position before he became President, name him FTPE:
[10] Harvard College class of 1940; United States Senator 1953-1961
ANSWER: John F. _KENNEDY
[10] Eureka College class of 1932; Govemor of California, 1966-1974
ANSWER: Ronald REAGAN
[10] Georgetown University class of 1968; Oxford University (1968-1970); Yale University Law School (1973); Governor of Arkansas 1978-80, 1982-92
ANSWER: William Jefferson _CLINTON

Round 6: QOTC IX: March 25, 2000
Johns Hopkins
Questions by Fong Hsu, Adam Fine, Jonathan So.
Tossups

1. Initially trained as an illustrator, he studied painting from 1901-1916 under Robert Henri. Like the painters of the Ashcan School, he painted the commonplaces of urban life, but unlike their loosely organized, vivacious paintings, his "House by the Railroad" and
"Room in Brooklyn" show still, anonymous figures and stern geometric forms within snapshot-like compositions. FTP, name this American artist who used light to insulate persons and objects in space, most famously remembered for his 1942 work "The Nighthawks".

Answer: Edward _HOPPER_
2. It will be preceded by three years of winter known as the Fimbul winter, and it is fully described in the poem Voluspa and it was known by the Germans as Gotterdammerung. Fought on the battlefield of Vigrid, Surtur will lead the giants against the Aesir, and at their coming, Gjallarhorn will be sounded by Heimdall, who will be slain be Loki. FTP, name this event where Odin and Thor are also killed, the "twilight of the gods" in Norse mythology.

Answer: _RAGNAROK_
3. Events in this novel include a retelling of an Aesop fable about an "Ondt" and a "Gracehoper", while Burrus and Caseous plot to overthrow a Caesar salad. It opens in the middle of a sentence, and the ending is the start of the same sentence, which is just one example of the work's circular structure. FTP, name this experimental novel which tries to recreate the feeling of a dream, the last novel by James Joyce.

Answer: _FINNEGAN'S WAKE_
4. Currently led by Prime Minister Mahendra Chaudhry and President Ratu Sir Kamisese Mara, who was elected by the Great Council of Chiefs, it consists of over 800 islands and islets in the southwestern Pacific which surround the Koro Sea. Principal islands include Taveuni, Kadavu, Viti Levu and Vanua Levu. It became independent in 1970 and the next year joined the five-island South Pacific Forum. FTP, identify this nation whose capital is Suva

Answer: _FIJI_
5. The E type of this family of proteins is involved in allergic reactions, while the A type is found on mucosal surfaces. The $M$ type is found as a pentamer, and is critical for primary immune response, as it has a high affinity. The most abundant form, however, is the G type, which is composed of two light chains and two heavy chains, and is commonly known as an antibody. FTP, name this class of proteins abbreviated Ig.

Answer: _IMMUNOGLOBULINS_(prompt on early antibody)
6. It may have been used by the Venetians against Robert Guiscard in 1081 and in 812 the Bulgar khan Krum captured some canisters when he took Mesembria. In his De Administratio Imperio, Constantine VI counsels his son the future Romanus II against revealing its secrets, and it was as effective against the Ottomans in the $15^{\text {th }}$ century as it was against the Arabs in the $7^{\text {th }}$. FTP, name this secret weapon, whose composition remains unknown, used effectively at sea by the Byzantine Greeks.

Answer: _GREEK FIRE_
7. Among this man's achievements include three radio documentaries entitled "The Idea of North", "The Latecomers" and "The Quiet in the Land", all of which display his love of counterpoint and his fascination with recording techniques. His belief that the future lay in recordings led him to give up public performances in 1964 and his catalog of works includes William Byrd, Richard

Strauss, and Arnold Schoenberg. FTP, name this Canadian pianist noted for his interpretation of Bach's "Goldberg Variations", the subject of a 1993 film which included "32 Short Films".

Answer: Glenn _GOULD_
8. Take two vessels containing gases at equal temperature with a small hole joining them. Now, suppose an intelligent being could open and close the hole so that only the faster molecules were in one container. According to this thought experiment, you have now just violated the second law of thermodynamics, creating a perpetual motion machine. FTP, name the hypothetical creature at the center of this thought experiment by a Scottish physicist whose eponymous 'equations' form the basis for electromagnetism.

