Round 10

1996 ACF Regionals Questions by Chicago B Written by C. Edstrom, M. Zarren, R. Chenault, J. Hendrix, and N. Pagedar Edited by V. Jejjala

1. This army officer served in the Revolutionary War and became governor of part of the new Louisiana territory following its purchase. He sent Zebulon Pike in 1806 to explore the most favorable route for the conquest of the Southwest. The United States was not the only country he worked for, however; to the Spanish government, he was known as Number Thirteen. FTP, name this conspirator, who along with Aaron Burr plotted to conquer part of Mexico and set up an independent government in the Southwest.

Answer: James Wilkinson

2. Used in a non-Newtonian formulation of classical mechanics, this quantity is a function of the generalized coordinates of a system and the corresponding generalized velocities. Hamilton's Principle states that its time integral is minimized over any motion. FTP name this quantity, equal to the difference between kinetic and potential energy, named after the mathematician who invented the method of undetermined multipliers.

Answer: Lagrangian

- 3. A monk at the Northumbrian monastery at Jarrow, he wrote over thirty works of history, grammar, science, and theological commentary. His writings are a major source of historical and legendary information and also provided the material for the early part of <u>The Anglo-Saxon</u> <u>Chronicle</u>. FTP, name this English scholar, the author of <u>Ecclesiastical History of the English People</u>. Answer: Venerable <u>Bede</u>
- 4. It is about 2500 miles long, lasts 21 days, and always includes the Hors Categorie climb of Alpe de Huez. FTP, identify this race, established by Henri Desgrange, whose past winners include Gino Bartali, Pedro Delgado, Jacques Anquetil, and the first man to win it 5 successive times, Miguel Indurain.

Answer: The Tour de France

5. He was arrested in 1451 for attacking a prior and spent much of his life in prison for crimes including extortion, plundering the abbey of Coombe, and rape. William Caxton published the magnum opus that he prepared during his incarceration from 1469-1470. As a boy from Newbold Revell, he appears as a character in T.H. White's <u>The Once and Future King</u>. FTP identify this man whose <u>Morte d'Arthur</u> standardized Arthurian romance.

Answer: Thomas Malory

Mountain ranges in this country include the Cordillera Range, and most transatlantic airplane flights pass through much of this country's airspace. FTP, identify this country whose northern claims include Axel Heiberg Island, Melville Island, and Mackenzie King Island.

Answer: Canada

7. One of this author's works is a collection of aphorisms meant for the instruction of her son. Only one volume of her work was published during her lifetime. In such works as <u>Meditations: Divine and Moral</u>, she shows a sensitivity to beauty not usually associated with the Puritans. FTP, name this poet, author of "To My Dear And Loving Husband," and <u>The Tenth Muse Lately Sprung Up in America</u>.

Answer: Anne Bradstreet

8. After he was killed, his head floated, singing, to Lesbos, where the people who found it established an oracle. The head prophesied until it became more famous the Apollo's oracle at Delphi, at which time Apollo made it stop. The dead man's limbs were buried by the Muses, and his lyre was placed in the heavens as a constellation. FTP, name this legendary Greek, who is better known for traveling into Hades to bring his wife, Eurydice, back to the world of the living.

Answer: Orpheus

9. This solution must be independent of the choice of utility function, pareto-optimal, independent of irrelevant alternatives, and symmetrical. FTP, identify this specific solution to a non-zero sum game, named after a Princeton matematician, who despite his bouts with mental illness, won a 1994 Nobel Prize in Economics.

Answer: Nash Solution or Nash Equilibrium

10. Useful in the making of polymers but harmful in the body, these molecules are produced by homolytic bond cleavage. A recent hypothesis holds that damage to the body caused by these highly reactive molecules can be stopped by the presence of antioxidants. FTP, name this class of molecules that carry one or more unpaired electrons.

