tossups

1) Its two most common forms have chemical formulae $C_{55}H_{72}MgN_4O_5$ and $C_{55}H_{70}MgN_4O_6$, while the three less common forms exist only in algae. The first type is usually three times more abundant than the second, and acts as a precursor to the second in their main function. For 10 points, what is this chemical compound, similar to the "heme" in hemoglobin, which has a long lipid tail which anchors it to the lipid layers of the thylakoid membranes in chloroplasts?

**chlorophyll** (a & b)

2) Originally called Fish Creek by Swedish settlers, three theories exist as to the origin of its current name: either eponymous, or because a Dutch tanker carrying liquor sank there, or from its water, which was so muddy that it became tinged a shade of burgundy. In any event, it had its current name by September 11, 1777, when George Washington's troops took a beating and were forced to retreat, having lost nearly 1000 men. For 10 points, what is this river in Pennsylvania?

**Brandywine**

3) His last full-length play, <u>Buoyant Billions</u>, was produced in Zurich in 1948 "before a respectful yet uncomprehending audience." His first play, "Widowers' Houses", began his tradition of writing challenging, mocking, eloquent prefaces to his plays. During WWI, he gained an audience in Britain, through such plays as "John Bull's Other Island" for the Irish Literary Theatre, "Androcles and the Lion", "Back to Methuselah", and "Fanny's First Play". For 10 points, who was this Irish Nobel Laureate?

G. B. **Shaw**

4) The one of Denmark succeeded her father Waldemar IV to the throne and united the kingdoms of Denmark, Norway, and Mecklenburg in 1397. The one of Austria, born in 1480, was daughter of Maximilian and Mary of Burgundy and married John of Castile. The one of Valois was sister of Francis I, grandmother of Henri IV, wife of Henry of Navarre, and author of the "Heptameron." For 10 points, what is the common first name of these women, which they share with activist Sanger, Presidential daughter/author Truman, and politician Thatcher?

**Margaret**

5) In 1983, three particles of this class, the positive and negative W particles and the neutral Z particle were discovered by Carlo Rubbia. Two other particles of this class have been predicted, but neither the Higgs particle nor the graviton have been detected. For 10 points, what is this class of particles, which also includes the photon?

**vector bosons**

6) The revolution of 1848 compelled his uncle to abdicate, and father to resign his claims to the throne, thus he was called upon at the age of 18 to rule an empire shaken by civil war. When he regained power, he ruled as absolute emperor for 10 years, though his sentiments leaned toward liberal rule. His country defeated at Solferino in 1859, he was compelled to sign the treaty of Villafranca, renouncing his claims to Lombardy. Defeated again in 1866 by the Prussians, he took to allying himself with Germany and Italy. For 10 points, who was this "enlightened" monarch, whose nephew, Francis Ferdinand, was assassinated in 1914?

**Franz Josef**

7) Lucinde is forbidden by her father Geronte to marry the penniless Leandre, so she pretends to lose the ability to speak. Geronte's search for a cure to her dumbness leads him to the woodcutter Sganarelle, who earns an enormous fee merely for spouting off nonsensical medical jargon. Meanwhile, Leandre has been posing as Sganarelle's assistant, an apochryphal apothecary, if you will, and miraculously inherits a fortune from an uncle. In the end, Lucinde and Leandre elope and live happily ever after, leaving Geronte mollified and Sganarelle well-heeled. For 10 points, this is a brief synopsis of what 1666 Molière play?

The **Doctor in Spite of Himself**

8) Asserting that there were no primary qualities, but rather that all knowledge is dependent upon the experiencing person, he carried the problem of inherent versus secondary qualities to its logical extreme by denying the validity of Locke's distinction. Thus, to him, even well-entrenched qualities of shape, size, and position were simply man-made constructs, and the only reality is the mind. For 10 points, what philosopher, 1685-1753, put forth these ideas?

George **Berkeley**

9) In 1824, he showed that work is done as heat passes from a high temperature to a low temperature. Thus, he defined work and hinted at the second law of thermodynamics. 27 years later, Lord Kelvin would deduce a form of the 2nd law from his work, that energy in a closed system tends to become unusable as it gradually becomes uniform heat. For 10 points, who was this French physicist, who also suggested internal combustion engines as being possible?

