Cardinal Classic XI
Questions by Harvey Mudd College
Round 2

Tossups
T1) Born in Red Bank, New Jersey, he recorded "Red Bank Blues", a 1945 top 10 R\&B hit, and later "The Kid From Red Bank" on 1957's classic "Atomic" album (*). He first gained fame in the 20's playing with Bennie Moten in Kansas City, before starting his own band, which he led until his 1984 death. Also known for recording "April in Paris" and his band's theme song, "One O'Clock Jump," FTP, name this jazz pianist and bandleader.

Answer: William "Count" _Basie_
T2) Participation in this group's best-known duty is not permitted after age 80, but the number of participants allowed was recently increased to $128 .\left({ }^{*}\right)$ A successful result is traditionally signified by white smoke, and failure by darker smoke, as the ballots are burned before a revote. On January 21 Pope John Paul II appointed 37 new members, including 3 American archbishops, to FTP, what body that will elect his successor?

Answer: College of _Cardinals_
T3) It is a meromorphic function with an entire reciprocal. Euler's integral formula is the integral from zero to infinity of $\left(^{*}\right) \mathrm{E}$ to the minus T , times T to the Z minus one, D T , which for values of Z with positive real part, agrees with Gauss's limit formula. One of the most important functions in complex analysis, FTP, name this function, the only logarithmically convex generalization of the factorial.

Answer: The _Gamma_Function
T4) In the usual depictions, one carries flowers, one has a tablet, while another rides a deer. Half of the group relaxes under a pine tree, and either one or two members are female. (*) Chung Li Chu'an, considered their chief, possesses the power of transmutation and the Elixir of Life. Fequently depicted together in Chinese art, FTP, name this group of Taoist holy figures.

Answer: the _Eight Immortals_(or Pa Hsien or Ba Xian)
T5) These compounds are usually prepared in a nitrogen atmosphere to avoid contact with oxygen and moisture, which would cause them to react. Usually prepared from an organic halide and magnesium (*), they are used in a wide variety of synthetic reactions, and have general chemical formula RMgX. FTP, name these useful reagents, named for a recipient of the 1912 Nobel Prize in Chemistry.

Answer: _Grignard_reagents
T6) The brainchild of ex-convict Donald DeFreeze, it got its name from the idea that its members came together for mutual benefit. (*) Kathleen Soliah, one of its former members, was arrested in 1999 after 23 years as a fugitive. FTP, name this domestic terrorist organization that kidnapped Patricia Hearst.

Answer: _S_ymbionese _L_iberation _A_rmy

T7) While studying English in Paris, he was struck by the meaningless cliches of his phrasebook. This gave him the inspiration for his first play, in which the characters use the same empty phrases ( ${ }^{*}$ ) to talk with each other. His debut effort, produced in 1950, may be said to have launched the "Theater of the Absurd." For 10 points__name this Romanian_born dramatist who revolutionized the stage with $\sim$ The Bald Soprano~.
answer: Eugene_Ionesco_(or Eugen _Ionescu_)

T8) In both the first stage production and the first film production of this play, the title character was played by ( ${ }^{*}$ ) Paul Robeson. In this play, originally titled The Silver Bullet, a prisoner named Brutus escapes to a small Caribbean island where he is eventually killed by the natives. FTP, name this first stage success of Eugene O'Neill.

Answer: _The Emperor Jones_
T9) Built in 1918 by Arthur Scherbius, it was used primarily in commercial applications until the mid1920's when it was adopted by the German government. (*) In January 1933 Polish scientists began using it against the Germans. After the outbreak of World War II, the Poles shared their expertise with the British who turned this device into a massive intelligence source. FTP, name this object that gets stolen by Americans instead in the movie U-571.

Answer: The _Enigma_Machine
T10) Its vast territory includes South America and North America, as well as the British Isles, but none of Continental Europe ( ${ }^{*}$ ). Governed by the principles of English Socialism, or Ingsoc, this vast empire is in a constant state of war with either one of two countries, Eurasia or Eastasia, while allied with the other. Home of Winston Smith and setting of 1984, FTP name this country, which also contains Australia.