Answer: _MAXWELL'S DEMON_
9. Minor characters in this book include the graffiti artist Moonman 157, the memorabilia collector Marvin Lundy, and the Texas Highway Killer. The central characters are Klara Sax, an artist whose great project is to paint abandoned B52s in the desert, and Nick Shay, a waste-management consultant. This sprawling novel opens with the Giants-Dodgers playoff game when Bobby Thompson hit the "Shot Heard Round the World", and chronicles a 50-year period of American history focusing on the effects of the Cold War. FTP, name this 1997 work by Don Delillo.

Answer: _UNDERWORLD_
10. Compiled by Luo Kuan-chung, the story begins with the swearing of the Peach Garden Oath by Zhang Fei, Guan Yu and Liu Pei, noted for his long earlobes. Liu Pei would later become the ruler of the Shu-Han kingdom using the wisdom of Chu'ko Liang, the greatest sage of the time. Opposed to Liu Pei were Sun Ch'uan of the Wu kingdom and Ts'ao Ts'ao of the kingdom of Wei. FTP, name this book, a romanticized account of the period immediately following the Han dynasty.

## Answer: _ROMANCE OF THE THREE KINGDOMS_

11. Born in Columbus, Ohio, by 1917, he was one of America's top three racing drivers. After the war, he returned to work in the automobile industry, first with his own company and later with the Cadillac Motor Car Company. He was also involved in aviation, becoming president of Eastern Air Lines in 1938. However, he was best known for his exploits in World War I, where he shot down 22 enemy planes and 4 balloons. FTP, identify this pilot, the most celebrated U.S. air ace of World War I.

Answer: Edward _RICKENBACKER_
12. This structure is the vantage point of the speaker in the fourth Canto of Lord Byron's "Childe Harold's Pilgrammage", and it was Byron who helped to popularize the current connotations of its name. Built around 1600 by Antonio Contino, it overlooks the Rio di Palazzo. FTP, name this structure that connects the prisons and the Doge's palace in Venice, which according to Byron is named for the exclamations of the condemned prisoners traversing it.

Answer: _BRIDGE OF SIGHS_
13. Aluminum oxide has this property, as do all oxides of metalloids. Anions found in acids salts also have it, as does water. Their name is derived from the Greek word meaning "in both ways", and the bicarbonate ion is particularly important in the human body as it uses this propety to regulate pH . FTP, name this property that allows substances to act as both an acid and a base.

Answer: _AMPHOTERIC_or_AMPHIPROTIC_
14. One of these, issued by Charles VII of France in 1438 , sharply limited the papal authority over the church in France and established the liberty of the Gallican Church. The more famous one was guaranteed by France after the War of Polish Succession and by Prussian king Frederick William I in hope of Prussia gaining Julich and Berg. It lost some its force when Hungary guaranteed it only after Charles VI confirmed the Hungarian constitution. FTP, identify this law of 1713 that allowed Maria Theresa to inherit Austria.

## Answer: _PRAGMATIC SANCTION_

15. Originally written under the title "Susan," the main character is the unspoiled daughter of a country parson, who gains worldly wisdom first in the fashionable society of Bath and then at a family estate, where she learns not to interpret the world through her reading of Gothic thrillers. Her mentor and guide is the self-assured and gently ironic Henry Tilney, her husband-to-be. FTP, identify this early work centering around Catherine Morland, unpublished until after Jane Austen's death.

Answer: _NORTHANGER ABBEY_
16. Phil Parma is a nurse trying to fulfill his employer's final wish, which is to be reunited with his son. The dying man is Earl Partridge, a television mogul which created the show who's host, Jimmy Gator, is also dying of cancer. Donnie Smith, a former star of the show "What Do Kids Know?", tries to rob his employer after being fired. After an ill-conceived attempt, he decides to return
the stolen goods, but is interrupted by an event of Biblical proportions. These events are set to the music of Aimee Mann in this 1999 film directed by Paul Thomas Anderson, featuring Tom Cruise as Frank T.J. Mackey, the creator of the program "Seduce and Destroy".

