

11/07/96

Subject: PoMC 9/96: UIUC packet
Date: Fri, 25 Oct 1996 07:45:52 -0400 (EDT)
From: Samer Ismail <samer.ismail@yale.edu>
To: mason@robby.caltech.edu, dmlevins@uclink2.Berkeley.EDU,
whaples@fln3fddi.sp2net.wfu.edu, jedwards@midway.uchicago.edu,
swiatek@coewl.cen.uiuc.edu

PACKET-OF-THE-MONTH CLUB

v. 1.0/September, 1996

Questions submitted for UNIVERSITY OF ILLINOIS/URBANA-CHAMPAIGN
by Maribeth Swiatek <swiatek@coewl.cen.uiuc.edu>

Copyright 1996 by Yale Student Academic Competitions and the academic
competition organization of the University of Illinois/Urbana-Champaign.
Permission is granted to use these questions for college practices, intramural
competitions, or non-profit intercollegiate competitions. Use of these questions
for any other purpose requires the permission of the copyright holders.

Please send any comments to Samer Ismail <samer.ismail@yale.edu>

Der Ueberpacket ** Questions by M. Swiatek ** Shame by S. Coon

Tossups

1. Prisoners in Maricopa County Jail are forced to learn why the great flu
epidemic was a direct result of Grover Cleveland's failed liberal policies and
why child labor actually encouraged family values. Now, for four easy payments
of only \$39.95, you too can own a handsomely bound set of 14 cassettes stating
this Republican's philosophy of history. FTP, name this politician, who might
blame Hillary Clinton's bitchiness for the recent decline of American values.

Newt _GINGRICH_ (prompt on _A History of America_)

2. Her 16 visions, most of which embrace the experience of the bleeding
crucifix, occurred at the age of thirty and a half on May 13, 1373. She
recorded them in _A Book of Showings_ and her life is detailed in _The Book of
Margery Kempe_. FTP name this mystic who probably took her name for the English
church in which she spent her reclusive life.

JULIAN OF NORWICH

3. You can use it in electron microscopy to relate a crystal's lattice to its
diffraction pattern. You can use it in infrared spectroscopy to discern the
contents of a sample from its spectrum. You can use it in acoustics, quantum
physics, boundary problems...It all goes to show that mathematics is merely a
tool of physicists. FTP name this wacky mathematical construct which allows a
waveform to be expressed as the sum of sinusoids.

FOURIER TRANSFORM

4. This monumental composition was written in 1909 so that its composer could
show it off during his first U.S. concert tour. The work was dedicated to Josef

Hoffman, who, though regarded by the composer as the greatest pianist of the day, never played it. FTP, name this great concerto by Sergei Rachmaninoff, perhaps greater than its two more famous predecessors.

PIANO CONCERTO NO. 3 in D minor, op. 30 or _THIRD PIANO CONCERTO_

5. A washing machine. A mechanical pencil. A pair of glasses. A mathematical equation. A transformer from a racing car set. And sometimes, a mere snap of the fingers can stop time for everyone but Arno Strine, the perverse protagonist of, FTP, what Nicholson Baker novel?

THE FERMATA

6. He ascended to the English throne in 1483, but was proclaimed illegitimate by his uncle, Richard Duke of Gloucester, who locked him in the Tower of London with his younger brother. The boys were never seen again until 1674, when skeletons thought to be theirs were discovered in the Tower. FTP, name this twelve-year-old king, son of Edward IV and Elizabeth Woodville.

EDWARD V

7. It was proposed at the 5th General Conference of UNESCO after WWII by Isidor Isaac Rabi. Fourteen European nations are members, and several others maintain observer status. It publishes its proceedings in "The Courier" ten times per year. FTP, identify this entity, headquartered in Geneva, which is still identified by its original acronym although now officially titled Organisation Europeen pour la Recherche Nucleaire.

CERN or _CONSEIL EUROPEEN POUR LA RECHERCHE NUCLEAIRE_

8. "Parallel." "Pop Screen." "This Film is On." "Tourfilm." FTP, these are all videotapes corresponding to the tours of which musical group, more famous to the indiscriminate public for such tripe as "Everybody Hurts?"

R.E.M. (a -15 for anyone who argues the appellation of EH as tripe!)

9. The name's the same: A librarian of Alexandria regarded as the supreme literary critic of the day by Cicero and Horace, a Greek astronomer who first maintained that the Earth revolved and rotated around the sun, and a lunar crater named for the latter which contains the moon's brightest formation. FTP, give the shared name.

ARISTARCHUS

10. This term is applied to the decrease in cross-sectional area of a material when deformed by a tensile force. It may also refer to something our illustrious president may be found doing in the back seat of a car with a 15-year-old girl. FTP, give the shared term.