Answer: free radicals

11. The Beijing Fragrant Hill Hotel, the Indiana University Museum, Nestle Corporate Headquarters, the El Paso Tower, Mile High Center in Denver, Colorado, Javits Convention Center in New York, and Dallas Symphony Hall were all designed by, FTP, what architect, better known for his designs of Boston's John Hancock Tower, the National Gallery of Art, the Rock and Roll Hall of Fame, and the Pyramid of the Louvre?

Answer: leoh Ming Pei

12. This conflict was precipitated by an incident that took place in 1738 when an English captain appeared before a committee of the House of Commons and exhibited what he alleged to be his own amputated ear. It was swiftly exploited by parliamentary opponents of Walpole and led to war between Great Britain and Spain. FTP, name this war, which eventually blended into the war of the Austrian Succession.

Answer: War of Jenkins' Ear

13. Mechanical stress, conductivity of a material, and the rotational analogue of mass can be expressed with this type of mathematical object. First developed to study manifolds and first investigated by Gauss and Reimann, these objects are extremely useful for their properties under coordinate transformations. FTP, name these quantities, which can be thought of as generalizations of vectors.

Answer: tensors

- 14. The title character goes to work in a collar factory, is seduced by Pete the bartender, is disowned by her mother, becomes a prostitute, and finally kills herself in despair. This tale set in the New York slums is considered one of the first realistic American novels. FTP, name this novel by Stephen Crane.

 Answer: Maggie: A Girl of the Streets
- 15. This Russian was expelled from his city only a few months after his most famous victory. He returned soon afterward to decimate the Germans in the famous massacre on the ice on a narrow channel between Lakes Chud and Pskov. Later he helped force Novgorod to submit to the Mongol census and taxation. FTP, name this Russian saint, who won his name by defeating a Swedish invasion force at the confluence of the Izhora and Neva Rivers in 1240, the subject of a film by Sergei Eisenstein.

 Answer: Alexander Nevsky
- 16. Treatment of the mother with anti-D antibodies during the sixth month easily relieves this disorder. Occurring rarely in pregnant women, it may occur during the second and subsequent pregnancies, and can be fatal to the fetus during birth. FTP, name this disorder that occurs when the mother and the fetus have different blood types.

Answer: Rh syndrome (or erythroblastosis fetalis)

17. Called the "father of modern painting," he spent two years in law school at the College Bourbon in Aix-en-Provence, France, where he befriended Emile Zola. Later, he moved to Paris, where he studied painting under Pisarro until he returned to the south of France in 1886. He spent most of the rest of his

life there, painting outdoor scenes with broad brushstrokes and representing the underlying geometry of the landscape. FTP, name this French Impressionist and Post-Impressionist painter, most famous for his many renderings of Mont Sainte-Victoire.

Answer: Paul <u>Cezanne</u>

18. Born in 1894, this man once said that his principal aim was "to give audiences a good time." He is well known today for his conducting skills, as he has become the best-selling classical conductor of all time, with over 50 million albums sold. In 1929, he organized the first outdoor concerts on Boston's Esplanade, and the next year he was named the Boston Symphony Orchestra's conductor. FTP, name this man, who put the Boston Pops on the map with his classical adaptations of popular tunes.

Answer: Arthur Fiedler

Answer: Wilmot Proviso

- 19. A plank calling for the passage of this amendment was one of the main elements in the 1848 Free Soil Party platform. Named after its sponsor, a young Pennsylvania representative, this amendment was a lightning rod for antebellum sectional tensions. FTP, name the amendment, whose passage would have prohibited the expansion of slavery into territory acquired as a result of the Mexican War.
- 20. Some of his writings are found in the Dead Sea Scrolls. This man was said to be descended from a family of prophets, though his father, Amoz, should not be confused with the prophet Amos who also lived in the 8th century BC. FTP name this prophet whose writings are about how the Covenant between the Jews and God is wholly dependent on the Israelites' conduct, and who, in his book of 66 chapters, predicts the impending ruin of the Kingdom of Israel in the latter parts of the 8th century.