Nicholas L. S. (Sadi) **Carnot**

10) Early in his life, he worked as a journalist, including a stint as correspondent with Grant's army during the American Civil War. His literary works include the novel <u>Les plus forts</u> and the play <u>Le Voile de bonheur</u>. Though his literature does have some merit, he is best remembered as a statesman, serving in the Senate from 1902-20, while concurrently serving one year as Minister of the Interior and 2 terms as premier of the Third Republic. For 10 points, name this French representative to the Versailles peace conference.

**Georges Clemenceau**

11) The nickname by which we know him is normally a pejorative one, but Vasari noted that it indicated not his talent, which was superb, but "refers rather to the carelessness of some of his settings." Born Tommaso di Giovanni, he acquired the solid perspectives he used in the fresco of the Trinity in the church of Santa Maria Novella from Brunelleschi. He translated Donatello's new consciousness of form into pictorial terms in the realistic figures surrounding Christ in his "The Tribute Money". For 10 points, who was this Renaissance master, whose works were executed between 1422 and 1428, and who is known for "Adam and Eve Expelled from the Garden of Eden"?

**Masaccio**

12) ~~Anthony Eden resigns as Prime Minister and~~ *Harold MacMillan succeeds Anthony Eden as Prime Minister* ~~Harold MacMillan succeeds him, Israeli forces withdraw from the Sinai and give up the Gaza strip,~~ Gromyko becomes USSR Foreign Minister, Franco announces that the Spanish monarchy will be restored upon his death, Olaf V of Norway ascends to the throne, and ~~"The Six" sign the Rome treaty, beginning the Common Market.~~ *Sputnik is launched.* For 10 points, what's the common year?

**1957**

13) When a vertical line is exposed and covered quickly, then a horizontal line is done likewise, the observer will see it as though the vertical line has rotated down to a horizontal position. This effect occurs in motion pictures, since what is shown in actuality is a rapidly exposed series of still pictures with blank intervals. For 10 points, what is this phenomenon known as, the investigation of which led Max Wertheimer to develop Gestalt psychology?

**phi phenomenon**

14) The ultimately successful general in a 193 revolt, he gave the empire nearly 18 years of peace, but at a fearful cost. A haughty and inflexible man who considered the Roman empire as his personal property, he disdained to use the senate as an instrument of policy and issued commands where a request would have proved as effectual. And while he banished the Praetorian Guards from Rome, he soon found it expedient to re-establish the Guards at four times the earlier number. For 10 points, who was this Roman emperor, who reigned from 193-212, and whom Gibbon regards as "the principal author of the decline of the Roman empire?

**Septimius Severus**

15) One of his most ambitious works was "The Excursion", a long philosophical work of autobiographical character. His earliest works were published in 1793 in An Evening Walk and Descriptive Sketches. But his best known work came in a volume in which he presented "a selection of language really used by men." For 10 points, who was this author of such poems as "Alice Fell", "Simon Lee", "The Idiot Boy", "The World is Too Much with Us", and "Lines Composed a Few Miles Above Tintern Abbey"?

William **Wordsworth**

16) In 1962, along with Emile Zuckerkandl, he suggested the method of determining how long ago one species separated from another by comparing changes in genetic material over time. In 1946, he suggested that enzymes work by lowering the energy barrier of a reaction through binding to a transitional state of moving atoms. In 1951, he and a colleague determined the alpha-helix structure of proteins. In 1931, he proposed that resonance caused the stability of the benzene ring. His The nature of the chemical bond, and structure of molecules and crystals, published in 1939, is still used today. For 10 points, whose scientific career have I just described?

Linus **Pauling**

17) Around 130 million years ago, salamanders, modern bony fishes, marine lizards, flowering plants, placental and marsupial mammals started to appear. Taking its name from the Latin for chalk, this was the period of the first abundance of hardwood trees, as well as palms and seed-bearing plants. For 10 points, what is this geologic period which ended 65 million years ago, the last of the Mesozoic Era, which saw the proliferation and eventual demise of the dinosaurs?

**cretaceous**

18) A graduate of college in 1949, he served in the legislative council, starting in 1957, where he criticized the policies of the British government. As prime minister, he led his country to independence from Britain in 1962, taking the office of interim president in 1966, until a new constitution gave broad powers to the president. For 10 points, name this African nationalist, whose second term as president, 1980-85, took place after he spent 9 years in exile in Tanzania due to his overthrow by Idi Amin?