Answer: _MAGNOLIA_
17. In September 1942, the U.S.S. Wasp was sunk escorting reinforcements to this island one month after the first landing was made, and so many ships were sunk north of it that the body of water was renamed "Ironbottom Sound." Despite numerous Japanese assaults, many along "Bloody Ridge," Marines under General Vandergrift held Henderson Field, expelling the Japanese from the island in February 1943. FTP, name the site of the first American offensive in the Pacific theater.

Answer: _GUADALCANAL_
18. Botanists recognize three groups of this organism: fruticose, foliose and crustose. In the Arctic, they provide two-thirds of the food supply for caribou and reindeer. There are about 20,000 species of it, some of which grow on soil, but most grow on rocks or tree bark. They have no roots and grow only when moistened by dew or rain. FTP, name this organism which consists of an alga and a fungus living together as a single unit.

Answer: _LICHEN_
19. On February $8^{\text {th }}, 2000$, this company announced a $49 \%$ increase in profit, sending its stock price soaring and ballooning its market capitalization to over $\$ 400$ billion dollars, prompting some analysts to wonder if it could catch Microsoft. Founded in 1993 in San Jose, this company's main competitors include Nortel Networks and Lucent Technologies. FTP, name this leading provider of network equipment.

Answer: _CISCO_Systems
20. In Jainism, it represents the Jain's seventh saint and to Buddhists it represents resignation. In Japan, it can mean good fortune or represent a Buddhist temple. It adorns Inca textiles and relics from Troy, and it has also been found on Byzantine buildings, Celtic monuments, and Greek coins. Some theorize that it was brought to Germany from Finland and Estonia in 1920. FTP, identify this symbol adopted in 1920 by the Nationalist Socialist Party of Germany.

Answer: _SWASTIKA_
21. Two sons of his were born as a result with sexual relations with his daughters while drunk: Moab and Ben-ammi, the ancestors of the Moabites and Ammonites in what is now the East Bank of the River Jordan. The son of Haram, in the Book of Genesis he settled in Sodom and then received warning of its destruction. FTP, identify this nephew of Abraham whose wife was turned into a pillar of salt.

Answer: _LOT_
22. He's not Stephen King, but he is also suing the driver of a car that ran into him in 1997. This, combined with a stormy breakup with Vancouver writer Evelyn Lau have delayed the progress of his latest work, "Butterfly Winter". His previous works include the collections "The Mocassin Telegraph" and "The Thrill of the Grass", a collection of baseball stories. FTP, name this author of "The Iowa Baseball Confederacy" and "Shoeless Joe", the basis for the movie "Field of Dreams"

Answer: W. P. _KINSELLA_
23. He wrote his first musical, "Always You", with the composer Herbert Stothart. Later ones included "The Desert Song" and "The New Moon," but his first masterpiece came in a 1927 collaboration with Jerome Kern called "Show Boat". FTP, identify this songwriter who co-wrote "Oklahoma!", "South Pacific", "The King and I", and the "The Sound of Music" with Richard Rodgers.

Answer: Oscar _HAMMERSTEIN_II
24. At the 2000 All-Star game in Toronto, this player won the Shooting Accuracy contest for the $3^{\text {rd }}$ straight year and $6^{\text {th }}$ time in his career. Of course, he's no stranger to All-Star games, with this year being his $18{ }^{\text {th }}$ consecutive appearance in his 21 year career, which, until recently, had all been with one team. FTP, name this 5 time winner of the Norris trophy for best defenceman who was traded to the Colorado Avalanche from the Boston Bruins.

Answer: Raymond _BOURQUE
25. Born in Sarcenat, France in 1881, he was ordained as a priest in 1911, but decided to serve as a stretcher bearer in World War I, where he eamed the Legion of Honour. A paleontologist, he was involved in the discovery of Peking Man, but he is better known for
his philosophical writings, which include "The Phenomenon of Man" and "The Divine Milieu". These writings contained some controversial ideas which led the Holy Office to issue a monitum on his writings in 1962. FTP, name this Jesuit who believed that all of reality is evolving towards a final goal which he called the Omega Point.

Answer: Pierre _TEILHARD_de Chardin

## Boni

1. 30-20-10. Name the place.