 Answer: Isaiah
- 21. The Russians were led primarily by General Boris Petrovich Sheremetchev, and the opposing forces by General Adam Ludvig von Lewenhaupt. However, it was the heavy artillery under Aleksandr Danilovich Menshikov that won the battle for the Russians. FTP, identify this June 28, 1709 battle in which more than 40,000 Russian troops soundly trounced a Swedish invasionary force of less than half that number.

Answer: Poltava

22. <u>The Bell Tower, The Lightning-Rod Man, The Encantadas, and Benito Cereno</u> are all short stories in this collection. FTP, identify this anthological work of short stories by Herman Melville, tho most famous story of which is <u>Bartleby the Scrivener</u>.

Answer: The Piazza Tales (prompt on Melville if given during list)

23. This colonial writer was one of the most prolific prose writers in American history, publishing nearly 500 books and pamphlets, including the tract Bonifacius. In recognition of his scientific writings, he became the first American elected to the Royal Society. FTP, name this New England thinker who doubled as a Boston clergyman, one of many preachers to be found on his family tree.

Answer: Cotton Mather (prompt for more specific on Mather)

24. He was the son of a professor of Slavic philology, and travelled extensively in the Mediterranean region during his teens. While studying at the London School of Economics, he published a famous reinterpretation of the data on Aboriginal Australians, and went on field work in New Guinea. FTP, identify this anthropologist, who wrote such works as _The Natives of Mailu_, _A Scientific Theory of Culture_ and _Magic, Science, and Religion_.

Answer: Bronislaw Malinowski

This system of currents is one of the sources of the Earth's magnetic field, and lies 60,000 km from the center of the Earth. It exists only on the day-side of the Earth, and consists of a sheet of current flowing eastward. FTP name this current, created by the action of the Earth's magnetic field on charged solar wind particles.

Answer: magnetopause current (or Chapman-Ferraro current)

Born in Stuttgart on August 27, 1770, this man would not hold a regular job until he was named a professor in January of 1801 at the University of Jena. His works describe the human mind's rise from mere consciousness to absolute knowledge through the use of consciousness, reason, spirit and

religion. He once wrote: "Truth is known only because error has been experienced and truth has triumphed." FTP, name this German philosopher, whose "Encyclopedia of the Philosophical Sciences" is divided into three sections: "Logic," "Nature," and "Mind."

Answer: Georg Wilhelm Friedrich Hegel

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1. For 10 points each, identify these Economic Determinists.

1. Undoubtedly the most famous Economic Determinist, his writings include The Economic and Philosophic Manuscripts of 1844 and The German Ideology as well as Das Kapital.

Answer: Karl Marx

2. An American historian, he studied at De Pauw, and taught at Columbia. His works include The Economic Origins of Jeffersonian Democracy, The Rise of American Civilization, and An Economic Interpretation of the Constitution of the United States.

Answer: Charles Austin Beard

3. A harsh critic of Weber, he was first a Marxist, but later became ultraconservative, and espoused Nazi views. His works include Modern Capitalism and Die Juden und das Wirtschaftsleben.

Answer: Werner Sombart

2. Give the author and member of the Chicago Group after one work for ten points or after two works for five points.

1.10 points: The Triumph of the Egg

5 points: Winesburg, Ohio

Answer: Sherwood Anderson 2.10 points: Jennie Gerhardt

5 points: An American Tragedy

Answer: Theodore Dreiser

5 points: Abraham Lincoln

3.10 points: Cornhuskers

Answer: Carl Sandburg

- 3. 30-20-10. Name the American statesman.
- 1. He attempted to mediate the Chinese Civil War in 1946, and served as Secretary of Defense from 1950-51.
- 2. He won the 1953 Nobel Prize for Peace; President Eisenhower deleted a portion of a speech praising this man because he had been denounced by McCarthy.
- 3. He was Secretary of State from 1947-49 and created the European Recovery Program. Answer: George Marshall
- 4. How much do you know about Mozart? I'll give you a piece of music he wrote, and for 10 points each, you give me the nickname for that work.

1. Symphony #41

Answer: Jupiter

2. Symphony #38

Answer: Praque

3. Symphony #35

Answer: Haffner

- 5. Identify the ancient battle after a brief description, for ten points each.
- 1. Alexander the Great defeats the Persian army on the plains of Gaugamela in 331 B.C., leading to the Persian empire's final destruction.

