, at thy will, become universal law". For 10 points, identify this necessary and absolute moral law which was believed to be the rational foundation for moral conduct by the German philosopher Immanual Kant.

Answer: categorical imperative
15. Ceyx, the king of Trachis, disregarded the entreaties of his wife, a daughter of Aeolus. He sailed to Ionia to consult the oracle, but was shipwrecked and died. His wife saw him in a dream, and leaped into the sea to kill herself, but the gods, taking pity, changed her and her husband into kingfishers. For 10 points, who is this person whose name represents days of happiness and prosperity?

Answer: Halcyone
16. It was built by Giovannino de'Dolci between 1471 and 1484 for Sixtus IV. A rectangular brick structure, artists such as Ghirlandio and Botticelli have painted frescoes for it. Its most famous frescoes, commissioned by Julius II, have twelve larger than life size prophets and sibyls surrounding them. For 10 points, what was this papal chapel in the Vatican best known for its scenes from the Old Testament painted by Michaelangelo?

Answer: Sistine Chapel
17. It has four strings tuned to notes ranging from two $C$ 's below middle $C$ to the a below middle $C$ and its range extends over more than four octaves. The earliest surviving ones were made by the violinmaker Adnrewa Amati and until the 18th century it was considered a supporting rather than a solo instrument. For 10 points, identify this stringed instrument whose virtuosos have included Gregor Piatigorsky, Msitslov Rostropovich and Pablo Cassals.

Answer: cello
18. In 1948, he published a long novel, Remembrance Rock, that recapitulates the American experience from Plymouth Rock to World War II. HE wrote four books for children, Potato Face, and three other books with Rootabaga in the title. For 10 points identify this American poet and author of Smoke and Steel and The People, Yes.

Answer: Carl Sandburg
19. In a poll of congressmen conducted by a leading national newsmagazine in 1948, this Senator from Ohio was named "the best possible choice" for the Presidency. He stood at the forefront of opposition to the New Deal and the Fair Deal policies, but lost the Republican nominations in 1940, 1944, and 1948. For 10 points, identify this conservative known as "Mr. Republican".

Answer: Robert Taft
20. It maintained that what really mattered in history was not the coming to be or passing away of cities and empires, but the individual's entrance into heaven or hell. The world should never be the central concern of Christians, for the true Christian was a citizen of a heavenly city that could not be pillaged by barbarians. For 10 points, what is this defense of Christianity in the wake of the sack of Rome, written by St. Augustine?

Answer: City of God
21. The first national one met during the Peninsular War against Napoleonic rule, and from the 12th to 19th centuries each region of Spain had these representative assemblies. These assemblies share their name with a Spanish Conquistador who founded the city of Vera Cruz and, with the help of the Tlaxcalans, defeated the Aztecs. FTP, what is this common name?

Answer: Cortes

1. In this tournament, we obey the laws of thermodynamics!
2. A modern version of this concept states that the contribution to the entropy of a system by each aspect that is in internal thermodynamic equilibrium tends to zero once this state has been achieved.

Answer: Absolute zero
2. This law states that the state of an otherwise isolated closed system is chaned by the performance of work, and that the amount of work needed depends only on the change effected and not on the means by which the work is done.

Answer: First Law of Thermodynamics
3. This law states that two closed systems in thermal equilibrium with a third one are in thermal equilibrium with each other.

Answer: Zeroth Law of Thermodynamics
2. Name the following characters from the Iliad for ten points each:

1. Calchas declared that he would have to return Chryseis in order to end the pestilence that plagued the Greeks Answer: Agamemnon
2. Agamemnon took this female from Achilles in order to replace Chryseis, which led Achilles to sit out the war for a time

Answer: Briseis
3. While Achilles sat out the war, this "dear friend" took his place in battle by wearing his armor, but was eventually killed by Hector Answer: Patroclus
3. Answer the following about events in Native American history.

1. Published in 1881, this 457-page work carefully documented disclosure of the Government's misconduct of Indian affairs. For five points, name this work by Helen Hunt Jackson

Answer: A Century of Dishonor
2. Chief Big Foot and his ragged, hungry band stopped near Pine Ridge and were ordered to halt by the US 7th Cavalry. The next morning, more than 200 men, women, and children were killed in this last incident of Indian Wars. For ten, name it.

Answer: Wounded Knee
3. After Jackson's book A Century of Dishonor was published, a campaign for a reversal of Government policy began. In 1887, Congress passed this act awarding citizenship to Indians who renounced tribal allegiance, as well as homestead rights to reservation lands. For fifteen, name it.

Answer: Dawes Severalty Act
4. Identify the following about modeling and solving complex systems.