30: Tioga pass road connects the eastern and western parts of it, and it contains Tuolomne Meadows as well as its central valley which the Merced River flows through.
20: The inhabitants of the area called it "Ahwanee", which means "place of the gaping mouth., and lesser known landmarks include Bridal Veil Falls and Vernal Falls
10: Located in the Sierra Nevada range, this National Park's more notable features include El Capitan and Half-Dome rock as well as North America's highest waterfall.

Answer: _YOSEMITE_National Park
2. Identify the following operas written by Russian composers based on works by Russian authors FTP each from a description, or 5 if you need the author and composer.
a) 10: The title character moves from St. Petersburg to a rural estate, where he meets Tatyana, a young woman who falls in love with him, but he rejects her. Years later, the two meet again, and in a reversal of roles, it is Tatyana that rejects the title character.
5: Aleksandr Pushkin and Peter Ilyich Tchaikovsky
_EUGENE ONEGIN_
b) 10: One morning, a barber named Ivan Yakovlevich wakes up to find the title object in his breakfast roll. Its owner, Major Kovalyov, eventually recovers the object and reattaches it.
5: Nikolai Gogol and Dmitri Shostakovich
The _NOSE
c) 10: Alexei is a man with a compulsive habit, vowing to quit as soon as he breaks even.

5: Fyodor Dostoevesky and Sergei Prokofiev
The _GAMBLER_
3. Identify these people and things from Roman Judea, FTPE.
a) He spent his youth at the court of Tiberius, who appointed him as the companion to the future emporer Caligula. The last king of Judea, he was made king by the Emporer Claudius in 41 AD and reigned for three years.
_HEROD AGRIPPA_(Prompt on just Herod)
b) Most famous for his history of the Jewish Revolt in which he was a participant, defending the village of Jotapata for 47 days, he was able to gain his freedom by prophesizing that Vespasian would become emporer.
_JOSEPHUS_
c) Under Hadrian, Jerusalem was rebuilt as a pagan city, which was given this name.

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_AELIA CAPITOLINA_
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4. Answer the following questions about phase equilibrium for the stated number of points.
a) First, F5P, this is defined as the temperature at which the vapour pressure of a liquid is equal to the atmospheric pressure.
_BOILING POINT_
b) For a pure fluid at constant temperature and pressure, this quantity must be equal in both the gas and liquid phases for phase equilibrium to occur. FTP, name this type of energy consisting of the difference between the enthalpy and the product of the entropy and temperature.

## _GIBBS FREE ENERGY _

c) Related to the Gibbs free energy, it must also be equal in both the gas and liquid phases at equilibrium. F15P, name this quantity which has the same units as pressure, and is a measure of the tendency of a component to vaporize from a mixture.
5. Identify the following Canadian Bays from a description, $5-5-10-10$

5 - The southern extension of Hudson Bay, it is also named after a British navigator.
_JAMES_Bay
5 - Lying between New Brunswick and Nova Scotia, this bay produces the highest tides in the world.
Bay of _FUNDY_
10 - This northern arm of Lake Huron is sheltered by Manatoulin Island and the Bruce Peninsula, and is named after a British king.
_GEORGIAN_Bay
10 - This bay lies at the eastern end of the Hudson Strait, just west of the Labrador Sea. It shares its name with the peninsula, the northernmost part of Quebec, that lies just west of the bay.
_UNGAVA_Bay
6. Given a description of an economist, name him 5-10-15.

5 - The Scottish Econominst and friend of David Hume wrote Theory of Moral Sentiments as well as another, more famous work.
_A_dam _SMITH_
10 - This economist, along with Malthus, helped change the prevailing social view from one of optimism, thus helping to make economics the "dismal science". A contemporary of Adam Smith, he argued for a "labor theory of value".

David_RICARDO_
15 - He focused on how the interaction between individuals and the economy brings about economic change. A Moravia-borm American, he emphasized the importance of entrepreneurs as the drivers of capitalist development. A leader in econometrics, then a newly created branch of theory, he authored the "Theory of Economic Development".

Joseph _SCHUMPETER_
7. Answer the following questions about the birth of King Arthur FTP each.
a) This man was Arthur's father.
_UTHER_Pendragon
b) Arthur's mother, she was tricked into receiving Uther when Merlin changed his form to that of her husband.