Answer: _Oceania_
T11) A Pelycosaur, not a Dinosaur, it lived in the Permian era, preceding dinosaurs by over 50 million years. A dominant predator at its time, it was 11-12 feet long and weighed about 550 pounds. Its main distinguishing characteristic was probably a temperature-regulating device ( ${ }^{*}$ ), with a membrane full of blood vessels. This membrane connected the elongated dorsal vertebral spines of, FTP, what sail-backed early reptile?

Answer: _Dimetrodon_
T12) An earlier version was attempted and failed in 1529 during the reign of Charles V. (*) The second, led by grand vizier Kara Mustafa with 150,000 troops, lasted nearly two months until the Polish king, John III Sobieski, along with Charles of Lorraine, helped drive the Turks from the city. FTP, name this 1683 Ottoman expedition against the capital city of the Holy Roman Empire.

Answer: (Second) Siege of_Vienna_
T13) This psychologist taught in the mid-20 ${ }^{\text {th }}$ century at Chicago, Wisconsin and Ohio State. He developed what many would call the "talking cure" (*) of therapy, which was based on his belief that people were good and that if they talked through their problems, they would come to a clarification of their feelings. FTP, name this psychologist, whose therapeutic methods are described in Client-Centered Therapy.

Answer: Carl_Rogers_

T14) The year is the same: In an insurance plot, John Graham bombed a DC-6 carrying his mother, killing 44. Foreign troops evacuated Vienna, and West Germany joined ( ${ }^{*}$ ) NATO. The Supreme court ordered desegregation with "all deliberate speed", Albert Einstein died and Juan Peron was ousted by a military coup. FTP, give the year in which all these events occurred, along with the Brooklyn Dodgers' first and only World Series win.

Answer: _1955
T15) Some selections first appeared in Poetry magazine in 1914, and the book was published in 1916. Other than the title section, it includes "War Poems","The Road and the End" and "Other Days" (*). Poems in the title section include "Onion Days", "The Harbor", and "Clark Street Bridge." FTP, name this 1916 book of poems about a "Hog Butcher for the World" by Carl Sandburg.

Answer: _Chicago Poems
T16) Although he won the first-ever American League MVP, it was the only one he would ever win. He never played on, nor managed, any World Series team. He stole (*) home more often than anyone else in history. FTP, name his batting champ, along-time Detroit Tiger who still holds the Major League records in Rans and Batting Average, and held the record in hits, until Pete Rose passed him in 1985.

Answer: Ty _Cobb_
T17) This actress was born in Grand Rapids, Minnesota. (*) Her movie roles included Betsy Booth, Patsy Barton, Nellie Kelly, Manuela, Hannah Brown and Esther Smith, but it was for a different role that she is best remembered. FTP, name this actress who died from an overdose of barbiturates, but not before she could cement her fame in Hollywood with her role of Dorothy Gale in "The Wizard of Oz".

Answer: Judy _Garland_
T18) If all men seek happiness, and happiness is promoted by the possession of the good, and if all men love to possess the good, then why is it said that only some men love? Diotima answers her own questions $\left(^{*}\right)$ by referring to the splitting of man as punishment for his attempt to achieve divinity. This is one of the many theoretical contradictions posed to Socrates in which dialogue, also known as The Banquet.

Answer: _Symposium_(accept The Banquet on an early buzz)
T19) In the Yerkes notation, it's designated M5-V. It is red, at about $3,000 \mathrm{~K}$, and contains titanium oxide prominent in its spectra. It's a main sequence, or dwarf, star. For ten points, name this star that in the year $\left(^{*}\right) 9800$ will come even closer than Alpha Centauri, named after the astronomer who produced the first photographic discovery of a comet and discovered the fifth moon of Jupiter.