Milton **Obote**

19) Anton Seidl 1892-98; Emil Paur 1898-1902, Walter Damrosch 1902-03; Vasily Safonov 1906-09; Gustav Mahler 1909-11; Josef Stransky 1911-23; Willem Mengelberg 1923-29; Arturo Toscanini 1928-36; John Barbirolli 1936-42; Artur Rodzinski 1943-47; Bruno Walter 1947-49; Leopold Stokowski 1949-51; Dmitri Mitropoulos 1949-57; Leonard Bernstein 1958-69; Pierre Boulez 1971-77; Zubin Mehta 1978-present. For 10 points, these are the tenures as principal conductor in what orchestra, America's oldest?

**New York Philharmonic** Orchestra

20) Born in Shelby, NC, in 1864, he graduated from Wake Forest in 1883. Admitted to the bar in 1886, he served in the NC legislature from 1885-86, a position he resigned to enter the ministry. From 1887-99, he was a pastor, though he moved from Raleigh, to Boston, then New York. His fame, however, rests on his literary accomplishments, such as they were, including The Leopard's Spots, The One Woman, and The Life Worth Living. For 10 points, who was this American, who would have fallen into obscurity had D. W. Griffith not chosen his novel, The Clansmen, as the basis for his "Birth of a Nation"?

Thomas **Dixon**

21) In 1969, he and Staff Sergeant David Mitchell were ordered to stand trial for murder charges. By 1971, he'd been found guilty of premeditated murder. For 10 points, who was this US Army Lieutenant, convicted of the massacre of civilians in My Lai, Vietnam?

William **Calley**

22) In 1908, just one year before his death, a Russian-German mathematician published Space and time, which served as an addition to special relativity. He showed that Einsteinian relativity made more sense in the universe was treated as if it had four dimensions instead of three, taking time to be the fourth dimension. Thus, "cones" drawn on axes with space on the X-axis and time on the Y-axis are named for him. For 10 points, name this pioneer in the field of relativity.

Hermann **Minkowski**

23) After two romantic volumes of poetry, <u>Flagons and Apples</u> and <u>Californians</u>, he turned to strong, elemental narratives evoking rape, incest, or adultery to express moral despair. Notable in this respect was the volume <u>Tamar, and Other Poems</u>, which included the verse play <u>The Tower beyond Tragedy</u>. In "Roan Stallion", he uses an incident of a horse trampling his owner to contrast primitive sexuality and man degenerative lusts. For 10 points, who was this American poet, who died in 1962, perhaps best known for "Thurso's Landing"?

<p align="center">Robinson <b>Jeffers</b></p>
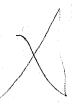
24) An outstanding member of the Acmeist school, she produced six volumes of poetry between 1912 and 1923, including <u>Evening</u> and <u>Anno Domini</u>. Her poetry, principally intimate and personal love lyrics, took no political stance, causing an attack on her in 1946 and her eventual explusion from the Writer's Union. In 1958, she began to write again, this time with a more political bent; these works include <u>Poem Without a Hero</u> and <u>Requiem</u>. For 10 points, who was this Russian poet?

<p align="center">Anna <b>Akhmatova</b></p>

25) Originally much larger than it is today, this country has lost territory in many ways. During the rule of dictator Mariano Melgarejo from 1865 to 1871, he sold off large chunks of territory to its neighbors. Because of losing the 1932-35 Chaco War with Paraguay, it lost more territory in the east. Its loss in the 1879-83 War of the Pacific to Chile caused it to become landlocked. For 10 points, what country is this?

<p align="center"><b>Bolivia</b></p>

1) (30 points) When you get right down to it, a whole lot of physics has been done by people named Thompson, with or without the silent "P". Presented for your consideration: Sir Joseph John (J. J.) Thomson, William Thomson (i. e. Lord Kelvin), and Benjamin Thompson (i. e. Count Rumford). For 5 points each, answer these questions with either "JJ", "William", or "Benjamin".