NECKING

11. Just when you thought they'd found the essence of the universe, Fermilab scientists found some unexpectedly powerful jets of energy released in

proton-antiproton collisions. These unexpected results might mean the existence of, FTP, what new, massive particle even smaller than the ubiquitous quark?

PREON

12. "Half like a serpent horribly displayed,/But th' other half did woman's shape retain,/Most loathsome, filthy, foul and full of vile disdain." FTP, don't neg 5 on the name of this vile creature, who does _not_ play for St. Olaf but is slain by the true knight Redcrosse in Spenser's _The Faerie Queene._

ERROR

13. In 1453 he married Nicolosia Bellini, brother of Giovanni and Gentile, whose work shows his influence. He worked for the Gonzaga family and for them created some of his greatest paintings, including the "Camera degli Sposi," an illusion which made a small interior room appear to be an open-air pavilion. His subjects are often cruelly tormented, as in his "Calvary" and "St. Sebastian." FTP, name this painter whose most famous work is a series of nine paintings entitled "Triumph of Caesar."

Andrea _MANTEGNA_

14. Nobody knows exactly what causes it, but a recent study established that it is an immune-mediated disorder. It is basically the growth of too many skin cells, and its most common form is characterized by inflamed lesions topped with silvery-white scales. FTP name this chronic skin disorder that affects over 5 million people in the United States.

PSORIASIS

15. He had no formal education, but his work in a cigar shop taught him that, to be effective, labor unions needed discipline and, above all, money with which to finance strikes. In 1881 he organized the Federation of Organized Trade and Labor Unions of the United States and Canada, which became the American Federation of Labor five years later. FTP name this labor leader who, according to Dave Barry, would make a great namesake for a large Doberman.

Samuel _GOMPERS_

16. When a prophetess foretold his death by his younger brother, Frigg asked everything in the world to promise not to harm this god. Everything, that is, but the mistletoe, since it was too young. Sure enough, Loki tricked this god's brother Hoder into throwing a dart of mistletoe at him, and he died. FTP, name this seldom-worshipped Norse god.

BALDER

17. Amblygonite, pectolite, sphalerite, fluorite, lepidolite and calcite all show this unusual property. Apparently these minerals contain elements or other agents that emit light when mechanical energy is imparted to them. FTP, identify this property of some minerals to glow when they are crushed, scratched or rubbed.

TRIBOLUMINESCENCE or _TRIBOLUMINESCENT_

18. An important Obi tribesman's pride exiles him from his tribe; he returns, only to be forced to commit suicide by hanging. FTP, this is the grisly fate of Okonkwo, the protagonist of what famous Nigerian work whose title comes from the poem "Byzantium" by Yeats?

THINGS FALL APART by Chinua Achebe

19. In C++, they're functions or classes that allow a class to grant access to another class or function. In real life, they can be feathered or fair-weather, and on TV they can hang out in coffee shops, talk about sex and advertise Diet Coke. FTP, what are they?

FRIENDS (tripe again rears its ugly head...)

20. Shortly before his death on January 28, 1996, he submitted a proposal to the mayor of Rome for an Academy where Russian scholars and artists could resume a venerable tradition of Russian study in Italy. FTP name this poet of "To Urania" and "Seven Strophes" who won the Nobel Prize for Literature in 1987.

Iosif (Joseph) _BRODSKY_

1. 30-20-10, name the city of which I speak.

30: Its chief thoroughfare, the Bulevardul Unirii, was formerly known as the Boulevard of the Victory of Socialism. It was vastly expanded in the 1980's to include such buildings as the palatial marble Casa Popurului, or House of the People.

20: The first written mention of this city's name dates from 1459, when it was recorded in a document of the ruler of Walachia. It developed rapidly and became the capital of Walachia in 1659.

10: The first of many fortifications there was built by Vlad the Impaler, and it is currently the capital of the country in which it is located.

BUCHAREST

2. Polymers: since the names are nearly as long as the molecules, they need common abbreviations. For five points each, given an abbreviation of a polymer, tell me the full macromolecular name.

(a) PET_POLYETHYLENE TEREPHTHALATE_

(b) PVC_POLYVINYL CHLORIDE_

(c) PMMA_POLY(METHYL METHACRYLATE)_

(d) PEEK_POLYETHERETHERKETONE_

(e) PPS_POLYPHENYLENE SULFIDE_

(f) HDPE_HIGH DENSITY POLYETHYLENE_

3. A creative man, Marcel Duchamp: take an ordinary object, slap a clever title on it and call it a work of art. Identify the commonplace object Duchamp displayed given the title for fifteen points each:

(a) "Fountain" a _URINAL_

(b) "In Advance of the Broken Arm" a _SNOW SHOVEL_

4. Celebrate freedom: read a banned book, or at least identify these for the stated number of points.

5: This Shakespeare play was banned from classrooms in Midland, MI in 1980 due to its "unfair" portrayal of a Jewish character.