Answer: _Barnard's_Star
T20) Yes, Barbara, yes, therapy probably is the best thing. Baywatch, my friends, is the number one show in the universe. (*) Bones, Spock, yeah, that's terrific acting. Together, we can make the new millennium a prosperous one. There's only one Westminster. I've got to go, but you've been a terrific audience. Oh yes, Conan O'Brien, it's a great show. FTP, finish these utterances of Triumph, the Insult Comic Dog.

Answer: ..._for me to poop on!_ (Prompt on "things said by Triumph, etc... before Triumph is mentioned)

T21) When she was 18 , a horrific bus accident left her with a broken spinal column, a broken collarbone, broken ribs, a broken pelvis, 11 fractures in her right leg, a dislocated foot and a dislocated shoulder. (*) Shortly afterwards, she turned to painting. Her works include many self-portraits, such as "The Frame," "The Little Deer" and "My Birth." FTP, name this Mexican artist who lived in the so-called "Blue House" and was married to Diego Rivera.

Answer: Frida _Kahlo_

T22) Herodotus called it "the second greatest empire", after the Indian empire. (*) They are unique in that in their multiple-centuries-long existence, they never developed a written language. For ten points, name this ancient dynasty assimilated in 342BC by Philip II of Macedon, located near modern-day Bulgaria.

Answer: _Thrace_(accept Thracians)
T23) The standard range of this instrument is from an $E$ below middle $C$ to a $C$ two octaves higher. Its most prominent roles have been in William Tell and Robert le diable.(*) A transposing instrument, music is normally written a fifth higher than it sounds to make it easier for players of the most similar instrument, the oboe, to adapt to it. FTP identify this deceptively named instrument, not to confused with the French version.

Answer: _english horn_or cor anglais
T24) The product of the standard deviations of two Hermitian operators (*) cannot be exceeded by half the magnitude of the average value of their commutator. Common examples of non-commuting operator pairs include Energy/Time and Momentum/Position. FTP, name this theorem of quantum mechanics which forbids full knowledge of a system and is blatantly violated by the transporters on _Star_Trek_.

Answer: The _Uncertainty Principle_ (accept clear-knowledge equivalents, including "Heisenberg principle").

T25) In chapter 24 of this work, the author suggests that of the differences between mathematicians and physicists, "the most important seems to me to be this, that the mathematician is in much more direct contact with reality." In chapter 21, he refutes the claim, commonly attributed to him, "that pure mathematicians glory in the $\left(^{*}\right)$ uselessness of their work, and make it a boast that it has no practical applications." For ten points, give the title of this memoir written by G.H. Hardy.

Answer: _Mathematician's Apology_
T26) In the Star Trek Customizable Card Game, it is represented in an Artifact card worth negative 25 points. (*) Dadaist Marcel Duchamp once added a moustache and a goatee to a copy of it in a work entitled "L.H.O.O.Q." A museum worker named Vincenzo Perugia stole it in 1911, but the painting was recovered 27 months later. FTP, name this Leonardo da Vinci masterpiece famous for its subject's enigmatic smile.

Answer: The _Mona Lisa_ (accept, "La Gioconda")

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## Bonuses

B1) Answer the following about the Manhattan Project, FTP each:
(10) Name the German-born Berkeley and Caltech physicist who was director of the Los Alamos Laboratory.

Answer: J. Robert _Oppenheimer_
(10) Name the military commander of the project.

Answer: Brigadier General Leslie _Groves_
Within 3 kilotons, how large was the first atomic explosion, at Alamogordo?
Answer: _20_kilotons

B2) Answer the following about the taxonomy of fungi, 5-10-15:
(5) How many phyla does the Fungi kingdom contain?

Answer: _1_(one)
(10) What is the name of the Fungi kingdom's lone phylum?

Answer: _Eumycota_
(15) To which class of Eumycota does baker's yeast belong?

Answer: _Asomycetes_

B3) Name the following brass instruments, FTP each.
(10) Wider-bored and mellower in tone than the trumpet or cornet, it is usually pitched in B flat.

Answer: _fluegelhorn_
(10) The thicker-belled medieval predecessor of the trombone, it too had a slide, and was named from the Old French for "pull-push".