    a) Which collaborated with James Joule on the Joule-Thomson effect? **William**

    b) Which demonstrated that heat should be considered a kind of motion? **Benjamin**

    c) Which coined the term "thermodynamics"? **William**

    d) Which discovered the first isotopes? **JJ**

    e) Which won the Nobel Prize? **JJ**

    f) Which proposed the vortex model of the atom? **William**

2) (30 points) For 5 points each, name the authors of the following works, all of which won the Pulitzer Prize in Novel or Fiction.

    a) <u>Laughing Boy</u>       Oliver **La Farge**

    b) <u>Guard of Honor</u>     James Gould **Cozzens**

    c) <u>The Town</u>         Conrad **Richter**

    d) <u>Advise and Consent</u>   Allen **Drury**

    e) <u>Angle of Repose</u>    Wallace **Stegner**

    f) <u>Foreign Affairs</u>     Alison **Lurie**

3) (30 points) For 5 points each, given a British Prime Minister, list all Kings or Queens who ruled England during their residency at Number 10 Downing Street. HINT: Some or all of these men served more than one term as PM.

    a) Stanley Baldwin      **George V, Edward VIII, George VI**

    b) Robert Peel          **William IV, Victoria**

    c) William Pitt the Younger   **George III**

    d) Winston Churchill      **George VI, Elizabeth II**

    e) David Lloyd George     **George V**

    f) Robert Walpole        **George I, George II**

4) (30 points) Now that you've had a shot at the chlorophyll tossup, maybe now you'd like some more photosynthesis questions. Always glad to oblige. 15 points each, name these people.

a) In the 1930's, an English biochemist discovered that a solution of fragmented and whole chloroplasts, isolated from leaves that had been ground up and centrifuged, could briefly produce oxygen if an electron acceptor was present to receive electrons from the water. Thus, the associated reaction, the "light" half of photosynthesis was named in his honor. Name him.

<div align="center">Robin <strong>Hill</strong></div>

b) Later, in 1961, a professor at U. California described how carbon dioxide from the air combines with ribulose biphosphate, a 5-carbon sugar, which then is converted to 6-carbon sugars such as glucose during the "dark" phase of photosynthesis. This reaction is also known for him, and the 1961 Nobel Prize in Chemistry was awarded to him for this work. Name him.

<div align="center">Melvin <strong>Calvin</strong></div>

5) (25 points) By the time you hear this question, there may be as few as eight teams still in contention for this year's Stanley Cup. There are, however, five clubs guaranteed not to be among them, as they didn't make the playoffs. 5 points each, to answer this year's version of a classic question, name those 5 teams sitting home watching the playoffs.

**Winnipeg Jets, Toronto Maple Leafs, New York Islanders, Quebec Nordiques, Philadelphia Flyers**

<div align="center">(accept either city or mascot names)</div>

6) (20 points) Lady Margaret of Branksome Hall was beloved by Baron Henry of Cranstown, but a deadly feud existed between the two families. A goblin lured Lady Margaret's brother into the wood, where he fell into the hands of the enemy. Meanwhile, an army of 3000 English marched to Branksome Hall to take it, but the Scotch won in single combat, due to "Sir William Deloraine", who was actually Lord Cranstown. Eventually, they get married and unite the houses. For 20 points, this is a brief summary of what novel by Sir Walter Scott?

<div align="center"><strong><u>Lay of the Last Minstrel</u></strong></div>

7) (20 points)  For 5 points each, answer the following completely unrelated film questions.

    a)  What actor won the 1968 Best Actor Oscar for his portrayal of a mental retardee?        Cliff **Robertson**

    b)  What director won two Best Director Oscars, one in 1951 for "A Place in the Sun", and the second in 1956 for "Giant"?
        George **Stevens**

    c)  What former Broadway standout and star of TV's "Julia" garnered a 1974 nomination for an Academy Award for "Claudine"?
        Diahann **Carroll**

    d)  What actor, born Charles Bunchinsky, first achieved fame in the title role of Roger Corman's 1958 "Machine Gun Kelly"?,
        Charles **Bronson**

8) (30 points)  Three times, the Pulitzer Prize in Poetry recipient has been unable to receive the award due to a death in the family -- their own.  Given a year in which this happened, name the posthumous recipient, for 10 points each.  If you need the work for which they were cited, you'll earn but 5 points.

    a)  10)  1926
        5)  "What's O'Clock"        **Amy Lowell**

    b)  10)  1944
        5)  "Western Star"        Stephen Vincent **Benet**

    c)  10)  1963
        5)  "Pictures from Breughel"        William Carlos **Williams**

9)  (30 points)  30-20-10-5, name's the same.