THE MERCHANT OF VENICE

10: This work by Aristophanes was banned in 1967 in Greece, which was then controlled by a military junta, for its anti-war content.

LYSISTRATA

15: This defense of the Jansenist Antoine Arnauld was ordered shredded and burned by King Louis XIV of France in 1660.

THE PROVINCIAL LETTERS by Blaise Pascal

5. "An ounce of algebra is worth a ton of verbal argument." Answer these questions about the original Oxford-Cambridge mathematicians and their algebraic exploits for fifteen points each:

a. The earliest use of the word "algebra" can be found in this man's 1551 work entitled "Pathway of Knowledge." This Cambridge mathematician also introduced the equal sign in "Whetstone of Witte," "Because no two things can be more equal than two parallel lines of the same length."

Robert _RECORDE_

b. This Oxford mathematician was tutor and mathematics advisor to Sir Walter Raleigh, publishing "A Briefe and True Report of the New Found Land of Virginia" in 1588. He invented many algebraic symbols used today, such as the dot for multiplication and the greater than and less than symbols, as well as the trigonometric terms sine, cosine and tangent.

Thomas _HARRIOT_

6. POLO! Brits on ponies chasing a small ball around the largest field in all of sporting. Test your knowledge of the sport of Prince Charles:

(a) First, for ten points, how many players are on a standard outdoor polo team?

FOUR

(b) Second, a regulation outdoor game consists of six chukkers or periods. For five points, how long are the first five chukkers, and for another five, how long is the last chukker?

First 5 chukkers are _7 1/2 MINUTES_, last is _7 MINUTES_

(c) Arena polo is played in a smaller, boarded area on a dirt surface. For 5 points, how many players are on an arena polo team?

THREE

(d) And, for a final five points, how many seven and one half minute chukkers comprise a standard arena polo match?

FOUR

8. Enter now the great ACF-ish world of Babylonian mythology. Identify these prominent figures for ten points each:

(a) She is often accompanied by a lion, and is the goddess of love, procreation and war.

ISHTAR or _ISHHARA_

(b) This demigod is two-thirds divine and one-third human, a peerless warrior. He built the walls of the city Uruk dedicated to Ishtar.

GILGAMESH

(c) He has four eyes and four ears and emits fire from his mouth when he speaks. Gifted in magic, he is the central figure of the Babylonian pantheon.

MARDUK

9. As we near the half the Packers take a timeout for some trash. Given an easily recognizable quote, name the film in which it is spoken for ten points apiece:

(a) "I am Darth Vader...an extraterrestrial from the planet Vulcan."

BACK TO THE FUTURE

(b) "You were supposed to fire _UP_. We both fired _UP_."

THE THREE AMIGOS

(c) "I do not envy you the headache you will have when you awake. But for now, sleep well, and dream of...large women."

THE PRINCESS BRIDE

10. From 1558-1666, many architects were appointed to work on St. Peter's Basilica in Rome. Identify three of them for ten points each:

(a) He was appointed architect at age 71 by Pope Paul III. His design was the one carried out except for the facade and domes. When he died in March 1564, he was succeeded by Pirro Ligorio and Giacomo Barozzi da Vignola.

MICHELANGELO Buonarotti

(b) Appointed architect in 1607, it was during his work that the completed basilica was dedicated by Pope Urban VIII. He died in 1629 before the bell towers and crossing niches were constructed.

Carlo _MADERNO_

(c) Appointed architect upon the death of Maderno, he designed and erected the Cathedra Petri in the western tribune, the colonnade forming the Piazza San Pietro, and the Scala Regia. He was the last of the architects to work on St. Peter's.

Gian Lorenzo _BERNINI_

11. The Roman army: now defunct. Answer these questions about its ever-so-exiting evolution and glory days:

(a) At first it was a glob of soldiers lacking order and intelligent direction. Then the Romans ran into these people, and they modeled their army after them. FTP, who were these people who gave the Romans a clue about rank and military organization?

ETRUSCANS

(b) In the middle of the 6th century B.C., he reorganized the Roman army into a wealth-based system instead of a racially-based system, since the richer people could buy better weapons.

SERVIUS Tullius

(c) After this 216 B.C. battle, the Romans were so desperate for more infantry that they waived the property requirements and made two legions composed entirely of slaves.

