Note: Backup Packet

1)   This disease was first observed in 1904 in Chicago by physician James Herrick and Ernest Irons, a medical intern. More than fifty years later, in 1957, Vernon Ingram demonstrated that it was caused by the substitution of glutamic acid by valine in the sixth amino acid spot of the beta chain. Selected for evolutionarily because heterozygosity conveys malaria resistance, FTP, name this disease that affects, in one out of every four-hundred African-Americans, the hemoglobin protein.

Ans: SICKLE-CELL ANEMIA

2) He studied physics at the University of Allahabad before leaving for the Himalayas to study under Guru Dev. Later, his own teachings spread throughout the world, forming the basis for the Natural Law Party. FTP, name this popularizer of transcendental meditation, also serving as mystical guru to the Beatles.

Ans: _Maharishi_ Mahesh Yogi

3)   Although he studied law at Leipzig and Heidelberg, his real love was music, despite the fact that physical difficulties in his right hand prevented him from playing the piano. He also assumed the role of the critic in the founding of the "Zeitchrift fur Musik", which became the most important music journal in Europe. FTP, name this composer whose works were expressed through the talents of Clara Wieck.

Ans: Robert SCHUMANN

4)   Unlike MRI, this non invasive imaging technique allows functional mapping of the brain's activity. Using dozens or hundreds of Superconducting Quantum Interference Devices, or SQUIDs, it is the active measurement of the femtotesla magnetic fields outside the skull caused by the brain's currents. FTP, name this field of study and technique, the most sensitive measurement in the world, that uses the brain's magnetic field.

Ans. MAGNETOENCEPHALOGRAPHY (accept MEG)

5)   Born in New Hampshire in 1942, he now lives in Toronto and Vermont, where he coached youth wrestling in addition to penning best selling novels. While his most recent work ventured all the way to Bombay, his characters often find themselves situated in the city of Vienna or a New England countryside. One of his works was used as the basis for a film starring Jodie Foster, John Lithgow, and Robin Williams as the title character, Garp. FTP, identify this American author of A Prayer for Owen Meany.

Ans: John IRVING

6) He was tall, slender, and impressed people with his charming
interpersonal skills, but in politics he made a host of enemies. Theodore
Roosevelt in later years called him, "a politician of monumental
littleness." A member of an aristocratic Virginia family, he was chosen as
the vice- presidential candidate in hopes that he would attract
conservative Democratic votes. In fact, as hoped for in a famous campaign
song, his ticket beat "little Van, Van, Van." In his own time, Henry Clay
called him a traitor to Whiggery, when he
became a president without a party upon the death of his predecessor. FTP,
name this first Vice President to succeed to the Presidency.

answer: John TYLER

7)   Approximately 266,000 square miles in area, it was first explored
by the English captain Robert Bylot, in May 1616. However, its name was not
credited to Bylot, as the honor went instead to his lieutenant. With a
width varying between 70 and 400
miles, this arm of the Atlantic flows into the Arctic Ocean through the
Nares Strait. FTP, identify this bay whose name also identifies the
largest island in Canada.

Ans: BAFFIN Bay

8) This Italian thinker wrote a treatise on mechanics called De Motu
("Concerning Movement"), which impressed the aging Galileo. In 1641 he was
invited to Florence, where he served the elderly astronomer as secretary
and assistant, eventually being
appointed to succeed him as professor of mathematics at the Florentine
Academy. Following a suggestion by Galileo, be became the first person to
create a sustained vacuum using a dish full of mercury and a glass tube,
FTP, identify this physicist, the inventor of the barometer.

Ans: Evangelista TORRICELLI

9)   Belonging to the phylum Enchinodermata, these organisms usually
possess a somewhat cup-shaped body and five or more feathery arms. The
arms are edged with pinnules that contain the reproductive organs and
carry numerous tube feet with sensory functions. The tentacles also have
open grooves, along which cilia sweep food particles toward the animals
mouth. FTP, identify this group of marine invertebrates, whose 700
living species include the feather star and sea lily.

Ans: CRINOIDS (accept: CRINODEA)

10) Algerian by birth, this man went on to teach the history of Philosophy
at the Sorbonne in Paris from 1960 to 1964. During this stint, he

published his first book, a translation of a section of a work on geometry by Edmund Husserl. In his books, such as On Grammatology, he disapproves of the search for a source of meaning and for metaphysical certainty. FTP, identify this deconstructionist, known for the phrase "there is nothing outside of the text."