    30)  It's the name of the cheerleaders for Raleigh-Durham's entry into the World League of American Football.

    20)  It's the nickname of a Curtiss P-40 fighter plane.

    10)  It's the name of a currently active American aircraft carrier.

    5)  History was made at this site on the North Carolina coast on December 17, 1903.
        **Kitty Hawk**

10) (30 points) Identify these 20th century long-time justices on the Supreme Court from a brief biography, 10 points each.

a) One of the founders of the ACLU, he was a leading advisor to FDR and helped frame New Deal legislation before his appointment to the Court in 1939. Despite his liberal views, he took an increasingly strict constructionist view of the Constitution, retiring in 1962.
Felix **Frankfurter**

b) In private practice in Boston he delved into the socioeconomic issues at the turn of the century, developing a famous brief which cited the social sciences and expert opinions in support of law. Appointed to the court in 1916, he later supported New Deal legislation but is best remembered for his dissenting liberal opinions. He retired in 1939.
Louis **Brandeis**

c) Attorney General under Wilson, he was appointed to the court in 1914. A legal conservative, he upheld laissez-faire economics, supported states rights, and opposed nearly all of FDR's legislation, including social-security measures and the TVA. Although he wrote very few opinions, he dissented a record number of times, 310, in his 27 years on the bench.
James **McReynolds**

11) (30 points) 30-20-10, name this painter from a list of works.
30) "The Coronation" 1805-10 and "The Distribution of the Eagles" 1810.
20) "The Lictors Returning the Bodies of his Sons to Brutus" 1789 and "Andromache by the Body of Hector" 1781.
10) "The Death of Socrates" 1787 and "The Oath of the Horatii" 1784.

Jacques-Louis **David**

12) (30 points) For 10 points each, given the scientific name of an animal officially listed as endangered in the US in 1988, give its more common name. If you need a brief description, you'll earn 5 points.
a) 10) Felis pardalis
5) It is a small spotted cat found in Arizona and Texas, but endangered throughout Central and South America
**ocelot**

b) 10) Campephilus principalus
5) It is close to extinction due to the destruction of forests of old trees in the southeastern US and Cuba
ivory-billed **woodpecker**

c) 10) Percini tanasi
5) New populations have since been found, causing certain environmentalists to reconsider the building of a certain dam.
**snail darter**

13) (30 points) You've all heard the story of Jason and the Argonauts, no doubt. Answer the following, more obscure questions about it.
   a) First, for 5 points, to where were they sailing? **Colchis**
   b) Second, for 10 points, the ship was built with pines cut off of what mountain? Mount **Pelion**
   c) Finally, for 15 points, its mast was taken from what forest, where the oaks were endowed with the power of predicting the future? **Dodona**

14) (30 points) 30-20-10, name this author from a list of works.
   30) The Tales of Jacob, Young Joseph, Joseph in Egypt, and Joseph the Provider, all parts of the tetralogy Joseph and his Brothers.
   20) Royal Highness and Appeal to Reason
   10) Mario and the Magician and Tonio Kroger
                                          Thomas **Mann**

15) (30 points) Eight people have won the Nobel Prize in Literature while residing in Great Britain. Given the reason for their citation, name the Laureate for the stated number of points.
   a) For 5 points, "for his mastery of historical and biographical description as well as for brilliant oratory in defending exalted human values." Winston **Churchill**
   b) For 10 points, "for his outstanding, pioneer contribution to presentday poetry." T. S. **Eliot**
   c) For 15 points, "for writings marked by a broad outlook, a wealth of ideas and artistic power." Elias **Canetti**

16) (30 points) We've all heard of the Council of Nicaea, the Council of Trent, and the First Lateran Council. For 10 points each, identify these somewhat less familiar councils.
   a) In 1311, Clement V presided over the kings of France and Aragon. Its most lasting effect was the suppression of the Knights Templar. **Vienna** in Dauphine
   b) Innocent II presided over this 1139 council, which saw the preservation of ecclesiastics, the principal subject which occasioned the attendance of 1000 fathers of the church.
                                          **Second Lateran**
   c) From 1414 to 1417, Benedict XIII was deposed (or de-Poped), Martin V was elected Pope, thus ending the Great Schism, and Jan Huss and Jerome of Prague were condemned to death.
                                          **Constance**