Lady _YGRAINE_
c) He was the Lady Ygraine's husband, and was killed in the war that Uther started so that he could get his hands on her.

Duke_GORLOIS_
8. Name the following fictional locales from residents FTP each. You will get 5 points if you need the author.
a) 10: Michael Henchard, Jude Rawley 5: Thomas Hardy
_WESSEX_County
b) 10: George Gibbs, Emily Webb

5: Thorton Wilder
_GROVER'S CORNERS_
c) 10: Colonel Aureliano Buendia

5: Gabriel Garcia Marquez
_MACONDO_
9. Given a brief description of a term coined by Carl Jung, name it FTP each.
a) Containing universal primordial ideas common to all of mankind, it originates in the inherited structure of the brain. _COLLECTIVE UNCONSCIOUS_
b) This is the personality that a person projects onto others, reflecting the role in life that the individual is playing. It is different from the authentic self.
_PERSONA_
c) The twined concepts are the inner feminine side of a man and the inner masculine side of a woman. F5P each, name them.
_ANIMUS_ and _ANIMA_
10. Name the following dimensionless numbers from clue for the stated number of points.
a) FSP. It is defined as the ratio of an object's velocity in a fluid relative to the velocity of sound in that fluid.
_MACH_
b)FTP. This is defined as the ratio between the density of an object and the density of a standard, which is water for liquids and solids, and air for gases.
_SPECIFIC GRAVITY_
c) F15P. For fluid flow in a cylinder, it is a good indicator of the transition between laminar and turbulent flow, with values of over 2100 indicating turbulence.
_REYNOLD'S_Number
11. Identify the following works of Soren Kierkegaard FTP each.
a) In this, Kierkegaard's first major work, he introduces two ways of life, the "aesthetic" and the "ethical", between which the reader must choose.
_EITHER/OR_
b) In this work, he considers the dilemma of Abraham's willingness to sacrifice his only son to God. Because Abraham had faith that for God, anything is possible, he did not have to renounce his child.
_FEAR AND TREMBLING_
c) One of Kierkegaard's later works in psychology, it is subtitled "A Christian Psychological Exposition for Edification and Awakening". This work is concerned with the concept of dread, which will cause the title action.

The _SICKNESS UNTO DEATH_
12. Answer the following questions about muscle contraction FTP each.
a) First, F5P each, name the two proteins composing the filaments that slide along each other, enabling muscles to contract.
_ACTIN_ and_MYOSIN_
b) The smallest contractile unit, it consists of overlaying actin and myosin filaments between adjacent Z disks.
_SARCOMERE_
c) The release of this ion from the sarcoplastic reticulum enables the sarcomere to contract.
_CALCIUM_
13. 30-20-10. Name the poem from lines:

30: Hardly are those words out / When a vast image out of Spiritus Mundi / Troubles my sight;
20: And what rough beast, its hour come round at last, / Slouches towards Bethlehem to be born?
10: Things fall apart; the center cannot hold;
The _SECOND COMING_
14. Identify these Napoleonic War battles fought in Germany FTPE.
a) In October 1806 at this site, Napoleon drove a Prussian force of 50,000 men under Prince Friedrich of Hohenlohe right off the field. Battle of _JENA_
b) Also called the Battle of the Nations, it was fought in October 1813. After nine hours of fighting, Napoleon was forced to retreat over the Elster River, but as the force retreated, the bridge across the river was blown up, leading to the capture of 30,000 French troops.

Battle of _LEIPZIG_
c) In this 1805 prelude to Austerlitz, Napoleon defeated the Austrians under General Karl Mack who was attempting to invade Bavaria in battles named for this southern German city, home to a notable Gothic Cathedral and birthplace of Albert Einstein.

Battle of _ULM_
15. Answer the following about a U.S. law for the stated number of points.
a) F5P, passed in 1854, it authorized the creation of two new adjacent territories, west of the states of Missouri and Iowa, and divided by the 40th parallel.
_KANSAS-NEBRASKA_Act
b) FTP, the Kansas-Nebraska Act repealed a provision of the 1820 Missouri Compromise, which prohibited slavery in the territories north of which parallel?
_36.5_degrees
c) FTP, what Illinois senator sponsored the Kansas-Nebraska Act, believing that the popular sovereignty provision could facilitate construction of a transcontinental railroad through northern lands?