Ans: Jacques DERRIDA

11) Capital of a Bundesland of the same name, it is situated in a level basin near the northern foothills of the Alps and the German border. It was originally the site of a Celtic settlement and later of the Roman town of Juvavum, and by about 696 the Benedictine Abbey of St. Peter and the Nonnberg Nunnery had been founded there by St. Rupert. FTP, name this city, famous as the birthplace of Wolfgang Amadeus Mozart.

Ans: SALZBURG

12)   In 1925 she was involved in a bus accident that so seriously injured her that she had to undergo some 35 medical operations. During her slow recovery from the trauma, this Mexican artist taught herself to paint. She showed her early efforts to Diego Rivera who encouraged her to continue to with her art, and eventually married her. For ten points name this Surrealist painter of Self Portrait With Monkeys and Diego on My Mind.

ANS. Frida Kahlo

13. To date, he is clearly the worst case of Proteus Syndrome ever witnessed on a human being. Frederick Treves, a London physician, discovered him in 1886, and had him admitted to a hospital to received care, until he died of accidental suffocation three years later. FTP, name this most famous patient of the London Hospital, subject of a David Lynch movie, also known as the Elephant Man.

Ans: Joseph or John MERRICK (prompt on the ELEPHANT MAN)

14. His first published work was an unsuccessful volume of poetry. However, three volumes of short fiction, The Happy Prince, Lord Arthur Savile's Crime, and A House of Pomegranetes, gradually won him a reputation. He achieved further success with his plays An Ideal Husband, A Woman of No Importance, Lady Windemere's Fan, and The Importance of Being Earnest. For ten points, name this author of The Picture of Dorian Gray.

ANS. Oscar Wilde

15. In 1948, he and his group of States' Righters opposed the candidacy of President Harry S Truman by walking out on that year's Democratic National Convention. He
was defeated soundly by both Truman and Republican Thomas E. Dewey, but

he still continued his political career, entering the Senate by write-in vote in 1954. FTP, name the current President Pro Tempore and the oldest man in the Senate.

ANS. James Strom _Thurmond_

16. In August of 1819, a peaceful group made up largely of women and children gathered to protest the state of the economy and call for parliamentary reform. The large size of the group caused the authorities to call for the arrest of its leaders but this soon developed into a bloody attack on the crowd. For ten points, name this 'massacre' whose name likens it to the battle of Waterloo and which took place at St. Peter's fields near Manchester.

ANS. _Peterloo_ massacre

17. This 20th century poet was born into a famous New England family but turned away from his puritan roots in his poetry. His works include "In the Cage," "Memories of West Street and Lepke," and "Skunk Hour," which he dedicated to Elizabeth Bishop. For ten points, name this man who in "Skunk Hour," declared, "I myself am hell, " an example of the confessionalism for which he was famous.

ANS. _R_obert _Lowell_

18. This Italic tribe probably spoke Oscan, and they were also probably of the parent stock of the Samnite. The Romans had many skirmishes with them until their victory in 449. Nothing is known after that until they were conquered in 290, and received Roman citizenship in 268, but they are best known in reference to a famous treachery of Romulus. FTP, name this tribe which was invited to a feast by Romulus under very false pretenses.

ANS. The _Sabines_

19. This Italian artist's strongest influence was that of the French artist Paul Cézanne, and he came to live in France for several years. His specialties were the portrait and the nude, for which he often used his wife as a model. Works include La Marchesa Casata and Gypsy Woman with Baby. FTP, name this artist who died of complications of tuberculosis, and some say alcoholism, and his death caused his wife, Jeanne Hebuterne, to commit suicide some days later by jumping out of a window, and whose work is characterized by strong dark colors and extremely elongated forms..

ANS. Amedeo _Modigliani_

20. "Given a Boolean expression E, decide if there is some assignment to the variables in E such that E is true." This problem, known as satisfiability, was the first proved to belong to a certain class of

problems which are all equivalent. FTP what is the name given to these problems which also include the Hamiltonian cycle and the traveling salesman problem, and which are defined as being both NP-hard and members of NP?

ANS. _NP-complete_

21. This artist began his career designing wallpaper and creating images for advertisements. The symbol for CBS television which was taken from his works. Among his most famous works are "Castle in the Pyrennes" and "The Human Condition." For then points identify this Belgian artist whose most famous creation is a man in a bowler hat, and who was immortalized in a Paul Simon song.