CANNAE

12. The motion of a system from time t_1 to time t_2 is such that the value of the line integral, I , is stationary. This means that the one path actually taken by the system is a local minimum or maximum of I . FTP, name this principle of physics.

HAMILTON'S Principle

In classical mechanics, Hamilton's principle can be derived directly from this law and the two descriptions are equivalent. FTP, what is this basic physical law?

NEWTON'S SECOND LAW

Hamilton's principle is usually restated in terms of a set of differential equations that give the dynamical equations for a system if the form of the potential is known. Many problems that are difficult to solve using Newton's Laws are made simpler by applying these equations. FTP, what are these equations known as?

LAGRANGE Equations

13. For ten points each, given a description of a state of Germany, name it, ten each.

(a) It voted to leave the country to which it belonged in the 1930s in order to join Germany.

SAARLAND

(b) It is the namesake of Bach concerti.

BRANDENBURG

(c) Musicians from here are mentioned in a Brothers Grimm tale

BREMEN

14. If it's not Scottish, it's CRAP! For ten points if exact and five within five years, give the year in which these events in Scottish history occurred.

(a) MacBeth kills Duncan and becomes King of Scotland.

1040 (5 points for 1035-1045)

(b) James VI of Scotland becomes James I of England.

1603 (5 points for 1598-1608)

(c) The Act of Union is passed, uniting Scotland formally with England to form Great Britain.

1707 (5 points for 1702-1712)

15. Name the year from its literary triumphs, 30-20-10-5.

30: Flannery O'Connor is born, e.e. cummings publishes "XLI Poems"

20: Hemingway publishes "In Our Time," Gertrude Stein publishes "The Making of Americans," The New Yorker is founded.

10: Fitzgerald publishes "The Great Gatsby," Hitler publishes "Mein Kampf"

5: George Bernard Shaw wins the Nobel Prize in Literature

1925

16. Obligatory AmLit bonus: you can guess who it is that is the subject. FTP, given a famous quote from Hemingway, name the work from whence it comes for the stated number of points.

5: I am glad we do not have to try to kill the stars. Imagine if each day a man must try to kill the moon. The moon runs away. But imagine if a man each day should have to try to kill the sun? We are born lucky. Yes, we are born lucky.

THE OLD MAN AND THE SEA

10: If people bring so much courage to this world the world has to kill them to break them, so of course it kills them. The world breaks every one and afterward many are strong at the broken places. But those that will not break it kills. It kills the very good and the very gentle and the very brave impartially.

A FAREWELL TO ARMS

15: For luck you carried a horse chestnut and a rabbit's foot in your right pocket. The fur had been worn off the rabbits foot long ago and the bones and the sinews were polished by the wear. The claws scratched in the lining of your pocket and you knew your luck was still there.

A MOVEABLE FEAST

17. In honor of James, a pope question. Given the encyclical, name the pope who released them for ten points each. If you need the year, James, you'll get five.

(10) On the Immaculate Conception, or Ineffabilis Deus
(5) 1854

PIUS IX

(10) On the Regulation of Birth, or Humanae Vitae
(5) 1968

PAUL VI

(10) On the Evils of Socialism, or Apostolic Muneris
(5) 1878

LEO XIII

18. We go from a bonus about the popes to one about the Saints. Four members of the New Orleans Saints have been inducted into the Pro Football Hall of Fame, in 1976, 1982, 1991 and 1995. For five points each, name them.

Jim TAYLOR, Doug ATKINS, Earl CAMPBELL, Jim FINKS

Two men have had their jersey numbers retired by the Saints. For an additional five points each, name them.

Jim TAYLOR (31), Doug ATKINS (81)

19. Answer these questions about members of Congress for ten points each.

(a) This Republican senator from Texas was elected by special election in 1993 to fill the vacancy caused by the resignation of Lloyd Bentsen.

Kay Bailey HUTCHINSON

(b) This Democratic Representative from the First District of Connecticut was elected by her colleagues to serve as the Vice Chairwoman of the House Democratic Caucus, making her the only woman in the elected leadership.

Barbara B. KENNELLY

(c) This Kansas representative is the daughter of a 1936 presidential nominee and is the chair of the House Committee on Labor and Human Resources.

Nancy Landon KASSEBAUM

20. Answer these questions about the violin for the stated number of points.

(5) Of course, a violin has four strings. For five points, what musical interval separates the note played on one open string from that played on the next open string?

perfect FIFTH

(10) Often the violin is not played with the bow but by plucking the strings with the fingers, giving a sharp, staccato sound. For ten points, what is the musical term given to such playing?

PIZZICATO

(15) This term, Italian for "bow", indicates to string players that they should resume the use of the bow as opposed to playing pizzicato. For fifteen points, name it.

ARCO