Answer: _sackbut_
(10) Similar to the baritone, this valved instrument plays an octave below the trumpet. A character in the 1996 film Brassed Off plays it and is constantly annoyed when it is called a trumpet.

Answer: _euphonium_

B4) Given a line from Shakespeare give the famous line that follows, for 15 points given only the line, or 5 after being given the play's title:
(15) This wide and universal theatre presents more woeful pageants than the scene wherein we play in.
(5) As You Like It

Answer: _All the world's a stage _.
(15) All on foot he fights, seeking for Richmond in the throat of death. Rescue, fair lord, or else the day is lost!
(5) Richard III

Answer: _A horse! A horse! My kingdom for a horse! _
B5) Answer the following about the Ostrogoths, for the stated number of points:
$(5,5)$ For 5 points each, name the two present-day Eastern European countries in which most of the Ostrogoths' original ( $3^{\text {rd }}$ century AD) empire was located.

Answer: _Belarus_ and _Ukraine_
(10) Name the last king of this empire, who committed suicide after the Huns invaded his kingdom in the 370's.

Answer: _Ermanaric_ (or Ermenrichus)
(10) Name the king who led the Ostrogoths west in the late $5^{\text {th }}$ century $A D$ and became King of Italy in 493.

Answer: _Theodoric_the Great

B6) Architecture bonus, for various point values:
(10) An international airport, which in 1958 introduced mobile lounges, named for a secretary of state who died the next year.

Answer: _Dulles_International Airport
(10) A major employee training center of the United States' largest industrial firm, located in Warren, MI.

Answer: _G_eneral _M_otors _Technical Center_
(5) Name the architect who designed both of these complexes.

Answer: Eero _Saarinen_
(5) Name his most recognizable work, the tallest structure in the shoe capital of America.

Answer: _Gateway Arch_

B7) Given a famous convergent infinite series, identify its sum for ten points each.
(10) A. The sum of the reciprocals of the factorials of the nonnegative integers: $1+1+1 / 2+1 / 6+$ etc.

Answer:_e_
(10) B. The sum of the reciprocals of the squares of the positive integers: $1+1 / 4+1 / 9+$ etc.

Answer: _Pi squared over six_(accept equivalents)
(10) C. The alternating sum of the reciprocals of the odd positive integers: $1-1 / 3+1 / 5-1 / 7+$ etc.

Answer: _Pi over four_(accept equivalents)

B8) Identify the scientists, for ten points each:
(10) He developed the quantum theory of radioactivity and the "liquid drop" model of atomic nuclei, as well as giving the name "big bang" to his expanding-universe theory.

Answer: George _Gamow_
(10) In Germany, he worked on electron diffraction and term-splitting crystals. After coming to America in 1934, he developed the theory of the production of energy in stars, receiving the Nobel Prize in 1967.

Answer: Hans _Bethe_
(10) Co-author with Gamow and Bethe of the famous 1948 paper on neutron capture, he is currently administrator of Dudley Observatory.

Answer: Ralph _Alpher_

B9) Name these Republican Senators for 5, 10, and 15 points.
(5). A former presidential candidate, he won 39 electoral votes with the pro-segregation States' Rights Party.

Answer: (James) Strom _Thurmond_
(10). An occasional candidate for the Republican presidential nomination, he worked with Sam Nunn to dismantle the post-Cold War Russian nuclear arms stockpile.

Answer: Richard _Lugar_
(15) The $2^{\text {nd }}$ longest serving Republican in the Senate, this senior Senator from Alaska is Chairman of the Senate Appropriations Committee

Answer: Ted _Stevens_

B10) Answer the following stuff about Marxian economics, FTP each.
(10) The process by which workers transfer surplus product to capitalists.

Answer: the _fundamental class process
(10) In the fundamental class process, what do workers receive in exchange for surplus product?

Answer: _nothing_
(10) The Marxian idea of causality, which rejects the neoclassical concentration on a few essential influences.

Answer: _overdetermination_

B11) Answer the following about the Jesuit Order.
(5) Name the order's founder, a $16^{\text {th }}$ century Basque soldier.