ANS. René _Magritte_

1. Consider Oceania for this geography bonus, ten points each.

A) What major Australian city features Botany Bay to the south of its major harbor?

ANS. _Sydney_

B) What is the largest lake on the Australian continent, lying about 300 miles north of the coast in South Australia?

ANS. Lake _Eyre_

C) For a final ten, name the river that marks the much of the boundary between Victoria and New South Wales, beginning in the Australian Alps and emptying into the Indian Ocean near Adelaide.

ANS. The River _Murray_

2. How well do you know your curves? For ten points each, identify the following mathematical curves given a description.

A) The curve described by a point on the rim of a circle rolling along a straight line, which is also the minimum-time curve for a bead on a wire falling between two points.

ANS. _cycloid_

B) The "minimum energy" shape assumed by freely hanging cables or chains supported at both ends.

ANS. _catenary_ (NOT a parabola)

C) The curve formed by all points the product of whose distances from two points is a constant. It may remind you of the symbol for infinity.

ANS. _lemniscate of Bernoulli_ (do not accept figure-8 or equivalents)

3. 30-20-10 Name the poet.
30 - He was the son of a Polish woman and an Italian officer but became one of the great French poets, writing poems such as "La Chanson du Mal-AimÈ" and the Rhenish poems.
20: He was the author of "Le Pont Mirabeau" and collections such as Calligrammes and Alcools.
10: He is thought to have been the first to use the word "surrealist," referring to his play "Les Mamelles de Tiresias."

ANS. Guillame _Apollinaire_

4. Microsoft has been under the gun recently for its anticompetitive behavior. For ten points apiece, identify these people trying to take on the software giant.

A) The November 1996 conference in Washington DC organized by this man was titled "Appraising Microsoft and Its Global Strategy." More recently he has opposed the merger between WorldCom and MCI in accordance with his Green Party, socialist views.

ANS. Ralph _Nader_

B) This CEO of Sun Microsystems often whines loudly about Microsoft^"s behavior, mainly because he^"d like a monopoly of his own on Java.

Scott _McNealy_

C) Microsoft was successful in its attempt to get this Harvard law professor removed from his position as "special master" on the Justice Department case after claiming that he was biased.

Lawrence _Lessig_ (not "Lessing")

5. FTPE, identify the Lesbian author from works.

   "On the throne of many hues, Immortal Aphrodite", "To Andromeda"
   ANS. Sappho
   "The Black Unicorn", "A Burst of Light", "The Cancer Journals"
   ANS. Audre Lorde
   "Ladders to Fire", "Children of the Albatross", "Delta of Venus"
   ANS. Anais Nin

6. Identify these scientist who contributed to the concept of aromaticity for the stated number of points.
5 - This scientist is credited with dicovering the two major resonance forms of benzene.
   ANS. Friedrich August _Kekule_

10 - His "rule" lets you check if a molecule has the right number of electrons to be aromatic.
   ANS. Erich _Haeckel_

15 - His "circle" helps to establish the relative energy levels of orbitals and illustrates one reason why aromatic compounds are especially stable.
   ANS. Arthur A. _Frost_

7. Given the battle, name the war. Ten points each.

A) Blenheim   ANS. The war of the
Spanish Succession
B) Poltava   ANS. The _Great Northern_ War

C) Battle of the Thames   ANS. The _American Civil_ War

8. Identify the librettists most associated with these composers for
the stated number of points.
5 - Richard Wagner   ANS. Richard _Wagner_
10 - Wolfgang Amadeus Mozart   ANS. Lorenzo _da Ponte_
15 - Richard Strauss   ANS. Hugo von _Hoffmannsthal_

9. For the stated number of points, given a mythological character or
creature, give his/her/its mother's name.
5 - Dionysus   ANS. _Semele_
10 - Euterpe   ANS. _Mnemosyne_
15 - The Lernean Hydra   ANS. _Echidna_

10. Put what you learned in college to use by identifying the following
cocktails from their descriptions for ten points apiece.