Stephen A. _DOUGLAS_
d) For a final 5, opposition to the Kansas-Nebraska Act by northern Whigs, antislavery Democrats, and Know-Nothings led to the formation of which party in July 1854 ?
_REPUBLICAN_Party
16. Identify the composer from works, 30-20-10.

30 - Apollo, Symphonies of Wind Instruments (NOT Symphony for Wind Instruments)
20 - Les Noces, Histoire du Soldat
10 - The Firebird, The Rite of Spring
Igor_STRAVINSKY_
17. Identify the following Egyptian gods for the stated number of points.
a) F5P. This brother of Set and father of Horus was the lord of the underworld. _OSIRIS_
b) FTP. A jackal-headed deity, he is credited with the invention of embalming, which he first used on the corpse of Osiris.
c) F15P. Also a jackal-headed god, though sometimes depicted with a rabbit's head, his name means "Opener of the Ways" and he conducted the souls of the dead to their judgment.
_UPUAUT_
18. 30-20-10 identify the dynasty.

30: It was founded by Li Yuan, who ruled as Emperor Gaozu, but real power at first was in the hands of his son Li Shimin. After Li's death, Empress Wu held de facto power for the next three generations.
20: In 755 the military governor of northeastern China, An Lushan, rebelled against the state, holding the capital city of Chang'an for a couple years.
10: Lasting from 618-907, it preceded the Song Dynasty, and Tu Fu and Li Po were famous poets who wrote during the time period.
Answer: _TANG_Dynasty
19. Name the following $19^{\text {th }}$ century female mathematicians FTP each.
a) The first woman to receive a PhD in Mathematics at the University of Illinois, she shares her name with the main character of "Pride and Prejudice"

Elizabeth _BENNETT_
b)The niece of George Everest, this mathematical psychologist married a famous mathematician whose namesake algebra is useful in manipulating entities with truth values using the operators "and" and "or".

Mary Everest_BOOLE_
c)Widely regarded as the greatest woman mathematician, this German worked alongside Felix Klein and David Hilbert at the University of Gottingen. Her greatest contributions were in the field of ring algebra, though her namesake theorem is useful in the study of general relativity.

Emmy _NOETHER_
20. Answer the following questions about Cubism FTP each.
a) Cubism is generally thought to have created principally by these two artists, one who painted "Guernica" and the other "Houses at L'Estaque". F5P each, name them.

Pablo _PICASSO_ and Georges _BRAQUE_
b) Cubism got its name from derisive comments made by Louis Vauxcelles and this painter, who described Braque's work as composed of cubes. FTP name this painter.

Henri _MATISSE_
c) Finally, give the name of the Picasso work which foreshadowed cubism, in which the forms of five nude females become fractured, angular shapes.

Les _DEMOISELLES D'AVIGNON_
21. Answer the following questions about the recent rise in oil prices for the stated number of points.
a) F5P. The tripling of oil prices is a result of a cutback in production quotas mandated by this group.
_O_rganization of_P_etroleum _E_xporting_C_ountries
b) These three countries, which include two OPEC members, met earlier this month and agreed to support an increase in oil production. F5P, name any two of the three countries, one of which is the largest oil producer in the world.
_SAUDI ARABIA, MEXICO, VENEZUELA_
c) Trying to convince OPEC to increase production is this U.S. Energy Secretary. F15P, name him.

Bill _RICHARDSON_
22. Though David Mamet started off his career by writing plays, he has moved into film as a screenwriter and director. FTP each, name these works that he has been associated with.
a) One of Mamet's first film projects was this 1981 adaptation of a novel by James Cain about a loner and a waitress driven to murder.

The _POSTMAN ALWAYS RINGS TWICE_
b) Mamet both wrote and directed this 1997 film about an elaborate con game designed to steal called "The Process".

The _SPANISH PRISONER_
c) His most recent work is an adaptation of a Terrence Rattigan play of the same name, and concerns a father who sacrifices the wealth of his family to try and prove that his son is innocent of stealing.

The _WINSLOW BOY_