Answer: Ignatius _Loyola
(5) What original Jesuit is most known for his missionary work in India?

Answer: Francis _Xavier_
(10) What do the initials S.J. after a Jesuit priest's name stand for, the order's official name?

Answer: _Society of Jesus_(Societas Jesus)
(10) What nickname is sometimes given to the Order's leader?

Answer: the _Black Pope_

B12) Name French Nobel Literature Prize winners, for 15,10 , and 5 points:
(15) He was the recipient of the first award in 1901. His primary interests were in engineering, but an eye injury kept him from the field. He won literary acclaim as a poet with Stances et Poemes (Stanzas and Poems).

Answer: Rene Francois Armand "Sully" _Prudhomme_
(10) He won the award in 1947. He is best known among High School French students for his "Symphonie Pastorale".

Answer: Andre Paul Guillaume _Gide_
(5) Despite being awarded the prize in 1964, he declined it. He is best known as a playwright. His better known plays were Les Mouches and Huis Clos.

Answer: Jean-Paul _Sartre_

B13) Identify the philosopher from his works and his description in Monty Python's "Bruce's Philosopher's Song". Ten points each.
(10) A. This author of Lysis and Meno, "they say, could stick it away--half a crate of whiskey every day."

Answer: _Plato_
(10) B. This author of Being and Time "was a boozy beggar who could think you under the table."

Answer: Martin _Heidegger_
(10) C. This philosopher "was fond of his dram," and his namesake is featured in "The Days are Just Packed"

Answer: Thomas _Hobbes_(note: reference to Calvin and Hobbes)

B14) Identify the poet from lines, 30-20-10.
30. "Again I must remind you that / a dog's a dog--a cat's a cat."
20. "We shall not cease from exploration / And the end of all our exploring
/ Will be to arrive where we started / And know the place for the first time."
10. "I have heard the mermaids singing, each to each / I do not think that they will sing to me."

Answer: Thomas Stearns _Eliot
B15) Name the work of literature from its first sentence. You'll get 15 points each, or five if you need the author.
(15). "When Farmer Oak smiled, the corners of his mouth spread till they were within an unimportant distance of his ears, his eyes were reduced to chinks, and diverging wrinkles appeared round them, extending upon his countenance like the rays in a rudimentary sketch of the rising sun."
(5) Thomas Hardy

Answer: _Far From the Madding Crowd_
(15) "The studio was filled with the rich odour of roses, and when the light summer wind stirred amidst the trees of the garden, there came through the open door the heavy scent of the lilac, or the more delicate perfume of the pink-flowering thorn."
(5) Oscar Wilde

Answer: The _Picture of Dorian Gray_(prompt on "Dorian Gray")

B16) Answer these questions about Eastern or Middle Eastern religious and philosophical texts, FTPE. (10) This text displays 64 symbolic hexagrams, which can be composed using combinations of eight basic trigrams that were supposedly found on the back of a tortoise by legendary emperor Fu Hsi.

Answer: the _I (Yi) Ching_or_Yi Jing_or _Book (or Classic) of Changes_
(10) Named for its fourth century B.C. author, this book declares that when a ruler no longer practice benevolence and righteousness, his mandate from Heaven to rule is invalidated.

Answer: _Mencius_or _Meng-Tzu_or_Mengzi_
(10) This is the scared text of Zoroastrianism.

Answer: the zend _avesta_

B17) FTP, Identify the bands based on their one famous hit.
A) Incense and Peppermints

Answer: _Strawberry Alarm Clock_
B) In the Year 2525

Answer: Denny _Zager_ and Rick _Evans_(both last names are required)
C) Boys N Tha Hood (remix)

Ans: _Dynamite Hack_ (if team argues that this isn't a 1-hit wonder, ask them to name any other song they did as of Christmas, 2000-even www.allmusic.com lists them as a 1-hit wonder.)