1. In a stochastic environment, a transition model is said to have this property if the transition probabilities from any given state depend only on the state and not on any previous history.

Answer: Markov Property (first-order Markov Property)
2. Two common ways of solving these types of problems are the simplex algorithm and Karmarkar's algorithm. Usually, they consist of maximizing some function given multiple constraints.

Answer: Linear Programming
3. There is an entire class of algorithms for which it is currently unclear if they can be solved in a practical amount of time. These include knapsack and the travelling salesman problems.

Answer: NP-Complete (or non polynomial complete)
5. 30-20-10 Identify this figure from film.

1. His first film was The Man From Hell's River and throughout the 1920's he was Warner Brother's biggest star until his death in 1932.
2. He was rescued from a World War I trench by Captain Lee Duncan. Other films include Clash of the Wolves, Frozen River, and Jaws of Steel.
3. This male German shepherd was the preeminent animal star of the silent movie period.

Answer: Rin-Tin-Tin
6. Answer the following questions about Vasily Kandinsky on a 5-10-15 basis

1. For 5 pts, this Russian painter cofounded what association of artists in Munich whose aim was demonstrating how the "inner desire of the artist expresses itself in different ways"

Answer: Blaue Reiters
2. For ten points, name his friend and cofounder of the Blaue Reiters

Answer: Franz Marc
3. And for fifteen points, name his basic course on the theory of form that was published while he taught at Bauhas

Answer: Point and Line to Plane
7. Identify the authors from works, $15-10-5$

1st 15 pts: Life and Adventures of Mr. Duncan Campbell
1 st 10 pts : The History of Peter the Great and Tour through the Whole Island of Great Britain.
1st 5 pts: Moll Flanders, Robinson Crusoe
Answer: Daniel Defoe
2nd 15 pts: King of Alaska and One for the Road
2nd 10 pts: The Birthday Party and The Room
2nd 5 pts: The Caretaker and The Homecoming
Answer: Harold Pinter
8. 30-20-10 Identify the following European author.

1. In The Beloved Returns, he takes up the story of the heroine of Goethe's Sorrows of Young Werther.
2. His shorter works inlcude Early Sorrow, Tonio Kroger, and Mario and the Magician.
3. He is best known for his long novels including Buddenbrooks and Doctor Faustus.

Answer: Thomas Mann
9. Answer the following physics questions for 15 points each.

1. What SI unit is measured as Joules per coulomb?

Answer: volt
2. How much work is done in moving a charge of 5 coulombs through a 2 centimeter gap with a potential difference between the two sides of 5 volts?

Answer: 25 joules
10. Identify the following about the Ems Dispatch

1. For five points, and within 2 years, what year was the Ems dispatch sent?

Answer: 1870
2. For another five points, the Ems dispatch precipitated what war?

Answer: Franco-Prussian War
3. For ten points, what king sent the dispatch in 1870 ?

Answer: King William I of Prussia
4. For five points, who was the receiver of the Ems dispatch that King William I sent?

Answer: Otto von Bismarck
5. For a final five points, King William I ordered a relative to withdraw as a candidate for what nation's throne?

Answer: Spain
11. Answer the following questions about the atonal music for the stated number of points.

1. What Austrian American composer created the setting of macabre stories he called Pierot Lunaire?

Answer: Arnold Schonberg
2. In Pierot Lunaire, the vocalists use what Schonberg called speech voice or speech song in German. For 10 points, name either of these terms.

Answer: Sperchstimme or Sprechgesang
3. For a final 10 points, what two Old Testament brothers appear in the tile of his most massive work, which draws upon all his musical styles.

Answer: Moses and Aaron
12. Identify the following about Buddhism:

1. For 5 pts, what state of supreme bliss is achieved by following the 8 fold path?

Answer: Nirvana
2. For 10 pts, what India ruler compiled the Tripitaka that now serves as the scripture of Buddhism?

Answer: Asoka
2. Besides the eight-fold path, Buddhism also has the Three Treasures, or the tritatna. For five points each, name each of the them.

Answer: Buddha (himself), the law (or dharma), and the order of monks (sangha)
13. Answer the following about things that really don't have much to do with one another, ten points each.

1. During wartime research on the atomic bomb, American physicists who were bouncing neutrons off uranium nuclei described the uranium nucleus as "big as a [blank]." Physicists working on the Manhattan project adopted this name for a unit equal to $10^{24}$ square centimeters, and it eventually became a standard unit in particle physics.

Answer: Barn
2. Opposed to the classical teachings of the Academy, this group of French landscape painters made their center at this location, in the forest of Fontainebleau. Their members include Corot and Millet, as well as Theodore Rousseau and Charles Daubigny.