A) Gin, Triple Sec, and lemon juice

ANS. _Sidecar_

B) Vodka, Kahlua, and half-and-half served over ice

ANS. _White Russian_

C) Creme de menthe, white creme de cacao, heavy cream, iced and strained

ANS. _Grasshopper_

11. Identify these South American writers from one work FTP, or for FFP
if you need a more famous work.

A) 10 - _Eva Luna_
    5 - _The House of Spirits_

ANS. Isabel _Allende_

B) 10 - _Leafstorm and Other Stories_ [This is a repeat-- I didn't like
the one in the Yale
    5 - _One Hundred Years of Solitude_   packet, and don't know if
it's still there]

ANS. Gabriel _Garcia Marquez_ (DO NOT ACCEPT JUST "Marquez")

C) 10 - _Gypsy Ballads_
    5 - _The House of Bernarda Alba_

ANS. Federico Garcia _Lorca_

12)   Given a brief description, identify the myth from Greek mythology, FTPE.

a) Pursued by the lusty god Pan, she was turned into a reed at the river Ladon to escape the advancing god. Pan then picked her from the stream and fashioned the reed into his trademark panpipes.

Answer: Syrinx

b) Zeus turned this nymph into a she-bear to disguise her from jealous Hera. Artemis, mistaking the nymph incognito, kills her former hunting companion during the chase.

Answer: Callisto

c) This water nymph married Peleus, King of the Myrmidons, and gave birth to the heroic son Achilles.

Answer: Thetis

13)   Identify the following terms from the vocabulary of a structural engineer:

a) This expresses how hard (i.e. with how much force) the atoms at a point within a solid are being pulled apart by a load.

Answer: Stress

b) It expresses how far the atoms at a point within a solid are being dragged apart or pushed together.

Answer: Strain

c) This expression of how stiff or floppy a material is, commonly denoted by the letter e, equals stress divided by strain.

Answer: Young's Modulus

14)   Answer the following questions concerning the Battle of Omdurman for the stated number of points.

First, give the year in which this bloody British rout of the Sudanese Mahdists occurred.

Answer: 1898

Next, name the commanding British officer that led the heavily armored Anglo-Egyptia n forces to victory over Abd Allah's grossly antiquated infantrymen.

Answer: General Sir Herbert Kitchener (accept: Lord Kitchener)

The September 2 massacre resulting in a kill ratio of 20 Mahdists per every British soldier slain (conservative estimate) was made largely

possible by the debut of this gas-powered machine gun.

Answer: the _Maxim_ machine gun

15) FTPE, given the world event, tell which U.S. vice president was in office at the time it occurred.

a) Sputnik is launched   Ans: Richard NIXON
b) The Spanish Civil War   Ans: John GARNER
c) The Founding of the League of Nations   Ans: Thomas MARSHALL

16)   Give the following terms from psychology, all beginning with the letter A, for the stated number of points.

a) This disorder is characterized by lesions of the cortical association areas that lead to disruptions in the production and comprehension of speech, the most famous variety named after a French physician.

Answer: aphasia

b) A difficulty in finding words that is often experienced by people with brain injuries or aphasias.

Answer: anomia

c) A serious disturbance in the organization of voluntary action produced by lesions in certain cortical association areas, most commonly in the frontal lobes.

Answer: apraxia

17)   Identify the author from works, 30-20-10
       30: The First Wife and Other Stories . . . , Far and Near
       20: Dragon Seed, Imperial Woman
       10: The Good Earth

       ANS. Pearl S. Buck

18)   Answer these questions about matter for the stated number of points <give answers to the first three only after the third>.
       For five:
       These kinds of solids have vacancies in their valence bands and if there is an external field, electrons can move around.

Answer: CONDUCTORS

       For five:
       These types of material have full valence bands and have gaps between states on the order of 2-3 electron volts.

Answer: INSULATORS

For five:
In these materials, the valence band is full but the gaps in energy states are small, on the order of a tenth to one electron volt.

Answer: SEMICONDUCTORS

For a final fifteen points, give the name for the theory that states that the energy states of isolated atoms are split into many levels when atoms are brought close together, thus explaining the different electrical conductivities of conductors, insulators, and semiconductors.

Ans: Band Theory of Solids

19) For this bonus, consider the geography of illustrious Pennsylvania, the proud home of Swarthmore College. For ten points each,

A) Identify the site of several major floods of the Conemaugh River, lying about sixty miles east of Pittsburgh and about thirty miles southwest of Altoona.

ANS. _Johnstown_

B) For ten each, give the two rivers that join in Pittsburgh to form the Ohio River, one coming from West Virginia to the south and the other from the north.

ANS. The _Allegheny_ and _Monongahela_ Rivers

20) 30-20-10, Identify the author from works.
30 - "On Facial Treatment for Ladies"
20 - "Cures for Love"
10 - "The Art of Love" and "The Amores"

ANS. Publius _Ovid_ius Naso