B18) Name this athlete based on clues on a 30-20-10 basis.
(30)- One of the few times this player was mentioned in a movie was in the film "Hot Shots!", when Charlie Sheen explains why he was late in his errand to buy Duracells for the chief's walkman.
(20)- He spent his 18-year career in Los Angeles, Cleveland, San Francisco and New York, during which he won 204 games, the NL Cy Young award once, and a World Series in that same year.
(10)- He won the World Series MVP award in 1998 after winning two complete games and striking out an impressive 17 batters over a span of 18 innings.

Answer: Orel _Hershiser_

B19) Answer the following about a 20th Century American novel, FTPE.
(10) Name this novel, first published in 1959, that contained stories about such entities as Islam Incorporated, Hassan's Rumpus Room, and the Talking Asshole.

Answer: _Naked Lunch_
(10) Who wrote Naked Lunch.

Answer: William S. _Burroughs_
(10) Identify the fictional setting of Naked Lunch, described as "one huge beehive of commerce, sex, addiction, political manipulation, and rivalry."

Answer: _Interzone_

B20) Answer these questions about the Spanish Civil War FTSNP.
(10) FTP: What short_lived Spanish government ended in the Spanish Civil War?

Answer: The _Second Republic_
$(5,5)$ FFPE: what were the sides called?
Answer: _Nationalist_s and _Republican_s
(10) This term, supposedly coined by Emilio Vola Nidal as his troops closed on Madrid, referred to his militant supporters inside the city. It has come to mean any clandestine group of subversive agents who work from the inside.

Answe: _fifth column_

B21) 30-20-10, give the century.
30) Aristarchus, the first to calculate the size of the earth and the moon, dies, Plautus is born.
20) The third Syrian war begins when Ptolemy III's sister was killed by former wife. Also, the First Punic War develops as a result of a dispute over the Sicilian City of Messina.
10) The building of the Great Wall of China is begun, and Archimedes first gives equations for the area of a circle and approximations for pi.

Answer: _3rd century BC_ (Or 201-300 BC)

B22) Name these famous people associated with Napoleons. Hint: None of them are Napoleon Bonaparte I.
5) This nephew of Napoleon I was the president of the Second Republic of France from 1850-1852, and emperor of the Frence from 1852-1870. He was also known as Napoleon III.

Answer: _Louis Napoleon_
10) Napoleon I's eldest surviving brother, he was King of Naples from 1806-1808 and King of Spain from 1808-1813.

Answer: _Joseph Bonaparte_
15) He was president of El Salvador from 1984 to 1989, who unsuccessfully tried to end poverty and halt the prolonged civil war in his nation.

Answer: Jose Napoleon _Duarte

B23) Name these notable men from Greek myth.
5) The blind prophet cursed by the Gods to be able to predict the future but have no one believe him. He warns Oedipus that Oedipus will be the eventual killer of Laertes.

Answer: _Tiresias_
10) Famed as a huntsman, he inadvertently comes upon Artemis bathing; she changes him into a stag and he is ripped to shreds by his own hounds.

Answer: _Actaeon_
15) King of Pylos and the oldest and wisest councilor among the Greek leaders at Troy. All of his brothers are slain by Hercules.

Answer: _Nestor_

B24). The human body contains many wonderful chemicals, see if you can name a few, FTPE.
(10) These fat soluable compounds make_up the cell membrane and aid in enzymatic functions. Examples of them would be lecithin and cephalin.

Answer: _lipids
(10) This class of chemicals consist of a glycol alcohol and three fatty acids, not all of which have to be identical.
These would include triolein and palmitodiolein.
Answer:_triglycerides_
(10) This lipid material is secreted by Schwann cells. It acts as an insulator for the nervous system.

Answer:_myelin_(accept: _myelin sheath_)

B25) $(5,5)$ For 5 points each identify the two categories of ballroom dance used in international competitions.

Answer: _Latin_ and _Smooth_
(10) For 10 points name this dance style, often incorrectly assumed to be in the Latin category.

Answer: _Tango_
(10) For 10 points name this dance style, similar to Swing, that is the fifth dance in international Latin competition, after Cha-Cha, Rumba, Paso Doble, and Samba.

Answer: _Jive_