Answer: Arbela

2. In this naval battle of 31 B.C., Octavian destroyed the fleet of Antony and Cleopatra, leaving him undisputed master of the Roman world.

Answer: Actium

3. Once Hannibal reached Italy, he attacked and won a resounding victory near this lake. Name this 217 B.C. battle, the first major one of the Second Punic War.

Answer: Lake Trasimene

- 6. For fifteen points each, answer these questions about quantum electrodynamics.
- 1. Alkali metals and alkaline earth metals display this spectroscopic phenomenon, a result of electron spin, in which spectral lines are split into two or more components of slightly different wavelength.

Answer: fine structure

2. Identify the positive integer whose reciprocal represents an approximation of the fine structure constant.

Answer: <u>137</u>

- 7. 30-20-10, identify this German state.
- 1. It is the most northwesterly German state, and extends northward from the lower course of the Elbe River.
- 2. Along its eastern border is the Baltic and Mecklenburg-West Pomerania, and along its Western border is the North Sea.
- 3. It shares part of the Jutland peninsula with Denmark. The capital is at Kiel.

Answer: Schleswig-Holstein

- 8. FTP each, given the pair of characters, name the play by Tennessee Williams.
- 1. Tom and Laura

Answer: The Glass Menagerie

2. Blanche and Stanley

Answer: A Streetcar Named Desire

3. Brick and Maggie

Answer: Cat On A Hot Tin Roof

- 22. For ten points each, answer the following questions about vertebrate cell tissues.
- 1. Tightly bound sheets of cells resting on a basal lamina compose this type of tissue.

Answer: epithelial tissue

2. This type of tissue contains relatively few cells and is composed mainly of an extracellular matrix of polymers such as collagen.

Answer: connective tissue

3. This is the general name for cells that secrete the fibers of the extracellular matrix.

Answer: fibroblasts

- 10. Answer these questions about the monarchs involved in the Great Northern War.
- 1. Name the Swedish king at the outset of the war, whose young age invited the formation of an anti-Sweden coalition.

Answer: Charles XII

2. Name the Polish king who attacked Livonia in 1700; he was forced to relinquish his crown in 1706 after Charles invaded Saxony.

Answer: Augustus II or Augustus the Strong

3. Name the king of Norway and Denmark, who was quickly defeated by Charles at Copenhagen and was compelled to sign the Treaty of Traventhal.

Answer: Frederick IV

- 11. FTPE, identify the American painter given one of his works.
- 1. "Portrait of Paul Revere"

Answer: John Singleton Copley

2. "Arrangement in Gray and Black, No. 1"

Answer: James Abbott McNeil Whistler

3. "The Gross Clinic"

Answer: Thomas Eakins

- 12. Answer these questions about an English poet for the stated number of points.
- 1. FTP identify the poet whose works include "Gerontion," "Sweeny Among the Nightingales", and "Ash Wednesday".
- 2. FFP this Eliot poem's parts are "Burnt Norton", "East Coker", "The Dry Salvages" and "Little Gidding".

Answer: Four Quartets

3. FFP, consisting of five parts this poem was influenced by <u>The Golden Bough</u> and <u>From Ritual to Romance</u>. It won Eliot the Dial award.

Answer: The Waste Land

4. FTP, this 1920 essay gave clear evidence to the view that he was by nature an antisentimental, antiromantic classicist. As a work of literary criticism, it summarized his philosophy regarding poetry. The title may refer to the opening episode in <a href="https://example.com/refer-to-the-natur

Answer: The Sacred Wood

- 13. For 10 points each, identify the 19th century American historian after the brief description of his major work.
- 1. He started writing his ten-volume History of the United States in 1834 and finished it in 1874.

Answer: George Bancroft

He presented his paper, "The Significance of the Frontier in American History," to the Chicago Expedition of 1893.

Answer: Frederick Jackson Turner

3. His monumental <u>History of the United States During the Administrations of Jefferson and Madison</u> is still the most exhaustive treatment of this period.