Answer: Barbizon
3. In one episode of South Park, this police officer resigned because he couldn't read the clues the chicken violator was leaving for him.
14. We now move from South Park to poetry. Answer the following about this quote: "Had we but World Enough and Time / This coyness, lady, were no crime".

1. First, what poem is this quote from?

Answer: To His Coy Mistress
2. Second, for ten, who wrote "To His Coy Mistress"?

Answer: Andrew Marvell
3. Lastly, for fifteen, what Southern Poet wrote "World Enough and Time"?

Answer: Robert Penn Warren
15. For 10 points each, identify the gland that produces the following hormones.

| 1. calcitonin | Answer: thyroid |
| :--- | :--- |
| 2. oxytocin | Answer: pituitary |
| 3. glucagon | Answer: pancreas |

16. Identify the following national capitals given one clue for 10 points, for 5 points given the nation.
lst 10 pts: In 1434, it replaced Angkor Thom as capital of the civilization of that region.
1st 5 pts: Cambodia
Answer: Phnomh Penh
2nd 10 pts: It is located about 8 miles west of Callao, its nation's chief port and during the War of the Pacific, it was looted and occupied from 1881 to 1883.
2nd 5 pts: Peru
Answer: Lima
3rd 10 pts: It was formerly known as Lourenco Marques and is located on Delagoa Bay.
3rd 5 pts: Mozambique
Answer: Maputo
17. Identify the graphic novels for ten points each.
18. Published in two parts, My Father Bleeds History and And Here My Troubles Began, it tells of Art Spiegelman's relationship with his father and of his father's experiences during the Holocaust.

Answer: Maus: A Survivor's Tale
2. Along with Maus and Watchmen, this is considered one of the three finest graphic novels. Written and penciled by Frank Miller in 1986, it tells of a retired Bruce Wayne who comes back from ten years of retirement to save Gotham City from the Mutants and others, eventually even fighting Superman.

Answer: Batman: The Dark Knight Returns
3. Panned by critics as an "overrated and pretentious revenge fantasy," this 1993 work by James O'Barr tells of Eric and Shelley, fiancées who are murdered by thieves on Devil's Night. Eric comes back from the dead as the title character and goes on his own killing spree.

Answer: The Crow
18. Identify these terms from the field of artificial intelligence.

1. Hopfield, Boltzmann, and multilayer feed-forward perceptrons describe these kind of networked structures that try to mimic the brain. For five points, name them.

Answer: Neural Networks
2. For ten, this is a knowledge representation form that involves objects, relations on those objects (such as brother of or bigger than), and properties on those objects (such as red or round).

Answer: First Order Predicate Logic
3. When searching game trees, this method maintains values for the best and worst paths, eliminating those that you or your opponent would never take. This algorithm effectively doubles the depth a computer can search in the same amount of time.

Answer: Alpha-Beta Pruning
19. Identify these people in twentieth century Chinese history

1. A member of the Gang of Four arrested for planning a coup, she was the widow of Mao Tse-Tung

Answer: Jiang Qing
2. A founder of the Chinese Communist Party, he participated in the creation of the People's Republic of China, acting as foreign minister and later premier

Answer: Chou En-Lai
3. Twice purged from power and twice rehabilitated, he was deputy premiere under Hua Guofeng. He later served as Communist party deputy chairman, and in 1982 was named to lead the newly created Central Advisory Committee

Answer: Deng Xiaoping
20. Identify the following female Shakespearen characters:

1. The daughter of the deposed duke, she falls in love with Orlando in As You Like It

Answer: Rosalind
2. She is the lover of Duke Orsino of Illyria and twin sister of Sebastian in Twelfth Night Answer: Viola
3. She is the ill-tempered young women courted, married, and "tamed" by Petruchio in The Taming of the Shrew Answer: Katherina
4. Disguised as a lawyer, this lover of Bassanio saves Antonio from Shylock in The Merchant of Venice Answer: Portia
5. She is the wife of Oberon and the magically charmed lover of Bottom in A Midsummer Night's Dream Answer: Titania
6. The King of France marries her even though her father, King Lear, rejects her Answer: Cordelia
21. Identify the presidents who had the following cabinet members on a 10-5 basis.

1st 10 pts - Sec of War John C. Calhoun
1st 5 pts - Sec of State: J.Q. Adams
Answer: James Monroe
2nd 10 pts - Sec of Navy George Bancroft
2nd 5 pts - Sec of State James Buchanan
Answer: James K. Polk
3rd 10 pts - Sec of War Henry Stimson
3rd 5 pts - Sec of State Philander Knox
Answer: William Howard Taft