17) (25 points)  By now, you all either read <u>The Brothers Karamazov</u>, or been asked to rattle off the names of the family members.  This time, you'll be give a brief description of a member of the Karamazov clan, and you'll have to name him, 5 points each and a 5 point bonus for all 4.

a)  The intellectual Karamazov, he is tortured by the injustice and suffering in the world.  Rejecting God as a Being who would allow such cruelty, he pities and despises man for his weakness.
**Ivan**

b)  More lusty than the rest, he is saved from depravity by his own innately noble nature.  Accused unjustly of murder, he refuses to defend himself, so as not to injure the reputation of his fiancee.
**Dmitri**

c)  A lustful, buffoonish character, he thoroughly enjoys his sensual life and the sense of his degradation and only occasionally reveals self contempt.
**Fyodor**

d)  Something of a mystic, he is not completely removed from normal human concerns.  Despite purity of heart, he too has a streak of sensuality in him.  He acts <u>as</u> the sorrowful observer of the goings-on.  **Alexei**  Aloysha

18) (25 points)  Consider, if you will, the Civil War battles of Second Bull Run, Chancellorsville, and Fredericksburg.

a)  First, for 10 points, all or nothing, place those three battles in increasing order of Northern casualties.
**2nd Bull Run, Fredericksburg, Chancellorsville**

b)  Second, for 10 points, all or nothing, place them in increasing order of Confederate casualties.
**Fredericksburg, 2nd Bull Run, Chancellorsville**

c)  Finally, for 5 points, all or nothing, place them in chronological order.
**2nd Bull Run, Fredericksburg, Chancellorsville**

19) (30 points)  10 points each, name these elements from the origin of their names.

a)  From the Greek for "sharp-forming", because of the incorrect belief that it forms acids.                **oxygen**

b)  Named after the home country of its discoverer, it is also a pun, in that its name also comes from the Latin for rooster.
**gallium**  (Its discoverer was Lecoq de Boisbaudran)

c)  From the Arabic for gold color.                **zirconium**

20) (30 points) One of the darker moments in American history was the internment of 120,000 Japanese-Americans during WWII. For 10 points each, answer these questions about that incident.

a) FDR approved the internment, due to "military necessity", with an Executive Order numbered what? **9066**

b) This 1944 Supreme Court case upheld the internment, largely because the court was unwilling to interfere with executive authority in a time of national emergency.
**Korematsu v. United States**

c) Within 1, in what year did the Congress submit a formal apology to former internees and compensate them financially?
**1988**

21) (30 points) 30-20-10, name this composer from a list of works.
    30) "Symphony of Psalms" for voices and instruments, 1930
    20) The ballet "The Fairy's Kiss", 1928
    10) The opera "Oedipus Rex", 1926-27
                       Igor **Stravinsky**

22) (30 points) Assume you're looking at a political map of Africa dated 1922. For 5 points each, are the following countries on it? If they're not, you must tell me what they're called on this map to get credit. For example, if I said "Ethiopia", you'd have to say, "Abyssinia" to get the points.
    a) Mozambique            **yes**
    b) Western Sahara     **Rio de Oro**
    c) Djibouti             **French Somaliland**
    d) Sierra Leone       **yes**
    e) Gambia             **yes**
    f) Ghana              **Ashanti**

23) (25 points) His The origin, variation, immunity, and breeding of cultivated plants described his work in finding the evolutionary basis of the immunity of various strains of wheat to disease and his efforts to breed improved varieties. Unfortunately, it was published eight years after his death. You see, he'd been convicted in 1940 of disagreeing publicly with the accepted truths of the great Trofim Lysenko, and was sentenced to death. Later, the sentence was changed to imprisonment, but he died in prison, due to maltreatment by Soviet guards. For 25 points, who was this Russian geneticist, yet another victim of Lysenko's acquired characteristics?
                     Nikolay **Vavilov**

24) (30 points) The six most common elements in the universe are, as you probably know, hydrogen, helium, oxygen, neon, carbon, and nitrogen. For 5 points each, what are the next four? You'll earn 10 bonus points for placing them in descending order as to prevalence.
              **silicon, magnesium, sulfur, argon**