Answer: Henry Adams

- 14. 30-20-10 Name the philosopher given some of his works.
- 1. "Sketch for a Theory of the Emotions," "Lucifer and the Lord," and "The Psychology of Imagination."
- 2. "The Condemned of Altona," "Saint Genet: Actor and Martyr," and "Dirty Hands."
- 3. "The Reprieve," "The Flies," and "The Age of Reason."

Answer: Jean-Paul Sartre

- 15. Answer these questions relating to rotational dynamics for the stated number of points.
- 1. FFP, this is the physical constant relating torque to angular acceleration.

Answer: moment of inertia (or tensor of inertia)

FTP, this is the force found in rotating systems, dependent on velocity, that affects projectles and weather patterns.

Answer: Coriolis force

F15P, this is the geometric figure representing the relationship between the moment of inertia of a rigid body and the angles between its axis of rotation and its principal axes.

Answer: Poinsot's Ellipsoid (or ellipsoid of inertia)

- 16. Given a brief description, name the Jewish holiday F15PE:
- Occurring 7 weeks after Passover, this holiday commemorates the revelation of the Torah at Mt.
 Sinai. Also known as Yom ha-Bikkurim or Hag ha-Kazir, it is known in English as the "Feast of Weeks."
 Answer: <u>Shavuot</u> or <u>Shavuos</u>
- It is a springtime festival celebrating the survival of 5th century BC Persian Jews who, living under the rule of king Ahasuerus, were originally marked for death by his minister Haman but were saved by the actions of Queen Esther.

Answer: Purim

- 17. Identify the authors of these English poems FFP each.
- 1. "Ode on a Distant Prospect of Eton College"

Answer: Thomas Gray

2. "Ode on Intimations of Immortality"

Answer: William Wordsworth

3. "Break, Break, Break"

Answer: Alfred, Lord Tennyson

4. "Caliban upon Setebos"

Answer: Robert Browning

5. "The Lake Isle of Innisfree"

Answer: William Butler Yeats

6. "Dulce et Decorum Est"

Answer: Wilfred Owen

- 18. FTPE, given a building, identify its architect.
- 1. The Parthenon, Athens (give 1 of 2)

Answer: Iktinos and Kallikrates (accept either)

2. Hagia Sophia (give 1 of 2)

Answer: Anthemius of Tralles and Isidorus of Miletus (accept either)

3. the Imperial Hotel, Tokyo
Answer: Frank Lloyd Wright

19. For ten points each, name the type of organic compound produced by the following:

1. The Williamson synthesis process.

Answer: ether

2. Reaction of an ankyl halide with magnesium in ether solvent.

Answer: Grignard reagent (or organomagnesium reagent)

3. Reaction of an alkene with a peroxyacid.

Answer: epoxide (or oxirane)

20. FTP each, name the Huxley.

1. This biologist was called "Darwin's Bulldog" for his defence of the theory of evolution held by Darwin.

Answer: Thomas Henry

2.After writing such novels as _Eyeless in Gaza_, he settled in California in the 1940's and studied the occult in his later years.

Answer: Aldous

3. The brother of Aldous and grandson of Thomas, this biologist and atheist wrote two autobiographical volumes entitles Memories.

Answer: Julian

- 21. 30-20-10, name the author, given his works.
- 1. No Longer At Ease and A Man of the People
- 2. "Chike and the River" and "How the Leopard Got His Claws"
- 3. The Trouble With Nigeria and Things Fall Apart

Answer: Chinua Achebe

- 22. Given a summary of an economic theory or situation, name the person who first proposed it, for fifteen points apiece.
- 1. In this situation, no one person can be made better off, without hurting another.

Answer: Vilfredo Pareto (Moderator: Pareto Efficiency)

2. Country A does everything better than Country B. However, Country B does something less worse than Country A. Therefore, Country B should specialize in producing and exporting that good, leading to greater utility for both countries.

Answer: David Ricardo (Moderator: Theory of Comparative Advantage)